



## SAR EVALUATION REPORT

**Applicant Name:**  
Apple, Inc.  
1 Infinite Loop  
Cupertino, CA 95014

**Date of Testing:**  
12/26/17 - 01/22/18  
**Test Site/Location:**  
PCTEST Lab, San Jose, CA, USA  
**Document Serial No.:**  
1C1710060006-01-R4.BCG

**FCC ID:** BCGA1954  
**APPLICANT:** APPLE, INC.  
**DUT Type:** Tablet Device  
**Application Type:** Certification  
**FCC Rule Part(s):** CFR §2.1093  
**Model:** A1954

| Equipment Class                            | Band & Mode           | Tx Frequency          | SAR            |
|--------------------------------------------|-----------------------|-----------------------|----------------|
|                                            |                       |                       | 1g Body (W/kg) |
| PCB                                        | GSM/GPRS/EDGE 850     | 824.20 - 848.80 MHz   | 1.16           |
| PCB                                        | UMTS 850              | 826.40 - 846.60 MHz   | 1.15           |
| PCB                                        | CDMA/EVDO BC10 (§90S) | 817.25 - 822.75 MHz   | 1.03           |
| PCB                                        | CDMA/EVDO BC0 (§22H)  | 824.70 - 848.31 MHz   | 1.09           |
| PCB                                        | UMTS 1755             | 1712.4 - 1752.6 MHz   | 0.98           |
| PCB                                        | GSM/GPRS/EDGE 1900    | 1850.20 - 1909.80 MHz | 1.11           |
| PCB                                        | UMTS 1900             | 1852.4 - 1907.6 MHz   | 1.07           |
| PCB                                        | PCS CDMA/EVDO         | 1851.25 - 1908.75 MHz | 1.14           |
| PCB                                        | LTE Band 12           | 699.7 - 715.3 MHz     | 1.18           |
| PCB                                        | LTE Band 17           | 706.5 - 713.5 MHz     | N/A            |
| PCB                                        | LTE Band 13           | 779.5 - 784.5 MHz     | 1.15           |
| PCB                                        | LTE Band 5 (Cell)     | 824.7 - 848.3 MHz     | 1.13           |
| PCB                                        | LTE Band 26 (Cell)    | 814.7 - 848.3 MHz     | 1.03           |
| PCB                                        | LTE Band 4 (AWS)      | 1710.7 - 1754.3 MHz   | 1.04           |
| PCB                                        | LTE Band 25 (PCS)     | 1850.7 - 1914.3 MHz   | 1.09           |
| PCB                                        | LTE Band 2 (PCS)      | 1850.7 - 1909.3 MHz   | N/A            |
| PCB                                        | LTE Band 30           | 2307.5 - 2312.5 MHz   | 1.07           |
| PCB                                        | LTE Band 7            | 2502.5 - 2567.5 MHz   | 1.17           |
| PCB                                        | LTE Band 41           | 2498.5 - 2687.5 MHz   | 1.10           |
| DTS                                        | 2.4 GHz WLAN          | 2412 - 2472MHz        | 1.16           |
| NII                                        | U-NII-1               | 5180 - 5240 MHz       | N/A            |
| NII                                        | U-NII-2A              | 5260 - 5320 MHz       | 1.16           |
| NII                                        | U-NII-2C              | 5500 - 5720 MHz       | 1.18           |
| NII                                        | U-NII-3               | 5745 - 5825 MHz       | 1.07           |
| DSS/DTS                                    | Bluetooth             | 2402 - 2480 MHz       | 1.18           |
| Simultaneous SAR per KDB 690783 D01v01r03: |                       |                       | 1.43           |

Note: This revised Test Report (S/N: 1C1710060006-01-R4.BCG) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.7 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

  
Randy Ortanez  
President



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|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 1 of 114                   |

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|                                                |                                                                                                                  |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
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# 1 DEVICE UNDER TEST

## 1.1 Device Overview

| Band & Mode            | Operating Modes | Tx Frequency          |
|------------------------|-----------------|-----------------------|
| GSM/GPRS/EDGE 850      | Voice/Data      | 824.20 - 848.80 MHz   |
| UMTS 850               | Voice/Data      | 826.40 - 846.60 MHz   |
| CDMA/EVDO BC10 (\$90S) | Voice/Data      | 817.25 - 822.75 MHz   |
| CDMA/EVDO BC0 (\$22H)  | Voice/Data      | 824.70 - 848.31 MHz   |
| UMTS 1750              | Voice/Data      | 1712.4 - 1752.6 MHz   |
| GSM/GPRS/EDGE 1900     | Voice/Data      | 1850.20 - 1909.80 MHz |
| UMTS 1900              | Voice/Data      | 1852.4 - 1907.6 MHz   |
| PCS CDMA/EVDO          | Voice/Data      | 1851.25 - 1908.75 MHz |
| LTE Band 12            | Data            | 699.7 - 715.3 MHz     |
| LTE Band 17            | Data            | 706.5 - 713.5 MHz     |
| LTE Band 13            | Data            | 779.5 - 784.5 MHz     |
| LTE Band 5 (Cell)      | Data            | 824.7 - 848.3 MHz     |
| LTE Band 26 (Cell)     | Data            | 814.7 - 848.3 MHz     |
| LTE Band 4 (AWS)       | Data            | 1710.7 - 1754.3 MHz   |
| LTE Band 25 (PCS)      | Data            | 1850.7 - 1914.3 MHz   |
| LTE Band 2 (PCS)       | Data            | 1850.7 - 1909.3 MHz   |
| LTE Band 30            | Data            | 2307.5 - 2312.5 MHz   |
| LTE Band 7             | Data            | 2502.5 - 2567.5 MHz   |
| LTE Band 41            | Data            | 2498.5 - 2687.5 MHz   |
| 2.4 GHz WLAN           | Voice/Data      | 2412 - 2472MHz        |
| U-NII-1                | Voice/Data      | 5180 - 5240 MHz       |
| U-NII-2A               | Voice/Data      | 5260 - 5320 MHz       |
| U-NII-2C               | Voice/Data      | 5500 - 5720 MHz       |
| U-NII-3                | Voice/Data      | 5745 - 5825 MHz       |
| Bluetooth              | Data            | 2402 - 2480 MHz       |

## 1.2 Power Reduction for SAR

**Detect Mode:** This device uses the manufacturer's proprietary Detect Mode to determine when it is being used on the body or held in the hand by the user. When being used on the body or held in the hand by the user, the output power for licensed transmitters will always be reduced to meet SAR compliance. Per FCC KDB Guidance, SAR testing was performed only using reduced output powers following the test positions in KDB Publication 616217.

**Bluetooth Power Reduction:** This device additionally utilizes an independent single step power reduction mechanism for Bluetooth operations. When Bluetooth is operating simultaneously with 5 GHz WLAN, the output power of Bluetooth is reduced for the duration of simultaneous operation. SAR evaluation was additionally performed at the maximum allowed output power for Bluetooth which is applicable for all other use cases.

Detailed description of the mechanisms and the verification procedures are included in the operational description document. Appendix G and Section 8.6.1 contain a summary of the verification results.

|                                                |                                                                                     |                                   |                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
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## 1.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

### 1.3.1 Maximum Output Power

| Mode / Band        |         | Voice (dBm) | Burst Average GMSK (dBm) |            | Burst Average 8-PSK (dBm) |            |
|--------------------|---------|-------------|--------------------------|------------|---------------------------|------------|
|                    |         | 1 TX Slot   | 1 TX Slots               | 2 TX Slots | 1 TX Slots                | 2 TX Slots |
| GSM/GPRS/EDGE 850  | Maximum | 33.5        | 33.5                     | 32.5       | 29.0                      | 29.0       |
|                    | Nominal | 32.5        | 32.5                     | 31.5       | 27.0                      | 27.0       |
| GSM/GPRS/EDGE 1900 | Maximum | 29.0        | 29.0                     | 29.0       | 28.0                      | 28.0       |
|                    | Nominal | 28.0        | 28.0                     | 28.0       | 26.0                      | 26.0       |

| Mode / Band            |         | Modulated Average (dBm) |            |            |               |
|------------------------|---------|-------------------------|------------|------------|---------------|
|                        |         | 3GPP WCDMA              | 3GPP HSDPA | 3GPP HSUPA | 3GPP DC-HSDPA |
| UMTS Band 5 (850 MHz)  | Maximum | 25.0                    | 24.0       | 24.0       | 24.0          |
|                        | Nominal | 24.0                    | 23.0       | 23.0       | 23.0          |
| UMTS Band 4 (1750 MHz) | Maximum | 25.0                    | 24.0       | 24.0       | 24.0          |
|                        | Nominal | 24.0                    | 23.0       | 23.0       | 23.0          |
| UMTS Band 2 (1900 MHz) | Maximum | 25.0                    | 24.0       | 24.0       | 24.0          |
|                        | Nominal | 24.0                    | 23.0       | 23.0       | 23.0          |

| Mode / Band           |         | Modulated Average (dBm) |
|-----------------------|---------|-------------------------|
| CDMA/EVDO BC10 (§90S) | Maximum | 25.0                    |
|                       | Nominal | 24.0                    |
| CDMA/EVDO BC0 (§22H)  | Maximum | 24.5                    |
|                       | Nominal | 23.5                    |
| PCS CDMA/EVDO         | Maximum | 25.0                    |
|                       | Nominal | 24.0                    |

|                                         |                                                                                                                  |                            |                                 |
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| Mode / Band        |         | Modulated Average (dBm) |
|--------------------|---------|-------------------------|
| LTE Band 12        | Maximum | <b>25.0</b>             |
|                    | Nominal | <b>24.0</b>             |
| LTE Band 17        | Maximum | <b>25.0</b>             |
|                    | Nominal | <b>24.0</b>             |
| LTE Band 13        | Maximum | <b>24.0</b>             |
|                    | Nominal | <b>23.0</b>             |
| LTE Band 5 (Cell)  | Maximum | <b>24.5</b>             |
|                    | Nominal | <b>23.5</b>             |
| LTE Band 26 (Cell) | Maximum | <b>24.5</b>             |
|                    | Nominal | <b>23.5</b>             |
| LTE Band 4 (AWS)   | Maximum | <b>24.0</b>             |
|                    | Nominal | <b>23.0</b>             |
| LTE Band 25 (PCS)  | Maximum | <b>25.0</b>             |
|                    | Nominal | <b>24.0</b>             |
| LTE Band 2 (PCS)   | Maximum | <b>25.0</b>             |
|                    | Nominal | <b>24.0</b>             |
| LTE Band 30        | Maximum | <b>22.3</b>             |
|                    | Nominal | <b>21.3</b>             |
| LTE Band 7         | Maximum | <b>24.0</b>             |
|                    | Nominal | <b>23.0</b>             |
| LTE Band 41        | Maximum | <b>22.5</b>             |
|                    | Nominal | <b>21.5</b>             |

| Mode / Band            |         | Modulated Average - Single Tx Chain (dBm) |             |             |             |             |
|------------------------|---------|-------------------------------------------|-------------|-------------|-------------|-------------|
|                        |         | Ch. 1                                     | Ch. 2-10    | Ch. 11      | Ch. 12      | Ch. 13      |
| IEEE 802.11b (2.4 GHz) | Maximum | <b>15.5</b>                               |             |             |             | <b>14.5</b> |
| IEEE 802.11g (2.4 GHz) | Maximum | <b>15.0</b>                               | <b>15.5</b> | <b>13.5</b> | <b>12.0</b> | <b>1.5</b>  |
| IEEE 802.11n (2.4 GHz) | Maximum | <b>15.0</b>                               | <b>15.5</b> | <b>13.5</b> | <b>12.0</b> | <b>1.5</b>  |

| Mode / Band              |         | Modulated Average - MIMO (dBm) |             |             |             |            |
|--------------------------|---------|--------------------------------|-------------|-------------|-------------|------------|
|                          |         | Ch. 1                          | Ch. 2-10    | Ch. 11      | Ch. 12      | Ch. 13     |
| IEEE 802.11g/n (2.4 GHz) | Maximum | <b>13.0</b>                    | <b>15.5</b> | <b>12.5</b> | <b>10.5</b> | <b>0.0</b> |

Note: In MIMO operations, each Antenna A and Antenna B transmits at maximum allowed powers as indicated above.

| Mode / Band                           |         | Modulated Average - Single Tx Chain (dBm) |
|---------------------------------------|---------|-------------------------------------------|
| Bluetooth BDR/LE (P <sub>High</sub> ) | Maximum | <b>17.0</b>                               |
| Bluetooth EDR (P <sub>High</sub> )    | Maximum | <b>12.5</b>                               |

|                                         |                                                                                                                  |                            |                                 |
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| Mode / Band           |         | Modulated Average - Single Tx Chain (dBm) |                    |              |                         |                  |                  |                      |        |         |         |                  |         |             |         |
|-----------------------|---------|-------------------------------------------|--------------------|--------------|-------------------------|------------------|------------------|----------------------|--------|---------|---------|------------------|---------|-------------|---------|
|                       |         | 20 MHz Bandwidth                          |                    |              |                         | 40 MHz Bandwidth |                  |                      |        |         |         | 80 MHz Bandwidth |         |             |         |
|                       |         | Ch. 36, 64                                | Ch. 40-48, 149-165 | Ch. 100, 140 | Ch. 52-60, 104-136, 144 | Ch. 38           | Ch. 46, 151, 159 | Ch. 54, 110-126, 142 | Ch. 62 | Ch. 102 | Ch. 134 | Ch. 42-58        | Ch. 106 | Ch. 122-138 | Ch. 155 |
| IEEE 802.11a (5 GHz)  | Maximum | 16.0                                      | 16.5               | 15.0         | 17.0                    |                  |                  |                      |        |         |         |                  |         |             |         |
| IEEE 802.11n (5 GHz)  | Maximum | 16.0                                      | 16.5               | 15.0         | 17.0                    | 14.0             | 16.5             | 17.0                 | 14.5   | 14.0    | 15.5    |                  |         |             |         |
| IEEE 802.11ac (5 GHz) | Maximum | 16.0                                      | 16.5               | 15.0         | 17.0                    | 14.0             | 16.5             | 17.0                 | 14.5   | 14.0    | 15.5    | 13.0             | 14.0    | 17.0        | 16.5    |

| Mode / Band           |         | Modulated Average - MIMO (CDD) |                       |             |             |         |         |                  |                     |                          |        |         |         |                  |         |                 |         |
|-----------------------|---------|--------------------------------|-----------------------|-------------|-------------|---------|---------|------------------|---------------------|--------------------------|--------|---------|---------|------------------|---------|-----------------|---------|
|                       |         |                                |                       |             |             |         |         | (dBm)            |                     |                          |        |         |         |                  |         |                 |         |
|                       |         | 20 MHz Bandwidth               |                       |             |             |         |         | 40 MHz Bandwidth |                     |                          |        |         |         | 80 MHz Bandwidth |         |                 |         |
|                       |         | Ch. 36                         | Ch. 40-60,<br>149-165 | Ch. 64, 100 | Ch. 104-136 | Ch. 140 | Ch. 144 | Ch. 38           | Ch. 46, 151-<br>159 | Ch. 54, 110-<br>126, 142 | Ch. 62 | Ch. 102 | Ch. 134 | Ch. 42-58        | Ch. 106 | Ch. 122-<br>138 | Ch. 155 |
| IEEE 802.11a (5 GHz)  | Maximum | 14.5                           | 16.5                  | 14.5        | 15.5        | 14.0    | 17.0    |                  |                     |                          |        |         |         |                  |         |                 |         |
| IEEE 802.11n (5 GHz)  | Maximum | 14.5                           | 16.5                  | 14.5        | 15.5        | 14.0    | 17.0    | 12.5             | 16.5                | 17.0                     | 13.5   | 13.0    | 14.0    |                  |         |                 |         |
| IEEE 802.11ac (5 GHz) | Maximum | 14.5                           | 16.5                  | 14.5        | 15.5        | 14.0    | 17.0    | 12.5             | 16.5                | 17.0                     | 13.5   | 13.0    | 14.0    | 12.0             | 13.0    | 17.0            | 16.0    |

| Mode / Band           |                       | Modulated Average - MIMO (SDM) |                |             |         |         |        |                     |                          |        |         |         |           |                  |                 |         |      |      |
|-----------------------|-----------------------|--------------------------------|----------------|-------------|---------|---------|--------|---------------------|--------------------------|--------|---------|---------|-----------|------------------|-----------------|---------|------|------|
|                       |                       | (dBm)                          |                |             |         |         |        |                     |                          |        |         |         |           |                  |                 |         |      |      |
|                       |                       | 20 MHz Bandwidth               |                |             |         |         |        |                     | 40 MHz Bandwidth         |        |         |         |           | 80 MHz Bandwidth |                 |         |      |      |
| Ch. 36                | Ch. 40-48,<br>149-165 | Ch. 52-60                      | Ch. 64,<br>100 | Ch. 104-136 | Ch. 140 | Ch. 144 | Ch. 38 | Ch. 46, 151-<br>159 | Ch. 54, 110-<br>126, 142 | Ch. 62 | Ch. 102 | Ch. 134 | Ch. 42-58 | Ch. 106          | Ch. 122-<br>138 | Ch. 155 |      |      |
| IEEE 802.11n (5 GHz)  | Maximum               | 14.5                           | 16.5           | 17.0        | 14.5    | 17.0    | 14.0   | 17.0                | 12.5                     | 16.5   | 17.0    | 13.5    | 13.0      | 14.0             |                 |         |      |      |
| IEEE 802.11ac (5 GHz) | Maximum               | 14.5                           | 16.5           | 17.0        | 14.5    | 17.0    | 14.0   | 17.0                | 12.5                     | 16.5   | 17.0    | 13.5    | 13.0      | 14.0             | 12.0            | 13.0    | 17.0 | 16.0 |

Note: In MIMO operations, each Antenna A and Antenna B transmits at maximum allowed powers as indicated above for both 2 Tx CDD and 2 Tx SDM except otherwise noted.

### 1.3.2 Reduced Output Power

| Mode / Band        |         | Voice (dBm) | Burst Average GMSK (dBm) |            | Burst Average 8-PSK (dBm) |            |
|--------------------|---------|-------------|--------------------------|------------|---------------------------|------------|
|                    |         | 1 TX Slot   | 1 TX Slots               | 2 TX Slots | 1 TX Slots                | 2 TX Slots |
| GSM/GPRS/EDGE 850  | Maximum | 28.3        | 28.3                     | 25.3       | 28.3                      | 25.3       |
|                    | Nominal | 26.3        | 26.3                     | 23.3       | 26.3                      | 23.3       |
| GSM/GPRS/EDGE 1900 | Maximum | 23.0        | 23.0                     | 20.0       | 23.0                      | 20.0       |
|                    | Nominal | 21.0        | 21.0                     | 18.0       | 21.0                      | 18.0       |

| Mode / Band            |         | Modulated Average (dBm) |            |            |               |
|------------------------|---------|-------------------------|------------|------------|---------------|
|                        |         | 3GPP WCDMA              | 3GPP HSDPA | 3GPP HSUPA | 3GPP DC-HSDPA |
| UMTS Band 5 (850 MHz)  | Maximum | 18.0                    | 18.0       | 18.0       | 18.0          |
|                        | Nominal | 17.0                    | 17.0       | 17.0       | 17.0          |
| UMTS Band 4 (1750 MHz) | Maximum | 13.5                    | 13.5       | 13.5       | 13.5          |
|                        | Nominal | 12.5                    | 12.5       | 12.5       | 12.5          |
| UMTS Band 2 (1900 MHz) | Maximum | 13.0                    | 13.0       | 13.0       | 13.0          |
|                        | Nominal | 12.0                    | 12.0       | 12.0       | 12.0          |

|                                         |                                                                                                                  |                            |                                 |
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| Mode / Band           |         | Modulated Average<br>(dBm) |
|-----------------------|---------|----------------------------|
| CDMA/EVDO BC10 (§90S) | Maximum | <b>18.0</b>                |
|                       | Nominal | <b>17.0</b>                |
| CDMA/EVDO BC0 (§22H)  | Maximum | <b>18.0</b>                |
|                       | Nominal | <b>17.0</b>                |
| PCS CDMA/EVDO         | Maximum | <b>13.0</b>                |
|                       | Nominal | <b>12.0</b>                |

| Mode / Band        |         | Modulated Average<br>(dBm) |
|--------------------|---------|----------------------------|
| LTE Band 12        | Maximum | <b>19.6</b>                |
|                    | Nominal | <b>18.6</b>                |
| LTE Band 17        | Maximum | <b>19.6</b>                |
|                    | Nominal | <b>18.6</b>                |
| LTE Band 13        | Maximum | <b>18.1</b>                |
|                    | Nominal | <b>17.1</b>                |
| LTE Band 5 (Cell)  | Maximum | <b>18.0</b>                |
|                    | Nominal | <b>17.0</b>                |
| LTE Band 26 (Cell) | Maximum | <b>18.0</b>                |
|                    | Nominal | <b>17.0</b>                |
| LTE Band 4 (AWS)   | Maximum | <b>14.0</b>                |
|                    | Nominal | <b>13.0</b>                |
| LTE Band 25 (PCS)  | Maximum | <b>13.0</b>                |
|                    | Nominal | <b>12.0</b>                |
| LTE Band 2 (PCS)   | Maximum | <b>13.0</b>                |
|                    | Nominal | <b>12.0</b>                |
| LTE Band 30        | Maximum | <b>14.5</b>                |
|                    | Nominal | <b>13.5</b>                |
| LTE Band 7         | Maximum | <b>14.5</b>                |
|                    | Nominal | <b>13.5</b>                |
| LTE Band 41        | Maximum | <b>16.0</b>                |
|                    | Nominal | <b>15.0</b>                |

| Mode / Band                 |         | Modulated Average - Single Tx Chain<br>(dBm) |
|-----------------------------|---------|----------------------------------------------|
| Bluetooth BDR ( $P_{Low}$ ) | Maximum | <b>9.5</b>                                   |
| Bluetooth LE ( $P_{Low}$ )  | Maximum | <b>7.0</b>                                   |
| Bluetooth EDR ( $P_{Low}$ ) | Maximum | <b>7.5</b>                                   |

Note: Bluetooth  $P_{Low}$  is the reduced output power of Bluetooth when it is operating simultaneously with 5 GHz WLAN. Detailed description of the power reduction mechanism is included in the operational description.

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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## 1.4 DUT Antenna Locations

The overall diagonal dimension of the device is > 200 mm. A diagram showing the location of the device antennas can be found in Appendix F. Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC filings.

**Table 1-1**  
**Device Edges/Sides for SAR Testing**

| Mode               | Back | Top | Bottom | Right | Left |
|--------------------|------|-----|--------|-------|------|
| GPRS 850           | Yes  | Yes | Yes    | Yes   | No   |
| UMTS 850           | Yes  | Yes | Yes    | Yes   | No   |
| EVDO BC10 (\$90S)  | Yes  | Yes | Yes    | Yes   | No   |
| EVDO BC0 (\$22H)   | Yes  | Yes | Yes    | Yes   | No   |
| UMTS 1750          | Yes  | Yes | Yes    | Yes   | No   |
| GPRS 1900          | Yes  | Yes | Yes    | Yes   | No   |
| UMTS 1900          | Yes  | Yes | Yes    | Yes   | No   |
| PCS EVDO           | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 12        | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 13        | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 5 (Cell)  | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 26 (Cell) | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 4 (AWS)   | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 25 (PCS)  | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 30        | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 7         | Yes  | Yes | Yes    | Yes   | No   |
| LTE Band 41        | Yes  | Yes | Yes    | Yes   | No   |
| 2.4 GHz WLAN Ant A | Yes  | Yes | Yes    | No    | Yes  |
| 2.4 GHz WLAN Ant B | Yes  | Yes | Yes    | Yes   | No   |
| 5 GHz WLAN Ant A   | Yes  | Yes | Yes    | No    | Yes  |
| 5 GHz WLAN Ant B   | Yes  | Yes | Yes    | Yes   | No   |
| Bluetooth          | Yes  | Yes | Yes    | No    | Yes  |

Note: Per FCC KDB Publication 616217 D04v01r01, particular edges were not required to be evaluated for SAR based on the SAR exclusion threshold in KDB 447498 D01V06. Additional edges may have been evaluated for simultaneous transmission analysis.

## 1.5 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 4.3.2 procedures.

|                                                |                                                                                     |                                   |                                        |
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**Table 1-2**  
**Simultaneous Transmission Scenarios**

| No. | Capable Transmit Configuration                              | Body |
|-----|-------------------------------------------------------------|------|
| 1   | UMTS + 2.4 GHz WI-FI                                        | Yes  |
| 2   | UMTS + 5 GHz WI-FI                                          | Yes  |
| 3   | UMTS + 2.4 GHz Bluetooth                                    | Yes  |
| 4   | UMTS + 2.4 GHz WI-FI MIMO                                   | Yes  |
| 5   | UMTS + 5 GHz WI-FI MIMO                                     | Yes  |
| 6   | UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI                      | Yes  |
| 7   | UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO                 | Yes  |
| 8   | LTE + 2.4 GHz WI-FI                                         | Yes  |
| 9   | LTE + 5 GHz WI-FI                                           | Yes  |
| 10  | LTE + 2.4 GHz Bluetooth                                     | Yes  |
| 11  | LTE + 2.4 GHz WI-FI MIMO                                    | Yes  |
| 12  | LTE + 5 GHz WI-FI MIMO                                      | Yes  |
| 13  | LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI                       | Yes  |
| 14  | LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO                  | Yes  |
| 15  | CDMA/EVDO voice/data + 2.4 GHz WI-FI                        | Yes  |
| 16  | CDMA/EVDO voice/data + 5 GHz WI-FI                          | Yes  |
| 17  | CDMA/EVDO voice/data + 2.4 GHz Bluetooth                    | Yes  |
| 18  | CDMA/EVDO voice/data + 2.4 GHz WI-FI MIMO                   | Yes  |
| 19  | CDMA/EVDO voice/data + 5 GHz WI-FI MIMO                     | Yes  |
| 20  | CDMA/EVDO voice/data + 2.4 GHz Bluetooth + 5 GHz WI-FI      | Yes  |
| 21  | CDMA/EVDO voice/data + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO | Yes  |
| 22  | GSM/GPRS/EDGE + 2.4 GHz WI-FI                               | Yes  |
| 23  | GSM/GPRS/EDGE + 5 GHz WI-FI                                 | Yes  |
| 24  | GSM/GPRS/EDGE + 2.4 GHz Bluetooth                           | Yes  |
| 25  | GSM/GPRS/EDGE + 2.4 GHz WI-FI MIMO                          | Yes  |
| 26  | GSM/GPRS/EDGE + 5 GHz WI-FI MIMO                            | Yes  |
| 27  | GSM/GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI             | Yes  |
| 28  | GSM/GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO        | Yes  |

1. 2.4 GHz WLAN and 2.4 GHz Bluetooth share the same antenna path and cannot transmit simultaneously.
2. All licensed modes share the same antenna path and cannot transmit simultaneously.
3. This device supports 2x2 MIMO Tx for WLAN. 802.11a/g/n/ac supports CDD/STBC and 802.11n/ac additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
4. This device supports VoWiFi.

## 1.6 Miscellaneous SAR Test Considerations

### (A) WIFI/BT

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

The WLAN/Bluetooth chipset in this device is produced by two different suppliers. The electrically identical modules are manufactured with the identical mechanical structure to meet the same specifications and functions. Two device variants are referenced as Variant 1 and Variant 2 in this report.

WLAN/Bluetooth SAR testing was completely performed on Variant 1, and Variant 2 is additionally evaluated for WLAN/Bluetooth SAR with the same configuration of the highest reported SAR of Variant 1.

|                                                |                                                                                                                                   |                                   |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>      | <b>Approved by:</b><br>Quality Manager |
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This device supports channel 1-13 for 2.4 GHz WLAN. However, because channel 12/13 targets are not higher than that of channels 1-11, channels 1, 6 and 11 were considered for SAR testing per FCC KDB 248227 D01V02r02.

This device supports IEEE 802.11ac with the following features:

- a) Up to 80 MHz Bandwidth only
- b) No aggregate channel configurations
- c) 2 Tx antenna output
- d) 256 QAM is supported
- e) TDWR and Band gap channels are supported

## (B) Licensed Transmitter(s)

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink only. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE Band falls completely within an LTE band with a larger transmission frequency range, both LTE bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

## 1.7 Guidance Applied

- FCC KDB Publication 941225 D01v03r01, D05v02r04, D05Av01r02 (2G/3G/4G)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D01v06 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 616217 D04v01r02 (Tablet)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)

## 1.8 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 10.

|                                                |                                                                                                                  |                                   |                                        |
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| LTE Information                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|
| FCC ID                                                                                                            | BCGA1954                                                                                                                                                                                                                                                                                                                                                                                                     |                |                |                |                |
| Form Factor                                                                                                       | Tablet Device                                                                                                                                                                                                                                                                                                                                                                                                |                |                |                |                |
| Frequency Range of each LTE transmission band                                                                     | LTE Band 12 (699.7 - 715.3 MHz)                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   | LTE Band 17 (706.5 - 713.5 MHz)                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   | LTE Band 13 (779.5 - 784.5 MHz)                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   | LTE Band 5 (Cell) (824.7 - 848.3 MHz)                                                                                                                                                                                                                                                                                                                                                                        |                |                |                |                |
|                                                                                                                   | LTE Band 26 (Cell) (814.7 - 848.3 MHz)                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |                |
|                                                                                                                   | LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |                |
|                                                                                                                   | LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)                                                                                                                                                                                                                                                                                                                                                                      |                |                |                |                |
|                                                                                                                   | LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)                                                                                                                                                                                                                                                                                                                                                                       |                |                |                |                |
|                                                                                                                   | LTE Band 30 (2307.5 - 2312.5 MHz)                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |                |
|                                                                                                                   | LTE Band 7 (2502.5 - 2567.5 MHz)                                                                                                                                                                                                                                                                                                                                                                             |                |                |                |                |
|                                                                                                                   | LTE Band 41 (2498.5 - 2687.5 MHz)                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |                |
|                                                                                                                   | LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |                |
| Channel Bandwidths                                                                                                | LTE Band 17: 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |                |
|                                                                                                                   | LTE Band 13: 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |                |
|                                                                                                                   | LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                             |                |                |                |                |
|                                                                                                                   | LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                            |                |                |                |                |
|                                                                                                                   | LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   | LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                             |                |                |                |                |
|                                                                                                                   | LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   | LTE Band 30: 5 MHz, 10 MHz                                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |                |
|                                                                                                                   | LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                                    |                |                |                |                |
|                                                                                                                   | LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz                                                                                                                                                                                                                                                                                                                                                                   |                |                |                |                |
|                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
|                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                              |                |                |                |                |
| Channel Numbers and Frequencies (MHz)                                                                             | Low                                                                                                                                                                                                                                                                                                                                                                                                          | Low-Mid        | Mid            | Mid-High       | High           |
| LTE Band 12: 1.4 MHz                                                                                              | 699.7 (23017)                                                                                                                                                                                                                                                                                                                                                                                                |                | 707.5 (23095)  |                | 715.3 (23173)  |
| LTE Band 12: 3 MHz                                                                                                | 700.5 (23025)                                                                                                                                                                                                                                                                                                                                                                                                |                | 707.5 (23095)  |                | 714.5 (23165)  |
| LTE Band 12: 5 MHz                                                                                                | 701.5 (23035)                                                                                                                                                                                                                                                                                                                                                                                                |                | 707.5 (23095)  |                | 713.5 (23155)  |
| LTE Band 12: 10 MHz                                                                                               | 704 (23060)                                                                                                                                                                                                                                                                                                                                                                                                  |                | 707.5 (23095)  |                | 711 (23130)    |
| LTE Band 17: 5 MHz                                                                                                | 706.5 (23755)                                                                                                                                                                                                                                                                                                                                                                                                |                | 710 (23790)    |                | 713.5 (23825)  |
| LTE Band 17: 10 MHz                                                                                               | 709 (23780)                                                                                                                                                                                                                                                                                                                                                                                                  |                | 710 (23790)    |                | 711 (23800)    |
| LTE Band 13: 5 MHz                                                                                                | 779.5 (23205)                                                                                                                                                                                                                                                                                                                                                                                                |                | 782 (23230)    |                | 784.5 (23255)  |
| LTE Band 13: 10 MHz                                                                                               | N/A                                                                                                                                                                                                                                                                                                                                                                                                          |                | 782 (23230)    |                | N/A            |
| LTE Band 5 (Cell): 1.4 MHz                                                                                        | 824.7 (20407)                                                                                                                                                                                                                                                                                                                                                                                                |                | 836.5 (20525)  |                | 848.3 (20643)  |
| LTE Band 5 (Cell): 3 MHz                                                                                          | 825.5 (20415)                                                                                                                                                                                                                                                                                                                                                                                                |                | 836.5 (20525)  |                | 847.5 (20635)  |
| LTE Band 5 (Cell): 5 MHz                                                                                          | 826.5 (20425)                                                                                                                                                                                                                                                                                                                                                                                                |                | 836.5 (20525)  |                | 846.5 (20625)  |
| LTE Band 5 (Cell): 10 MHz                                                                                         | 829 (20450)                                                                                                                                                                                                                                                                                                                                                                                                  |                | 836.5 (20525)  |                | 844 (20600)    |
| LTE Band 26 (Cell): 1.4 MHz                                                                                       | 814.7 (26697)                                                                                                                                                                                                                                                                                                                                                                                                |                | 831.5 (26865)  |                | 848.3 (27033)  |
| LTE Band 26 (Cell): 3 MHz                                                                                         | 815.5 (26705)                                                                                                                                                                                                                                                                                                                                                                                                |                | 831.5 (26865)  |                | 847.5 (27025)  |
| LTE Band 26 (Cell): 5 MHz                                                                                         | 816.5 (26715)                                                                                                                                                                                                                                                                                                                                                                                                |                | 831.5 (26865)  |                | 846.5 (27015)  |
| LTE Band 26 (Cell): 10 MHz                                                                                        | 819 (26740)                                                                                                                                                                                                                                                                                                                                                                                                  |                | 831.5 (26865)  |                | 844 (26990)    |
| LTE Band 4 (AWS): 1.4 MHz                                                                                         | 1710.7 (19957)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1732.5 (20175) |                | 1754.3 (20393) |
| LTE Band 4 (AWS): 3 MHz                                                                                           | 1711.5 (19965)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1732.5 (20175) |                | 1753.5 (20385) |
| LTE Band 4 (AWS): 5 MHz                                                                                           | 1712.5 (19975)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1732.5 (20175) |                | 1752.5 (20375) |
| LTE Band 4 (AWS): 10 MHz                                                                                          | 1715 (20000)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1732.5 (20175) |                | 1750 (20350)   |
| LTE Band 4 (AWS): 15 MHz                                                                                          | 1717.5 (20025)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1732.5 (20175) |                | 1747.5 (20325) |
| LTE Band 4 (AWS): 20 MHz                                                                                          | 1720 (20050)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1732.5 (20175) |                | 1745 (20300)   |
| LTE Band 25 (PCS): 1.4 MHz                                                                                        | 1850.7 (26047)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1882.5 (26365) |                | 1914.3 (26683) |
| LTE Band 25 (PCS): 3 MHz                                                                                          | 1851.5 (26055)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1882.5 (26365) |                | 1913.5 (26675) |
| LTE Band 25 (PCS): 5 MHz                                                                                          | 1852.5 (26065)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1882.5 (26365) |                | 1912.5 (26665) |
| LTE Band 25 (PCS): 10 MHz                                                                                         | 1855 (26090)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1882.5 (26365) |                | 1910 (26640)   |
| LTE Band 25 (PCS): 15 MHz                                                                                         | 1857.5 (26115)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1882.5 (26365) |                | 1907.5 (26615) |
| LTE Band 25 (PCS): 20 MHz                                                                                         | 1860 (26140)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1882.5 (26365) |                | 1905 (26590)   |
| LTE Band 2 (PCS): 1.4 MHz                                                                                         | 1850.7 (18607)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1880 (18900)   |                | 1909.3 (19193) |
| LTE Band 2 (PCS): 3 MHz                                                                                           | 1851.5 (18615)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1880 (18900)   |                | 1908.5 (19185) |
| LTE Band 2 (PCS): 5 MHz                                                                                           | 1852.5 (18625)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1880 (18900)   |                | 1907.5 (19175) |
| LTE Band 2 (PCS): 10 MHz                                                                                          | 1855 (18650)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1880 (18900)   |                | 1905 (19150)   |
| LTE Band 2 (PCS): 15 MHz                                                                                          | 1857.5 (18675)                                                                                                                                                                                                                                                                                                                                                                                               |                | 1880 (18900)   |                | 1902.5 (19125) |
| LTE Band 2 (PCS): 20 MHz                                                                                          | 1860 (18700)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 1880 (18900)   |                | 1900 (19100)   |
| LTE Band 30: 5 MHz                                                                                                | 2307.5 (27685)                                                                                                                                                                                                                                                                                                                                                                                               |                | 2310 (27710)   |                | 2312.5 (27735) |
| LTE Band 30: 10 MHz                                                                                               | N/A                                                                                                                                                                                                                                                                                                                                                                                                          |                | 2310 (27710)   |                | N/A            |
| LTE Band 7: 5 MHz                                                                                                 | 2502.5 (20775)                                                                                                                                                                                                                                                                                                                                                                                               |                | 2535 (21100)   |                | 2567.5 (21425) |
| LTE Band 7: 10 MHz                                                                                                | 2505 (20800)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 2535 (21100)   |                | 2565 (21400)   |
| LTE Band 7: 15 MHz                                                                                                | 2507.5 (20825)                                                                                                                                                                                                                                                                                                                                                                                               |                | 2535 (21100)   |                | 2562.5 (21375) |
| LTE Band 7: 20 MHz                                                                                                | 2510 (20850)                                                                                                                                                                                                                                                                                                                                                                                                 |                | 2535 (21100)   |                | 2560 (21350)   |
| LTE Band 41: 5 MHz                                                                                                | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                 | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490)   |
| LTE Band 41: 10 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                 | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490)   |
| LTE Band 41: 15 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                 | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490)   |
| LTE Band 41: 20 MHz                                                                                               | 2506 (39750)                                                                                                                                                                                                                                                                                                                                                                                                 | 2549.5 (40185) | 2593 (40620)   | 2636.5 (41055) | 2680 (41490)   |
| UE Category                                                                                                       | 6                                                                                                                                                                                                                                                                                                                                                                                                            |                |                |                |                |
| Modulations Supported in UL                                                                                       | QPSK, 16QAM                                                                                                                                                                                                                                                                                                                                                                                                  |                |                |                |                |
| LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3-6.2.5? (manufacturer attestation to be provided) | YES                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                |                |
| A-MPR (Additional MPR) disabled for SAR Testing?                                                                  | YES                                                                                                                                                                                                                                                                                                                                                                                                          |                |                |                |                |
| LTE Carrier Aggregation Possible Combinations                                                                     | The technical description includes all the possible carrier aggregation combinations                                                                                                                                                                                                                                                                                                                         |                |                |                |                |
| LTE Additional Information                                                                                        | This device does not support full CA features on 3GPP Release 10. It supports a maximum of 2 carriers in the downlink. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 10 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WiFi Offloading, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA. |                |                |                |                |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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### 3 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

#### 3.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 3-1).

**Equation 3-1**  
**SAR Mathematical Equation**

$$SAR = \frac{d}{dt} \left( \frac{dU}{dm} \right) = \frac{d}{dt} \left( \frac{dU}{\rho dv} \right)$$

**SAR is expressed in units of Watts per Kilogram (W/kg).**

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

- σ = conductivity of the tissue-simulating material (S/m)
- ρ = mass density of the tissue-simulating material (kg/m<sup>3</sup>)
- E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

|                                                |                                                                                                                                   |                                   |                                        |
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## 4 DOSIMETRIC ASSESSMENT

### 4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
  - a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
  - b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
  - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

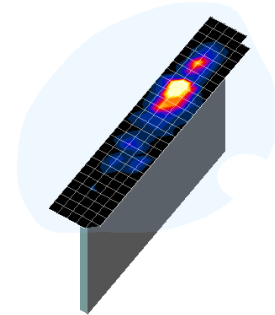


**Figure 4-1** point  
**Sample SAR Area**  
**Scan**

**Table 4-1**  
**Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04\***

| Frequency | Maximum Area Scan Resolution (mm)<br>( $\Delta x_{\text{area}}, \Delta y_{\text{area}}$ ) | Maximum Zoom Scan Resolution (mm)<br>( $\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}}$ ) | Maximum Zoom Scan Spatial Resolution (mm) |                             |                                      | Minimum Zoom Scan Volume (mm)<br>(x,y,z) |
|-----------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------|--------------------------------------|------------------------------------------|
|           |                                                                                           |                                                                                           | Uniform Grid                              | Graded Grid                 |                                      |                                          |
|           |                                                                                           |                                                                                           |                                           | $\Delta z_{\text{zoom}}(n)$ | $\Delta z_{\text{zoom}}(1)^*$        |                                          |
| ≤ 2 GHz   | ≤ 15                                                                                      | ≤ 8                                                                                       | ≤ 5                                       | ≤ 4                         | ≤ 1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥ 30                                     |
| 2-3 GHz   | ≤ 12                                                                                      | ≤ 5                                                                                       | ≤ 5                                       | ≤ 4                         | ≤ 1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥ 30                                     |
| 3-4 GHz   | ≤ 12                                                                                      | ≤ 5                                                                                       | ≤ 4                                       | ≤ 3                         | ≤ 1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥ 28                                     |
| 4-5 GHz   | ≤ 10                                                                                      | ≤ 4                                                                                       | ≤ 3                                       | ≤ 2.5                       | ≤ 1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥ 25                                     |
| 5-6 GHz   | ≤ 10                                                                                      | ≤ 4                                                                                       | ≤ 2                                       | ≤ 2                         | ≤ 1.5* $\Delta z_{\text{zoom}}(n-1)$ | ≥ 22                                     |

\*Also compliant to IEEE 1528-2013 Table 6

|                                         |                                                                                                                  |                            |                                 |
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## 5 TEST CONFIGURATION POSITIONS

### 5.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity  $\epsilon = 3$  and loss tangent  $\delta = 0.02$ .

### 5.2 SAR Testing for Tablet per KDB Publication 616217 D04v01r02

Per FCC KDB Publication 616217 D04v01r02, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

|                                                |                                                                                                                  |                                   |                                        |
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## 6.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

## 6.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

**Table 6-1**  
**SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6**

| HUMAN EXPOSURE LIMITS                                               |                                                                           |                                                                   |
|---------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------|
|                                                                     | UNCONTROLLED ENVIRONMENT<br><i>General Population</i><br>(W/kg) or (mW/g) | CONTROLLED ENVIRONMENT<br><i>Occupational</i><br>(W/kg) or (mW/g) |
| <b>Peak Spatial Average SAR</b><br>Head                             | 1.6                                                                       | 8.0                                                               |
| <b>Whole Body SAR</b>                                               | 0.08                                                                      | 0.4                                                               |
| <b>Peak Spatial Average SAR</b><br>Hands, Feet, Ankle, Wrists, etc. | 4.0                                                                       | 20                                                                |

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

|                                         |                                                                                                                  |                            |                                 |
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## 7 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

### 7.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as **reported** SAR. The highest **reported** SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

### 7.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is  $\leq 0.25$  dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is  $\leq 1.2$  W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

### 7.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

### 7.4 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

#### 7.4.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

|                                         |                                                                                                           |                            |                                 |
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1. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH<sub>0</sub> and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH<sub>0</sub> data rate.
2. Under RC3, C.S0011 Table 4.4.5.2-2,
3. Table 7-1 was applied.

**Table 7-1  
Parameters for Max. Power for RC3**

| Parameter                    | Units        | Value |
|------------------------------|--------------|-------|
| $I_{or}$                     | dBm/1.23 MHz | -86   |
| $\frac{Pilot E_c}{I_{or}}$   | dB           | -7    |
| $\frac{Traffic E_c}{I_{or}}$ | dB           | -7.4  |

4. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

## 7.4.2 Body SAR Measurements for EVDO

Hotspot Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For EVDO data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with EVDO Rev. 0 and Rev. A as the respective primary modes. Otherwise, the ‘Body-Worn Accessory SAR’ procedures in the ‘3GPP2 CDMA 2000 1x Handsets’ section are applied.

## 7.4.3 CDMA2000 1x Advanced

This device additionally supports 1x Advanced. Conducted powers are measured using SO75 with RC8 on the uplink and RC11 on the downlink per FCC KDB Publication 941225 D01v03r01. Smart blanking is disabled for all measurements. The EUT is configured with forward power control Mode 000 and reverse power control at 400 bps. Conducted powers are measured on an Agilent 8960 Series 10 Wireless Communications Test Set, Model E5515C using the CDMA2000 1x Advanced application, Option E1962B-410.

The 3G SAR test reduction procedure is applied to the 1x-Advanced transmission mode with 1x RTT RC3 as the primary mode. When SAR measurement is required, the 1x-Advanced power measurement configurations are used. The 1x Advanced SAR procedures are applied separately to head, body-worn accessory and other exposure conditions.

|                                         |                                                                                                                                   |                              |                |                                 |
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## 7.5 SAR Measurement Conditions for UMTS

### 7.5.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCH<sub>n</sub> and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

### 7.5.2 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all “1s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCH<sub>n</sub> configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or DPDCH<sub>n</sub>, for the highest reported SAR configuration in 12.2 kbps RMC.

### 7.5.3 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

### 7.5.4 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

### 7.5.5 SAR Measurement Conditions for DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

## 7.6 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

|                                                |                                                                                                                  |                                   |                                        |
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### 7.6.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

### 7.6.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

### 7.6.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

### 7.6.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

- a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
  - i. The required channel and offset combination with the highest maximum output power is required for SAR.
  - ii. When the reported SAR is  $\leq 0.8$  W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
  - iii. When the reported SAR for a required test channel is  $> 1.45$  W/kg, SAR is required for all RB offset configurations for that channel.
- b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
- c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is  $< 0.8$  W/kg.
- d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to  $\frac{1}{2}$  dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is  $< 1.45$  W/kg.

According to FCC KDB 447498 D01v06, when the reported (scaled) SAR for LTE Band 41 is  $\leq 0.6$  W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.

### 7.6.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

### 7.6.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell,

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the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

## 7.7 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

### 7.7.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

### 7.7.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is  $> 1.2$  W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is  $> 1.2$  W/kg.

### 7.7.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

|                                         |                                                                                                                  |                            |                                 |
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#### 7.7.4 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is  $\leq 0.8$  W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is  $> 0.8$  W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is  $> 1.2$  W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is  $> 1.2$  W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed.

#### 7.7.5 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

#### 7.7.6 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is  $\leq 0.8$  W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is  $\leq 1.2$  W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 7.7.5).

#### 7.7.7 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is  $\leq 1.2$  W/kg, no additional SAR tests for the subsequent test configurations are required.

|                                         |                                                                                                                  |                            |                                 |
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### 7.7.8 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is  $<1.6$  W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

|                                                |                                                                                                                  |                                   |                                        |
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## 8 RF CONDUCTED POWERS

### 8.1 CDMA Conducted Powers

**Table 8-1**  
**Maximum Conducted Power**

| Band     | Channel | Rule Part | Frequency | SO55 [dBm] | SO55 [dBm] | SO75 [dBm] | TDSO SO32 [dBm] | TDSO SO32 [dBm] | 1x EvDO Rev. 0 [dBm] | 1x EvDO Rev. A [dBm] |
|----------|---------|-----------|-----------|------------|------------|------------|-----------------|-----------------|----------------------|----------------------|
|          | F-RC    |           | MHz       | RC1        | RC3        | RC11       | FCH+SCH         | FCH             | (RTAP)               | (RETAP)              |
| Cellular | 560     | 90S       | 820       | 24.73      | 24.74      | 24.76      | 24.80           | 24.79           | 24.82                | 24.80                |
| Cellular | 1013    | 22H       | 824.7     | 24.03      | 24.09      | 24.23      | 23.98           | 24.06           | 24.13                | 24.13                |
|          | 384     | 22H       | 836.52    | 24.00      | 24.06      | 24.18      | 23.93           | 23.97           | 24.10                | 24.13                |
|          | 777     | 22H       | 848.31    | 24.02      | 24.10      | 24.22      | 24.00           | 23.94           | 24.15                | 24.16                |
| PCS      | 25      | 24E       | 1851.25   | 24.33      | 24.28      | 24.71      | 24.31           | 24.37           | 24.43                | 24.42                |
|          | 600     | 24E       | 1880      | 24.67      | 24.63      | 24.72      | 24.53           | 24.65           | 24.75                | 24.70                |
|          | 1175    | 24E       | 1908.75   | 24.60      | 24.58      | 24.74      | 24.58           | 24.70           | 24.64                | 24.62                |

**Table 8-2**  
**Reduced Conducted Power**

| Band     | Channel | Rule Part | Frequency | SO55 [dBm] | SO55 [dBm] | SO75 [dBm] | TDSO SO32 [dBm] | TDSO SO32 [dBm] | 1x EvDO Rev. 0 [dBm] | 1x EvDO Rev. A [dBm] |
|----------|---------|-----------|-----------|------------|------------|------------|-----------------|-----------------|----------------------|----------------------|
|          | F-RC    |           | MHz       | RC1        | RC3        | RC11       | FCH+SCH         | FCH             | (RTAP)               | (RETAP)              |
| Cellular | 560     | 90S       | 820       | 18.00      | 18.00      | 17.97      | 17.99           | 17.96           | 17.97                | 17.93                |
| Cellular | 1013    | 22H       | 824.7     | 18.00      | 18.00      | 18.00      | 17.92           | 18.00           | 17.92                | 17.94                |
|          | 384     | 22H       | 836.52    | 18.00      | 18.00      | 17.97      | 17.97           | 17.99           | 17.98                | 17.99                |
|          | 777     | 22H       | 848.31    | 18.00      | 17.99      | 18.00      | 17.95           | 17.94           | 17.91                | 17.90                |
| PCS      | 25      | 24E       | 1851.25   | 13.00      | 12.99      | 13.00      | 12.95           | 12.94           | 12.98                | 12.97                |
|          | 600     | 24E       | 1880      | 12.95      | 12.98      | 13.00      | 12.91           | 12.98           | 12.95                | 12.93                |
|          | 1175    | 24E       | 1908.75   | 12.97      | 13.00      | 13.00      | 12.91           | 12.91           | 12.94                | 12.93                |

Note: RC1 is only applicable for IS-95 compatibility. For FCC Rule Part 90S, Per FCC KDB Publication 447498 D01v06 4.1.g), only one channel is required since the device operates within the transmission range of 817.90 – 823.10 MHz.

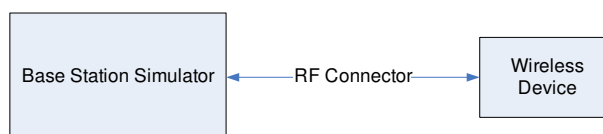


**Figure 8-1**  
**Power Measurement Setup**

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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## 8.2 GSM Conducted Powers

**Table 8-3**  
**Maximum Conducted Power**

| Maximum Burst-Averaged Output Power |         |                          |                         |                         |                         |                         |
|-------------------------------------|---------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                     |         | Voice                    | GPRS/EDGE Data (GMSK)   |                         | EDGE Data (8-PSK)       |                         |
| Band                                | Channel | GSM [dBm]<br>CS (1 Slot) | GPRS [dBm]<br>1 Tx Slot | GPRS [dBm]<br>2 Tx Slot | EDGE [dBm]<br>1 Tx Slot | EDGE [dBm]<br>2 Tx Slot |
| <b>GSM 850</b>                      | 128     | 33.10                    | 33.12                   | <b>32.47</b>            | 28.51                   | 28.33                   |
|                                     | 190     | 33.10                    | 33.10                   | <b>32.40</b>            | 28.61                   | 28.15                   |
|                                     | 251     | 33.15                    | 33.12                   | <b>32.42</b>            | 28.42                   | 28.20                   |
| <b>GSM 1900</b>                     | 512     | 28.93                    | 28.92                   | <b>28.52</b>            | 27.35                   | 27.12                   |
|                                     | 661     | 28.96                    | 28.96                   | <b>28.53</b>            | 27.40                   | 27.14                   |
|                                     | 810     | 29.00                    | 29.00                   | <b>28.61</b>            | 27.32                   | 27.07                   |

| Calculated Maximum Frame-Averaged Output Power |         |                          |                         |                         |                         |                         |
|------------------------------------------------|---------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                                |         | Voice                    | GPRS/EDGE Data (GMSK)   |                         | EDGE Data (8-PSK)       |                         |
| Band                                           | Channel | GSM [dBm]<br>CS (1 Slot) | GPRS [dBm]<br>1 Tx Slot | GPRS [dBm]<br>2 Tx Slot | EDGE [dBm]<br>1 Tx Slot | EDGE [dBm]<br>2 Tx Slot |
| <b>GSM 850</b>                                 | 128     | 24.07                    | 24.09                   | <b>26.45</b>            | 19.48                   | 22.31                   |
|                                                | 190     | 24.07                    | 24.07                   | <b>26.38</b>            | 19.58                   | 22.13                   |
|                                                | 251     | 24.12                    | 24.09                   | <b>26.40</b>            | 19.39                   | 22.18                   |
| <b>GSM 1900</b>                                | 512     | 19.90                    | 19.89                   | <b>22.50</b>            | 18.32                   | 21.10                   |
|                                                | 661     | 19.93                    | 19.93                   | <b>22.51</b>            | 18.37                   | 21.12                   |
|                                                | 810     | 19.97                    | 19.97                   | <b>22.59</b>            | 18.29                   | 21.05                   |

|                 |                      |       |       |              |       |       |
|-----------------|----------------------|-------|-------|--------------|-------|-------|
| <b>GSM 850</b>  | <b>Frame</b>         | 23.47 | 23.47 | <b>25.48</b> | 17.97 | 20.98 |
| <b>GSM 1900</b> | <b>Avg. Targets:</b> | 18.97 | 18.97 | <b>21.98</b> | 16.97 | 19.98 |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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**Table 8-4**  
**Reduced Conducted Power**

| Maximum Burst-Averaged Output Power |         |                             |                            |                            |                            |                            |
|-------------------------------------|---------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
|                                     |         | Voice                       | GPRS/EDGE Data (GMSK)      |                            | EDGE Data (8-PSK)          |                            |
| Band                                | Channel | GSM [dBm]<br>CS<br>(1 Slot) | GPRS [dBm]<br>1 Tx<br>Slot | GPRS [dBm]<br>2 Tx<br>Slot | EDGE [dBm]<br>1 Tx<br>Slot | EDGE [dBm]<br>2 Tx<br>Slot |
| <b>GSM 850</b>                      | 128     | 28.26                       | 27.61                      | <b>25.24</b>               | 26.48                      | 24.99                      |
|                                     | 190     | 28.26                       | 27.72                      | <b>25.25</b>               | 26.49                      | 24.98                      |
|                                     | 251     | 28.27                       | 27.66                      | <b>25.23</b>               | 26.46                      | 24.94                      |
| <b>GSM 1900</b>                     | 512     | 22.98                       | 22.90                      | <b>19.88</b>               | 22.42                      | 19.50                      |
|                                     | 661     | 22.92                       | 22.80                      | <b>19.91</b>               | 22.50                      | 19.42                      |
|                                     | 810     | 22.92                       | 22.75                      | <b>19.99</b>               | 22.43                      | 19.47                      |

| Calculated Maximum Frame-Averaged Output Power |         |                             |                            |                            |                            |                            |
|------------------------------------------------|---------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
|                                                |         | Voice                       | GPRS/EDGE Data (GMSK)      |                            | EDGE Data (8-PSK)          |                            |
| Band                                           | Channel | GSM [dBm]<br>CS<br>(1 Slot) | GPRS [dBm]<br>1 Tx<br>Slot | GPRS [dBm]<br>2 Tx<br>Slot | EDGE [dBm]<br>1 Tx<br>Slot | EDGE [dBm]<br>2 Tx<br>Slot |
| <b>GSM 850</b>                                 | 128     | 19.23                       | 18.58                      | <b>19.22</b>               | 17.45                      | 18.97                      |
|                                                | 190     | 19.23                       | 18.69                      | <b>19.23</b>               | 17.46                      | 18.96                      |
|                                                | 251     | 19.24                       | 18.63                      | <b>19.21</b>               | 17.43                      | 18.92                      |
| <b>GSM 1900</b>                                | 512     | 13.95                       | 13.87                      | <b>13.86</b>               | 13.39                      | 13.48                      |
|                                                | 661     | 13.89                       | 13.77                      | <b>13.89</b>               | 13.47                      | 13.40                      |
|                                                | 810     | 13.89                       | 13.72                      | <b>13.97</b>               | 13.40                      | 13.45                      |

|                 |                               |       |       |              |       |       |
|-----------------|-------------------------------|-------|-------|--------------|-------|-------|
| <b>GSM 850</b>  | <b>Frame<br/>Avg.Targets:</b> | 17.27 | 17.27 | <b>17.28</b> | 17.27 | 17.28 |
| <b>GSM 1900</b> |                               | 11.97 | 11.97 | <b>11.98</b> | 11.97 | 11.98 |

|                                         |                                                                                     |                              |  |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   |  |  | Page 25 of 114                  |

Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8PSK modulation do not have an impact on output power.

**GSM Class: B**  
**GPRS Multislot class: 10** (Max 2 Tx uplink slots)  
**EDGE Multislot class: 10** (Max 2 Tx uplink slots)  
**DTM Multislot Class: N/A**



**Figure 8-2**  
**Power Measurement Setup**

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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## 8.3 UMTS Conducted Powers

**Table 8-5**  
**Maximum Conducted Power**

| 3GPP Release Version | Mode     | 3GPP 34.121 Subtest | Cellular Band [dBm] |       |       | AWS Band [dBm] |       |       | PCS Band [dBm] |       |       | 3GPP MPR [dB] | $\beta_c$ | $\beta_d$ | AG Index | E-TFCI |
|----------------------|----------|---------------------|---------------------|-------|-------|----------------|-------|-------|----------------|-------|-------|---------------|-----------|-----------|----------|--------|
|                      |          |                     | 4132                | 4183  | 4233  | 1312           | 1412  | 1513  | 9262           | 9400  | 9538  |               |           |           |          |        |
| 99                   | WCDMA    | 12.2 kbps RMC       | 24.96               | 24.80 | 24.78 | 24.92          | 24.86 | 24.83 | 24.96          | 24.85 | 24.77 | -             | -         | -         | -        | -      |
| 99                   |          | 12.2 kbps AMR       | 24.91               | 24.74 | 24.75 | 24.87          | 24.88 | 24.86 | 24.96          | 24.82 | 24.77 | -             | -         | -         | -        | -      |
| 6                    | HSDPA    | Subtest 1           | 23.95               | 23.80 | 23.78 | 23.95          | 23.91 | 23.88 | 23.92          | 23.89 | 23.84 | 0             | 2         | 15        | -        | -      |
| 6                    |          | Subtest 2           | 23.98               | 23.81 | 23.81 | 23.94          | 23.87 | 23.90 | 23.87          | 23.77 | 23.74 | 0             | 11        | 15        | -        | -      |
| 6                    |          | Subtest 3           | 23.41               | 23.24 | 23.26 | 23.42          | 23.28 | 23.27 | 23.46          | 23.37 | 23.32 | 0.5           | 15        | 8         | -        | -      |
| 6                    |          | Subtest 4           | 23.43               | 23.26 | 23.26 | 23.41          | 23.38 | 23.30 | 23.47          | 23.37 | 23.26 | 0.5           | 15        | 4         | -        | -      |
| 6                    | HSUPA    | Subtest 1           | 23.87               | 23.80 | 23.77 | 23.76          | 23.70 | 23.68 | 23.98          | 23.92 | 23.87 | 0             | 10        | 15        | 20       | 75     |
| 6                    |          | Subtest 2           | 22.55               | 22.56 | 22.44 | 22.43          | 22.40 | 22.35 | 22.61          | 22.47 | 22.56 | 2             | 6         | 15        | 12       | 67     |
| 6                    |          | Subtest 3           | 22.79               | 22.68 | 22.70 | 22.61          | 22.50 | 22.58 | 22.58          | 22.50 | 22.51 | 1             | 15        | 9         | 15       | 92     |
| 6                    |          | Subtest 4           | 22.87               | 22.80 | 22.78 | 22.71          | 22.69 | 22.67 | 22.74          | 22.70 | 22.61 | 2             | 2         | 15        | 17       | 71     |
| 6                    |          | Subtest 5           | 23.98               | 23.82 | 23.80 | 23.92          | 23.90 | 23.85 | 23.94          | 23.88 | 23.82 | 0             | 15        | 1         | 12       | 67     |
| 8                    | DC-HSDPA | Subtest 1           | 23.55               | 23.42 | 23.37 | 22.36          | 22.30 | 22.25 | 23.29          | 23.18 | 23.15 | 0             | 2         | 15        | -        | -      |
| 8                    |          | Subtest 2           | 23.52               | 23.51 | 23.42 | 22.26          | 22.28 | 22.24 | 23.20          | 23.13 | 23.16 | 0             | 11        | 15        | -        | -      |
| 8                    |          | Subtest 3           | 23.17               | 23.00 | 22.95 | 21.82          | 21.77 | 21.73 | 22.78          | 22.65 | 22.63 | 0.5           | 15        | 8         | -        | -      |
| 8                    |          | Subtest 4           | 23.11               | 22.98 | 22.91 | 21.83          | 21.75 | 21.74 | 22.73          | 22.68 | 22.62 | 0.5           | 15        | 4         | -        | -      |

**Table 8-6**  
**Reduced Conducted Power**

| 3GPP Release Version | Mode     | 3GPP 34.121 Subtest | Cellular Band [dBm] |       |       | AWS Band [dBm] |       |       | PCS Band [dBm] |       |       | 3GPP MPR [dB] | $\beta_c$ | $\beta_d$ | AG Index | E-TFCI |
|----------------------|----------|---------------------|---------------------|-------|-------|----------------|-------|-------|----------------|-------|-------|---------------|-----------|-----------|----------|--------|
|                      |          |                     | 4132                | 4183  | 4233  | 1312           | 1412  | 1513  | 9262           | 9400  | 9538  |               |           |           |          |        |
| 99                   | WCDMA    | 12.2 kbps RMC       | 17.94               | 18.00 | 18.00 | 13.49          | 13.48 | 13.43 | 12.95          | 12.94 | 12.93 | -             | -         | -         | -        | -      |
| 99                   |          | 12.2 kbps AMR       | 18.00               | 17.97 | 17.96 | 13.50          | 13.42 | 13.48 | 12.98          | 12.96 | 12.97 | -             | -         | -         | -        | -      |
| 6                    | HSDPA    | Subtest 1           | 17.98               | 17.90 | 17.91 | 13.48          | 13.46 | 13.44 | 12.91          | 12.97 | 12.95 | 0             | 2         | 15        | -        | -      |
| 6                    |          | Subtest 2           | 18.00               | 17.93 | 17.96 | 13.46          | 13.43 | 13.48 | 12.94          | 12.96 | 12.92 | 0             | 11        | 15        | -        | -      |
| 6                    |          | Subtest 3           | 17.50               | 17.42 | 17.44 | 12.97          | 12.95 | 12.96 | 12.46          | 12.49 | 12.42 | 0.5           | 15        | 8         | -        | -      |
| 6                    |          | Subtest 4           | 17.49               | 17.41 | 17.43 | 12.99          | 12.96 | 12.95 | 12.45          | 12.48 | 12.40 | 0.5           | 15        | 4         | -        | -      |
| 6                    | HSUPA    | Subtest 1           | 17.90               | 17.98 | 17.99 | 13.46          | 13.49 | 13.47 | 12.96          | 12.92 | 12.99 | 0             | 10        | 15        | 20       | 75     |
| 6                    |          | Subtest 2           | 15.90               | 15.98 | 15.91 | 11.50          | 11.41 | 11.48 | 10.90          | 10.98 | 10.99 | 2             | 6         | 15        | 12       | 67     |
| 6                    |          | Subtest 3           | 16.90               | 16.90 | 16.91 | 12.50          | 12.49 | 12.42 | 11.97          | 11.99 | 11.90 | 1             | 15        | 9         | 15       | 92     |
| 6                    |          | Subtest 4           | 15.90               | 15.91 | 15.90 | 11.46          | 11.43 | 11.40 | 10.90          | 11.00 | 10.99 | 2             | 2         | 15        | 17       | 71     |
| 6                    |          | Subtest 5           | 17.98               | 17.94 | 17.93 | 13.48          | 13.45 | 13.41 | 12.96          | 12.92 | 12.92 | 0             | 15        | 1         | 12       | 67     |
| 8                    | DC-HSDPA | Subtest 1           | 17.98               | 18.00 | 17.92 | 13.46          | 13.43 | 13.45 | 12.98          | 12.96 | 12.93 | 0             | 2         | 15        | -        | -      |
| 8                    |          | Subtest 2           | 17.92               | 17.92 | 17.95 | 13.45          | 13.42 | 13.42 | 13.00          | 12.91 | 12.94 | 0             | 11        | 15        | -        | -      |
| 8                    |          | Subtest 3           | 17.41               | 17.42 | 17.43 | 12.97          | 12.92 | 12.90 | 12.49          | 12.47 | 12.42 | 0.5           | 15        | 8         | -        | -      |
| 8                    |          | Subtest 4           | 17.40               | 17.41 | 17.42 | 12.96          | 12.94 | 12.91 | 12.48          | 12.49 | 12.43 | 0.5           | 15        | 4         | -        | -      |

### DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements
- The DUT supports UE category 24 for HSDPA



**Figure 8-3**  
**Power Measurement Setup**

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
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## 8.4 LTE Conducted Powers

### 8.4.1

### LTE Band 12

**Table 8-7**  
**LTE Band 12 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 12<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23095<br>(707.5 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 24.45                    | 0                            | 0        |
|                                 | 1       | 25        | 24.39                    |                              | 0        |
|                                 | 1       | 49        | 24.43                    |                              | 0        |
|                                 | 25      | 0         | 23.43                    | 0-1                          | 1        |
|                                 | 25      | 12        | 23.35                    |                              | 1        |
|                                 | 25      | 25        | 23.46                    |                              | 1        |
|                                 | 50      | 0         | 23.45                    |                              | 1        |
| 16QAM                           | 1       | 0         | 23.80                    | 0-1                          | 1        |
|                                 | 1       | 25        | 23.84                    |                              | 1        |
|                                 | 1       | 49        | 23.79                    |                              | 1        |
|                                 | 25      | 0         | 22.35                    | 0-2                          | 2        |
|                                 | 25      | 12        | 22.39                    |                              | 2        |
|                                 | 25      | 25        | 22.47                    |                              | 2        |
|                                 | 50      | 0         | 22.45                    |                              | 2        |

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-8**  
**LTE Band 12 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 12<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23035<br>(701.5 MHz)  | 23095<br>(707.5 MHz) | 23155<br>(713.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 24.78                 | 24.65                | 24.77                | 0                            | 0        |
|                                | 1       | 12        | 24.95                 | 24.80                | 24.94                |                              | 0        |
|                                | 1       | 24        | 24.89                 | 24.73                | 24.78                |                              | 0        |
|                                | 12      | 0         | 23.54                 | 23.30                | 23.44                | 0-1                          | 1        |
|                                | 12      | 6         | 23.60                 | 23.44                | 23.47                |                              | 1        |
|                                | 12      | 13        | 23.57                 | 23.39                | 23.46                |                              | 1        |
|                                | 25      | 0         | 23.56                 | 23.38                | 23.41                |                              | 1        |
| 16QAM                          | 1       | 0         | 23.90                 | 23.90                | 24.00                | 0-1                          | 1        |
|                                | 1       | 12        | 24.00                 | 24.00                | 23.96                |                              | 1        |
|                                | 1       | 24        | 23.99                 | 23.98                | 23.98                |                              | 1        |
|                                | 12      | 0         | 22.59                 | 22.42                | 22.43                | 0-2                          | 2        |
|                                | 12      | 6         | 22.70                 | 22.53                | 22.48                |                              | 2        |
|                                | 12      | 13        | 22.64                 | 22.43                | 22.46                |                              | 2        |
|                                | 25      | 0         | 22.56                 | 22.46                | 22.47                |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 28 of 114                  |

**Table 8-9**  
**LTE Band 12 Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 12<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23025<br>(700.5 MHz)  | 23095<br>(707.5 MHz) | 23165<br>(714.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 24.33                 | 24.10                | 24.26                | 0                            | 0        |
|                                | 1       | 7         | 24.55                 | 24.42                | 24.62                |                              | 0        |
|                                | 1       | 14        | 24.38                 | 24.15                | 24.23                |                              | 0        |
|                                | 8       | 0         | 23.28                 | 23.05                | 23.16                | 0-1                          | 1        |
|                                | 8       | 4         | 23.36                 | 23.23                | 23.22                |                              | 1        |
|                                | 8       | 7         | 23.31                 | 23.16                | 23.16                |                              | 1        |
|                                | 15      | 0         | 23.27                 | 23.16                | 23.18                |                              | 1        |
| 16QAM                          | 1       | 0         | 23.81                 | 23.44                | 23.54                | 0-1                          | 1        |
|                                | 1       | 7         | 23.82                 | 23.66                | 23.81                |                              | 1        |
|                                | 1       | 14        | 23.86                 | 23.46                | 23.55                |                              | 1        |
|                                | 8       | 0         | 22.31                 | 22.15                | 22.10                | 0-2                          | 2        |
|                                | 8       | 4         | 22.34                 | 22.31                | 22.22                |                              | 2        |
|                                | 8       | 7         | 22.33                 | 22.21                | 22.20                |                              | 2        |
|                                | 15      | 0         | 22.30                 | 22.15                | 22.18                |                              | 2        |

**Table 8-10**  
**LTE Band 12 Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 12<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                       | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                  |         |           | 23017<br>(699.7 MHz)  | 23095<br>(707.5 MHz) | 23173<br>(715.3 MHz) |                              |          |
|                                  |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                             | 1       | 0         | 24.74                 | 24.48                | 24.56                | 0                            | 0        |
|                                  | 1       | 2         | 24.79                 | 24.63                | 24.57                |                              | 0        |
|                                  | 1       | 5         | 24.74                 | 24.50                | 24.56                |                              | 0        |
|                                  | 3       | 0         | 24.38                 | 24.48                | 24.44                |                              | 0        |
|                                  | 3       | 2         | 24.45                 | 24.50                | 24.56                |                              | 0        |
|                                  | 3       | 3         | 24.42                 | 24.46                | 24.47                |                              | 0        |
|                                  | 6       | 0         | 23.53                 | 23.44                | 23.40                | 0-1                          | 1        |
| 16QAM                            | 1       | 0         | 23.69                 | 23.73                | 23.60                | 0-1                          | 1        |
|                                  | 1       | 2         | 23.76                 | 23.81                | 23.65                |                              | 1        |
|                                  | 1       | 5         | 23.70                 | 23.73                | 23.64                |                              | 1        |
|                                  | 3       | 0         | 23.53                 | 23.64                | 23.32                |                              | 1        |
|                                  | 3       | 2         | 23.55                 | 23.63                | 23.39                |                              | 1        |
|                                  | 3       | 3         | 23.53                 | 23.62                | 23.31                |                              | 1        |
|                                  | 6       | 0         | 22.68                 | 22.44                | 22.65                | 0-2                          | 2        |

|                                         |                                                                                                                  |                            |  |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  |  | Page 29 of 114                  |

**Table 8-11**  
**LTE Band 12 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 12<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23095<br>(707.5 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 19.60                    | 0                            | 0        |
|                                 | 1       | 25        | 19.51                    |                              | 0        |
|                                 | 1       | 49        | 19.54                    |                              | 0        |
|                                 | 25      | 0         | 19.50                    | 0-1                          | 0        |
|                                 | 25      | 12        | 19.60                    |                              | 0        |
|                                 | 25      | 25        | 19.53                    |                              | 0        |
|                                 | 50      | 0         | 19.59                    |                              | 0        |
|                                 | 50      | 0         | 19.59                    |                              | 0        |
| 16QAM                           | 1       | 0         | 19.53                    | 0-1                          | 0        |
|                                 | 1       | 25        | 19.59                    |                              | 0        |
|                                 | 1       | 49        | 19.58                    |                              | 0        |
|                                 | 25      | 0         | 19.52                    | 0-2                          | 0        |
|                                 | 25      | 12        | 19.56                    |                              | 0        |
|                                 | 25      | 25        | 19.58                    |                              | 0        |
|                                 | 50      | 0         | 19.52                    |                              | 0        |
|                                 | 50      | 0         | 19.52                    |                              | 0        |

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-12**  
**LTE Band 12 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 12<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23035<br>(701.5 MHz)  | 23095<br>(707.5 MHz) | 23155<br>(713.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 19.57                 | 19.52                | 19.58                | 0                            | 0        |
|                                | 1       | 12        | 19.56                 | 19.55                | 19.55                |                              | 0        |
|                                | 1       | 24        | 19.53                 | 19.54                | 19.52                |                              | 0        |
|                                | 12      | 0         | 19.54                 | 19.53                | 19.54                | 0-1                          | 0        |
|                                | 12      | 6         | 19.56                 | 19.59                | 19.51                |                              | 0        |
|                                | 12      | 13        | 19.58                 | 19.57                | 19.57                |                              | 0        |
|                                | 25      | 0         | 19.55                 | 19.53                | 19.52                |                              | 0        |
| 16QAM                          | 1       | 0         | 19.53                 | 19.51                | 19.58                | 0-1                          | 0        |
|                                | 1       | 12        | 19.52                 | 19.56                | 19.52                |                              | 0        |
|                                | 1       | 24        | 19.57                 | 19.53                | 19.51                |                              | 0        |
|                                | 12      | 0         | 19.56                 | 19.51                | 19.54                | 0-2                          | 0        |
|                                | 12      | 6         | 19.59                 | 19.56                | 19.54                |                              | 0        |
|                                | 12      | 13        | 19.55                 | 19.57                | 19.55                |                              | 0        |
|                                | 25      | 0         | 19.57                 | 19.57                | 19.51                |                              | 0        |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   |  | Page 30 of 114                  |

**Table 8-13**  
**LTE Band 12 Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 12<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23025<br>(700.5 MHz)  | 23095<br>(707.5 MHz) | 23165<br>(714.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                           | 1       | 0         | 19.55                 | 19.57                | 19.51                | 0                            | 0        |
|                                | 1       | 7         | 19.54                 | 19.55                | 19.57                |                              | 0        |
|                                | 1       | 14        | 19.54                 | 19.52                | 19.52                |                              | 0        |
|                                | 8       | 0         | 19.57                 | 19.54                | 19.52                | 0-1                          | 0        |
|                                | 8       | 4         | 19.58                 | 19.58                | 19.56                |                              | 0        |
|                                | 8       | 7         | 19.52                 | 19.54                | 19.55                |                              | 0        |
|                                | 15      | 0         | 19.53                 | 19.57                | 19.56                |                              | 0        |
| 16QAM                          | 1       | 0         | 19.54                 | 19.57                | 19.53                | 0-1                          | 0        |
|                                | 1       | 7         | 19.53                 | 19.54                | 19.56                |                              | 0        |
|                                | 1       | 14        | 19.57                 | 19.51                | 19.52                |                              | 0        |
|                                | 8       | 0         | 19.52                 | 19.51                | 19.51                | 0-2                          | 0        |
|                                | 8       | 4         | 19.58                 | 19.53                | 19.54                |                              | 0        |
|                                | 8       | 7         | 19.52                 | 19.51                | 19.52                |                              | 0        |
|                                | 15      | 0         | 19.55                 | 19.58                | 19.51                |                              | 0        |

**Table 8-14**  
**LTE Band 12 Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 12<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                       | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                  |         |           | 23017<br>(699.7 MHz)  | 23095<br>(707.5 MHz) | 23173<br>(715.3 MHz) |                              |          |
|                                  |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                             | 1       | 0         | 19.56                 | 19.51                | 19.57                | 0                            | 0        |
|                                  | 1       | 2         | 19.57                 | 19.53                | 19.54                |                              | 0        |
|                                  | 1       | 5         | 19.54                 | 19.51                | 19.53                |                              | 0        |
|                                  | 3       | 0         | 19.52                 | 19.57                | 19.51                |                              | 0        |
|                                  | 3       | 2         | 19.53                 | 19.55                | 19.51                |                              | 0        |
|                                  | 3       | 3         | 19.51                 | 19.56                | 19.57                |                              | 0        |
|                                  | 6       | 0         | 19.57                 | 19.53                | 19.52                | 0-1                          | 0        |
| 16QAM                            | 1       | 0         | 19.58                 | 19.58                | 19.51                | 0-1                          | 0        |
|                                  | 1       | 2         | 19.56                 | 19.57                | 19.53                |                              | 0        |
|                                  | 1       | 5         | 19.52                 | 19.56                | 19.52                |                              | 0        |
|                                  | 3       | 0         | 19.51                 | 19.53                | 19.51                |                              | 0        |
|                                  | 3       | 2         | 19.58                 | 19.57                | 19.51                |                              | 0        |
|                                  | 3       | 3         | 19.51                 | 19.52                | 19.56                |                              | 0        |
|                                  | 6       | 0         | 19.53                 | 19.52                | 19.57                | 0-2                          | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 31 of 114                  |

## 8.4.2

## LTE Band 13

**Table 8-15**  
**LTE Band 13 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 13<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23230<br>(782.0 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 23.20                    | 0                            | 0        |
|                                 | 1       | 25        | 23.40                    |                              | 0        |
|                                 | 1       | 49        | 23.22                    |                              | 0        |
|                                 | 25      | 0         | 22.40                    | 0-1                          | 1        |
|                                 | 25      | 12        | 22.48                    |                              | 1        |
|                                 | 25      | 25        | 22.40                    |                              | 1        |
|                                 | 50      | 0         | 22.50                    |                              | 1        |
| 16QAM                           | 1       | 0         | 22.93                    | 0-1                          | 1        |
|                                 | 1       | 25        | 22.97                    |                              | 1        |
|                                 | 1       | 49        | 22.99                    |                              | 1        |
|                                 | 25      | 0         | 21.43                    | 0-2                          | 2        |
|                                 | 25      | 12        | 21.47                    |                              | 2        |
|                                 | 25      | 25        | 21.42                    |                              | 2        |
|                                 | 50      | 0         | 21.51                    |                              | 2        |

**Table 8-16**  
**LTE Band 13 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 13<br>5 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23230<br>(782.0 MHz)     |                              |          |
|                                |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                           | 1       | 0         | 23.77                    | 0                            | 0        |
|                                | 1       | 12        | 23.90                    |                              | 0        |
|                                | 1       | 24        | 23.78                    |                              | 0        |
|                                | 12      | 0         | 22.70                    | 0-1                          | 1        |
|                                | 12      | 6         | 22.69                    |                              | 1        |
|                                | 12      | 13        | 22.68                    |                              | 1        |
|                                | 25      | 0         | 22.64                    |                              | 1        |
| 16QAM                          | 1       | 0         | 22.87                    | 0-1                          | 1        |
|                                | 1       | 12        | 22.91                    |                              | 1        |
|                                | 1       | 24        | 22.90                    |                              | 1        |
|                                | 12      | 0         | 21.75                    | 0-2                          | 2        |
|                                | 12      | 6         | 21.74                    |                              | 2        |
|                                | 12      | 13        | 21.69                    |                              | 2        |
|                                | 25      | 0         | 21.67                    |                              | 2        |

Note: LTE Band 13 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

|                                         |                                                                                                                  |                            |                                 |
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 32 of 114                  |

**Table 8-17**  
**LTE Band 13 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 13<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 23230<br>(782.0 MHz)     |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 18.10                    | 0                            | 0        |
|                                 | 1       | 25        | 18.08                    |                              | 0        |
|                                 | 1       | 49        | 18.09                    |                              | 0        |
|                                 | 25      | 0         | 18.10                    | 0-1                          | 0        |
|                                 | 25      | 12        | 18.08                    |                              | 0        |
|                                 | 25      | 25        | 18.07                    |                              | 0        |
|                                 | 50      | 0         | 18.09                    |                              | 0        |
| 16QAM                           | 1       | 0         | 18.09                    | 0-1                          | 0        |
|                                 | 1       | 25        | 18.10                    |                              | 0        |
|                                 | 1       | 49        | 18.07                    |                              | 0        |
|                                 | 25      | 0         | 18.09                    | 0-2                          | 0        |
|                                 | 25      | 12        | 18.09                    |                              | 0        |
|                                 | 25      | 25        | 18.08                    |                              | 0        |
|                                 | 50      | 0         | 18.10                    |                              | 0        |

**Table 8-18**  
**LTE Band 13 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 13<br>5 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 23230<br>(782.0 MHz)     |                              |          |
|                                |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                           | 1       | 0         | 18.01                    | 0                            | 0        |
|                                | 1       | 12        | 18.03                    |                              | 0        |
|                                | 1       | 24        | 18.07                    |                              | 0        |
|                                | 12      | 0         | 18.04                    | 0-1                          | 0        |
|                                | 12      | 6         | 18.08                    |                              | 0        |
|                                | 12      | 13        | 18.01                    |                              | 0        |
|                                | 25      | 0         | 18.01                    |                              | 0        |
| 16QAM                          | 1       | 0         | 18.06                    | 0-1                          | 0        |
|                                | 1       | 12        | 18.08                    |                              | 0        |
|                                | 1       | 24        | 18.04                    |                              | 0        |
|                                | 12      | 0         | 18.06                    | 0-2                          | 0        |
|                                | 12      | 6         | 18.04                    |                              | 0        |
|                                | 12      | 13        | 18.06                    |                              | 0        |
|                                | 25      | 0         | 18.07                    |                              | 0        |

Note: LTE Band 13 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

|                                         |                                                                                                                                   |                              |  |                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                                                | DUT Type:<br>Tablet Device   |  | Page 33 of 114                  |

### 8.4.3

### LTE Band 5 (Cell)

**Table 8-19**  
**LTE Band 5 (Cell) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 5 (Cell)<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 20525<br>(836.5 MHz)     |                              |          |
|                                       |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                  | 1       | 0         | 23.90                    | 0                            | 0        |
|                                       | 1       | 25        | 23.76                    |                              | 0        |
|                                       | 1       | 49        | 23.75                    |                              | 0        |
|                                       | 25      | 0         | 22.90                    | 0-1                          | 1        |
|                                       | 25      | 12        | 22.89                    |                              | 1        |
|                                       | 25      | 25        | 22.82                    |                              | 1        |
|                                       | 50      | 0         | 22.72                    |                              | 1        |
| 16QAM                                 | 1       | 0         | 22.98                    | 0-1                          | 1        |
|                                       | 1       | 25        | 23.13                    |                              | 1        |
|                                       | 1       | 49        | 23.13                    |                              | 1        |
|                                       | 25      | 0         | 21.80                    | 0-2                          | 2        |
|                                       | 25      | 12        | 21.80                    |                              | 2        |
|                                       | 25      | 25        | 21.72                    |                              | 2        |
|                                       | 50      | 0         | 21.82                    |                              | 2        |

Note: LTE Band 5 (Cell) at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-20**  
**LTE Band 5 (Cell) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 5 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20425<br>(826.5 MHz)  | 20525<br>(836.5 MHz) | 20625<br>(846.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                 | 1       | 0         | 24.35                 | 23.88                | 23.99                | 0                            | 0        |
|                                      | 1       | 12        | 24.40                 | 24.01                | 24.17                |                              | 0        |
|                                      | 1       | 24        | 24.37                 | 24.02                | 24.11                |                              | 0        |
|                                      | 12      | 0         | 23.04                 | 23.06                | 23.02                | 0-1                          | 1        |
|                                      | 12      | 6         | 23.10                 | 23.07                | 23.10                |                              | 1        |
|                                      | 12      | 13        | 23.10                 | 23.05                | 23.05                |                              | 1        |
|                                      | 25      | 0         | 23.06                 | 23.03                | 22.99                |                              | 1        |
| 16QAM                                | 1       | 0         | 23.39                 | 23.35                | 23.24                | 0-1                          | 1        |
|                                      | 1       | 12        | 23.45                 | 23.48                | 23.36                |                              | 1        |
|                                      | 1       | 24        | 23.44                 | 23.50                | 23.37                |                              | 1        |
|                                      | 12      | 0         | 22.17                 | 21.99                | 21.93                | 0-2                          | 2        |
|                                      | 12      | 6         | 22.22                 | 22.10                | 21.94                |                              | 2        |
|                                      | 12      | 13        | 22.22                 | 22.06                | 21.96                |                              | 2        |
|                                      | 25      | 0         | 22.03                 | 22.04                | 22.06                |                              | 2        |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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**Table 8-21**  
**LTE Band 5 (Cell) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 5 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20415<br>(825.5 MHz)  | 20525<br>(836.5 MHz) | 20635<br>(847.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                 | 1       | 0         | 23.90                 | 23.72                | 23.96                | 0                            | 0        |
|                                      | 1       | 7         | 23.98                 | 23.96                | 24.06                |                              | 0        |
|                                      | 1       | 14        | 23.91                 | 23.82                | 23.97                |                              | 0        |
|                                      | 8       | 0         | 22.92                 | 22.83                | 22.90                | 0-1                          | 1        |
|                                      | 8       | 4         | 22.99                 | 22.93                | 22.92                |                              | 1        |
|                                      | 8       | 7         | 22.95                 | 22.89                | 22.92                |                              | 1        |
|                                      | 15      | 0         | 22.91                 | 22.88                | 22.86                |                              | 1        |
| 16QAM                                | 1       | 0         | 23.26                 | 22.78                | 23.00                | 0-1                          | 1        |
|                                      | 1       | 7         | 23.31                 | 23.17                | 23.36                |                              | 1        |
|                                      | 1       | 14        | 23.30                 | 22.97                | 23.13                |                              | 1        |
|                                      | 8       | 0         | 22.02                 | 21.91                | 21.79                | 0-2                          | 2        |
|                                      | 8       | 4         | 22.01                 | 21.99                | 21.86                |                              | 2        |
|                                      | 8       | 7         | 22.03                 | 21.92                | 21.81                |                              | 2        |
|                                      | 15      | 0         | 21.86                 | 21.90                | 21.84                |                              | 2        |

**Table 8-22**  
**LTE Band 5 (Cell) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 5 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 20407<br>(824.7 MHz)  | 20525<br>(836.5 MHz) | 20643<br>(848.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 24.33                 | 24.19                | 24.24                | 0                            | 0        |
|                                        | 1       | 2         | 24.33                 | 24.31                | 24.28                |                              | 0        |
|                                        | 1       | 5         | 24.33                 | 24.23                | 24.29                |                              | 0        |
|                                        | 3       | 0         | 24.39                 | 24.28                | 24.26                |                              | 0        |
|                                        | 3       | 2         | 24.29                 | 24.29                | 24.33                |                              | 0        |
|                                        | 3       | 3         | 24.28                 | 24.23                | 24.26                |                              | 0        |
|                                        | 6       | 0         | 23.45                 | 23.44                | 23.43                | 0-1                          | 1        |
| 16QAM                                  | 1       | 0         | 23.48                 | 23.38                | 23.50                | 0-1                          | 1        |
|                                        | 1       | 2         | 23.50                 | 23.46                | 23.49                |                              | 1        |
|                                        | 1       | 5         | 23.45                 | 23.41                | 23.19                |                              | 1        |
|                                        | 3       | 0         | 23.33                 | 23.40                | 23.29                |                              | 1        |
|                                        | 3       | 2         | 23.38                 | 23.39                | 23.30                |                              | 1        |
|                                        | 3       | 3         | 23.36                 | 23.40                | 23.22                |                              | 1        |
|                                        | 6       | 0         | 22.18                 | 22.18                | 22.03                | 0-2                          | 2        |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
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**Table 8-23**  
**LTE Band 5 (Cell) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 5 (Cell)<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 20525<br>(836.5 MHz)     |                              |          |
|                                       |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                  | 1       | 0         | 17.99                    | 0                            | 0        |
|                                       | 1       | 25        | <b>18.00</b>             |                              | 0        |
|                                       | 1       | 49        | 17.90                    |                              | 0        |
|                                       | 25      | 0         | 17.90                    | 0-1                          | 0        |
|                                       | 25      | 12        | <b>18.00</b>             |                              | 0        |
|                                       | 25      | 25        | 17.97                    |                              | 0        |
|                                       | 50      | 0         | 17.92                    |                              | 0        |
| 16QAM                                 | 1       | 0         | 17.95                    | 0-1                          | 0        |
|                                       | 1       | 25        | 17.95                    |                              | 0        |
|                                       | 1       | 49        | 17.96                    |                              | 0        |
|                                       | 25      | 0         | 17.92                    | 0-2                          | 0        |
|                                       | 25      | 12        | 18.00                    |                              | 0        |
|                                       | 25      | 25        | 18.00                    |                              | 0        |
|                                       | 50      | 0         | 17.91                    |                              | 0        |

Note: LTE Band 5 (Cell) at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-24**  
**LTE Band 5 (Cell) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 5 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20425<br>(826.5 MHz)  | 20525<br>(836.5 MHz) | 20625<br>(846.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                 | 1       | 0         | 17.97                 | 17.94                | 17.97                | 0                            | 0        |
|                                      | 1       | 12        | 17.97                 | 17.91                | 17.91                |                              | 0        |
|                                      | 1       | 24        | 17.91                 | 17.97                | 17.90                |                              | 0        |
|                                      | 12      | 0         | 17.91                 | 17.91                | 17.97                | 0-1                          | 0        |
|                                      | 12      | 6         | 17.99                 | 17.94                | 17.94                |                              | 0        |
|                                      | 12      | 13        | 17.98                 | 17.99                | 17.93                |                              | 0        |
|                                      | 25      | 0         | 17.96                 | 17.96                | 17.99                |                              | 0        |
| 16QAM                                | 1       | 0         | 17.95                 | 17.91                | 17.95                | 0-1                          | 0        |
|                                      | 1       | 12        | 17.91                 | 17.93                | 17.91                |                              | 0        |
|                                      | 1       | 24        | 17.92                 | 17.93                | 17.98                |                              | 0        |
|                                      | 12      | 0         | 17.93                 | 17.92                | 17.95                | 0-2                          | 0        |
|                                      | 12      | 6         | 17.94                 | 17.99                | 17.93                |                              | 0        |
|                                      | 12      | 13        | 17.90                 | 17.92                | 17.92                |                              | 0        |
|                                      | 25      | 0         | 17.94                 | 17.95                | 17.94                |                              | 0        |

|                                         |                                                                                     |                              |  |                                 |
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**Table 8-25**  
**LTE Band 5 (Cell) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 5 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|--------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20415<br>(825.5 MHz)  | 20525<br>(836.5 MHz) | 20635<br>(847.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                 | 1       | 0         | 17.94                 | 17.92                | 17.93                | 0                            | 0        |
|                                      | 1       | 7         | 17.99                 | 17.91                | 17.97                |                              | 0        |
|                                      | 1       | 14        | 17.92                 | 17.95                | 17.92                |                              | 0        |
|                                      | 8       | 0         | 17.94                 | 17.92                | 17.93                | 0-1                          | 0        |
|                                      | 8       | 4         | 17.98                 | 17.91                | 17.94                |                              | 0        |
|                                      | 8       | 7         | 17.96                 | 17.98                | 17.92                |                              | 0        |
|                                      | 15      | 0         | 17.97                 | 17.91                | 17.99                |                              | 0        |
| 16QAM                                | 1       | 0         | 17.95                 | 17.96                | 17.98                | 0-1                          | 0        |
|                                      | 1       | 7         | 17.96                 | 17.97                | 17.95                |                              | 0        |
|                                      | 1       | 14        | 17.94                 | 17.93                | 17.92                |                              | 0        |
|                                      | 8       | 0         | 17.93                 | 17.93                | 17.94                | 0-2                          | 0        |
|                                      | 8       | 4         | 17.98                 | 17.99                | 17.91                |                              | 0        |
|                                      | 8       | 7         | 17.95                 | 17.97                | 17.91                |                              | 0        |
|                                      | 15      | 0         | 17.90                 | 17.94                | 17.96                |                              | 0        |

**Table 8-26**  
**LTE Band 5 (Cell) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 5 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 20407<br>(824.7 MHz)  | 20525<br>(836.5 MHz) | 20643<br>(848.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 17.94                 | 17.96                | 17.94                | 0                            | 0        |
|                                        | 1       | 2         | 17.94                 | 17.97                | 17.96                |                              | 0        |
|                                        | 1       | 5         | 17.98                 | 17.93                | 17.98                |                              | 0        |
|                                        | 3       | 0         | 17.91                 | 17.95                | 17.97                |                              | 0        |
|                                        | 3       | 2         | 17.96                 | 17.94                | 17.98                |                              | 0        |
|                                        | 3       | 3         | 17.91                 | 17.90                | 17.95                |                              | 0        |
|                                        | 6       | 0         | 17.96                 | 17.91                | 17.94                | 0-1                          | 0        |
| 16QAM                                  | 1       | 0         | 17.95                 | 17.91                | 17.91                | 0-1                          | 0        |
|                                        | 1       | 2         | 17.98                 | 17.93                | 17.96                |                              | 0        |
|                                        | 1       | 5         | 17.92                 | 17.92                | 17.95                |                              | 0        |
|                                        | 3       | 0         | 17.90                 | 17.93                | 17.95                |                              | 0        |
|                                        | 3       | 2         | 17.92                 | 17.98                | 17.96                |                              | 0        |
|                                        | 3       | 3         | 17.94                 | 17.94                | 17.91                |                              | 0        |
|                                        | 6       | 0         | 17.95                 | 17.92                | 17.94                | 0-2                          | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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## 8.4.4

## LTE Band 26 (Cell)

**Table 8-27**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 26 (Cell)<br>10 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26740<br>(819.0 MHz)  | 26865<br>(831.5 MHz) | 26990<br>(844.0 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 24.44                 | 24.40                | 24.41                | 0                            | 0        |
|                                        | 1       | 25        | 24.49                 | 24.43                | 24.46                |                              | 0        |
|                                        | 1       | 49        | 24.43                 | 24.38                | 24.10                |                              | 0        |
|                                        | 25      | 0         | 23.31                 | 23.26                | 23.28                | 0-1                          | 1        |
|                                        | 25      | 12        | 23.45                 | 23.39                | 23.37                |                              | 1        |
|                                        | 25      | 25        | 23.41                 | 23.30                | 23.35                |                              | 1        |
|                                        | 50      | 0         | 23.38                 | 23.31                | 23.31                |                              | 1        |
| 16QAM                                  | 1       | 0         | 23.29                 | 23.49                | 23.42                | 0-1                          | 1        |
|                                        | 1       | 25        | 23.39                 | 23.50                | 23.49                |                              | 1        |
|                                        | 1       | 49        | 23.30                 | 23.48                | 23.22                |                              | 1        |
|                                        | 25      | 0         | 22.35                 | 22.31                | 22.24                | 0-2                          | 2        |
|                                        | 25      | 12        | 22.46                 | 22.37                | 22.35                |                              | 2        |
|                                        | 25      | 25        | 22.50                 | 22.31                | 22.36                |                              | 2        |
|                                        | 50      | 0         | 22.41                 | 22.35                | 22.38                |                              | 2        |

**Table 8-28**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 26 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26715<br>(816.5 MHz)  | 26865<br>(831.5 MHz) | 27015<br>(846.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 24.37                 | 24.49                | 24.48                | 0                            | 0        |
|                                       | 1       | 12        | 24.46                 | 24.49                | 24.43                |                              | 0        |
|                                       | 1       | 24        | 24.44                 | 24.46                | 24.23                |                              | 0        |
|                                       | 12      | 0         | 23.35                 | 23.33                | 23.31                | 0-1                          | 1        |
|                                       | 12      | 6         | 23.44                 | 23.41                | 23.37                |                              | 1        |
|                                       | 12      | 13        | 23.43                 | 23.39                | 23.37                |                              | 1        |
|                                       | 25      | 0         | 23.37                 | 23.37                | 23.35                |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.50                 | 23.45                | 23.49                | 0-1                          | 1        |
|                                       | 1       | 12        | 23.47                 | 23.49                | 23.46                |                              | 1        |
|                                       | 1       | 24        | 23.41                 | 23.50                | 23.31                |                              | 1        |
|                                       | 12      | 0         | 22.27                 | 22.33                | 22.46                | 0-2                          | 2        |
|                                       | 12      | 6         | 22.41                 | 22.36                | 22.45                |                              | 2        |
|                                       | 12      | 13        | 22.38                 | 22.38                | 22.39                |                              | 2        |
|                                       | 25      | 0         | 22.38                 | 22.29                | 22.36                |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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**Table 8-29**  
**LTE Band 26 (Cell) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 26 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26705<br>(815.5 MHz)  | 26865<br>(831.5 MHz) | 27025<br>(847.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 24.44                 | 24.27                | 24.36                | 0                            | 0        |
|                                       | 1       | 7         | 24.49                 | 24.40                | 24.32                |                              | 0        |
|                                       | 1       | 14        | 24.42                 | 24.32                | 24.15                |                              | 0        |
|                                       | 8       | 0         | 23.36                 | 23.31                | 23.28                | 0-1                          | 1        |
|                                       | 8       | 4         | 23.43                 | 23.40                | 23.29                |                              | 1        |
|                                       | 8       | 7         | 23.36                 | 23.36                | 23.34                |                              | 1        |
|                                       | 15      | 0         | 23.37                 | 23.34                | 23.30                |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.31                 | 23.50                | 23.37                | 0-1                          | 1        |
|                                       | 1       | 7         | 23.44                 | 23.46                | 23.50                |                              | 1        |
|                                       | 1       | 14        | 23.33                 | 23.39                | 23.35                |                              | 1        |
|                                       | 8       | 0         | 22.33                 | 22.42                | 22.46                | 0-2                          | 2        |
|                                       | 8       | 4         | 22.40                 | 22.47                | 22.36                |                              | 2        |
|                                       | 8       | 7         | 22.30                 | 22.46                | 22.44                |                              | 2        |
|                                       | 15      | 0         | 22.38                 | 22.31                | 22.35                |                              | 2        |

**Table 8-30**  
**LTE Band 26 (Cell) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 26 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|-----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                              | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                         |         |           | 26697<br>(814.7 MHz)  | 26865<br>(831.5 MHz) | 27033<br>(848.3 MHz) |                              |          |
|                                         |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                    | 1       | 0         | 24.32                 | 24.42                | 24.28                | 0                            | 0        |
|                                         | 1       | 2         | 24.44                 | 24.48                | 24.16                |                              | 0        |
|                                         | 1       | 5         | 24.36                 | 24.47                | 24.06                |                              | 0        |
|                                         | 3       | 0         | 24.36                 | 24.31                | 24.18                |                              | 0        |
|                                         | 3       | 2         | 24.43                 | 24.33                | 24.20                |                              | 0        |
|                                         | 3       | 3         | 24.37                 | 24.30                | 24.13                |                              | 0        |
|                                         | 6       | 0         | 23.33                 | 23.35                | 23.30                | 0-1                          | 1        |
| 16QAM                                   | 1       | 0         | 23.30                 | 23.36                | 23.32                | 0-1                          | 1        |
|                                         | 1       | 2         | 23.39                 | 23.43                | 23.31                |                              | 1        |
|                                         | 1       | 5         | 23.27                 | 23.38                | 23.25                |                              | 1        |
|                                         | 3       | 0         | 23.35                 | 23.38                | 23.29                |                              | 1        |
|                                         | 3       | 2         | 23.45                 | 23.39                | 23.22                |                              | 1        |
|                                         | 3       | 3         | 23.40                 | 23.44                | 23.18                |                              | 1        |
|                                         | 6       | 0         | 22.29                 | 22.32                | 22.27                | 0-2                          | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 39 of 114                  |

**Table 8-31**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 26 (Cell)<br>10 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26740<br>(819.0 MHz)  | 26865<br>(831.5 MHz) | 26990<br>(844.0 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                   | 1       | 0         | 17.94                 | 17.99                | 17.94                | 0                            | 0        |
|                                        | 1       | 25        | 17.93                 | 17.93                | 17.96                |                              | 0        |
|                                        | 1       | 49        | 17.95                 | 17.95                | 17.96                |                              | 0        |
|                                        | 25      | 0         | 18.00                 | 17.95                | 17.91                | 0-1                          | 0        |
|                                        | 25      | 12        | 17.99                 | 17.93                | 17.93                |                              | 0        |
|                                        | 25      | 25        | 17.99                 | 17.96                | 17.95                |                              | 0        |
|                                        | 50      | 0         | 17.98                 | 17.95                | 17.93                |                              | 0        |
| 16QAM                                  | 1       | 0         | 17.99                 | 17.98                | 17.98                | 0-1                          | 0        |
|                                        | 1       | 25        | 17.98                 | 17.97                | 17.95                |                              | 0        |
|                                        | 1       | 49        | 17.95                 | 17.99                | 17.94                |                              | 0        |
|                                        | 25      | 0         | 17.93                 | 17.93                | 17.91                | 0-2                          | 0        |
|                                        | 25      | 12        | 17.97                 | 17.92                | 17.90                |                              | 0        |
|                                        | 25      | 25        | 17.98                 | 17.98                | 17.92                |                              | 0        |
|                                        | 50      | 0         | 17.98                 | 17.98                | 17.94                |                              | 0        |

**Table 8-32**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 26 (Cell)<br>5 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26715<br>(816.5 MHz)  | 26865<br>(831.5 MHz) | 27015<br>(846.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 17.93                 | 17.94                | 17.95                | 0                            | 0        |
|                                       | 1       | 12        | 17.96                 | 17.94                | 17.98                |                              | 0        |
|                                       | 1       | 24        | 17.96                 | 17.96                | 17.97                |                              | 0        |
|                                       | 12      | 0         | 17.99                 | 17.97                | 17.98                | 0-1                          | 0        |
|                                       | 12      | 6         | 17.94                 | 17.92                | 17.96                |                              | 0        |
|                                       | 12      | 13        | 17.93                 | 17.95                | 17.94                |                              | 0        |
|                                       | 25      | 0         | 17.99                 | 17.99                | 17.99                |                              | 0        |
| 16QAM                                 | 1       | 0         | 17.99                 | 17.96                | 17.94                | 0-1                          | 0        |
|                                       | 1       | 12        | 17.95                 | 17.97                | 17.97                |                              | 0        |
|                                       | 1       | 24        | 17.95                 | 17.91                | 17.95                |                              | 0        |
|                                       | 12      | 0         | 17.99                 | 17.93                | 17.94                | 0-2                          | 0        |
|                                       | 12      | 6         | 17.94                 | 17.95                | 17.99                |                              | 0        |
|                                       | 12      | 13        | 17.98                 | 17.91                | 17.95                |                              | 0        |
|                                       | 25      | 0         | 17.97                 | 17.92                | 17.94                |                              | 0        |

|                                                |                                                                                                                                   |                                   |  |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>      |  | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                                         | <b>DUT Type:</b><br>Tablet Device |  | Page 40 of 114                         |

**Table 8-33**  
**LTE Band 26 (Cell) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 26 (Cell)<br>3 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|---------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26705<br>(815.5 MHz)  | 26865<br>(831.5 MHz) | 27025<br>(847.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                  | 1       | 0         | 17.97                 | 17.93                | 17.95                | 0                            | 0        |
|                                       | 1       | 7         | 17.98                 | 17.98                | 17.96                |                              | 0        |
|                                       | 1       | 14        | 17.97                 | 17.96                | 17.95                |                              | 0        |
|                                       | 8       | 0         | 17.96                 | 17.99                | 17.97                | 0-1                          | 0        |
|                                       | 8       | 4         | 17.99                 | 17.95                | 17.95                |                              | 0        |
|                                       | 8       | 7         | 17.99                 | 17.94                | 17.93                |                              | 0        |
|                                       | 15      | 0         | 17.99                 | 17.92                | 17.93                |                              | 0        |
| 16QAM                                 | 1       | 0         | 17.92                 | 17.96                | 17.95                | 0-1                          | 0        |
|                                       | 1       | 7         | 17.99                 | 17.95                | 17.95                |                              | 0        |
|                                       | 1       | 14        | 17.99                 | 17.98                | 17.93                |                              | 0        |
|                                       | 8       | 0         | 17.96                 | 17.96                | 17.98                | 0-2                          | 0        |
|                                       | 8       | 4         | 18.00                 | 17.98                | 17.97                |                              | 0        |
|                                       | 8       | 7         | 17.99                 | 17.94                | 17.91                |                              | 0        |
|                                       | 15      | 0         | 18.00                 | 17.98                | 17.96                |                              | 0        |

**Table 8-34**  
**LTE Band 26 (Cell) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 26 (Cell)<br>1.4 MHz Bandwidth |         |           |                       |                      |                      |                              |          |
|-----------------------------------------|---------|-----------|-----------------------|----------------------|----------------------|------------------------------|----------|
| Modulation                              | RB Size | RB Offset | Low Channel           | Mid Channel          | High Channel         | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                         |         |           | 26697<br>(814.7 MHz)  | 26865<br>(831.5 MHz) | 27033<br>(848.3 MHz) |                              |          |
|                                         |         |           | Conducted Power [dBm] |                      |                      |                              |          |
| QPSK                                    | 1       | 0         | 17.96                 | 17.97                | 17.90                | 0                            | 0        |
|                                         | 1       | 2         | 17.96                 | 17.96                | 17.95                |                              | 0        |
|                                         | 1       | 5         | 17.90                 | 17.94                | 17.96                |                              | 0        |
|                                         | 3       | 0         | 17.93                 | 17.97                | 17.91                |                              | 0        |
|                                         | 3       | 2         | 17.99                 | 17.92                | 17.97                |                              | 0        |
|                                         | 3       | 3         | 17.93                 | 17.98                | 17.92                |                              | 0        |
|                                         | 6       | 0         | 17.91                 | 17.98                | 17.97                | 0-1                          | 0        |
| 16QAM                                   | 1       | 0         | 17.93                 | 17.94                | 17.93                | 0-1                          | 0        |
|                                         | 1       | 2         | 17.91                 | 17.92                | 17.92                |                              | 0        |
|                                         | 1       | 5         | 17.92                 | 17.91                | 17.98                |                              | 0        |
|                                         | 3       | 0         | 17.94                 | 17.96                | 17.95                |                              | 0        |
|                                         | 3       | 2         | 17.95                 | 17.93                | 17.91                |                              | 0        |
|                                         | 3       | 3         | 17.93                 | 17.97                | 17.94                |                              | 0        |
|                                         | 6       | 0         | 17.98                 | 17.96                | 17.98                | 0-2                          | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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## 8.4.5

## LTE Band 4 (AWS)

**Table 8-35**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 4 (AWS)<br>20 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20175<br>(1732.5 MHz)    |                              |          |
|                                      |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                 | 1       | 0         | 23.82                    | 0                            | 0        |
|                                      | 1       | 49        | 23.76                    |                              | 0        |
|                                      | 1       | 99        | 24.00                    |                              | 0        |
|                                      | 50      | 0         | 22.61                    | 0-1                          | 1        |
|                                      | 50      | 24        | 22.76                    |                              | 1        |
|                                      | 50      | 50        | 22.87                    |                              | 1        |
|                                      | 100     | 0         | 22.80                    |                              | 1        |
| 16QAM                                | 1       | 0         | 22.59                    | 0-1                          | 1        |
|                                      | 1       | 49        | 22.65                    |                              | 1        |
|                                      | 1       | 99        | 23.00                    |                              | 1        |
|                                      | 50      | 0         | 21.60                    | 0-2                          | 2        |
|                                      | 50      | 24        | 21.56                    |                              | 2        |
|                                      | 50      | 50        | 21.40                    |                              | 2        |
|                                      | 100     | 0         | 21.60                    |                              | 2        |

Note: LTE Band 4 (AWS) at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-36**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 4 (AWS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20025<br>(1717.5 MHz) | 20175<br>(1732.5 MHz) | 20325<br>(1747.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 23.73                 | 23.58                 | 23.72                 | 0                            | 0        |
|                                      | 1       | 37        | 23.81                 | 23.52                 | 23.66                 |                              | 0        |
|                                      | 1       | 74        | 23.87                 | 23.66                 | 23.76                 |                              | 0        |
|                                      | 36      | 0         | 22.67                 | 22.62                 | 22.71                 | 0-1                          | 1        |
|                                      | 36      | 20        | 22.64                 | 22.53                 | 22.67                 |                              | 1        |
|                                      | 36      | 39        | 22.63                 | 22.61                 | 22.67                 |                              | 1        |
|                                      | 75      | 0         | 22.64                 | 22.58                 | 22.75                 |                              | 1        |
| 16QAM                                | 1       | 0         | 23.00                 | 22.87                 | 23.00                 | 0-1                          | 1        |
|                                      | 1       | 37        | 22.84                 | 22.73                 | 22.82                 |                              | 1        |
|                                      | 1       | 74        | 23.00                 | 23.00                 | 22.98                 |                              | 1        |
|                                      | 36      | 0         | 21.92                 | 21.69                 | 21.72                 | 0-2                          | 2        |
|                                      | 36      | 20        | 21.61                 | 21.60                 | 21.80                 |                              | 2        |
|                                      | 36      | 39        | 21.65                 | 21.65                 | 21.72                 |                              | 2        |
|                                      | 75      | 0         | 21.67                 | 21.59                 | 21.69                 |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
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**Table 8-37**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 4 (AWS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20000<br>(1715.0 MHz) | 20175<br>(1732.5 MHz) | 20350<br>(1750.0 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 23.84                 | 23.91                 | 23.92                 | 0                            | 0        |
|                                      | 1       | 25        | 23.64                 | 23.64                 | 23.94                 |                              | 0        |
|                                      | 1       | 49        | 23.74                 | 23.74                 | 23.96                 |                              | 0        |
|                                      | 25      | 0         | 22.68                 | 22.74                 | 22.84                 | 0-1                          | 1        |
|                                      | 25      | 12        | 22.70                 | 22.64                 | 22.79                 |                              | 1        |
|                                      | 25      | 25        | 22.73                 | 22.72                 | 22.72                 |                              | 1        |
|                                      | 50      | 0         | 22.69                 | 22.69                 | 22.72                 |                              | 1        |
| 16QAM                                | 1       | 0         | 22.99                 | 23.00                 | 23.00                 | 0-1                          | 1        |
|                                      | 1       | 25        | 23.00                 | 22.94                 | 22.98                 |                              | 1        |
|                                      | 1       | 49        | 23.00                 | 23.00                 | 22.99                 |                              | 1        |
|                                      | 25      | 0         | 21.93                 | 21.61                 | 21.74                 | 0-2                          | 2        |
|                                      | 25      | 12        | 21.74                 | 21.61                 | 21.74                 |                              | 2        |
|                                      | 25      | 25        | 21.75                 | 21.64                 | 21.73                 |                              | 2        |
|                                      | 50      | 0         | 21.73                 | 21.66                 | 21.79                 |                              | 2        |

**Table 8-38**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 4 (AWS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 19975<br>(1712.5 MHz) | 20175<br>(1732.5 MHz) | 20375<br>(1752.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 23.91                 | 23.78                 | 23.68                 | 0                            | 0        |
|                                     | 1       | 12        | 23.93                 | 23.68                 | 23.66                 |                              | 0        |
|                                     | 1       | 24        | 23.98                 | 23.60                 | 23.69                 |                              | 0        |
|                                     | 12      | 0         | 22.68                 | 22.64                 | 22.73                 | 0-1                          | 1        |
|                                     | 12      | 7         | 22.70                 | 22.69                 | 22.72                 |                              | 1        |
|                                     | 12      | 13        | 22.69                 | 22.69                 | 22.73                 |                              | 1        |
|                                     | 25      | 0         | 22.67                 | 22.66                 | 22.88                 |                              | 1        |
| 16QAM                               | 1       | 0         | 23.00                 | 23.00                 | 23.00                 | 0-1                          | 1        |
|                                     | 1       | 12        | 23.00                 | 22.99                 | 22.98                 |                              | 1        |
|                                     | 1       | 24        | 22.78                 | 23.00                 | 23.00                 |                              | 1        |
|                                     | 12      | 0         | 21.75                 | 21.85                 | 21.71                 | 0-2                          | 2        |
|                                     | 12      | 7         | 21.77                 | 21.69                 | 21.71                 |                              | 2        |
|                                     | 12      | 13        | 21.76                 | 21.73                 | 21.76                 |                              | 2        |
|                                     | 25      | 0         | 21.76                 | 21.62                 | 21.71                 |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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**Table 8-39**  
**LTE Band 4 (AWS) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 4 (AWS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 19965<br>(1711.5 MHz) | 20175<br>(1732.5 MHz) | 20385<br>(1753.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 23.60                 | 23.76                 | 23.60                 | 0                            | 0        |
|                                     | 1       | 8         | 23.76                 | 23.61                 | 23.84                 |                              | 0        |
|                                     | 1       | 14        | 23.64                 | 23.64                 | 23.64                 |                              | 0        |
|                                     | 8       | 0         | 22.94                 | 22.60                 | 22.94                 | 0-1                          | 1        |
|                                     | 8       | 4         | 22.60                 | 22.61                 | 22.75                 |                              | 1        |
|                                     | 8       | 7         | 22.61                 | 22.64                 | 22.73                 |                              | 1        |
|                                     | 15      | 0         | 22.69                 | 22.60                 | 22.69                 |                              | 1        |
| 16QAM                               | 1       | 0         | 22.69                 | 22.89                 | 22.68                 | 0-1                          | 1        |
|                                     | 1       | 8         | 22.87                 | 22.87                 | 22.88                 |                              | 1        |
|                                     | 1       | 14        | 22.70                 | 22.96                 | 22.70                 |                              | 1        |
|                                     | 8       | 0         | 21.74                 | 21.69                 | 21.74                 | 0-2                          | 2        |
|                                     | 8       | 4         | 21.82                 | 21.69                 | 21.82                 |                              | 2        |
|                                     | 8       | 7         | 21.71                 | 21.73                 | 21.71                 |                              | 2        |
|                                     | 15      | 0         | 21.74                 | 21.74                 | 21.73                 |                              | 2        |

**Table 8-40**  
**LTE Band 4 (AWS) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 4 (AWS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 19957<br>(1710.7 MHz) | 20175<br>(1732.5 MHz) | 20393<br>(1754.3 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 23.81                 | 23.87                 | 23.94                 | 0                            | 0        |
|                                       | 1       | 3         | 23.69                 | 23.78                 | 24.00                 |                              | 0        |
|                                       | 1       | 5         | 23.68                 | 23.75                 | 23.90                 |                              | 0        |
|                                       | 3       | 0         | 23.67                 | 23.69                 | 23.77                 |                              | 0        |
|                                       | 3       | 1         | 23.70                 | 23.75                 | 23.78                 |                              | 0        |
|                                       | 3       | 3         | 23.71                 | 23.67                 | 23.74                 |                              | 0        |
|                                       | 6       | 0         | 22.69                 | 22.67                 | 22.81                 | 0-1                          | 1        |
| 16QAM                                 | 1       | 0         | 22.98                 | 23.00                 | 23.00                 | 0-1                          | 1        |
|                                       | 1       | 3         | 22.94                 | 22.90                 | 22.96                 |                              | 1        |
|                                       | 1       | 5         | 22.93                 | 22.93                 | 22.88                 |                              | 1        |
|                                       | 3       | 0         | 22.74                 | 22.83                 | 22.91                 |                              | 1        |
|                                       | 3       | 1         | 22.78                 | 22.90                 | 22.92                 |                              | 1        |
|                                       | 3       | 3         | 22.77                 | 22.87                 | 22.93                 |                              | 1        |
|                                       | 6       | 0         | 21.85                 | 21.65                 | 21.71                 | 0-2                          | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
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**Table 8-41**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 4 (AWS)<br>20 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20175<br>(1732.5 MHz)    |                              |          |
|                                      |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                                 | 1       | 0         | 14.00                    | 0                            | 0        |
|                                      | 1       | 50        | 13.97                    |                              | 0        |
|                                      | 1       | 99        | 14.00                    |                              | 0        |
|                                      | 50      | 0         | 13.98                    | 0-1                          | 0        |
|                                      | 50      | 25        | 13.99                    |                              | 0        |
|                                      | 50      | 50        | 14.00                    |                              | 0        |
|                                      | 100     | 0         | 13.99                    |                              | 0        |
| 16QAM                                | 1       | 0         | 13.96                    | 0-1                          | 0        |
|                                      | 1       | 50        | 13.92                    |                              | 0        |
|                                      | 1       | 99        | 13.97                    |                              | 0        |
|                                      | 50      | 0         | 14.00                    | 0-2                          | 0        |
|                                      | 50      | 25        | 13.96                    |                              | 0        |
|                                      | 50      | 50        | 14.00                    |                              | 0        |
|                                      | 100     | 0         | 13.93                    |                              | 0        |

Note: LTE Band 4 (AWS) at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

**Table 8-42**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 4 (AWS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20025<br>(1717.5 MHz) | 20175<br>(1732.5 MHz) | 20325<br>(1747.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 13.91                 | 13.93                 | 13.97                 | 0                            | 0        |
|                                      | 1       | 36        | 13.91                 | 13.97                 | 13.97                 |                              | 0        |
|                                      | 1       | 74        | 13.95                 | 13.95                 | 13.96                 |                              | 0        |
|                                      | 36      | 0         | 13.96                 | 13.98                 | 13.98                 | 0-1                          | 1        |
|                                      | 36      | 18        | 13.91                 | 13.97                 | 13.91                 |                              | 1        |
|                                      | 36      | 37        | 13.96                 | 13.90                 | 13.97                 |                              | 1        |
|                                      | 75      | 0         | 13.98                 | 13.91                 | 13.94                 |                              | 1        |
| 16QAM                                | 1       | 0         | 13.90                 | 13.97                 | 13.98                 | 0-1                          | 1        |
|                                      | 1       | 36        | 13.95                 | 13.98                 | 13.93                 |                              | 1        |
|                                      | 1       | 74        | 13.92                 | 13.94                 | 13.94                 |                              | 1        |
|                                      | 36      | 0         | 13.94                 | 13.91                 | 13.93                 | 0-2                          | 2        |
|                                      | 36      | 18        | 13.98                 | 13.95                 | 13.91                 |                              | 2        |
|                                      | 36      | 37        | 13.95                 | 13.94                 | 13.97                 |                              | 2        |
|                                      | 75      | 0         | 13.92                 | 13.92                 | 13.93                 |                              | 2        |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   |  | Page 45 of 114                  |

**Table 8-43**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 4 (AWS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 20000<br>(1715.0 MHz) | 20175<br>(1732.5 MHz) | 20350<br>(1750.0 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 13.94                 | 13.95                 | 13.98                 | 0                            | 0        |
|                                      | 1       | 25        | 13.92                 | 13.95                 | 13.93                 |                              | 0        |
|                                      | 1       | 49        | 13.97                 | 13.92                 | 13.92                 |                              | 0        |
|                                      | 25      | 0         | 13.95                 | 13.96                 | 13.93                 | 0-1                          | 1        |
|                                      | 25      | 12        | 13.96                 | 13.91                 | 13.95                 |                              | 1        |
|                                      | 25      | 25        | 13.98                 | 13.96                 | 13.98                 |                              | 1        |
|                                      | 50      | 0         | 13.97                 | 13.98                 | 13.96                 |                              | 1        |
| 16QAM                                | 1       | 0         | 13.91                 | 13.97                 | 13.98                 | 0-1                          | 1        |
|                                      | 1       | 25        | 13.94                 | 13.94                 | 13.93                 |                              | 1        |
|                                      | 1       | 49        | 13.96                 | 13.92                 | 13.91                 |                              | 1        |
|                                      | 25      | 0         | 13.95                 | 13.98                 | 13.96                 | 0-2                          | 2        |
|                                      | 25      | 12        | 13.93                 | 13.93                 | 13.91                 |                              | 2        |
|                                      | 25      | 25        | 13.92                 | 13.92                 | 13.91                 |                              | 2        |
|                                      | 50      | 0         | 13.91                 | 13.93                 | 13.92                 |                              | 2        |

**Table 8-44**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 4 (AWS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 19975<br>(1712.5 MHz) | 20175<br>(1732.5 MHz) | 20375<br>(1752.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 13.95                 | 13.92                 | 13.97                 | 0                            | 0        |
|                                     | 1       | 12        | 13.96                 | 13.95                 | 13.95                 |                              | 0        |
|                                     | 1       | 24        | 13.92                 | 13.97                 | 13.96                 |                              | 0        |
|                                     | 12      | 0         | 13.96                 | 13.90                 | 13.98                 | 0-1                          | 1        |
|                                     | 12      | 6         | 13.97                 | 13.97                 | 13.95                 |                              | 1        |
|                                     | 12      | 13        | 13.91                 | 13.92                 | 13.96                 |                              | 1        |
|                                     | 25      | 0         | 13.95                 | 13.97                 | 13.95                 |                              | 1        |
| 16QAM                               | 1       | 0         | 13.95                 | 13.93                 | 13.93                 | 0-1                          | 1        |
|                                     | 1       | 12        | 13.96                 | 13.92                 | 13.97                 |                              | 1        |
|                                     | 1       | 24        | 13.97                 | 13.94                 | 13.92                 |                              | 1        |
|                                     | 12      | 0         | 13.93                 | 13.91                 | 13.93                 | 0-2                          | 2        |
|                                     | 12      | 6         | 13.98                 | 13.92                 | 13.96                 |                              | 2        |
|                                     | 12      | 13        | 13.95                 | 13.96                 | 13.95                 |                              | 2        |
|                                     | 25      | 0         | 13.94                 | 13.95                 | 13.91                 |                              | 2        |

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
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**Table 8-45**  
**LTE Band 4 (AWS) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 4 (AWS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                          | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                     |         |           | 19965<br>(1711.5 MHz) | 20175<br>(1732.5 MHz) | 20385<br>(1753.5 MHz) |                              |          |
|                                     |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                | 1       | 0         | 13.94                 | 13.92                 | 13.92                 | 0                            | 0        |
|                                     | 1       | 7         | 13.98                 | 13.96                 | 13.95                 |                              | 0        |
|                                     | 1       | 14        | 13.92                 | 13.92                 | 13.91                 |                              | 0        |
|                                     | 8       | 0         | 13.93                 | 13.94                 | 13.93                 | 0-1                          | 1        |
|                                     | 8       | 4         | 13.92                 | 13.96                 | 13.94                 |                              | 1        |
|                                     | 8       | 7         | 13.93                 | 13.95                 | 13.97                 |                              | 1        |
|                                     | 15      | 0         | 13.96                 | 13.93                 | 13.93                 |                              | 1        |
| 16QAM                               | 1       | 0         | 13.94                 | 13.93                 | 13.95                 | 0-1                          | 1        |
|                                     | 1       | 7         | 13.98                 | 13.98                 | 13.97                 |                              | 1        |
|                                     | 1       | 14        | 13.96                 | 13.92                 | 13.94                 |                              | 1        |
|                                     | 8       | 0         | 13.90                 | 13.91                 | 13.91                 | 0-2                          | 2        |
|                                     | 8       | 4         | 13.92                 | 13.94                 | 13.96                 |                              | 2        |
|                                     | 8       | 7         | 13.93                 | 13.91                 | 13.91                 |                              | 2        |
|                                     | 15      | 0         | 13.97                 | 13.98                 | 13.99                 |                              | 2        |

**Table 8-46**  
**LTE Band 4 (AWS) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 4 (AWS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 19957<br>(1710.7 MHz) | 20175<br>(1732.5 MHz) | 20393<br>(1754.3 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 13.95                 | 13.97                 | 13.95                 | 0                            | 0        |
|                                       | 1       | 2         | 13.92                 | 13.95                 | 13.96                 |                              | 0        |
|                                       | 1       | 5         | 13.91                 | 13.92                 | 13.97                 |                              | 0        |
|                                       | 3       | 0         | 13.92                 | 13.92                 | 13.92                 |                              | 0        |
|                                       | 3       | 2         | 13.94                 | 13.97                 | 13.96                 |                              | 0        |
|                                       | 3       | 3         | 13.98                 | 13.91                 | 13.93                 |                              | 0        |
|                                       | 6       | 0         | 13.98                 | 13.94                 | 13.91                 | 0-1                          | 1        |
| 16QAM                                 | 1       | 0         | 13.62                 | 13.93                 | 13.92                 | 0-1                          | 1        |
|                                       | 1       | 2         | 13.91                 | 13.95                 | 13.95                 |                              | 1        |
|                                       | 1       | 5         | 13.94                 | 13.92                 | 13.98                 |                              | 1        |
|                                       | 3       | 0         | 13.98                 | 13.91                 | 13.92                 |                              | 1        |
|                                       | 3       | 2         | 13.97                 | 13.98                 | 13.98                 |                              | 1        |
|                                       | 3       | 3         | 13.94                 | 13.92                 | 13.92                 |                              | 1        |
|                                       | 6       | 0         | 13.95                 | 13.96                 | 13.91                 | 0-2                          | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 47 of 114                  |

## 8.4.6

## LTE Band 25 (PCS)

**Table 8-47**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 25 (PCS)<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26140<br>(1860.0 MHz) | 26365<br>(1882.5 MHz) | 26590<br>(1905.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 24.40                 | 24.47                 | 24.44                 | 0                            | 0        |
|                                       | 1       | 50        | 24.25                 | 24.17                 | 24.36                 |                              | 0        |
|                                       | 1       | 99        | 24.51                 | 24.73                 | 24.59                 |                              | 0        |
|                                       | 50      | 0         | 23.94                 | 23.98                 | 23.99                 | 0-1                          | 1        |
|                                       | 50      | 25        | 23.86                 | 23.94                 | 23.97                 |                              | 1        |
|                                       | 50      | 50        | 23.99                 | 23.97                 | 23.92                 |                              | 1        |
|                                       | 100     | 0         | 23.93                 | 24.00                 | 23.99                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 24.00                 | 23.96                 | 23.90                 | 0-1                          | 1        |
|                                       | 1       | 50        | 23.84                 | 23.99                 | 23.89                 |                              | 1        |
|                                       | 1       | 99        | 23.93                 | 24.00                 | 23.86                 |                              | 1        |
|                                       | 50      | 0         | 22.88                 | 22.98                 | 22.97                 | 0-2                          | 2        |
|                                       | 50      | 25        | 22.91                 | 22.90                 | 22.87                 |                              | 2        |
|                                       | 50      | 50        | 22.86                 | 23.00                 | 22.90                 |                              | 2        |
|                                       | 100     | 0         | 22.99                 | 22.94                 | 23.00                 |                              | 2        |

**Table 8-48**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 25 (PCS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26115<br>(1857.5 MHz) | 26365<br>(1882.5 MHz) | 26615<br>(1907.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 24.23                 | 24.20                 | 24.12                 | 0                            | 0        |
|                                       | 1       | 36        | 24.20                 | 24.20                 | 24.02                 |                              | 0        |
|                                       | 1       | 74        | 24.25                 | 24.31                 | 24.14                 |                              | 0        |
|                                       | 36      | 0         | 23.93                 | 23.90                 | 23.96                 | 0-1                          | 1        |
|                                       | 36      | 18        | 23.95                 | 23.87                 | 23.94                 |                              | 1        |
|                                       | 36      | 37        | 23.89                 | 23.85                 | 23.91                 |                              | 1        |
|                                       | 75      | 0         | 23.98                 | 23.91                 | 23.93                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.99                 | 23.92                 | 24.00                 | 0-1                          | 1        |
|                                       | 1       | 36        | 24.00                 | 23.79                 | 23.99                 |                              | 1        |
|                                       | 1       | 74        | 23.94                 | 24.00                 | 23.96                 |                              | 1        |
|                                       | 36      | 0         | 22.91                 | 22.95                 | 22.99                 | 0-2                          | 2        |
|                                       | 36      | 18        | 22.92                 | 22.99                 | 22.97                 |                              | 2        |
|                                       | 36      | 37        | 22.88                 | 22.97                 | 22.91                 |                              | 2        |
|                                       | 75      | 0         | 22.95                 | 22.92                 | 22.90                 |                              | 2        |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 48 of 114                  |

**Table 8-49**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 25 (PCS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26090<br>(1855.0 MHz) | 26365<br>(1882.5 MHz) | 26640<br>(1910.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 24.26                 | 24.10                 | 24.17                 | 0                            | 0        |
|                                       | 1       | 25        | 24.15                 | 24.20                 | 24.09                 |                              | 0        |
|                                       | 1       | 49        | 24.11                 | 24.03                 | 24.01                 |                              | 0        |
|                                       | 25      | 0         | 23.99                 | 24.00                 | 23.94                 | 0-1                          | 1        |
|                                       | 25      | 12        | 23.97                 | 24.00                 | 23.91                 |                              | 1        |
|                                       | 25      | 25        | 23.97                 | 23.96                 | 23.94                 |                              | 1        |
|                                       | 50      | 0         | 23.97                 | 23.99                 | 23.97                 |                              | 1        |
| 16QAM                                 | 1       | 0         | 23.99                 | 24.00                 | 23.98                 | 0-1                          | 1        |
|                                       | 1       | 25        | 23.93                 | 23.92                 | 23.88                 |                              | 1        |
|                                       | 1       | 49        | 23.91                 | 23.87                 | 23.96                 |                              | 1        |
|                                       | 25      | 0         | 22.97                 | 22.91                 | 22.94                 | 0-2                          | 2        |
|                                       | 25      | 12        | 23.00                 | 22.96                 | 22.92                 |                              | 2        |
|                                       | 25      | 25        | 23.00                 | 22.97                 | 22.90                 |                              | 2        |
|                                       | 50      | 0         | 22.98                 | 22.94                 | 22.95                 |                              | 2        |

**Table 8-50**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 25 (PCS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26065<br>(1852.5 MHz) | 26365<br>(1882.5 MHz) | 26665<br>(1912.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 24.20                 | 24.16                 | 24.05                 | 0                            | 0        |
|                                      | 1       | 12        | 24.30                 | 24.25                 | 24.11                 |                              | 0        |
|                                      | 1       | 24        | 24.28                 | 24.26                 | 24.02                 |                              | 0        |
|                                      | 12      | 0         | 23.92                 | 23.88                 | 23.89                 | 0-1                          | 1        |
|                                      | 12      | 6         | 23.95                 | 23.97                 | 23.93                 |                              | 1        |
|                                      | 12      | 13        | 23.91                 | 23.89                 | 23.91                 |                              | 1        |
|                                      | 25      | 0         | 23.97                 | 23.95                 | 23.94                 |                              | 1        |
| 16QAM                                | 1       | 0         | 24.00                 | 23.96                 | 23.90                 | 0-1                          | 1        |
|                                      | 1       | 12        | 23.97                 | 23.99                 | 23.91                 |                              | 1        |
|                                      | 1       | 24        | 23.94                 | 23.92                 | 23.87                 |                              | 1        |
|                                      | 12      | 0         | 22.91                 | 22.95                 | 22.93                 | 0-2                          | 2        |
|                                      | 12      | 6         | 22.91                 | 22.94                 | 23.00                 |                              | 2        |
|                                      | 12      | 13        | 22.92                 | 22.99                 | 22.94                 |                              | 2        |
|                                      | 25      | 0         | 22.99                 | 22.92                 | 22.94                 |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 49 of 114                  |

**Table 8-51**  
**LTE Band 25 (PCS) Maximum Conducted Powers - 3 MHz Bandwidth**

| LTE Band 25 (PCS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26055<br>(1851.5 MHz) | 26365<br>(1882.5 MHz) | 26675<br>(1913.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 24.00                 | 24.01                 | 24.19                 | 0                            | 0        |
|                                      | 1       | 7         | 24.25                 | 24.03                 | 24.04                 |                              | 0        |
|                                      | 1       | 14        | 24.03                 | 24.00                 | 24.10                 |                              | 0        |
|                                      | 8       | 0         | 23.92                 | 23.95                 | 23.87                 | 0-1                          | 1        |
|                                      | 8       | 4         | 23.97                 | 23.99                 | 23.94                 |                              | 1        |
|                                      | 8       | 7         | 23.93                 | 23.91                 | 23.90                 |                              | 1        |
|                                      | 15      | 0         | 23.92                 | 23.91                 | 23.90                 |                              | 1        |
| 16QAM                                | 1       | 0         | 23.97                 | 23.87                 | 23.72                 | 0-1                          | 1        |
|                                      | 1       | 7         | 24.00                 | 23.98                 | 23.83                 |                              | 1        |
|                                      | 1       | 14        | 23.99                 | 23.92                 | 23.74                 |                              | 1        |
|                                      | 8       | 0         | 22.86                 | 22.96                 | 22.95                 | 0-2                          | 2        |
|                                      | 8       | 4         | 22.97                 | 22.90                 | 22.81                 |                              | 2        |
|                                      | 8       | 7         | 22.91                 | 22.95                 | 22.98                 |                              | 2        |
|                                      | 15      | 0         | 22.86                 | 22.87                 | 22.97                 |                              | 2        |

**Table 8-52**  
**LTE Band 25 (PCS) Maximum Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 25 (PCS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|----------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26047<br>(1850.7 MHz) | 26365<br>(1882.5 MHz) | 26683<br>(1914.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                   | 1       | 0         | 24.24                 | 24.22                 | 24.12                 | 0                            | 0        |
|                                        | 1       | 2         | 24.24                 | 24.26                 | 24.18                 |                              | 0        |
|                                        | 1       | 5         | 24.21                 | 24.18                 | 24.11                 |                              | 0        |
|                                        | 3       | 0         | 24.89                 | 24.94                 | 24.79                 |                              | 0        |
|                                        | 3       | 2         | 24.95                 | 24.93                 | 24.73                 |                              | 0        |
|                                        | 3       | 3         | 24.90                 | 24.90                 | 24.64                 |                              | 0        |
|                                        | 6       | 0         | 23.87                 | 23.92                 | 23.90                 | 0-1                          | 1        |
| 16QAM                                  | 1       | 0         | 23.89                 | 23.99                 | 23.94                 | 0-1                          | 1        |
|                                        | 1       | 2         | 23.99                 | 23.98                 | 23.97                 |                              | 1        |
|                                        | 1       | 5         | 23.92                 | 23.99                 | 23.96                 |                              | 1        |
|                                        | 3       | 0         | 23.91                 | 23.97                 | 23.79                 |                              | 1        |
|                                        | 3       | 2         | 23.92                 | 23.97                 | 23.77                 |                              | 1        |
|                                        | 3       | 3         | 23.93                 | 23.91                 | 23.68                 |                              | 1        |
|                                        | 6       | 0         | 23.00                 | 22.78                 | 22.87                 | 0-2                          | 2        |

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 50 of 114                  |

**Table 8-53**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 25 (PCS)<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26140<br>(1860.0 MHz) | 26365<br>(1882.5 MHz) | 26590<br>(1905.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 12.94                 | 13.00                 | 12.93                 | 0                            | 0        |
|                                       | 1       | 50        | 12.93                 | 12.96                 | 12.97                 |                              | 0        |
|                                       | 1       | 99        | 12.98                 | 12.99                 | 12.99                 |                              | 0        |
|                                       | 50      | 0         | 12.98                 | 12.97                 | 12.90                 | 0-1                          | 0        |
|                                       | 50      | 25        | 12.92                 | 12.92                 | 12.90                 |                              | 0        |
|                                       | 50      | 50        | 13.00                 | 13.00                 | 12.96                 |                              | 0        |
|                                       | 100     | 0         | 12.98                 | 12.99                 | 12.95                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 12.98                 | 12.96                 | 12.97                 | 0-1                          | 0        |
|                                       | 1       | 50        | 13.00                 | 12.95                 | 12.96                 |                              | 0        |
|                                       | 1       | 99        | 12.97                 | 13.00                 | 12.91                 |                              | 0        |
|                                       | 50      | 0         | 12.93                 | 12.98                 | 13.00                 | 0-2                          | 0        |
|                                       | 50      | 25        | 12.92                 | 12.97                 | 12.90                 |                              | 0        |
|                                       | 50      | 50        | 12.97                 | 13.00                 | 12.97                 |                              | 0        |
|                                       | 100     | 0         | 13.00                 | 12.99                 | 12.97                 |                              | 0        |

**Table 8-54**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 25 (PCS)<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26115<br>(1857.5 MHz) | 26365<br>(1882.5 MHz) | 26615<br>(1907.5 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 12.98                 | 12.93                 | 12.95                 | 0                            | 0        |
|                                       | 1       | 36        | 12.93                 | 12.99                 | 12.93                 |                              | 0        |
|                                       | 1       | 74        | 13.00                 | 12.98                 | 12.91                 |                              | 0        |
|                                       | 36      | 0         | 12.91                 | 12.90                 | 12.97                 | 0-1                          | 0        |
|                                       | 36      | 18        | 12.90                 | 12.96                 | 12.92                 |                              | 0        |
|                                       | 36      | 37        | 12.92                 | 12.95                 | 12.95                 |                              | 0        |
|                                       | 75      | 0         | 12.99                 | 12.92                 | 12.97                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 13.00                 | 12.91                 | 12.97                 | 0-1                          | 0        |
|                                       | 1       | 36        | 12.99                 | 12.92                 | 12.98                 |                              | 0        |
|                                       | 1       | 74        | 12.93                 | 12.99                 | 12.94                 |                              | 0        |
|                                       | 36      | 0         | 12.90                 | 12.91                 | 12.93                 | 0-2                          | 0        |
|                                       | 36      | 18        | 12.98                 | 12.93                 | 12.92                 |                              | 0        |
|                                       | 36      | 37        | 12.95                 | 12.93                 | 12.91                 |                              | 0        |
|                                       | 75      | 0         | 12.98                 | 12.94                 | 12.98                 |                              | 0        |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   |  | Page 51 of 114                  |

**Table 8-55**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 25 (PCS)<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|---------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                            | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                       |         |           | 26090<br>(1855.0 MHz) | 26365<br>(1882.5 MHz) | 26640<br>(1910.0 MHz) |                              |          |
|                                       |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                  | 1       | 0         | 12.96                 | 12.97                 | 12.99                 | 0                            | 0        |
|                                       | 1       | 25        | 12.92                 | 12.97                 | 12.97                 |                              | 0        |
|                                       | 1       | 49        | 12.93                 | 12.92                 | 12.98                 |                              | 0        |
|                                       | 25      | 0         | 12.97                 | 13.00                 | 13.00                 | 0-1                          | 0        |
|                                       | 25      | 12        | 12.94                 | 12.91                 | 13.00                 |                              | 0        |
|                                       | 25      | 25        | 12.95                 | 12.90                 | 12.97                 |                              | 0        |
|                                       | 50      | 0         | 12.94                 | 12.93                 | 12.99                 |                              | 0        |
| 16QAM                                 | 1       | 0         | 12.95                 | 12.95                 | 12.98                 | 0-1                          | 0        |
|                                       | 1       | 25        | 12.97                 | 12.98                 | 12.91                 |                              | 0        |
|                                       | 1       | 49        | 12.93                 | 12.99                 | 12.92                 |                              | 0        |
|                                       | 25      | 0         | 12.92                 | 12.91                 | 12.98                 | 0-2                          | 0        |
|                                       | 25      | 12        | 12.90                 | 12.95                 | 13.00                 |                              | 0        |
|                                       | 25      | 25        | 12.92                 | 12.94                 | 12.95                 |                              | 0        |
|                                       | 50      | 0         | 12.92                 | 12.91                 | 12.90                 |                              | 0        |

**Table 8-56**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 25 (PCS)<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26065<br>(1852.5 MHz) | 26365<br>(1882.5 MHz) | 26665<br>(1912.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 12.99                 | 12.95                 | 12.96                 | 0                            | 0        |
|                                      | 1       | 12        | 12.93                 | 12.91                 | 12.95                 |                              | 0        |
|                                      | 1       | 24        | 12.91                 | 12.93                 | 12.93                 |                              | 0        |
|                                      | 12      | 0         | 12.96                 | 12.91                 | 12.95                 | 0-1                          | 0        |
|                                      | 12      | 6         | 12.95                 | 12.98                 | 12.97                 |                              | 0        |
|                                      | 12      | 13        | 12.94                 | 12.94                 | 12.91                 |                              | 0        |
|                                      | 25      | 0         | 12.92                 | 12.95                 | 12.93                 |                              | 0        |
| 16QAM                                | 1       | 0         | 12.95                 | 12.93                 | 12.92                 | 0-1                          | 0        |
|                                      | 1       | 12        | 12.98                 | 12.90                 | 12.94                 |                              | 0        |
|                                      | 1       | 24        | 12.92                 | 12.99                 | 12.90                 |                              | 0        |
|                                      | 12      | 0         | 12.97                 | 12.91                 | 12.94                 | 0-2                          | 0        |
|                                      | 12      | 6         | 12.91                 | 12.99                 | 12.97                 |                              | 0        |
|                                      | 12      | 13        | 12.97                 | 12.96                 | 12.93                 |                              | 0        |
|                                      | 25      | 0         | 12.91                 | 12.95                 | 12.97                 |                              | 0        |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   |  | Page 52 of 114                  |

**Table 8-57**  
**LTE Band 25 (PCS) Reduced Conducted Powers - 3 MHz Bandwidth**

| LTE Band 25 (PCS)<br>3 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                           | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                      |         |           | 26055<br>(1851.5 MHz) | 26365<br>(1882.5 MHz) | 26675<br>(1913.5 MHz) |                              |          |
|                                      |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                 | 1       | 0         | 12.96                 | 12.96                 | 12.97                 | 0                            | 0        |
|                                      | 1       | 7         | 12.91                 | 12.99                 | 12.95                 |                              | 0        |
|                                      | 1       | 14        | 12.91                 | 12.92                 | 12.93                 |                              | 0        |
|                                      | 8       | 0         | 12.95                 | 12.97                 | 12.97                 | 0-1                          | 0        |
|                                      | 8       | 4         | 12.99                 | 13.00                 | 13.00                 |                              | 0        |
|                                      | 8       | 7         | 12.98                 | 12.96                 | 12.99                 |                              | 0        |
|                                      | 15      | 0         | 12.98                 | 12.94                 | 12.94                 |                              | 0        |
| 16QAM                                | 1       | 0         | 12.94                 | 12.99                 | 12.93                 | 0-1                          | 0        |
|                                      | 1       | 7         | 13.00                 | 12.98                 | 12.91                 |                              | 0        |
|                                      | 1       | 14        | 12.92                 | 12.93                 | 12.91                 |                              | 0        |
|                                      | 8       | 0         | 12.94                 | 12.91                 | 12.93                 | 0-2                          | 0        |
|                                      | 8       | 4         | 12.96                 | 12.96                 | 12.94                 |                              | 0        |
|                                      | 8       | 7         | 12.95                 | 12.95                 | 12.95                 |                              | 0        |
|                                      | 15      | 0         | 12.90                 | 12.98                 | 12.91                 |                              | 0        |

**Table 8-58**  
**LTE Band 25 (PCS) Reduced Conducted Powers -1.4 MHz Bandwidth**

| LTE Band 25 (PCS)<br>1.4 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|----------------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                             | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                        |         |           | 26047<br>(1850.7 MHz) | 26365<br>(1882.5 MHz) | 26683<br>(1914.3 MHz) |                              |          |
|                                        |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                                   | 1       | 0         | 12.94                 | 12.98                 | 12.95                 | 0                            | 0        |
|                                        | 1       | 2         | 12.98                 | 12.92                 | 12.92                 |                              | 0        |
|                                        | 1       | 5         | 12.97                 | 12.90                 | 12.91                 |                              | 0        |
|                                        | 3       | 0         | 12.91                 | 12.92                 | 12.94                 |                              | 0        |
|                                        | 3       | 2         | 12.94                 | 12.96                 | 12.99                 |                              | 0        |
|                                        | 3       | 3         | 12.90                 | 12.98                 | 12.96                 |                              | 0        |
|                                        | 6       | 0         | 12.93                 | 12.98                 | 12.90                 | 0-1                          | 0        |
| 16QAM                                  | 1       | 0         | 12.92                 | 12.93                 | 12.97                 | 0-1                          | 0        |
|                                        | 1       | 2         | 12.98                 | 12.91                 | 12.97                 |                              | 0        |
|                                        | 1       | 5         | 12.99                 | 12.96                 | 12.91                 |                              | 0        |
|                                        | 3       | 0         | 12.93                 | 12.90                 | 12.90                 |                              | 0        |
|                                        | 3       | 2         | 12.96                 | 12.95                 | 12.92                 |                              | 0        |
|                                        | 3       | 3         | 12.92                 | 12.91                 | 12.96                 |                              | 0        |
|                                        | 6       | 0         | 12.98                 | 12.92                 | 12.93                 | 0-2                          | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 53 of 114                  |

## 8.4.7

## LTE Band 30

**Table 8-59**  
**LTE Band 30 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 30<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 27710<br>(2310.0 MHz)    |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 22.30                    | 0                            | 0        |
|                                 | 1       | 25        | 22.24                    |                              | 0        |
|                                 | 1       | 49        | 22.29                    |                              | 0        |
|                                 | 25      | 0         | 21.14                    | 0-1                          | 1        |
|                                 | 25      | 12        | 21.11                    |                              | 1        |
|                                 | 25      | 25        | 21.09                    |                              | 1        |
|                                 | 50      | 0         | 21.21                    |                              | 1        |
| 16QAM                           | 1       | 0         | 21.26                    | 0-1                          | 1        |
|                                 | 1       | 25        | 21.21                    |                              | 1        |
|                                 | 1       | 49        | 21.10                    |                              | 1        |
|                                 | 25      | 0         | 20.17                    | 0-2                          | 2        |
|                                 | 25      | 12        | 20.09                    |                              | 2        |
|                                 | 25      | 25        | 20.07                    |                              | 2        |
|                                 | 50      | 0         | 20.02                    |                              | 2        |

**Table 8-60**  
**LTE Band 30 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 30<br>5 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 27710<br>(2310.0 MHz)    |                              |          |
|                                |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                           | 1       | 0         | 21.86                    | 0                            | 0        |
|                                | 1       | 12        | 22.21                    |                              | 0        |
|                                | 1       | 24        | 22.13                    |                              | 0        |
|                                | 12      | 0         | 20.90                    | 0-1                          | 1        |
|                                | 12      | 6         | 20.91                    |                              | 1        |
|                                | 12      | 13        | 20.95                    |                              | 1        |
|                                | 25      | 0         | 20.90                    |                              | 1        |
| 16QAM                          | 1       | 0         | 21.20                    | 0-1                          | 1        |
|                                | 1       | 12        | 21.26                    |                              | 1        |
|                                | 1       | 24        | 21.29                    |                              | 1        |
|                                | 12      | 0         | 20.07                    | 0-2                          | 2        |
|                                | 12      | 6         | 20.09                    |                              | 2        |
|                                | 12      | 13        | 20.05                    |                              | 2        |
|                                | 25      | 0         | 19.91                    |                              | 2        |

Note: LTE Band 30 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 54 of 114                  |

**Table 8-61**  
**LTE Band 30 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 30<br>10 MHz Bandwidth |         |           |                          |                              |          |
|---------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 27710<br>(2310.0 MHz)    |                              |          |
|                                 |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                            | 1       | 0         | 14.41                    | 0                            | 0        |
|                                 | 1       | 25        | 14.43                    |                              | 0        |
|                                 | 1       | 49        | 14.49                    |                              | 0        |
|                                 | 25      | 0         | 14.48                    | 0-1                          | 0        |
|                                 | 25      | 12        | 14.42                    |                              | 0        |
|                                 | 25      | 25        | 14.42                    |                              | 0        |
|                                 | 50      | 0         | 14.44                    |                              | 0        |
| 16QAM                           | 1       | 0         | 14.42                    | 0-1                          | 0        |
|                                 | 1       | 25        | 14.43                    |                              | 0        |
|                                 | 1       | 49        | 14.45                    |                              | 0        |
|                                 | 25      | 0         | 14.40                    | 0-2                          | 0        |
|                                 | 25      | 12        | 14.42                    |                              | 0        |
|                                 | 25      | 25        | 14.45                    |                              | 0        |
|                                 | 50      | 0         | 14.46                    |                              | 0        |

**Table 8-62**  
**LTE Band 30 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 30<br>5 MHz Bandwidth |         |           |                          |                              |          |
|--------------------------------|---------|-----------|--------------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Mid Channel              | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 27710<br>(2310.0 MHz)    |                              |          |
|                                |         |           | Conducted Power<br>[dBm] |                              |          |
| QPSK                           | 1       | 0         | 14.49                    | 0                            | 0        |
|                                | 1       | 12        | 14.44                    |                              | 0        |
|                                | 1       | 24        | 14.42                    |                              | 0        |
|                                | 12      | 0         | 14.43                    | 0-1                          | 0        |
|                                | 12      | 6         | 14.47                    |                              | 0        |
|                                | 12      | 13        | 14.43                    |                              | 0        |
|                                | 25      | 0         | 14.46                    |                              | 0        |
| 16QAM                          | 1       | 0         | 14.47                    | 0-1                          | 0        |
|                                | 1       | 12        | 14.42                    |                              | 0        |
|                                | 1       | 24        | 14.48                    |                              | 0        |
|                                | 12      | 0         | 14.42                    | 0-2                          | 0        |
|                                | 12      | 6         | 14.44                    |                              | 0        |
|                                | 12      | 13        | 14.47                    |                              | 0        |
|                                | 25      | 0         | 14.46                    |                              | 0        |

Note: LTE Band 30 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

|                                                |                                                                                                                                   |                                   |  |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>      |  | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                                         | <b>DUT Type:</b><br>Tablet Device |  | Page 55 of 114                         |

## 8.4.8

## LTE Band 7

**Table 8-63**  
**LTE Band 7 Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 7<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20850<br>(2510.0 MHz) | 21100<br>(2535.0 MHz) | 21350<br>(2560.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 23.04                 | 23.15                 | 23.02                 | 0                            | 0        |
|                                | 1       | 50        | 23.17                 | 23.25                 | 23.08                 |                              | 0        |
|                                | 1       | 99        | 23.46                 | 23.60                 | 23.40                 |                              | 0        |
|                                | 50      | 0         | 22.04                 | 22.01                 | 22.10                 | 0-1                          | 1        |
|                                | 50      | 25        | 22.12                 | 22.04                 | 22.10                 |                              | 1        |
|                                | 50      | 50        | 22.09                 | 22.10                 | 22.22                 |                              | 1        |
|                                | 100     | 0         | 22.16                 | 22.08                 | 22.08                 |                              | 1        |
| 16QAM                          | 1       | 0         | 22.24                 | 22.20                 | 22.28                 | 0-1                          | 1        |
|                                | 1       | 50        | 22.42                 | 22.40                 | 22.50                 |                              | 1        |
|                                | 1       | 99        | 22.68                 | 22.54                 | 22.68                 |                              | 1        |
|                                | 50      | 0         | 21.04                 | 20.93                 | 21.06                 | 0-2                          | 2        |
|                                | 50      | 25        | 21.13                 | 20.98                 | 21.05                 |                              | 2        |
|                                | 50      | 50        | 21.09                 | 21.00                 | 21.17                 |                              | 2        |
|                                | 100     | 0         | 21.14                 | 21.00                 | 21.07                 |                              | 2        |

**Table 8-64**  
**LTE Band 7 Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 7<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20825<br>(2507.5 MHz) | 21100<br>(2535.0 MHz) | 21375<br>(2562.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 23.07                 | 23.00                 | 22.86                 | 0                            | 0        |
|                                | 1       | 36        | 23.03                 | 22.99                 | 22.90                 |                              | 0        |
|                                | 1       | 74        | 23.33                 | 23.12                 | 23.09                 |                              | 0        |
|                                | 36      | 0         | 21.96                 | 22.06                 | 22.04                 | 0-1                          | 1        |
|                                | 36      | 18        | 21.94                 | 21.96                 | 22.06                 |                              | 1        |
|                                | 36      | 37        | 22.05                 | 22.03                 | 22.10                 |                              | 1        |
|                                | 75      | 0         | 22.00                 | 22.00                 | 22.04                 |                              | 1        |
| 16QAM                          | 1       | 0         | 22.61                 | 22.42                 | 22.43                 | 0-1                          | 1        |
|                                | 1       | 36        | 22.64                 | 22.45                 | 22.46                 |                              | 1        |
|                                | 1       | 74        | 22.85                 | 22.56                 | 22.71                 |                              | 1        |
|                                | 36      | 0         | 20.98                 | 20.70                 | 20.96                 | 0-2                          | 2        |
|                                | 36      | 18        | 21.00                 | 20.86                 | 21.00                 |                              | 2        |
|                                | 36      | 37        | 21.06                 | 20.98                 | 21.05                 |                              | 2        |
|                                | 75      | 0         | 20.99                 | 20.96                 | 21.01                 |                              | 2        |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 56 of 114                  |

**Table 8-65**  
**LTE Band 7 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 7<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20800<br>(2505.0 MHz) | 21100<br>(2535.0 MHz) | 21400<br>(2565.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 23.03                 | 23.16                 | 23.28                 | 0                            | 0        |
|                                | 1       | 25        | 22.94                 | 23.01                 | 23.17                 |                              | 0        |
|                                | 1       | 49        | 22.97                 | 23.04                 | 23.14                 |                              | 0        |
|                                | 25      | 0         | 21.95                 | 22.01                 | 21.95                 | 0-1                          | 1        |
|                                | 25      | 12        | 22.00                 | 21.97                 | 22.05                 |                              | 1        |
|                                | 25      | 25        | 21.96                 | 22.03                 | 22.02                 |                              | 1        |
|                                | 50      | 0         | 21.95                 | 21.98                 | 22.00                 |                              | 1        |
| 16QAM                          | 1       | 0         | 22.74                 | 22.62                 | 22.62                 | 0-1                          | 1        |
|                                | 1       | 25        | 22.56                 | 22.42                 | 22.60                 |                              | 1        |
|                                | 1       | 49        | 22.82                 | 22.52                 | 22.52                 |                              | 1        |
|                                | 25      | 0         | 21.00                 | 20.92                 | 20.95                 | 0-2                          | 2        |
|                                | 25      | 12        | 21.00                 | 20.93                 | 21.00                 |                              | 2        |
|                                | 25      | 25        | 20.98                 | 20.98                 | 21.01                 |                              | 2        |
|                                | 50      | 0         | 20.99                 | 20.93                 | 21.05                 |                              | 2        |

**Table 8-66**  
**LTE Band 7 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 7<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                    | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                               |         |           | 20775<br>(2502.5 MHz) | 21100<br>(2535.0 MHz) | 21425<br>(2567.5 MHz) |                              |          |
|                               |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                          | 1       | 0         | 23.15                 | 23.20                 | 23.24                 | 0                            | 0        |
|                               | 1       | 12        | 23.22                 | 23.26                 | 23.42                 |                              | 0        |
|                               | 1       | 24        | 23.24                 | 23.19                 | 23.41                 |                              | 0        |
|                               | 12      | 0         | 21.93                 | 21.94                 | 22.00                 | 0-1                          | 1        |
|                               | 12      | 6         | 21.98                 | 21.94                 | 22.06                 |                              | 1        |
|                               | 12      | 13        | 21.97                 | 21.95                 | 22.02                 |                              | 1        |
|                               | 25      | 0         | 21.94                 | 21.96                 | 22.00                 |                              | 1        |
| 16QAM                         | 1       | 0         | 22.28                 | 22.51                 | 22.51                 | 0-1                          | 1        |
|                               | 1       | 12        | 22.31                 | 22.66                 | 22.46                 |                              | 1        |
|                               | 1       | 24        | 22.38                 | 22.62                 | 22.56                 |                              | 1        |
|                               | 12      | 0         | 21.01                 | 20.92                 | 20.94                 | 0-2                          | 2        |
|                               | 12      | 6         | 21.09                 | 20.96                 | 21.00                 |                              | 2        |
|                               | 12      | 13        | 21.06                 | 20.97                 | 21.00                 |                              | 2        |
|                               | 25      | 0         | 20.95                 | 20.92                 | 21.02                 |                              | 2        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 57 of 114                  |

**Table 8-67**  
**LTE Band 7 Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 7<br>20 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20850<br>(2510.0 MHz) | 21100<br>(2535.0 MHz) | 21350<br>(2560.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 14.47                 | 14.50                 | 14.42                 | 0                            | 0        |
|                                | 1       | 50        | 14.46                 | 14.49                 | 14.49                 |                              | 0        |
|                                | 1       | 99        | 14.49                 | 14.47                 | 14.45                 |                              | 0        |
|                                | 50      | 0         | 14.47                 | 14.48                 | 14.47                 | 0-1                          | 0        |
|                                | 50      | 25        | 14.44                 | 14.47                 | 14.46                 |                              | 0        |
|                                | 50      | 50        | 14.45                 | 14.43                 | 14.46                 |                              | 0        |
|                                | 100     | 0         | 14.44                 | 14.43                 | 14.46                 |                              | 0        |
| 16QAM                          | 1       | 0         | 14.46                 | 14.43                 | 14.49                 | 0-1                          | 0        |
|                                | 1       | 50        | 14.49                 | 14.44                 | 14.42                 |                              | 0        |
|                                | 1       | 99        | 14.45                 | 14.45                 | 14.44                 |                              | 0        |
|                                | 50      | 0         | 14.42                 | 14.49                 | 14.42                 | 0-2                          | 0        |
|                                | 50      | 25        | 14.46                 | 14.48                 | 14.43                 |                              | 0        |
|                                | 50      | 50        | 14.43                 | 14.48                 | 14.44                 |                              | 0        |
|                                | 100     | 0         | 14.46                 | 14.44                 | 14.49                 |                              | 0        |

**Table 8-68**  
**LTE Band 7 Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 7<br>15 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20825<br>(2507.5 MHz) | 21100<br>(2535.0 MHz) | 21375<br>(2562.5 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 14.44                 | 14.46                 | 14.43                 | 0                            | 0        |
|                                | 1       | 36        | 14.45                 | 14.41                 | 14.47                 |                              | 0        |
|                                | 1       | 74        | 14.43                 | 14.43                 | 14.48                 |                              | 0        |
|                                | 36      | 0         | 14.41                 | 14.42                 | 14.42                 | 0-1                          | 0        |
|                                | 36      | 18        | 14.42                 | 14.41                 | 14.41                 |                              | 0        |
|                                | 36      | 37        | 14.45                 | 14.47                 | 14.49                 |                              | 0        |
|                                | 75      | 0         | 14.46                 | 14.43                 | 14.48                 |                              | 0        |
| 16QAM                          | 1       | 0         | 14.46                 | 14.47                 | 14.44                 | 0-1                          | 0        |
|                                | 1       | 36        | 14.49                 | 14.49                 | 14.45                 |                              | 0        |
|                                | 1       | 74        | 14.45                 | 14.46                 | 14.46                 |                              | 0        |
|                                | 36      | 0         | 14.44                 | 14.42                 | 14.48                 | 0-2                          | 0        |
|                                | 36      | 18        | 14.47                 | 14.46                 | 14.43                 |                              | 0        |
|                                | 36      | 37        | 14.49                 | 14.47                 | 14.46                 |                              | 0        |
|                                | 75      | 0         | 14.42                 | 14.42                 | 14.41                 |                              | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 58 of 114                  |

**Table 8-69**  
**LTE Band 7 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 7<br>10 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 20800<br>(2505.0 MHz) | 21100<br>(2535.0 MHz) | 21400<br>(2565.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 14.47                 | 14.45                 | 14.44                 | 0                            | 0        |
|                                | 1       | 25        | 14.41                 | 14.46                 | 14.42                 |                              | 0        |
|                                | 1       | 49        | 14.43                 | 14.47                 | 14.46                 |                              | 0        |
|                                | 25      | 0         | 14.48                 | 14.41                 | 14.47                 | 0-1                          | 0        |
|                                | 25      | 12        | 14.49                 | 14.42                 | 14.48                 |                              | 0        |
|                                | 25      | 25        | 14.46                 | 14.43                 | 14.46                 |                              | 0        |
|                                | 50      | 0         | 14.47                 | 14.42                 | 14.47                 |                              | 0        |
| 16QAM                          | 1       | 0         | 14.47                 | 14.47                 | 14.43                 | 0-1                          | 0        |
|                                | 1       | 25        | 14.44                 | 14.48                 | 14.45                 |                              | 0        |
|                                | 1       | 49        | 14.43                 | 14.48                 | 14.44                 |                              | 0        |
|                                | 25      | 0         | 14.47                 | 14.41                 | 14.48                 | 0-2                          | 0        |
|                                | 25      | 12        | 14.45                 | 14.44                 | 14.46                 |                              | 0        |
|                                | 25      | 25        | 14.43                 | 14.47                 | 14.41                 |                              | 0        |
|                                | 50      | 0         | 14.45                 | 14.42                 | 14.48                 |                              | 0        |

**Table 8-70**  
**LTE Band 7 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 7<br>5 MHz Bandwidth |         |           |                       |                       |                       |                              |          |
|-------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                    | RB Size | RB Offset | Low Channel           | Mid Channel           | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                               |         |           | 20775<br>(2502.5 MHz) | 21100<br>(2535.0 MHz) | 21425<br>(2567.5 MHz) |                              |          |
|                               |         |           | Conducted Power [dBm] |                       |                       |                              |          |
| QPSK                          | 1       | 0         | 14.46                 | 14.45                 | 14.48                 | 0                            | 0        |
|                               | 1       | 12        | 14.46                 | 14.48                 | 14.42                 |                              | 0        |
|                               | 1       | 24        | 14.42                 | 14.42                 | 14.46                 |                              | 0        |
|                               | 12      | 0         | 14.48                 | 14.41                 | 14.42                 | 0-1                          | 0        |
|                               | 12      | 6         | 14.47                 | 14.47                 | 14.45                 |                              | 0        |
|                               | 12      | 13        | 14.41                 | 14.46                 | 14.48                 |                              | 0        |
|                               | 25      | 0         | 14.48                 | 14.47                 | 14.44                 |                              | 0        |
| 16QAM                         | 1       | 0         | 14.47                 | 14.47                 | 14.47                 | 0-1                          | 0        |
|                               | 1       | 12        | 14.46                 | 14.44                 | 14.48                 |                              | 0        |
|                               | 1       | 24        | 14.48                 | 14.47                 | 14.46                 |                              | 0        |
|                               | 12      | 0         | 14.41                 | 14.42                 | 14.42                 | 0-2                          | 0        |
|                               | 12      | 6         | 14.45                 | 14.43                 | 14.43                 |                              | 0        |
|                               | 12      | 13        | 14.43                 | 14.48                 | 14.47                 |                              | 0        |
|                               | 25      | 0         | 14.43                 | 14.44                 | 14.44                 |                              | 0        |

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 59 of 114                  |

## 8.4.9

## LTE Band 41

**Table 8-71**  
**LTE Band 41 Maximum Conducted Powers - 20 MHz Bandwidth**

| LTE Band 41<br>20 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 22.01                 | 21.88                 | 22.50                 | 22.21                 | 22.47                 | 0                            | 0        |
|                                 | 1       | 50        | 22.00                 | 21.94                 | 22.40                 | 22.22                 | 22.20                 |                              | 0        |
|                                 | 1       | 99        | 22.37                 | 22.23                 | 22.48                 | 22.34                 | 22.46                 |                              | 0        |
|                                 | 50      | 0         | 21.24                 | 21.00                 | 21.24                 | 21.23                 | 21.36                 | 0-1                          | 1        |
|                                 | 50      | 25        | 21.29                 | 21.26                 | 21.31                 | 21.32                 | 21.31                 |                              | 1        |
|                                 | 50      | 50        | 21.34                 | 21.27                 | 21.36                 | 21.32                 | 21.40                 |                              | 1        |
|                                 | 100     | 0         | 21.30                 | 21.09                 | 21.35                 | 21.31                 | 21.38                 |                              | 1        |
| 16QAM                           | 1       | 0         | 21.22                 | 20.87                 | 21.35                 | 20.73                 | 21.28                 | 0-1                          | 1        |
|                                 | 1       | 50        | 21.10                 | 20.95                 | 21.13                 | 20.81                 | 21.24                 |                              | 1        |
|                                 | 1       | 99        | 21.19                 | 21.21                 | 21.34                 | 20.89                 | 21.33                 |                              | 1        |
|                                 | 50      | 0         | 20.25                 | 20.03                 | 20.23                 | 20.25                 | 20.41                 | 0-2                          | 2        |
|                                 | 50      | 25        | 20.26                 | 20.30                 | 20.28                 | 20.34                 | 20.33                 |                              | 2        |
|                                 | 50      | 50        | 20.26                 | 20.28                 | 20.33                 | 20.36                 | 20.41                 |                              | 2        |
|                                 | 100     | 0         | 20.29                 | 20.06                 | 20.34                 | 20.38                 | 20.34                 |                              | 2        |

**Table 8-72**  
**LTE Band 41 Maximum Conducted Powers - 15 MHz Bandwidth**

| LTE Band 41<br>15 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 22.14                 | 21.88                 | 22.02                 | 22.08                 | 22.21                 | 0                            | 0        |
|                                 | 1       | 36        | 22.10                 | 21.99                 | 22.17                 | 22.21                 | 22.16                 |                              | 0        |
|                                 | 1       | 74        | 22.28                 | 22.11                 | 22.14                 | 22.18                 | 22.20                 |                              | 0        |
|                                 | 36      | 0         | 21.21                 | 21.05                 | 21.30                 | 21.17                 | 21.40                 | 0-1                          | 1        |
|                                 | 36      | 18        | 21.22                 | 21.22                 | 21.30                 | 21.30                 | 21.38                 |                              | 1        |
|                                 | 36      | 37        | 21.26                 | 21.22                 | 21.31                 | 21.29                 | 21.33                 |                              | 1        |
|                                 | 75      | 0         | 21.23                 | 21.07                 | 21.29                 | 21.26                 | 21.35                 |                              | 1        |
| 16QAM                           | 1       | 0         | 21.04                 | 20.91                 | 21.12                 | 21.24                 | 21.10                 | 0-1                          | 1        |
|                                 | 1       | 36        | 21.26                 | 21.17                 | 21.27                 | 21.38                 | 21.04                 |                              | 1        |
|                                 | 1       | 74        | 21.34                 | 21.21                 | 21.46                 | 21.33                 | 21.07                 |                              | 1        |
|                                 | 36      | 0         | 20.15                 | 20.12                 | 20.27                 | 20.19                 | 20.31                 | 0-2                          | 2        |
|                                 | 36      | 18        | 20.25                 | 20.32                 | 20.36                 | 20.26                 | 20.24                 |                              | 2        |
|                                 | 36      | 37        | 20.35                 | 20.35                 | 20.40                 | 20.28                 | 20.25                 |                              | 2        |
|                                 | 75      | 0         | 20.25                 | 20.11                 | 20.30                 | 20.26                 | 20.33                 |                              | 2        |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 60 of 114                  |

**Table 8-73**  
**LTE Band 41 Maximum Conducted Powers - 10 MHz Bandwidth**

| LTE Band 41<br>10 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 22.13                 | 22.13                 | 22.30                 | 22.24                 | 22.20                 | 0                            | 0        |
|                                 | 1       | 25        | 22.27                 | 22.30                 | 22.34                 | 22.37                 | 22.46                 |                              | 0        |
|                                 | 1       | 49        | 22.35                 | 22.31                 | 22.35                 | 22.36                 | 22.48                 |                              | 0        |
|                                 | 25      | 0         | 21.30                 | 21.04                 | 21.12                 | 21.14                 | 21.30                 | 0-1                          | 1        |
|                                 | 25      | 12        | 21.18                 | 21.17                 | 21.27                 | 21.17                 | 21.32                 |                              | 1        |
|                                 | 25      | 25        | 21.24                 | 21.17                 | 21.28                 | 21.17                 | 21.36                 |                              | 1        |
|                                 | 50      | 0         | 21.16                 | 21.18                 | 21.28                 | 21.20                 | 21.33                 |                              | 1        |
| 16QAM                           | 1       | 0         | 21.04                 | 21.00                 | 21.01                 | 21.15                 | 21.40                 | 0-1                          | 1        |
|                                 | 1       | 25        | 21.18                 | 21.16                 | 21.25                 | 21.28                 | 21.50                 |                              | 1        |
|                                 | 1       | 49        | 21.38                 | 21.21                 | 21.35                 | 21.29                 | 21.42                 |                              | 1        |
|                                 | 25      | 0         | 20.18                 | 20.02                 | 20.20                 | 20.13                 | 20.23                 | 0-2                          | 2        |
|                                 | 25      | 12        | 20.22                 | 20.13                 | 20.22                 | 20.26                 | 20.29                 |                              | 2        |
|                                 | 25      | 25        | 20.20                 | 20.15                 | 20.26                 | 20.25                 | 20.32                 |                              | 2        |
|                                 | 50      | 0         | 20.23                 | 20.19                 | 20.24                 | 20.18                 | 20.29                 |                              | 2        |

**Table 8-74**  
**LTE Band 41 Maximum Conducted Powers - 5 MHz Bandwidth**

| LTE Band 41<br>5 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 22.24                 | 22.16                 | 22.50                 | 22.40                 | 22.38                 | 0                            | 0        |
|                                | 1       | 12        | 22.38                 | 22.49                 | 22.50                 | 22.46                 | 22.50                 |                              | 0        |
|                                | 1       | 24        | 22.42                 | 22.25                 | 22.49                 | 22.36                 | 22.45                 |                              | 0        |
|                                | 12      | 0         | 21.11                 | 21.08                 | 21.28                 | 21.06                 | 21.27                 | 0-1                          | 1        |
|                                | 12      | 6         | 21.14                 | 21.10                 | 21.31                 | 21.12                 | 21.22                 |                              | 1        |
|                                | 12      | 13        | 21.16                 | 21.08                 | 21.31                 | 21.09                 | 21.27                 |                              | 1        |
|                                | 25      | 0         | 21.14                 | 21.07                 | 21.28                 | 21.09                 | 21.25                 |                              | 1        |
| 16QAM                          | 1       | 0         | 21.27                 | 21.25                 | 21.45                 | 21.21                 | 21.47                 | 0-1                          | 1        |
|                                | 1       | 12        | 21.45                 | 21.50                 | 21.50                 | 21.49                 | 21.50                 |                              | 1        |
|                                | 1       | 24        | 21.48                 | 21.39                 | 21.43                 | 21.25                 | 21.44                 |                              | 1        |
|                                | 12      | 0         | 20.20                 | 20.09                 | 20.23                 | 20.21                 | 20.16                 | 0-2                          | 2        |
|                                | 12      | 6         | 20.24                 | 20.10                 | 20.23                 | 20.20                 | 20.29                 |                              | 2        |
|                                | 12      | 13        | 20.28                 | 20.06                 | 20.24                 | 20.19                 | 20.23                 |                              | 2        |
|                                | 25      | 0         | 20.11                 | 20.07                 | 20.23                 | 20.13                 | 20.35                 |                              | 2        |

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 61 of 114                  |

**Table 8-75**  
**LTE Band 41 Reduced Conducted Powers - 20 MHz Bandwidth**

| LTE Band 41<br>20 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 15.96                 | 15.99                 | 15.99                 | 15.99                 | 15.93                 | 0                            | 0        |
|                                 | 1       | 50        | 15.99                 | 15.93                 | 15.93                 | 15.98                 | 15.92                 |                              | 0        |
|                                 | 1       | 99        | 15.97                 | 15.97                 | 15.99                 | 15.97                 | 15.97                 |                              | 0        |
|                                 | 50      | 0         | 15.95                 | 15.91                 | 15.99                 | 15.95                 | 15.97                 | 0-1                          | 0        |
|                                 | 50      | 25        | 15.93                 | 15.98                 | 15.93                 | 15.93                 | 15.92                 |                              | 0        |
|                                 | 50      | 50        | 15.95                 | 15.97                 | 15.95                 | 15.98                 | 15.98                 |                              | 0        |
|                                 | 100     | 0         | 15.94                 | 15.97                 | 15.95                 | 15.94                 | 15.96                 |                              | 0        |
| 16QAM                           | 1       | 0         | 15.96                 | 15.93                 | 15.93                 | 15.98                 | 15.96                 | 0-1                          | 0        |
|                                 | 1       | 50        | 15.93                 | 15.96                 | 15.96                 | 15.92                 | 15.97                 |                              | 0        |
|                                 | 1       | 99        | 15.98                 | 15.98                 | 15.95                 | 15.98                 | 15.94                 |                              | 0        |
|                                 | 50      | 0         | 15.92                 | 15.96                 | 15.99                 | 15.98                 | 15.99                 | 0-2                          | 0        |
|                                 | 50      | 25        | 15.93                 | 15.96                 | 15.99                 | 15.94                 | 15.93                 |                              | 0        |
|                                 | 50      | 50        | 15.99                 | 15.95                 | 15.94                 | 15.96                 | 15.91                 |                              | 0        |
|                                 | 100     | 0         | 15.97                 | 15.94                 | 15.97                 | 15.96                 | 15.99                 |                              | 0        |

**Table 8-76**  
**LTE Band 41 Reduced Conducted Powers - 15 MHz Bandwidth**

| LTE Band 41<br>15 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 15.92                 | 15.92                 | 15.99                 | 15.93                 | 15.94                 | 0                            | 0        |
|                                 | 1       | 36        | 15.93                 | 15.99                 | 15.96                 | 15.90                 | 15.90                 |                              | 0        |
|                                 | 1       | 74        | 15.99                 | 15.98                 | 16.00                 | 16.00                 | 15.92                 |                              | 0        |
|                                 | 36      | 0         | 15.94                 | 15.90                 | 15.93                 | 15.99                 | 15.96                 | 0-1                          | 0        |
|                                 | 36      | 18        | 15.99                 | 15.97                 | 15.92                 | 15.96                 | 15.91                 |                              | 0        |
|                                 | 36      | 37        | 15.97                 | 15.99                 | 15.95                 | 15.98                 | 15.99                 |                              | 0        |
|                                 | 75      | 0         | 15.94                 | 15.93                 | 15.91                 | 15.92                 | 15.90                 |                              | 0        |
| 16QAM                           | 1       | 0         | 15.96                 | 15.91                 | 15.90                 | 15.94                 | 15.91                 | 0-1                          | 0        |
|                                 | 1       | 36        | 15.93                 | 15.97                 | 15.91                 | 15.95                 | 15.94                 |                              | 0        |
|                                 | 1       | 74        | 15.93                 | 15.99                 | 15.99                 | 15.91                 | 15.97                 |                              | 0        |
|                                 | 36      | 0         | 15.92                 | 15.94                 | 15.94                 | 15.97                 | 15.99                 | 0-2                          | 0        |
|                                 | 36      | 18        | 15.99                 | 15.97                 | 15.91                 | 15.95                 | 15.94                 |                              | 0        |
|                                 | 36      | 37        | 15.96                 | 15.98                 | 15.96                 | 15.98                 | 15.99                 |                              | 0        |
|                                 | 75      | 0         | 15.92                 | 15.95                 | 15.93                 | 15.93                 | 15.97                 |                              | 0        |

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
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**Table 8-77**  
**LTE Band 41 Reduced Conducted Powers - 10 MHz Bandwidth**

| LTE Band 41<br>10 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|---------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                      | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                 |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                 |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                            | 1       | 0         | 15.98                 | 15.98                 | 15.93                 | 15.94                 | 15.96                 | 0                            | 0        |
|                                 | 1       | 25        | 16.00                 | 15.92                 | 15.92                 | 15.99                 | 15.99                 |                              | 0        |
|                                 | 1       | 49        | 15.98                 | 16.00                 | 15.95                 | 15.91                 | 15.93                 |                              | 0        |
|                                 | 25      | 0         | 15.97                 | 15.95                 | 15.92                 | 15.91                 | 15.90                 | 0-1                          | 1        |
|                                 | 25      | 12        | 15.99                 | 15.97                 | 15.95                 | 15.95                 | 15.93                 |                              | 1        |
|                                 | 25      | 25        | 15.99                 | 15.95                 | 15.99                 | 15.93                 | 15.91                 |                              | 1        |
|                                 | 50      | 0         | 15.92                 | 15.94                 | 15.99                 | 15.95                 | 15.95                 |                              | 1        |
| 16QAM                           | 1       | 0         | 15.90                 | 15.93                 | 15.92                 | 15.90                 | 15.91                 | 0-1                          | 1        |
|                                 | 1       | 25        | 15.99                 | 15.99                 | 15.95                 | 16.00                 | 15.96                 |                              | 1        |
|                                 | 1       | 49        | 15.97                 | 15.98                 | 15.94                 | 15.99                 | 15.94                 |                              | 1        |
|                                 | 25      | 0         | 15.97                 | 15.94                 | 15.91                 | 15.92                 | 15.91                 | 0-2                          | 2        |
|                                 | 25      | 12        | 15.98                 | 15.98                 | 15.98                 | 15.95                 | 15.95                 |                              | 2        |
|                                 | 25      | 25        | 15.97                 | 15.93                 | 15.99                 | 15.98                 | 15.93                 |                              | 2        |
|                                 | 50      | 0         | 15.99                 | 15.92                 | 15.93                 | 15.96                 | 15.94                 |                              | 2        |

**Table 8-78**  
**LTE Band 41 Reduced Conducted Powers - 5 MHz Bandwidth**

| LTE Band 41<br>5 MHz Bandwidth |         |           |                       |                       |                       |                       |                       |                              |          |
|--------------------------------|---------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------------|----------|
| Modulation                     | RB Size | RB Offset | Low Channel           | Low-Mid Channel       | Mid Channel           | Mid-High Channel      | High Channel          | MPR Allowed per<br>3GPP [dB] | MPR [dB] |
|                                |         |           | 39750<br>(2506.0 MHz) | 40185<br>(2549.5 MHz) | 40620<br>(2593.0 MHz) | 41055<br>(2636.5 MHz) | 41490<br>(2680.0 MHz) |                              |          |
|                                |         |           | Conducted Power [dBm] |                       |                       |                       |                       |                              |          |
| QPSK                           | 1       | 0         | 15.99                 | 15.98                 | 15.91                 | 15.99                 | 15.90                 | 0                            | 0        |
|                                | 1       | 12        | 15.95                 | 15.92                 | 15.99                 | 16.00                 | 15.94                 |                              | 0        |
|                                | 1       | 24        | 15.93                 | 15.93                 | 15.91                 | 15.92                 | 15.95                 |                              | 0        |
|                                | 12      | 0         | 15.92                 | 15.96                 | 15.92                 | 15.99                 | 15.92                 | 0-1                          | 1        |
|                                | 12      | 6         | 15.98                 | 15.99                 | 15.95                 | 15.97                 | 15.97                 |                              | 1        |
|                                | 12      | 13        | 15.95                 | 15.95                 | 15.93                 | 15.96                 | 15.95                 |                              | 1        |
|                                | 25      | 0         | 15.92                 | 15.96                 | 15.93                 | 15.95                 | 15.93                 |                              | 1        |
| 16QAM                          | 1       | 0         | 15.99                 | 16.00                 | 15.95                 | 15.99                 | 16.00                 | 0-1                          | 1        |
|                                | 1       | 12        | 15.92                 | 15.93                 | 15.99                 | 15.98                 | 15.94                 |                              | 1        |
|                                | 1       | 24        | 15.97                 | 15.98                 | 15.92                 | 15.97                 | 15.97                 |                              | 1        |
|                                | 12      | 0         | 15.94                 | 15.93                 | 15.90                 | 15.91                 | 15.95                 | 0-2                          | 2        |
|                                | 12      | 6         | 15.95                 | 15.97                 | 15.99                 | 16.00                 | 15.97                 |                              | 2        |
|                                | 12      | 13        | 15.94                 | 15.96                 | 15.97                 | 15.95                 | 15.91                 |                              | 2        |
|                                | 25      | 0         | 15.96                 | 15.92                 | 15.98                 | 15.98                 | 15.93                 |                              | 2        |

|                                         |                                                                                     |                              |                                        |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 63 of 114                         |

## 8.4.10 LTE Carrier Aggregation Conducted Powers

Table 8-79  
LTE Carrier Aggregation Maximum Conducted Powers

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-12A (1) | LTE B12  | 5                   | 23035            | 701.5                    | QPSK       | 1          | 12               | 5035             | 731.5                    | LTE B4   | 20                  | 2175             | 2132.5                   | 24.70                                 | 24.95                             |
| CA_2A-12A (1) | LTE B12  | 5                   | 23035            | 701.5                    | QPSK       | 1          | 12               | 5035             | 731.5                    | LTE B2   | 20                  | 900              | 1960                     | 24.81                                 | 24.95                             |
| CA_12A-30A    | LTE B12  | 5                   | 23035            | 701.5                    | QPSK       | 1          | 12               | 5035             | 731.5                    | LTE B30  | 10                  | 9820             | 2355                     | 24.75                                 | 24.95                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-17A   | LTE B17  | 5                   | 23755            | 706.5                    | QPSK       | 1          | 12               | 5755             | 736.5                    | LTE B4   | 10                  | 2175             | 2132.5                   | 24.88                                 | 24.95                             |
| CA_2A-17A   | LTE B17  | 5                   | 23755            | 706.5                    | QPSK       | 1          | 12               | 5755             | 736.5                    | LTE B2   | 10                  | 900              | 1960                     | 24.76                                 | 24.95                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-13A   | LTE B13  | 10                  | 23230            | 782                      | QPSK       | 1          | 25               | 5230             | 751                      | LTE B4   | 20                  | 2175             | 2132.5                   | 23.52                                 | 23.40                             |
| CA_2A-13A   | LTE B13  | 10                  | 23230            | 782                      | QPSK       | 1          | 25               | 5230             | 751                      | LTE B2   | 20                  | 900              | 1960                     | 23.55                                 | 23.40                             |

| Combination  | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|--------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-5A (1) | LTE B5   | 5                   | 20425            | 826.5                    | QPSK       | 1          | 12               | 2425             | 871.5                    | LTE B4   | 20                  | 2175             | 2132.5                   | 24.17                                 | 24.40                             |
| CA_2A-5A     | LTE B5   | 5                   | 20425            | 826.5                    | QPSK       | 1          | 12               | 2425             | 871.5                    | LTE B2   | 20                  | 900              | 1960                     | 24.20                                 | 24.40                             |

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-12A (1) | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 99               | 2175             | 2132.5                   | LTE B12  | 10                  | 5095             | 737.5                    | 24.00                                 | 24.00                             |
| CA_4A-17A     | LTE B4   | 5                   | 19975            | 1712.5                   | QPSK       | 1          | 24               | 1975             | 2112.5                   | LTE B17  | 10                  | 5790             | 740                      | 23.98                                 | 23.98                             |
| CA_4A-13A     | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 99               | 2175             | 2132.5                   | LTE B13  | 10                  | 5230             | 751                      | 24.00                                 | 24.00                             |
| CA_4A-5A (1)  | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 99               | 2175             | 2132.5                   | LTE B5   | 10                  | 2525             | 881.5                    | 24.00                                 | 24.00                             |
| CA_2A-4A      | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 99               | 2175             | 2132.5                   | LTE B2   | 20                  | 900              | 1960                     | 23.99                                 | 24.00                             |
| CA_4A-4A      | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 99               | 2175             | 2132.5                   | LTE B4   | 10                  | 2000             | 2115                     | 23.97                                 | 24.00                             |
| CA_4A-7A      | LTE B4   | 5                   | 19975            | 1712.5                   | QPSK       | 1          | 24               | 1975             | 2112.5                   | LTE B7   | 20                  | 3100             | 2655                     | 23.53                                 | 23.98                             |
| CA_4A-29A     | LTE B4   | 5                   | 19975            | 1712.5                   | QPSK       | 1          | 24               | 1975             | 2112.5                   | LTE B29  | 10                  | 9715             | 722.5                    | 23.97                                 | 23.98                             |

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_2A-12A (1) | LTE B2   | 20                  | 18925            | 1882.5                   | QPSK       | 1          | 99               | 925              | 1962.5                   | LTE B12  | 10                  | 5095             | 737.5                    | 24.49                                 | 24.73                             |
| CA_2A-17A     | LTE B2   | 5                   | 18625            | 1852.5                   | QPSK       | 1          | 12               | 625              | 1932.5                   | LTE B17  | 10                  | 5790             | 740                      | 24.07                                 | 24.30                             |
| CA_2A-4A      | LTE B2   | 1.4                 | 18607            | 1850.7                   | QPSK       | 3          | 2                | 607              | 1930.7                   | LTE B4   | 20                  | 2175             | 2132.5                   | 24.94                                 | 24.95                             |
| CA_2A-2A      | LTE B2   | 20                  | 18925            | 1882.5                   | QPSK       | 1          | 99               | 925              | 1962.5                   | LTE B2   | 20                  | 700              | 1940                     | 24.50                                 | 24.73                             |
| CA_2A-13A     | LTE B2   | 20                  | 18925            | 1882.5                   | QPSK       | 1          | 99               | 925              | 1962.5                   | LTE B13  | 10                  | 5230             | 751                      | 24.56                                 | 24.73                             |
| CA_2A-5A      | LTE B2   | 20                  | 18925            | 1882.5                   | QPSK       | 1          | 99               | 925              | 1962.5                   | LTE B5   | 10                  | 2525             | 881.5                    | 24.54                                 | 24.73                             |
| CA_2A-29A     | LTE B2   | 5                   | 18625            | 1852.5                   | QPSK       | 1          | 12               | 625              | 1932.5                   | LTE B29  | 10                  | 9715             | 722.5                    | 24.05                                 | 24.30                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_25A-25A  | LTE B25  | 5                   | 26065            | 1852.5                   | QPSK       | 1          | 12               | 8065             | 1932.5                   | LTE B25  | 10                  | 8640             | 1990                     | 24.53                                 | 24.30                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_7C       | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 99               | 3100             | 2655                     | LTE B7   | 20                  | 2902             | 2635.2                   | 23.32                                 | 23.60                             |
| CA_4A-7A    | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 99               | 3100             | 2655                     | LTE B4   | 10                  | 2175             | 2132.5                   | 23.68                                 | 23.60                             |
| CA_7A-7A    | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 99               | 3100             | 2655                     | LTE B7   | 20                  | 2850             | 2630                     | 23.40                                 | 23.60                             |

|                                         |                                                                                     |                            |                       |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|----------------------------|-----------------------|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device | Page 64 of 114        |                                 |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_12A-30A  | LTE B30  | 10                  | 27710            | 2310                     | QPSK       | 1          | 0                | 9820             | 2355                     | LTE B12  | 10                  | 5095             | 737.5                    | 22.30                                 | 22.30                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_41C (1)  | LTE B41  | 20                  | 40620            | 2593                     | QPSK       | 1          | 0                | 40620            | 2593                     | LTE B41  | 20                  | 40818            | 2612.8                   | 22.33                                 | 22.50                             |
| CA_41C (0)  | LTE B41  | 20                  | 40620            | 2593                     | QPSK       | 1          | 0                | 40620            | 2593                     | LTE B41  | 20                  | 40818            | 2612.8                   | 22.33                                 | 22.50                             |

**Table 8-80**  
**LTE Carrier Aggregation Reduced Conducted Powers**

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-12A (1) | LTE B12  | 10                  | 23095            | 707.5                    | QPSK       | 1          | 0                | 5095             | 737.5                    | LTE B4   | 20                  | 2175             | 2132.5                   | 19.55                                 | 19.60                             |
| CA_2A-12A (1) | LTE B12  | 10                  | 23095            | 707.5                    | QPSK       | 1          | 0                | 5095             | 737.5                    | LTE B2   | 20                  | 900              | 1960                     | 19.52                                 | 19.60                             |
| CA_12A-30A    | LTE B12  | 10                  | 23095            | 707.5                    | QPSK       | 1          | 0                | 5095             | 737.5                    | LTE B30  | 10                  | 9820             | 2355                     | 19.52                                 | 19.60                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-17A   | LTE B17  | 10                  | 23790            | 710                      | QPSK       | 1          | 0                | 5790             | 740                      | LTE B4   | 10                  | 2175             | 2132.5                   | 19.57                                 | 19.60                             |
| CA_2A-17A   | LTE B17  | 10                  | 23790            | 710                      | QPSK       | 1          | 0                | 5790             | 740                      | LTE B2   | 10                  | 900              | 1960                     | 19.55                                 | 19.60                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-13A   | LTE B13  | 10                  | 23230            | 782                      | QPSK       | 1          | 0                | 5230             | 751                      | LTE B4   | 20                  | 2175             | 2132.5                   | 18.04                                 | 18.10                             |
| CA_2A-13A   | LTE B13  | 10                  | 23230            | 782                      | QPSK       | 1          | 0                | 5230             | 751                      | LTE B2   | 20                  | 900              | 1960                     | 18.02                                 | 18.10                             |

| Combination  | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|--------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-5A (1) | LTE B5   | 10                  | 20525            | 836.5                    | QPSK       | 1          | 25               | 2525             | 881.5                    | LTE B4   | 20                  | 2175             | 2132.5                   | 17.98                                 | 18.00                             |
| CA_2A-5A     | LTE B5   | 10                  | 20525            | 836.5                    | QPSK       | 1          | 25               | 2525             | 881.5                    | LTE B2   | 20                  | 900              | 1960                     | 17.93                                 | 18.00                             |

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_4A-12A (1) | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 0                | 2175             | 2132.5                   | LTE B12  | 10                  | 5095             | 737.5                    | 13.96                                 | 14.00                             |
| CA_4A-17A     | LTE B4   | 10                  | 20000            | 1715                     | QPSK       | 25         | 25               | 2000             | 2115                     | LTE B17  | 10                  | 5790             | 740                      | 13.91                                 | 13.98                             |
| CA_4A-13A     | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 0                | 2175             | 2132.5                   | LTE B13  | 10                  | 5230             | 751                      | 13.95                                 | 14.00                             |
| CA_4A-5A (1)  | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 0                | 2175             | 2132.5                   | LTE B5   | 10                  | 2525             | 881.5                    | 13.91                                 | 14.00                             |
| CA_2A-4A      | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 0                | 2175             | 2132.5                   | LTE B2   | 20                  | 900              | 1960                     | 13.91                                 | 14.00                             |
| CA_4A-4A      | LTE B4   | 20                  | 20175            | 1732.5                   | QPSK       | 1          | 0                | 2175             | 2132.5                   | LTE B4   | 10                  | 2000             | 2115                     | 13.94                                 | 14.00                             |
| CA_4A-7A      | LTE B4   | 10                  | 20000            | 1715                     | QPSK       | 25         | 25               | 2000             | 2115                     | LTE B7   | 20                  | 3100             | 2655                     | 13.93                                 | 13.98                             |
| CA_4A-29A     | LTE B4   | 10                  | 20000            | 1715                     | QPSK       | 25         | 25               | 2000             | 2115                     | LTE B29  | 10                  | 9715             | 722.5                    | 13.95                                 | 13.98                             |

| Combination   | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_2A-12A (1) | LTE B2   | 20                  | 18700            | 1860                     | QPSK       | 50         | 50               | 700              | 1940                     | LTE B12  | 10                  | 5095             | 737.5                    | 12.99                                 | 13.00                             |
| CA_2A-17A     | LTE B2   | 10                  | 18925            | 1882.5                   | QPSK       | 25         | 0                | 925              | 1962.5                   | LTE B17  | 10                  | 5790             | 740                      | 12.93                                 | 13.00                             |
| CA_2A-4A      | LTE B2   | 20                  | 18700            | 1860                     | QPSK       | 50         | 50               | 700              | 1940                     | LTE B4   | 20                  | 2175             | 2132.5                   | 12.96                                 | 13.00                             |
| CA_2A-2A      | LTE B2   | 20                  | 18700            | 1860                     | QPSK       | 50         | 50               | 700              | 1940                     | LTE B2   | 20                  | 1100             | 1980                     | 12.93                                 | 13.00                             |
| CA_2A-13A     | LTE B2   | 20                  | 18700            | 1860                     | QPSK       | 50         | 50               | 700              | 1940                     | LTE B13  | 10                  | 5230             | 751                      | 12.94                                 | 13.00                             |
| CA_2A-5A      | LTE B2   | 20                  | 18700            | 1860                     | QPSK       | 50         | 50               | 700              | 1940                     | LTE B5   | 10                  | 2525             | 881.5                    | 12.97                                 | 13.00                             |
| CA_2A-29A     | LTE B2   | 10                  | 18925            | 1882.5                   | QPSK       | 25         | 0                | 925              | 1962.5                   | LTE B29  | 10                  | 9715             | 722.5                    | 12.92                                 | 13.00                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_25A-25A  | LTE B25  | 10                  | 26365            | 1882.5                   | QPSK       | 25         | 0                | 8365             | 1962.5                   | LTE B25  | 10                  | 8090             | 1935                     | 12.91                                 | 13.00                             |

|                                         |                                                                                                           |                            |                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                        | DUT Type:<br>Tablet Device | Page 65 of 114                  |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_7C       | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 0                | 3100             | 2655                     | LTE B7   | 20                  | 2902             | 2635.2                   | 14.43                                 | 14.50                             |
| CA_4A-7A    | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 0                | 3100             | 2655                     | LTE B4   | 10                  | 2175             | 2132.5                   | 14.45                                 | 14.50                             |
| CA_7A-7A    | LTE B7   | 20                  | 21100            | 2535                     | QPSK       | 1          | 0                | 3100             | 2655                     | LTE B7   | 20                  | 2850             | 2630                     | 14.44                                 | 14.50                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_12A-30A  | LTE B30  | 10                  | 27710            | 2310                     | QPSK       | 1          | 49               | 9820             | 2355                     | LTE B12  | 10                  | 5095             | 737.5                    | 14.48                                 | 14.49                             |

| Combination | PCC Band | PCC Bandwidth [MHz] | PCC (UL) Channel | PCC (UL) Frequency [MHz] | Modulation | PCC UL# RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Frequency [MHz] | SCC Band | SCC Bandwidth [MHz] | SCC (DL) Channel | SCC (DL) Frequency [MHz] | LTE Tx.Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|---------------------|------------------|--------------------------|------------|------------|------------------|------------------|--------------------------|----------|---------------------|------------------|--------------------------|---------------------------------------|-----------------------------------|
| CA_41C (1)  | LTE B41  | 15                  | 40620            | 2593                     | QPSK       | 1          | 74               | 40620            | 2593                     | LTE B41  | 20                  | 40791            | 2610.1                   | 15.97                                 | 16.00                             |
| CA_41C (0)  | LTE B41  | 15                  | 40620            | 2593                     | QPSK       | 1          | 74               | 40620            | 2593                     | LTE B41  | 20                  | 40791            | 2610.1                   | 15.97                                 | 16.00                             |

#### Notes:

1. The device only supports downlink Carrier Aggregation. Uplink Carrier Aggregation is not supported. For every supported combination of downlink carrier aggregation, power measurements were performed with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.
2. All control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
3. For downlink carrier aggregation combinations, PCC uplink channel was selected based on section C)3)b)ii) of KBD 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers. All selected downlink channels remained fully within the downlink transmission band of the respective component carrier.
4. LTE Band 12 standalone powers were used to select measurement configurations for LTE Band 17, and LTE B25 standalone powers were used to select measurement configurations for LTE Band 2

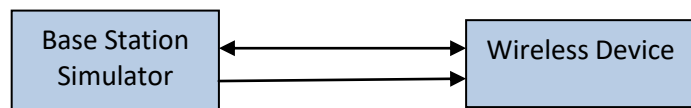


**Figure 8-4**  
**Power Measurement Setup**

|                                         |                                                                                                                  |                            |  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device |  | Page 66 of 114                  |

## 8.5 WLAN Conducted Powers

### 8.5.1 Variant 1

**Table 8-81**  
**2.4 GHz WLAN Average RF Power – Ant A**

| Freq [MHz] | Channel | IEEE Transmission Mode |         |         |
|------------|---------|------------------------|---------|---------|
|            |         | 802.11b                | 802.11g | 802.11n |
| 2412       | 1       | 15.50                  | 14.89   | 14.92   |
| 2437       | 6       | 15.48                  | 15.48   | 15.50   |
| 2462       | 11      | 15.49                  | 13.50   | 13.37   |

**Table 8-82**  
**2.4 GHz WLAN Average RF Power – Ant B**

| Freq [MHz] | Channel | IEEE Transmission Mode |         |         |
|------------|---------|------------------------|---------|---------|
|            |         | 802.11b                | 802.11g | 802.11n |
|            |         | Average                | Average | Average |
| 2412       | 1       | 15.36                  | 15.00   | 14.85   |
| 2437       | 6       | 15.50                  | 15.49   | 15.43   |
| 2462       | 11      | 15.47                  | 13.30   | 13.50   |

**Table 8-83**  
**2.4 GHz WLAN Average RF Power – MIMO**

| 2.4GHz Conducted Power [dBm] |         |       |       |
|------------------------------|---------|-------|-------|
| 802.11g                      |         |       |       |
| Freq [MHz]                   | Channel | ANT A | ANT B |
| 2412                         | 1       | 13.00 | 12.91 |
| 2417                         | 2       | 15.47 | 15.36 |
| 2437                         | 6       | 15.50 | 15.50 |
| 2457                         | 10      | 15.48 | 15.35 |
| 2462                         | 11      | 12.33 | 12.30 |

**Table 8-84**  
**5 GHz WLAN Average RF Power – Ant A**

| 5GHz (40MHz) Conducted Power [dBm] |         |                        | 5GHz (80MHz) Conducted Power [dBm] |         |                        |
|------------------------------------|---------|------------------------|------------------------------------|---------|------------------------|
| Freq [MHz]                         | Channel | IEEE Transmission Mode | Freq [MHz]                         | Channel | IEEE Transmission Mode |
|                                    |         | 802.11n                |                                    |         | 802.11ac               |
|                                    |         | Average                |                                    |         | Average                |
| 5190                               | 38      | 13.95                  | 5530                               | 106     | 13.88                  |
| 5230                               | 46      | 16.40                  | 5610                               | 122     | 17.00                  |
| 5270                               | 54      | 16.00                  | 5690                               | 138     | 16.97                  |
| 5310                               | 62      | 14.43                  | 5775                               | 155     | 16.50                  |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 67 of 114                  |

**Table 8-85**  
**5 GHz WLAN Average RF Power – Ant B**

| 5GHz (40MHz) Conducted Power [dBm] |         |                              | 5GHz (80MHz) Conducted Power [dBm] |         |                              |
|------------------------------------|---------|------------------------------|------------------------------------|---------|------------------------------|
| Freq [MHz]                         | Channel | IEEE<br>Transmission<br>Mode | Freq [MHz]                         | Channel | IEEE<br>Transmission<br>Mode |
|                                    |         | 802.11n                      |                                    |         | 802.11ac                     |
|                                    |         | Average                      |                                    |         | Average                      |
| 5190                               | 38      | 14.00                        | 5530                               | 106     | 13.87                        |
| 5230                               | 46      | 16.41                        | 5610                               | 122     | 16.00                        |
| 5270                               | 54      | 16.92                        | 5690                               | 138     | 16.00                        |
| 5310                               | 62      | 14.50                        | 5775                               | 155     | 16.00                        |

**Table 8-86**  
**5 GHz WLAN Average RF Power – MIMO**

| 5GHz (40MHz) Conducted Power [dBm] |         |       |       |
|------------------------------------|---------|-------|-------|
| 802.11n                            |         |       |       |
| Freq [MHz]                         | Channel | ANT A | ANT B |
| 5190                               | 38      | 12.43 | 12.45 |
| 5230                               | 46      | 16.40 | 16.50 |
| 5270                               | 54      | 16.00 | 16.92 |
| 5310                               | 62      | 13.41 | 13.40 |
| 5755                               | 151     | 16.50 | 16.46 |
| 5795                               | 159     | 16.45 | 16.40 |
| 5GHz (80MHz) Conducted Power [dBm] |         |       |       |
| 802.11ac                           |         |       |       |
| Freq [MHz]                         | Channel | ANT A | ANT B |
| 5530                               | 106     | 12.90 | 13.00 |
| 5610                               | 122     | 17.00 | 16.00 |
| 5690                               | 138     | 17.00 | 15.88 |

## 8.5.2 Variant 2

**Table 8-87**  
**2.4 GHz WLAN Average RF Power – Ant A**

| 2.4GHz Conducted Power [dBm] |         |                        |
|------------------------------|---------|------------------------|
| Freq [MHz]                   | Channel | IEEE Transmission Mode |
|                              |         | 802.11b                |
|                              |         | Average                |
| 2412                         | 1       | 15.47                  |
| 2437                         | 6       | 15.45                  |
| 2462                         | 11      | 15.50                  |

|                                         |                                                                                                                                   |                              |  |                                 |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                                                | DUT Type:<br>Tablet Device   |  | Page 68 of 114                  |

**Table 8-88**  
**2.4 GHz WLAN Average RF Power – Ant B**

| 2.4GHz Conducted Power [dBm] |         |                        |
|------------------------------|---------|------------------------|
| Freq [MHz]                   | Channel | IEEE Transmission Mode |
|                              |         | 802.11b                |
|                              |         | Average                |
| 2412                         | 1       | 15.47                  |
| 2437                         | 6       | 15.37                  |
| 2462                         | 11      | 15.43                  |

**Table 8-89**  
**2.4 GHz WLAN Average RF Power – MIMO**

| 2.4GHz Conducted Power [dBm] |         |       |       |
|------------------------------|---------|-------|-------|
| 802.11g                      |         |       |       |
| Freq [MHz]                   | Channel | ANT A | ANT B |
| 2417                         | 2       | 15.37 | 15.30 |
| 2437                         | 6       | 15.48 | 15.35 |
| 2457                         | 10      | 15.44 | 15.31 |

**Table 8-90**  
**5 GHz WLAN Average RF Power – Ant A**

| 5GHz (40MHz) Conducted Power [dBm] |         |                        | 5GHz (80MHz) Conducted Power [dBm] |         |                        |
|------------------------------------|---------|------------------------|------------------------------------|---------|------------------------|
| Freq [MHz]                         | Channel | IEEE Transmission Mode | Freq [MHz]                         | Channel | IEEE Transmission Mode |
|                                    |         | 802.11n                |                                    |         | 802.11ac               |
|                                    |         | Average                |                                    |         | Average                |
|                                    |         |                        |                                    |         |                        |
| 5270                               | 54      | 15.93                  | 5530                               | 106     | 13.90                  |
| 5310                               | 62      | 14.46                  | 5610                               | 122     | 16.93                  |
|                                    |         |                        | 5690                               | 138     | 17.00                  |
|                                    |         |                        | 5775                               | 155     | 16.50                  |

**Table 8-91**  
**5 GHz WLAN Average RF Power – Ant B**

| 5GHz (40MHz) Conducted Power [dBm] |         |                        | 5GHz (80MHz) Conducted Power [dBm] |         |                        |
|------------------------------------|---------|------------------------|------------------------------------|---------|------------------------|
| Freq [MHz]                         | Channel | IEEE Transmission Mode | Freq [MHz]                         | Channel | IEEE Transmission Mode |
|                                    |         | 802.11n                |                                    |         | 802.11ac               |
|                                    |         | Average                |                                    |         | Average                |
|                                    |         |                        |                                    |         |                        |
| 5270                               | 54      | 16.96                  | 5530                               | 106     | 13.92                  |
| 5310                               | 62      | 14.49                  | 5610                               | 122     | 16.00                  |
|                                    |         |                        | 5690                               | 138     | 15.92                  |
|                                    |         |                        | 5775                               | 155     | 15.92                  |

|                                         |                                                                                     |                              |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--|---------------------------------|
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**Table 8-92**  
**5 GHz WLAN Average RF Power – MIMO**

| 5GHz (40MHz) Conducted Power [dBm] |         |       |       | 5GHz (80MHz) Conducted Power [dBm] |         |       |       |
|------------------------------------|---------|-------|-------|------------------------------------|---------|-------|-------|
| 802.11n                            |         |       |       | 802.11ac                           |         |       |       |
| Freq [MHz]                         | Channel | ANT A | ANT B | Freq [MHz]                         | Channel | ANT A | ANT B |
| 5270                               | 54      | 15.90 | 16.95 | 5530                               | 106     | 13.00 | 13.00 |
| 5310                               | 62      | 13.50 | 13.50 | 5610                               | 122     | 16.97 | 16.00 |
| 5755                               | 151     | 16.49 | 16.47 | 5690                               | 138     | 16.83 | 16.00 |
| 5795                               | 159     | 16.47 | 16.32 |                                    |         |       |       |

### 8.5.3 Notes for WLAN

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.
- The WLAN chipset in this device is produced by two different suppliers. The electrically identical modules are manufactured with the identical mechanical structure to meet the same specifications and functions. Two device variants are referenced as Variant 1 and Variant 2 in this report.
- WLAN SAR testing was completely performed on Variant 1, and Variant 2 is additionally evaluated for WLAN SAR with the same configuration of the highest reported SAR of Variant 1.
- Full power measurements were performed for variant 1 per FCC KDB Procedures 248227. Additional power measurements for variant 2 were additionally performed to support the SAR test configurations.
- The bolded data rate and channel above were tested for SAR.

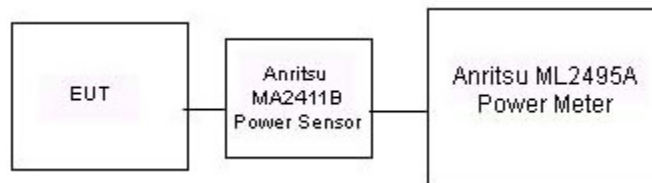


**Figure 8-5**  
**Power Measurement Setup for Bandwidths < 50 MHz**

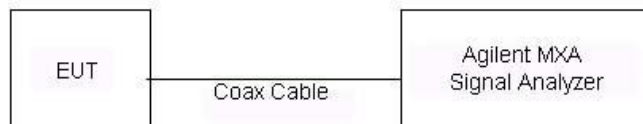


**Figure 8-6**  
**Power Measurement Setup for Bandwidths > 50 MHz**

|                                                |                                                                                     |                                   |                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
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## 8.6 Bluetooth Conducted Powers

**Table 8-93**  
**Bluetooth Maximum Average RF Power ( $P_{High}$ ) – Variant 1**

| Frequency [MHz] | Modulation | Channel No. | Avg Conducted Power |        |
|-----------------|------------|-------------|---------------------|--------|
|                 |            |             | [dBm]               | [mW]   |
| 2402            | GFSK       | 0           | 15.62               | 36.459 |
| 2441            | GFSK       | 39          | 15.53               | 35.703 |
| 2480            | GFSK       | <b>78</b>   | <b>17.00</b>        | 50.119 |
| 2402            | 8PSK       | 0           | 11.93               | 15.606 |
| 2441            | 8PSK       | 39          | 11.93               | 15.592 |
| 2480            | 8PSK       | 78          | 11.91               | 15.513 |

Note: The bolded data rates and channel above were tested for SAR.

**Table 8-94**  
**Bluetooth Reduced Average RF Power ( $P_{Low}$ ) – Variant 1**

| Frequency [MHz] | Modulation | Channel No. | Avg Conducted Power |       |
|-----------------|------------|-------------|---------------------|-------|
|                 |            |             | [dBm]               | [mW]  |
| 2402            | GFSK       | 0           | 8.94                | 7.825 |
| 2441            | GFSK       | <b>39</b>   | <b>9.25</b>         | 8.410 |
| 2480            | GFSK       | 78          | 8.78                | 7.544 |
| 2402            | 8PSK       | 0           | 5.60                | 3.633 |
| 2441            | 8PSK       | 39          | 5.67                | 3.688 |
| 2480            | 8PSK       | 78          | 5.64                | 3.663 |

Note: The bolded data rates and channel above were tested for SAR.

|                                         |                                                                                                                  |                            |                                 |
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**Table 8-95**  
**Bluetooth Maximum Average RF Power ( $P_{High}$ ) – Variant 2**

| Frequency<br>[MHz] | Modulation | Channel<br>No. | Avg Conducted<br>Power |        |
|--------------------|------------|----------------|------------------------|--------|
|                    |            |                | [dBm]                  | [mW]   |
| 2402               | GFSK       | 0              | 16.00                  | 39.838 |
| 2441               | GFSK       | 39             | 15.74                  | 37.532 |
| 2480               | GFSK       | 78             | 16.93                  | 49.351 |
| 2402               | 8PSK       | 0              | 11.85                  | 15.318 |
| 2441               | 8PSK       | 39             | 12.05                  | 16.014 |
| 2480               | 8PSK       | 78             | 12.13                  | 16.315 |

|                                                |                                                                                     |                                   |                                        |
|------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
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| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                           | <b>DUT Type:</b><br>Tablet Device | Page 72 of 114                         |



|                                                |                                                                                                                  |                                   |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
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| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                        | <b>DUT Type:</b><br>Tablet Device | Page 73 of 114                         |

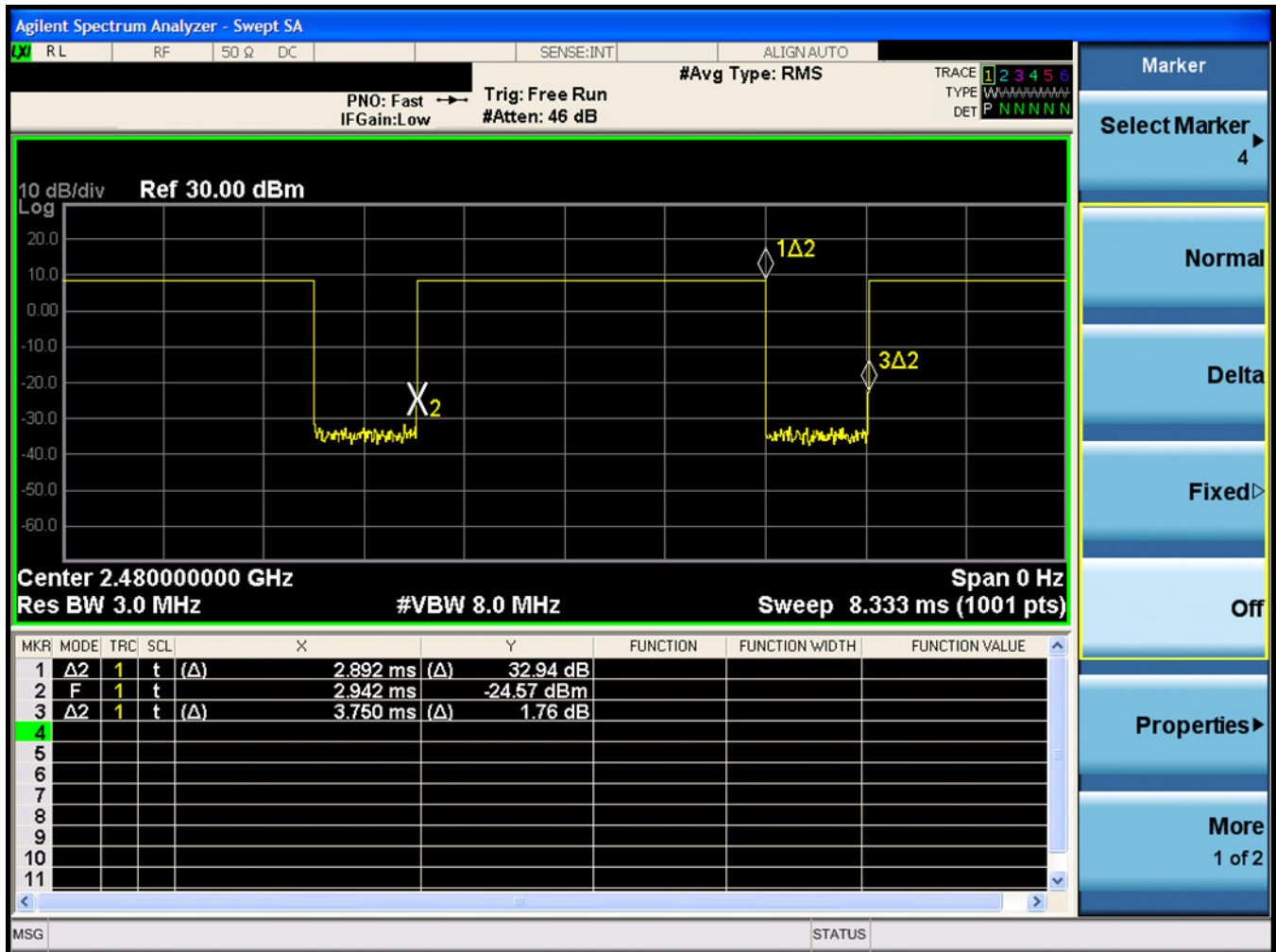


**Figure 8-8**  
Bluetooth  $P_{Low}$  Transmission Plot & Duty Cycle Calculation – Variant 1

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.892ms}{3.750ms} * 100\% = 77.1\%$$

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
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## 8.6.1 Bluetooth Power Reduction Verification Summary

**Table 8-96**  
**Bluetooth Power Reduction Verification**

| Bluetooth Mode | Data Rate [Mbps] | Maximum                                     | Test Case 1                                 | Maximum              |        | Test Case 1          |        |
|----------------|------------------|---------------------------------------------|---------------------------------------------|----------------------|--------|----------------------|--------|
|                |                  | Average Target Power [dBm] (Tolerance [dB]) | Average Target Power [dBm] (Tolerance [dB]) | Peak Conducted Power |        | Peak Conducted Power |        |
|                |                  |                                             |                                             | [dBm]                | [mW]   | [dBm]                | [mW]   |
| BT BDR         | 1.0              | 15.5 (±1.5)                                 | 8.0 (±1.5)                                  | 15.35                | 34.269 | 7.67                 | 5.849  |
| BT EDR         | 2.0              | 11.0 (±1.5)                                 | 6.0 (±1.5)                                  | 14.06                | 25.468 | 11.00                | 12.589 |
| BT LE          | 1.0              | 15.5 (±1.5)                                 | 5.5 (±1.5)                                  | 16.82                | 48.084 | 5.66                 | 3.681  |

Test Case 1 represents a scenario in which Bluetooth powers would be reduced. Due to test setup conditions, peak powers were used to confirm the power reduction mechanism. According to the expected Peak-to-Average-Ratio of Bluetooth modes, the above measured peak powers confirm that the average powers for both maximum and reduced output power conditions are within allowed tolerance ranges.

## 8.6.2 Notes for Bluetooth

- The Bluetooth chipset in this device is produced by two different suppliers. The electrically identical modules are manufactured with the identical mechanical structure to meet the same specifications and functions. Two device variants are referenced as Variant 1 and Variant 2 in this report.
- Bluetooth SAR testing was completely performed on Variant 1, and Variant 2 is additionally evaluated for Bluetooth SAR with the same configuration of the highest reported SAR of Variant 1.
- Full power measurements were performed for variant 1 per FCC KDB Procedures 248227. Additional power measurements for variant 2 were additionally performed to support the SAR test configurations

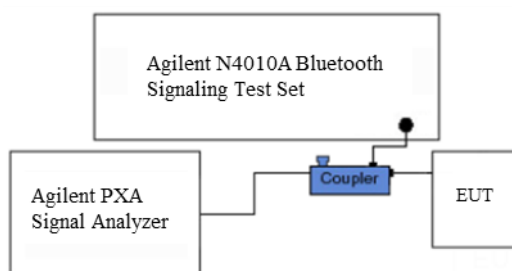


**Figure 8-10**  
**Power Measurement Setup**

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
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## 9 SYSTEM VERIFICATION

### 9.1 Tissue Verification

**Table 9-1**  
**Measured Tissue Properties**

| Calibrated for Tests Performed on: | Tissue Type | Tissue Temp During Calibration (°C) | Measured Frequency (MHz) | Measured Conductivity, $\sigma$ (S/m) | Measured Dielectric Constant, $\epsilon$ | TARGET Conductivity, $\sigma$ (S/m) | TARGET Dielectric Constant, $\epsilon$ | % dev $\sigma$ | % dev $\epsilon$ |
|------------------------------------|-------------|-------------------------------------|--------------------------|---------------------------------------|------------------------------------------|-------------------------------------|----------------------------------------|----------------|------------------|
| 1/8/2018                           | 750B        | 20.0                                | 700                      | 0.924                                 | 56.031                                   | 0.959                               | 55.726                                 | -3.65%         | 0.55%            |
|                                    |             |                                     | 710                      | 0.936                                 | 55.914                                   | 0.960                               | 55.687                                 | -2.50%         | 0.41%            |
|                                    |             |                                     | 720                      | 0.947                                 | 55.800                                   | 0.961                               | 55.648                                 | -1.46%         | 0.27%            |
|                                    |             |                                     | 725                      | 0.952                                 | 55.743                                   | 0.961                               | 55.629                                 | -0.94%         | 0.20%            |
|                                    |             |                                     | 740                      | 0.968                                 | 55.601                                   | 0.963                               | 55.570                                 | 0.52%          | 0.06%            |
|                                    |             |                                     | 755                      | 0.983                                 | 55.457                                   | 0.964                               | 55.512                                 | 1.97%          | -0.10%           |
|                                    |             |                                     | 770                      | 0.997                                 | 55.291                                   | 0.965                               | 55.453                                 | 3.32%          | -0.29%           |
|                                    |             |                                     | 785                      | 1.013                                 | 55.093                                   | 0.966                               | 55.395                                 | 4.87%          | -0.55%           |
| 1/8/2018                           | 835B        | 20.5                                | 820                      | 0.992                                 | 53.187                                   | 0.969                               | 55.258                                 | 2.37%          | -3.75%           |
|                                    |             |                                     | 835                      | 1.007                                 | 53.037                                   | 0.970                               | 55.200                                 | 3.81%          | -3.92%           |
|                                    |             |                                     | 850                      | 1.022                                 | 52.895                                   | 0.988                               | 55.154                                 | 3.44%          | -4.10%           |
| 1/9/2018                           | 1750B       | 20.6                                | 1710                     | 1.450                                 | 53.181                                   | 1.463                               | 53.537                                 | -0.89%         | -0.66%           |
|                                    |             |                                     | 1750                     | 1.497                                 | 53.081                                   | 1.488                               | 53.432                                 | 0.60%          | -0.66%           |
|                                    |             |                                     | 1790                     | 1.540                                 | 52.977                                   | 1.514                               | 53.326                                 | 1.72%          | -0.65%           |
| 1/5/2018                           | 1900B       | 23.3                                | 1850                     | 1.530                                 | 52.237                                   | 1.520                               | 53.300                                 | 0.66%          | -1.99%           |
|                                    |             |                                     | 1880                     | 1.563                                 | 52.130                                   | 1.520                               | 53.300                                 | 2.83%          | -2.20%           |
|                                    |             |                                     | 1910                     | 1.595                                 | 52.010                                   | 1.520                               | 53.300                                 | 4.93%          | -2.42%           |
| 1/8/2018                           | 1900B       | 23.9                                | 1850                     | 1.527                                 | 52.270                                   | 1.520                               | 53.300                                 | 0.46%          | -1.93%           |
|                                    |             |                                     | 1880                     | 1.561                                 | 52.207                                   | 1.520                               | 53.300                                 | 2.70%          | -2.05%           |
|                                    |             |                                     | 1910                     | 1.594                                 | 52.123                                   | 1.520                               | 53.300                                 | 4.87%          | -2.21%           |
| 1/9/2018                           | 2300B       | 22.3                                | 2300                     | 1.815                                 | 51.871                                   | 1.809                               | 52.900                                 | 0.33%          | -1.95%           |
|                                    |             |                                     | 2310                     | 1.828                                 | 51.843                                   | 1.816                               | 52.887                                 | 0.66%          | -1.97%           |
|                                    |             |                                     | 2320                     | 1.843                                 | 51.814                                   | 1.826                               | 52.873                                 | 0.93%          | -2.00%           |
| 12/26/2017                         | 2450B       | 23.0                                | 2400                     | 1.878                                 | 50.968                                   | 1.902                               | 52.767                                 | -1.26%         | -3.41%           |
|                                    |             |                                     | 2450                     | 1.944                                 | 50.790                                   | 1.950                               | 52.700                                 | -0.31%         | -3.62%           |
|                                    |             |                                     | 2500                     | 2.011                                 | 50.577                                   | 2.021                               | 52.636                                 | -0.49%         | -3.91%           |
| 1/9/2018                           | 2450B       | 22.3                                | 2400                     | 1.954                                 | 51.515                                   | 1.902                               | 52.767                                 | 2.73%          | -2.37%           |
|                                    |             |                                     | 2450                     | 2.026                                 | 51.310                                   | 1.950                               | 52.700                                 | 3.90%          | -2.64%           |
|                                    |             |                                     | 2500                     | 2.096                                 | 51.099                                   | 2.021                               | 52.636                                 | 3.71%          | -2.92%           |
| 1/22/2018                          | 2450B       | 21.6                                | 2400                     | 1.954                                 | 51.685                                   | 1.902                               | 52.767                                 | 2.73%          | -2.05%           |
|                                    |             |                                     | 2450                     | 2.024                                 | 51.495                                   | 1.950                               | 52.700                                 | 3.79%          | -2.29%           |
|                                    |             |                                     | 2500                     | 2.095                                 | 51.292                                   | 2.021                               | 52.636                                 | 3.66%          | -2.55%           |
| 1/9/2018                           | 2600B       | 22.3                                | 2550                     | 2.162                                 | 50.888                                   | 2.092                               | 52.573                                 | 3.35%          | -3.21%           |
|                                    |             |                                     | 2600                     | 2.237                                 | 50.697                                   | 2.163                               | 52.509                                 | 3.42%          | -3.45%           |
|                                    |             |                                     | 2650                     | 2.306                                 | 50.495                                   | 2.234                               | 52.445                                 | 3.22%          | -3.72%           |
| 01/02/2018                         | 5200B-5800B | 22.3                                | 2700                     | 2.375                                 | 50.279                                   | 2.305                               | 52.382                                 | 3.04%          | -4.01%           |
|                                    |             |                                     | 5520                     | 5.818                                 | 48.221                                   | 5.673                               | 48.580                                 | 2.56%          | -0.74%           |
|                                    |             |                                     | 5540                     | 5.849                                 | 48.155                                   | 5.696                               | 48.553                                 | 2.69%          | -0.82%           |
|                                    |             |                                     | 5560                     | 5.879                                 | 48.139                                   | 5.720                               | 48.526                                 | 2.78%          | -0.80%           |
|                                    |             |                                     | 5580                     | 5.898                                 | 48.093                                   | 5.743                               | 48.499                                 | 2.70%          | -0.84%           |
|                                    |             |                                     | 5600                     | 5.931                                 | 48.089                                   | 5.766                               | 48.471                                 | 2.86%          | -0.79%           |
|                                    |             |                                     | 5620                     | 5.959                                 | 48.027                                   | 5.790                               | 48.444                                 | 2.92%          | -0.86%           |
|                                    |             |                                     | 5640                     | 5.985                                 | 48.007                                   | 5.813                               | 48.417                                 | 2.96%          | -0.85%           |
|                                    |             |                                     | 5660                     | 6.016                                 | 47.970                                   | 5.837                               | 48.390                                 | 3.07%          | -0.87%           |
|                                    |             |                                     | 5680                     | 6.039                                 | 47.919                                   | 5.860                               | 48.363                                 | 3.05%          | -0.92%           |
| 01/15/2018                         | 5200B-5800B | 20.5                                | 5700                     | 6.070                                 | 47.908                                   | 5.883                               | 48.336                                 | 3.18%          | -0.89%           |
|                                    |             |                                     | 5240                     | 5.484                                 | 48.365                                   | 5.346                               | 48.960                                 | 2.58%          | -1.22%           |
|                                    |             |                                     | 5260                     | 5.488                                 | 48.322                                   | 5.369                               | 48.933                                 | 2.22%          | -1.25%           |
|                                    |             |                                     | 5280                     | 5.510                                 | 48.284                                   | 5.393                               | 48.906                                 | 2.17%          | -1.27%           |
|                                    |             |                                     | 5300                     | 5.532                                 | 48.248                                   | 5.416                               | 48.879                                 | 2.14%          | -1.29%           |
|                                    |             |                                     | 5320                     | 5.579                                 | 48.267                                   | 5.439                               | 48.851                                 | 2.57%          | -1.20%           |
|                                    |             |                                     | 5520                     | 5.847                                 | 47.975                                   | 5.673                               | 48.580                                 | 3.07%          | -1.25%           |
|                                    |             |                                     | 5540                     | 5.876                                 | 47.856                                   | 5.696                               | 48.553                                 | 3.16%          | -1.44%           |
|                                    |             |                                     | 5600                     | 5.947                                 | 47.829                                   | 5.766                               | 48.471                                 | 3.14%          | -1.32%           |
|                                    |             |                                     | 5620                     | 5.992                                 | 47.752                                   | 5.790                               | 48.444                                 | 3.49%          | -1.43%           |
|                                    |             |                                     | 5680                     | 6.066                                 | 47.566                                   | 5.860                               | 48.363                                 | 3.52%          | -1.65%           |
|                                    |             |                                     | 5700                     | 6.104                                 | 47.661                                   | 5.883                               | 48.336                                 | 3.76%          | -1.40%           |
|                                    |             |                                     | 5745                     | 6.151                                 | 47.569                                   | 5.936                               | 48.275                                 | 3.62%          | -1.46%           |
|                                    |             |                                     | 5765                     | 6.198                                 | 47.460                                   | 5.959                               | 48.248                                 | 4.01%          | -1.63%           |
|                                    |             |                                     | 5785                     | 6.214                                 | 47.409                                   | 5.982                               | 48.220                                 | 3.88%          | -1.68%           |
|                                    |             |                                     | 5800                     | 6.258                                 | 47.447                                   | 6.000                               | 48.200                                 | 4.30%          | -1.56%           |

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 77 of 114                  |

## 9.2 Test System Verification

Prior to SAR assessment, the system is verified to  $\pm 10\%$  of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in Appendix E.

**Table 9-2**  
**System Verification Results**

| SAR System # | Tissue Frequency (MHz) | Tissue Type | Date:      | Amb. Temp (°C) | Liquid Temp (°C) | Input Power (W) | Source SN | Probe SN | Measured SAR <sub>1g</sub> (W/kg) | 1 W Target SAR <sub>1g</sub> (W/kg) | 1 W Normalized SAR <sub>1g</sub> (W/kg) | Deviation <sub>1g</sub> (%) |
|--------------|------------------------|-------------|------------|----------------|------------------|-----------------|-----------|----------|-----------------------------------|-------------------------------------|-----------------------------------------|-----------------------------|
| CAL4         | 750                    | BODY        | 01/08/2018 | 22.4           | 20.0             | 0.200           | 1097      | 3022     | 1.800                             | 8.560                               | 9.000                                   | 5.14%                       |
| CAL2         | 835                    | BODY        | 01/08/2018 | 20.8           | 20.0             | 0.200           | 4d180     | 3334     | 2.050                             | 9.610                               | 10.250                                  | 6.66%                       |
| CAL4         | 1750                   | BODY        | 01/09/2018 | 24.2           | 20.6             | 0.100           | 1092      | 3022     | 3.740                             | 37.000                              | 37.400                                  | 1.08%                       |
| CAL3         | 1900                   | BODY        | 01/05/2018 | 22.6           | 21.5             | 0.100           | 5d026     | 3333     | 4.000                             | 40.300                              | 40.000                                  | -0.74%                      |
| CAL3         | 1900                   | BODY        | 01/08/2018 | 23.4           | 22.0             | 0.100           | 5d026     | 3333     | 4.190                             | 40.300                              | 41.900                                  | 3.97%                       |
| CAL1         | 2300                   | BODY        | 01/09/2018 | 22.7           | 22.3             | 0.100           | 1038      | 7420     | 5.000                             | 47.500                              | 50.000                                  | 5.26%                       |
| CAL3         | 2450                   | BODY        | 12/26/2017 | 23.7           | 23.0             | 0.100           | 945       | 3333     | 5.230                             | 50.200                              | 52.300                                  | 4.18%                       |
| CAL1         | 2450                   | BODY        | 01/09/2018 | 22.7           | 22.3             | 0.100           | 921       | 7420     | 5.190                             | 50.700                              | 51.900                                  | 2.37%                       |
| CAL4         | 2450                   | BODY        | 01/22/2018 | 22.4           | 21.6             | 0.100           | 750       | 3022     | 4.990                             | 51.200                              | 49.900                                  | -2.54%                      |
| CAL1         | 2600                   | BODY        | 01/09/2018 | 22.7           | 22.3             | 0.100           | 1069      | 7420     | 5.880                             | 55.300                              | 58.800                                  | 6.33%                       |
| CAL4         | 5250                   | BODY        | 01/15/2018 | 22.2           | 20.5             | 0.050           | 1163      | 7416     | 3.640                             | 77.400                              | 72.800                                  | -5.94%                      |
| CAL4         | 5600                   | BODY        | 01/02/2018 | 20.7           | 22.3             | 0.050           | 1123      | 7416     | 3.760                             | 78.900                              | 75.200                                  | -4.69%                      |
| CAL4         | 5750                   | BODY        | 01/15/2018 | 22.2           | 20.5             | 0.050           | 1163      | 7416     | 3.590                             | 77.400                              | 71.800                                  | -7.24%                      |

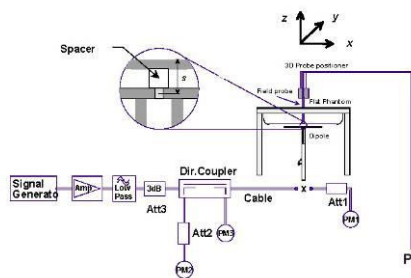


**Figure 9-1**  
**System Verification Setup Diagram**



**Figure 9-2**  
**System Verification Setup Photo**

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 78 of 114                  |

# 10 SAR DATA SUMMARY

## 10.1 Standalone Body SAR Data

**Table 10-1**  
**850MHz Body SAR Data – 2G/3G**

| MEASUREMENT RESULTS                                   |      |                  |             |                             |                       |                  |                                                 |                      |                 |            |        |          |                |                   |           |                    |        |
|-------------------------------------------------------|------|------------------|-------------|-----------------------------|-----------------------|------------------|-------------------------------------------------|----------------------|-----------------|------------|--------|----------|----------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                             |      | Mode             | Service     | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing                                         | Device Serial Number | # of GPRS Slots | Duty Cycle | Side   | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                                   | Ch.  |                  |             |                             |                       |                  |                                                 |                      |                 |            |        | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |
| 824.20                                                | 128  | GSM 850          | GPRS        | 25.3                        | 25.24                 | 0.02             | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | back   | 1.140    | 1.014          | 1.156             | 0.581     | 0.589              | A1     |
| 836.60                                                | 190  | GSM 850          | GPRS        | 25.3                        | 25.25                 | -0.05            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | back   | 1.070    | 1.012          | 1.083             | 0.549     | 0.556              |        |
| 848.80                                                | 251  | GSM 850          | GPRS        | 25.3                        | 25.23                 | 0.03             | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | back   | 1.060    | 1.016          | 1.077             | 0.541     | 0.550              |        |
| 824.20                                                | 128  | GSM 850          | GPRS        | 25.3                        | 25.24                 | -0.03            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | top    | 0.819    | 1.014          | 0.830             | 0.451     | 0.457              |        |
| 836.60                                                | 190  | GSM 850          | GPRS        | 25.3                        | 25.25                 | -0.07            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | top    | 0.802    | 1.012          | 0.812             | 0.443     | 0.448              |        |
| 848.80                                                | 251  | GSM 850          | GPRS        | 25.3                        | 25.23                 | -0.06            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | top    | 0.756    | 1.016          | 0.768             | 0.413     | 0.420              |        |
| 836.60                                                | 190  | GSM 850          | GPRS        | 25.3                        | 25.25                 | 0.18             | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | bottom | 0.025    | 1.012          | 0.025             | 0.013     | 0.013              |        |
| 836.60                                                | 190  | GSM 850          | GPRS        | 25.3                        | 25.25                 | -0.04            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | right  | 0.100    | 1.012          | 0.101             | 0.059     | 0.060              |        |
| 824.20                                                | 128  | GSM 850          | GPRS        | 25.3                        | 25.24                 | -0.01            | 0 mm                                            | F9FVT00FJM4W         | 2               | 1:4.15     | back   | 1.070    | 1.014          | 1.085             | 0.552     | 0.560              |        |
| 826.40                                                | 4132 | UMTS 850         | RMC         | 18.0                        | 17.94                 | -0.02            | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | back   | 1.130    | 1.014          | 1.146             | 0.584     | 0.592              | A2     |
| 836.60                                                | 4183 | UMTS 850         | RMC         | 18.0                        | 18.00                 | -0.02            | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | back   | 1.120    | 1.000          | 1.120             | 0.576     | 0.576              |        |
| 846.60                                                | 4233 | UMTS 850         | RMC         | 18.0                        | 18.00                 | -0.02            | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | back   | 1.120    | 1.000          | 1.120             | 0.577     | 0.577              |        |
| 836.60                                                | 4183 | UMTS 850         | RMC         | 18.0                        | 18.00                 | -0.02            | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | top    | 0.689    | 1.000          | 0.689             | 0.381     | 0.381              |        |
| 836.60                                                | 4183 | UMTS 850         | RMC         | 18.0                        | 18.00                 | 0.02             | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | bottom | 0.018    | 1.000          | 0.018             | 0.009     | 0.009              |        |
| 836.60                                                | 4183 | UMTS 850         | RMC         | 18.0                        | 18.00                 | 0.03             | 0 mm                                            | F9FVT00GJM4W         | N/A             | 1:1        | right  | 0.111    | 1.000          | 0.111             | 0.056     | 0.056              |        |
| 820.00                                                | 560  | CDMA BC10 (§90S) | EVDO Rev. 0 | 18.0                        | 17.97                 | -0.04            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.020    | 1.007          | 1.027             | 0.527     | 0.531              | A3     |
| 820.00                                                | 560  | CDMA BC10 (§90S) | EVDO Rev. 0 | 18.0                        | 17.97                 | -0.02            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | top    | 0.665    | 1.007          | 0.670             | 0.365     | 0.368              |        |
| 820.00                                                | 560  | CDMA BC10 (§90S) | EVDO Rev. 0 | 18.0                        | 17.97                 | -0.15            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | bottom | 0.022    | 1.007          | 0.022             | 0.011     | 0.011              |        |
| 820.00                                                | 560  | CDMA BC10 (§90S) | EVDO Rev. 0 | 18.0                        | 17.97                 | 0.03             | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | right  | 0.112    | 1.007          | 0.113             | 0.056     | 0.056              |        |
| 824.70                                                | 1013 | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.92                 | -0.03            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.030    | 1.019          | 1.050             | 0.534     | 0.544              |        |
| 836.52                                                | 384  | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.98                 | -0.02            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.080    | 1.005          | 1.085             | 0.556     | 0.559              | A4     |
| 848.31                                                | 777  | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.91                 | -0.01            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.070    | 1.021          | 1.092             | 0.550     | 0.562              |        |
| 836.52                                                | 384  | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.98                 | -0.09            | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | top    | 0.723    | 1.005          | 0.727             | 0.403     | 0.405              |        |
| 836.52                                                | 384  | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.98                 | 0.18             | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | bottom | 0.019    | 1.005          | 0.019             | 0.009     | 0.009              |        |
| 836.52                                                | 384  | CDMA BC0 (§22H)  | EVDO Rev. 0 | 18.0                        | 17.98                 | 0.02             | 0 mm                                            | F9FVT00MJM4W         | N/A             | 1:1        | right  | 0.113    | 1.005          | 0.114             | 0.057     | 0.057              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak |      |                  |             |                             |                       |                  | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |                      |                 |            |        |          |                |                   |           |                    |        |
| Uncontrolled Exposure/General Population              |      |                  |             |                             |                       |                  |                                                 |                      |                 |            |        |          |                |                   |           |                    |        |

Note: Blue entries indicate variability measurements.

**Table 10-2**  
**1750MHz Body SAR Data – 2G/3G**

| MEASUREMENT RESULTS                                                                               |      |           |         |                             |                       |                  |                                                 |                      |            |        |          |                |                   |           |                    |        |
|---------------------------------------------------------------------------------------------------|------|-----------|---------|-----------------------------|-----------------------|------------------|-------------------------------------------------|----------------------|------------|--------|----------|----------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                                                                         |      | Mode      | Service | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing                                         | Device Serial Number | Duty Cycle | Side   | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                                                                               | Ch.  |           |         |                             |                       |                  |                                                 |                      |            |        | (W/kg)   |                | (W/kg)            |           | (W/kg)             |        |
| 1712.40                                                                                           | 1312 | UMTS 1750 | RMC     | 13.5                        | 13.49                 | 0.01             | 0 mm                                            | F9FVT00WJM50         | 1:1        | back   | 0.886    | 1.002          | 0.888             | 0.423     | 0.424              |        |
| 1732.40                                                                                           | 1412 | UMTS 1750 | RMC     | 13.5                        | 13.48                 | 0.01             | 0 mm                                            | F9FVT00WJM50         | 1:1        | back   | 0.930    | 1.005          | 0.935             | 0.444     | 0.446              |        |
| 1752.60                                                                                           | 1513 | UMTS 1750 | RMC     | 13.5                        | 13.43                 | -0.01            | 0 mm                                            | F9FVT00WJM50         | 1:1        | back   | 0.962    | 1.016          | 0.977             | 0.458     | 0.465              | A5     |
| 1732.40                                                                                           | 1412 | UMTS 1750 | RMC     | 13.5                        | 13.48                 | 0.00             | 0 mm                                            | F9FVT00WJM50         | 1:1        | top    | 0.696    | 1.005          | 0.699             | 0.340     | 0.342              |        |
| 1732.40                                                                                           | 1412 | UMTS 1750 | RMC     | 13.5                        | 13.48                 | 0.10             | 0 mm                                            | F9FVT00WJM50         | 1:1        | bottom | 0.004    | 1.005          | 0.004             | 0.002     | 0.002              |        |
| 1732.40                                                                                           | 1412 | UMTS 1750 | RMC     | 13.5                        | 13.48                 | 0.07             | 0 mm                                            | F9FVT00WJM50         | 1:1        | right  | 0.082    | 1.005          | 0.082             | 0.038     | 0.038              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |      |           |         |                             |                       |                  | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |                      |            |        |          |                |                   |           |                    |        |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 79 of 114                  |

**Table 10-3**  
**1900MHz Body SAR Data – 2G/3G**

| MEASUREMENT RESULTS                      |      |           |             |                             |                       |                  |                      |                      |                 |            |        |          |                |                   |           |                    |        |
|------------------------------------------|------|-----------|-------------|-----------------------------|-----------------------|------------------|----------------------|----------------------|-----------------|------------|--------|----------|----------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                |      | Mode      | Service     | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing              | Device Serial Number | # of GPRS Slots | Duty Cycle | Side   | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                      | Ch.  |           |             |                             |                       |                  |                      |                      |                 |            |        | (W/kg)   |                | (W/kg)            | (W/kg)    | (W/kg)             |        |
| 1850.20                                  | 512  | GSM 1900  | GPRS        | 20.0                        | 19.88                 | 0.04             | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | back   | 0.887    | 1.028          | 0.912             | 0.425     | 0.437              |        |
| 1880.00                                  | 661  | GSM 1900  | GPRS        | 20.0                        | 19.91                 | 0.02             | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | back   | 0.908    | 1.021          | 0.927             | 0.435     | 0.444              |        |
| 1909.80                                  | 810  | GSM 1900  | GPRS        | 20.0                        | 19.99                 | -0.04            | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | back   | 1.110    | 1.002          | 1.112             | 0.533     | 0.534              | A6     |
| 1850.20                                  | 512  | GSM 1900  | GPRS        | 20.0                        | 19.88                 | 0.13             | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | top    | 0.756    | 1.028          | 0.777             | 0.364     | 0.374              |        |
| 1880.00                                  | 661  | GSM 1900  | GPRS        | 20.0                        | 19.91                 | -0.02            | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | top    | 0.869    | 1.021          | 0.887             | 0.416     | 0.425              |        |
| 1909.80                                  | 810  | GSM 1900  | GPRS        | 20.0                        | 19.99                 | -0.15            | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | top    | 0.967    | 1.002          | 0.969             | 0.461     | 0.462              |        |
| 1880.00                                  | 661  | GSM 1900  | GPRS        | 20.0                        | 19.91                 | -0.17            | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | bottom | 0.000    | 1.021          | 0.000             | 0.000     | 0.000              |        |
| 1880.00                                  | 661  | GSM 1900  | GPRS        | 20.0                        | 19.91                 | -0.13            | 0 mm                 | F9FVT017JM50         | 2               | 1:4.15     | right  | 0.123    | 1.021          | 0.126             | 0.058     | 0.059              |        |
| 1852.40                                  | 9262 | UMTS 1900 | RMC         | 13.0                        | 12.95                 | 0.01             | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | back   | 1.060    | 1.012          | 1.073             | 0.502     | 0.508              | A7     |
| 1880.00                                  | 9400 | UMTS 1900 | RMC         | 13.0                        | 12.94                 | -0.02            | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | back   | 1.040    | 1.014          | 1.055             | 0.497     | 0.504              |        |
| 1907.60                                  | 9538 | UMTS 1900 | RMC         | 13.0                        | 12.93                 | -0.03            | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | back   | 1.030    | 1.016          | 1.046             | 0.492     | 0.500              |        |
| 1852.40                                  | 9262 | UMTS 1900 | RMC         | 13.0                        | 12.95                 | -0.02            | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | top    | 0.779    | 1.012          | 0.788             | 0.372     | 0.376              |        |
| 1880.00                                  | 9400 | UMTS 1900 | RMC         | 13.0                        | 12.94                 | 0.00             | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | top    | 0.800    | 1.014          | 0.811             | 0.379     | 0.384              |        |
| 1907.60                                  | 9538 | UMTS 1900 | RMC         | 13.0                        | 12.93                 | -0.01            | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | top    | 0.860    | 1.016          | 0.874             | 0.406     | 0.412              |        |
| 1880.00                                  | 9400 | UMTS 1900 | RMC         | 13.0                        | 12.94                 | -0.13            | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | bottom | 0.001    | 1.014          | 0.001             | 0.000     | 0.000              |        |
| 1880.00                                  | 9400 | UMTS 1900 | RMC         | 13.0                        | 12.94                 | 0.03             | 0 mm                 | F9FVT017JM50         | N/A             | 1:1        | right  | 0.118    | 1.014          | 0.120             | 0.053     | 0.054              |        |
| 1851.25                                  | 25   | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.98                 | -0.18            | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.020    | 1.005          | 1.025             | 0.485     | 0.487              |        |
| 1880.00                                  | 600  | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.95                 | 0.00             | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.080    | 1.012          | 1.093             | 0.512     | 0.518              |        |
| 1908.75                                  | 1175 | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.94                 | 0.00             | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.120    | 1.014          | 1.136             | 0.537     | 0.545              | A8     |
| 1851.25                                  | 25   | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.98                 | -0.01            | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | top    | 0.750    | 1.005          | 0.754             | 0.360     | 0.362              |        |
| 1880.00                                  | 600  | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.95                 | 0.00             | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | top    | 0.822    | 1.012          | 0.832             | 0.392     | 0.397              |        |
| 1908.75                                  | 1175 | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.94                 | -0.03            | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | top    | 0.886    | 1.014          | 0.898             | 0.420     | 0.426              |        |
| 1880.00                                  | 600  | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.95                 | 0.08             | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | bottom | 0.000    | 1.012          | 0.000             | 0.000     | 0.000              |        |
| 1880.00                                  | 600  | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.95                 | -0.16            | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | right  | 0.119    | 1.012          | 0.120             | 0.056     | 0.057              |        |
| 1908.75                                  | 1175 | PCS CDMA  | EVDO Rev. 0 | 13.0                        | 12.94                 | 0.02             | 0 mm                 | F9FVT00MJM4W         | N/A             | 1:1        | back   | 1.120    | 1.014          | 1.136             | 0.531     | 0.538              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |      |           |             |                             |                       |                  | Body                 |                      |                 |            |        |          |                |                   |           |                    |        |
| Spatial Peak                             |      |           |             |                             |                       |                  | 1.6 W/kg (mW/g)      |                      |                 |            |        |          |                |                   |           |                    |        |
| Uncontrolled Exposure/General Population |      |           |             |                             |                       |                  | averaged over 1 gram |                      |                 |            |        |          |                |                   |           |                    |        |

Note: Blue entries indicate variability measurements.

**Table 10-4**  
**LTE Band 12 Body SAR**

| MEASUREMENT RESULTS                      |       |      |                 |                             |                       |                  |          |                      |              |         |           |         |      |            |          |                |                   |           |                    |        |    |
|------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|----------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|----|
| FREQUENCY                                |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |    |
| MHz                                      | Ch.   |      |                 |                             |                       |                  |          |                      |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.12    | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1      | 1.180          | 1.000             | 1.180     | 0.587              | 0.587  | A9 |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.03    | 0                    | F9FVT00DJM4W | QPSK    | 25        | 12      | 0 mm | back       | 1:1      | 1.180          | 1.000             | 1.180     | 0.588              | 0.588  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.59            | -0.03    | 0                    | F9FVT00DJM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.180          | 1.002             | 1.182     | 0.587              | 0.588  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.02    | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 0.847          | 1.000             | 0.847     | 0.406              | 0.406  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.02    | 0                    | F9FVT00DJM4W | QPSK    | 25        | 12      | 0 mm | top        | 1:1      | 0.767          | 1.000             | 0.767     | 0.398              | 0.398  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.59            | 0.04     | 0                    | F9FVT00DJM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1      | 0.783          | 1.002             | 0.785     | 0.399              | 0.400  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.08    | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1      | 0.027          | 1.000             | 0.027     | 0.014              | 0.014  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | 0.07     | 0                    | F9FVT00DJM4W | QPSK    | 25        | 12      | 0 mm | bottom     | 1:1      | 0.030          | 1.000             | 0.030     | 0.017              | 0.017  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | 0.00     | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | right      | 1:1      | 0.094          | 1.000             | 0.094     | 0.048              | 0.048  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | 0.01     | 0                    | F9FVT00DJM4W | QPSK    | 25        | 12      | 0 mm | right      | 1:1      | 0.105          | 1.000             | 0.105     | 0.053              | 0.053  |    |
| 707.50                                   | 23095 | Mid  | LTE Band 12     | 10                          | 19.6                  | 19.60            | -0.02    | 0                    | F9FVT00DJM4W | QPSK    | 25        | 12      | 0 mm | back       | 1:1      | 1.180          | 1.000             | 1.180     | 0.588              | 0.588  |    |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                 |                             |                       |                  |          | Body                 |              |         |           |         |      |            |          |                |                   |           |                    |        |    |
| Spatial Peak                             |       |      |                 |                             |                       |                  |          | 1.6 W/kg (mW/g)      |              |         |           |         |      |            |          |                |                   |           |                    |        |    |
| Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |    |

|                                         |                                                                                     |                            |  |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|----------------------------|--|---------------------------------|
| FCC ID: BCGA1954                        |  | SAR EVALUATION REPORT      |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device |  | Page 80 of 114                  |

**Table 10-5**  
**LTE Band 13 Body SAR**

| MEASUREMENT RESULTS                      |       |      |                 |                             |                       |                  |          |                      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|----------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                      | Ch.   |      |                 |                             |                       |                  |          |                      |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.01     | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1      | 1.040          | 1.000             | 1.040     | 0.515              | 0.515  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.01     | 0                    | F9FVT00DJM4W | QPSK    | 25        | 0       | 0 mm | back       | 1:1      | 1.150          | 1.000             | 1.150     | 0.567              | 0.567  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.09            | -0.18    | 0                    | F9FVT00DJM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.150          | 1.002             | 1.152     | 0.586              | 0.587  | A10 |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.05     | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 0.701          | 1.000             | 0.701     | 0.379              | 0.379  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.04     | 0                    | F9FVT00DJM4W | QPSK    | 25        | 0       | 0 mm | top        | 1:1      | 0.756          | 1.000             | 0.756     | 0.421              | 0.421  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.15     | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1      | 0.031          | 1.000             | 0.031     | 0.015              | 0.015  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | -0.12    | 0                    | F9FVT00DJM4W | QPSK    | 25        | 0       | 0 mm | bottom     | 1:1      | 0.031          | 1.000             | 0.031     | 0.015              | 0.015  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | -0.04    | 0                    | F9FVT00DJM4W | QPSK    | 1         | 0       | 0 mm | right      | 1:1      | 0.114          | 1.000             | 0.114     | 0.056              | 0.056  |     |
| 782.00                                   | 23230 | Mid  | LTE Band 13     | 10                          | 18.1                  | 18.10            | 0.15     | 0                    | F9FVT00DJM4W | QPSK    | 25        | 0       | 0 mm | right      | 1:1      | 0.120          | 1.000             | 0.120     | 0.059              | 0.059  |     |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                 |                             |                       |                  |          | Body                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Spatial Peak                             |       |      |                 |                             |                       |                  |          | 1.6 W/kg (mW/g)      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

**Table 10-6**  
**LTE Band 5 (Cell) Body SAR**

| MEASUREMENT RESULTS                      |       |      |                   |                             |                       |                  |          |                      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|------------------------------------------|-------|------|-------------------|-----------------------------|-----------------------|------------------|----------|----------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                |       | Mode | Bandwidth [MHz]   | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                      | Ch.   |      |                   |                             |                       |                  |          |                      |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | -0.04    | 0                    | F9FVT00GJM4W | QPSK    | 1         | 25      | 0 mm | back       | 1:1      | 1.130          | 1.000             | 1.130     | 0.582              | 0.582  | A11 |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | 0.00     | 0                    | F9FVT00GJM4W | QPSK    | 25        | 12      | 0 mm | back       | 1:1      | 1.130          | 1.000             | 1.130     | 0.578              | 0.578  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 17.92            | -0.03    | 0                    | F9FVT00GJM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.100          | 1.019             | 1.121     | 0.563              | 0.574  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | -0.02    | 0                    | F9FVT00GJM4W | QPSK    | 1         | 25      | 0 mm | top        | 1:1      | 0.690          | 1.000             | 0.690     | 0.379              | 0.379  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | -0.03    | 0                    | F9FVT00GJM4W | QPSK    | 25        | 12      | 0 mm | top        | 1:1      | 0.683          | 1.000             | 0.683     | 0.374              | 0.374  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | 0.00     | 0                    | F9FVT00GJM4W | QPSK    | 1         | 25      | 0 mm | bottom     | 1:1      | 0.021          | 1.000             | 0.021     | 0.011              | 0.011  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | 0.04     | 0                    | F9FVT00GJM4W | QPSK    | 25        | 12      | 0 mm | bottom     | 1:1      | 0.022          | 1.000             | 0.022     | 0.011              | 0.011  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | 0.01     | 0                    | F9FVT00GJM4W | QPSK    | 1         | 25      | 0 mm | right      | 1:1      | 0.102          | 1.000             | 0.102     | 0.053              | 0.053  |     |
| 836.50                                   | 20525 | Mid  | LTE Band 5 (Cell) | 10                          | 18.0                  | 18.00            | 0.00     | 0                    | F9FVT00GJM4W | QPSK    | 25        | 12      | 0 mm | right      | 1:1      | 0.103          | 1.000             | 0.103     | 0.053              | 0.053  |     |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                   |                             |                       |                  |          | Body                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Spatial Peak                             |       |      |                   |                             |                       |                  |          | 1.6 W/kg (mW/g)      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Uncontrolled Exposure/General Population |       |      |                   |                             |                       |                  |          | averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

**Table 10-7**  
**LTE Band 26 (Cell) Body SAR**

| MEASUREMENT RESULTS                      |       |      |                    |                             |                       |                  |          |                      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|------------------------------------------|-------|------|--------------------|-----------------------------|-----------------------|------------------|----------|----------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                |       | Mode | Bandwidth [MHz]    | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                      | Ch.   |      |                    |                             |                       |                  |          |                      |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    | (W/kg)             |        |     |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.95            | -0.02    | 0                    | F9FVT00FJM4W | QPSK    | 1         | 49      | 0 mm | back       | 1:1      | 0.988          | 1.012             | 1.000     | 0.512              | 0.518  |     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.99            | -0.06    | 0                    | F9FVT00FJM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1      | 1.010          | 1.002             | 1.012     | 0.519              | 0.520  |     |
| 844.00                                   | 26990 | High | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.96            | -0.02    | 0                    | F9FVT00FJM4W | QPSK    | 1         | 49      | 0 mm | back       | 1:1      | 1.010          | 1.009             | 1.019     | 0.524              | 0.529  |     |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 18.00            | -0.01    | 0                    | F9FVT00FJM4W | QPSK    | 25        | 0       | 0 mm | back       | 1:1      | 1.010          | 1.000             | 1.010     | 0.512              | 0.512  |     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.96            | -0.01    | 0                    | F9FVT00FJM4W | QPSK    | 25        | 25      | 0 mm | back       | 1:1      | 1.010          | 1.009             | 1.019     | 0.520              | 0.525  |     |
| 844.00                                   | 26990 | High | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.95            | -0.01    | 0                    | F9FVT00FJM4W | QPSK    | 25        | 25      | 0 mm | back       | 1:1      | 1.020          | 1.012             | 1.032     | 0.528              | 0.534  | A12 |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.98            | -0.03    | 0                    | F9FVT00FJM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 0.986          | 1.005             | 0.991     | 0.510              | 0.513  |     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.99            | -0.04    | 0                    | F9FVT00FJM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 0.633          | 1.002             | 0.634     | 0.348              | 0.349  |     |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 18.00            | -0.01    | 0                    | F9FVT00FJM4W | QPSK    | 25        | 0       | 0 mm | top        | 1:1      | 0.610          | 1.000             | 0.610     | 0.338              | 0.338  |     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.99            | 0.11     | 0                    | F9FVT00FJM4W | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1      | 0.021          | 1.002             | 0.021     | 0.010              | 0.010  |     |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 18.00            | 0.10     | 0                    | F9FVT00FJM4W | QPSK    | 25        | 0       | 0 mm | bottom     | 1:1      | 0.022          | 1.000             | 0.022     | 0.011              | 0.011  |     |
| 831.50                                   | 26865 | Mid  | LTE Band 26 (Cell) | 10                          | 18.0                  | 17.99            | -0.03    | 0                    | F9FVT00FJM4W | QPSK    | 1         | 0       | 0 mm | right      | 1:1      | 0.112          | 1.002             | 0.112     | 0.056              | 0.056  |     |
| 819.00                                   | 26740 | Low  | LTE Band 26 (Cell) | 10                          | 18.0                  | 18.00            | 0.01     | 0                    | F9FVT00FJM4W | QPSK    | 25        | 0       | 0 mm | right      | 1:1      | 0.110          | 1.000             | 0.110     | 0.056              | 0.056  |     |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |      |                    |                             |                       |                  |          | Body                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Spatial Peak                             |       |      |                    |                             |                       |                  |          | 1.6 W/kg (mW/g)      |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
| Uncontrolled Exposure/General Population |       |      |                    |                             |                       |                  |          | averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

|                                         |                                                                                     |                              |                                        |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 81 of 114                         |

**Table 10-8**  
**LTE Band 4 (AWS) Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                  |                             |                       |                  |          |                                                 |              |         |           |         |      |            |                 |                |                          |                  |                           |        |     |
|---------------------------------------------------------------------------------------------------|-------|------|------------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|--------------|---------|-----------|---------|------|------------|-----------------|----------------|--------------------------|------------------|---------------------------|--------|-----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz]  | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number                            | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) (W/kg) | Scaling Factor | Reported SAR (1g) (W/kg) | SAR (10g) (W/kg) | Reported SAR (10g) (W/kg) | Plot # |     |
| MHz                                                                                               | Ch.   |      |                  |                             |                       |                  |          |                                                 |              |         |           |         |      |            |                 |                | (W/kg)                   | (W/kg)           | (W/kg)                    |        |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.11    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | back       | 1:1             | 0.993          | 1.000                    | 0.993            | 0.476                     | 0.476  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.03    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | back       | 1:1             | 1.030          | 1.000                    | 1.030            | 0.494                     | 0.494  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 13.99            | 0.00     | 0                                               | F9FVT017JM50 | QPSK    | 100       | 0       | 0 mm | back       | 1:1             | 1.010          | 1.002                    | 1.012            | 0.484                     | 0.485  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.09    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | top        | 1:1             | 0.716          | 1.000                    | 0.716            | 0.350                     | 0.350  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | 0.00     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | top        | 1:1             | 0.732          | 1.000                    | 0.732            | 0.355                     | 0.355  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.18    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1             | 0.006          | 1.000                    | 0.006            | 0.002                     | 0.002  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.16    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | bottom     | 1:1             | 0.003          | 1.000                    | 0.003            | 0.001                     | 0.001  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | 0.15     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | right      | 1:1             | 0.080          | 1.000                    | 0.080            | 0.037                     | 0.037  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | right      | 1:1             | 0.086          | 1.000                    | 0.086            | 0.041                     | 0.041  |     |
| 1732.50                                                                                           | 20175 | Mid  | LTE Band 4 (AWS) | 20                          | 14.0                  | 14.00            | -0.06    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | back       | 1:1             | 1.040          | 1.000                    | 1.040            | 0.495                     | 0.495  | A13 |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                  |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |              |         |           |         |      |            |                 |                |                          |                  |                           |        |     |

Note: Blue entries indicate variability measurements.

**Table 10-9**  
**LTE Band 25 (PCS) Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                   |                             |                       |                  |          |                                                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|---------------------------------------------------------------------------------------------------|-------|------|-------------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz]   | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number                            | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                                                                               | Ch.   |      |                   |                             |                       |                  |          |                                                 |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |     |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.98            | 0.12     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 99      | 0 mm | back       | 1:1      | 1.070          | 1.005             | 1.075     | 0.507              | 0.510  | A14 |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | -0.14    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | back       | 1:1      | 1.070          | 1.000             | 1.070     | 0.507              | 0.507  |     |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.99            | 0.00     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 99      | 0 mm | back       | 1:1      | 1.090          | 1.002             | 1.092     | 0.520              | 0.521  |     |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | -0.01    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | back       | 1:1      | 0.958          | 1.000             | 0.958     | 0.447              | 0.447  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | back       | 1:1      | 1.030          | 1.000             | 1.030     | 0.489              | 0.489  |     |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.96            | 0.00     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | back       | 1:1      | 1.030          | 1.009             | 1.039     | 0.490              | 0.494  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.99            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 100       | 0       | 0 mm | back       | 1:1      | 1.040          | 1.002             | 1.042     | 0.493              | 0.494  |     |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.98            | 0.14     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 99      | 0 mm | top        | 1:1      | 0.814          | 1.005             | 0.818     | 0.390              | 0.392  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | -0.15    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 0.816          | 1.000             | 0.816     | 0.392              | 0.392  |     |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.99            | -0.13    | 0                                               | F9FVT017JM50 | QPSK    | 1         | 99      | 0 mm | top        | 1:1      | 0.936          | 1.002             | 0.938     | 0.444              | 0.445  |     |
| 1860.00                                                                                           | 26140 | Low  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | 0.00     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | top        | 1:1      | 0.774          | 1.000             | 0.774     | 0.370              | 0.370  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | top        | 1:1      | 0.811          | 1.000             | 0.811     | 0.385              | 0.385  |     |
| 1905.00                                                                                           | 26590 | High | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.96            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | top        | 1:1      | 0.869          | 1.009             | 0.877     | 0.410              | 0.414  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 12.99            | 0.01     | 0                                               | F9FVT017JM50 | QPSK    | 100       | 0       | 0 mm | top        | 1:1      | 0.806          | 1.002             | 0.808     | 0.384              | 0.385  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | 0.16     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1      | 0.000          | 1.000             | 0.000     | 0.000              | 0.000  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | -0.03    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | bottom     | 1:1      | 0.000          | 1.000             | 0.000     | 0.000              | 0.000  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | 0.08     | 0                                               | F9FVT017JM50 | QPSK    | 1         | 0       | 0 mm | right      | 1:1      | 0.126          | 1.000             | 0.126     | 0.057              | 0.057  |     |
| 1882.50                                                                                           | 26365 | Mid  | LTE Band 25 (PCS) | 20                          | 13.0                  | 13.00            | -0.14    | 0                                               | F9FVT017JM50 | QPSK    | 50        | 50      | 0 mm | right      | 1:1      | 0.119          | 1.000             | 0.119     | 0.054              | 0.054  |     |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                   |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 82 of 114                  |

**Table 10-10**  
**LTE Band 30 Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                 |                             |                       |                  |          |                                                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|---------------------------------------------------------------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number                            | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                                                                               | Ch.   |      |                 |                             |                       |                  |          |                                                 |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.49            | -0.18    | 0                                               | F9FVT01MJM50 | QPSK    | 1         | 49      | 0 mm | back       | 1:1      | 0.950          | 1.002             | 0.952     | 0.427              | 0.428  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.48            | 0.02     | 0                                               | F9FVT01MJM50 | QPSK    | 25        | 0       | 0 mm | back       | 1:1      | 0.984          | 1.005             | 0.989     | 0.443              | 0.445  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.44            | -0.03    | 0                                               | F9FVT01MJM50 | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 0.959          | 1.014             | 0.972     | 0.433              | 0.439  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.49            | -0.01    | 0                                               | F9FVT01MJM50 | QPSK    | 1         | 49      | 0 mm | top        | 1:1      | 0.984          | 1.002             | 0.986     | 0.456              | 0.457  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.48            | 0.01     | 0                                               | F9FVT01MJM50 | QPSK    | 25        | 0       | 0 mm | top        | 1:1      | 1.020          | 1.005             | 1.025     | 0.473              | 0.475  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.44            | -0.02    | 0                                               | F9FVT01MJM50 | QPSK    | 50        | 0       | 0 mm | top        | 1:1      | 1.000          | 1.014             | 1.014     | 0.464              | 0.470  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.49            | 0.00     | 0                                               | F9FVT01MJM50 | QPSK    | 1         | 49      | 0 mm | bottom     | 1:1      | 0.014          | 1.002             | 0.014     | 0.005              | 0.005  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.48            | -0.01    | 0                                               | F9FVT01MJM50 | QPSK    | 25        | 0       | 0 mm | bottom     | 1:1      | 0.012          | 1.005             | 0.012     | 0.004              | 0.004  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.49            | 0.01     | 0                                               | F9FVT01MJM50 | QPSK    | 1         | 49      | 0 mm | right      | 1:1      | 0.152          | 1.002             | 0.152     | 0.065              | 0.065  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.48            | 0.03     | 0                                               | F9FVT01MJM50 | QPSK    | 25        | 0       | 0 mm | right      | 1:1      | 0.162          | 1.005             | 0.163     | 0.070              | 0.070  |     |
| 2310.00                                                                                           | 27710 | Mid  | LTE Band 30     | 10                          | 14.5                  | 14.48            | -0.04    | 0                                               | F9FVT01MJM50 | QPSK    | 25        | 0       | 0 mm | top        | 1:1      | 1.060          | 1.005             | 1.065     | 0.484              | 0.486  | A15 |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

Note: Blue entries indicate variability measurements.

**Table 10-11**  
**LTE Band 7 Body SAR**

| MEASUREMENT RESULTS                                                                               |       |      |                 |                             |                       |                  |          |                                                 |              |         |           |         |      |            |          |                |                   |           |                    |        |     |
|---------------------------------------------------------------------------------------------------|-------|------|-----------------|-----------------------------|-----------------------|------------------|----------|-------------------------------------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|-----|
| FREQUENCY                                                                                         |       | Mode | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number                            | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |     |
| MHz                                                                                               | Ch.   |      |                 |                             |                       |                  |          |                                                 |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |     |
| 2510.00                                                                                           | 20850 | Low  | LTE Band 7      | 20                          | 14.5                  | 14.49            | -0.10    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 99      | 0 mm | back       | 1:1      | 0.720          | 1.002             | 0.721     | 0.336              | 0.337  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.50            | 0.01     | 0                                               | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1      | 1.170          | 1.000             | 1.170     | 0.483              | 0.483  |     |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.49            | -0.17    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 50      | 0 mm | back       | 1:1      | 0.890          | 1.002             | 0.892     | 0.393              | 0.394  |     |
| 2510.00                                                                                           | 20850 | Low  | LTE Band 7      | 20                          | 14.5                  | 14.47            | -0.01    | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.070          | 1.007             | 1.077     | 0.449              | 0.452  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.48            | -0.16    | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.090          | 1.005             | 1.095     | 0.450              | 0.452  |     |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.47            | -0.13    | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1      | 1.110          | 1.007             | 1.118     | 0.458              | 0.461  |     |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.46            | -0.10    | 0                                               | F9FVT012JM4W | QPSK    | 100       | 0       | 0 mm | back       | 1:1      | 0.820          | 1.009             | 0.827     | 0.371              | 0.374  |     |
| 2510.00                                                                                           | 20850 | Low  | LTE Band 7      | 20                          | 14.5                  | 14.49            | -0.05    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 99      | 0 mm | top        | 1:1      | 1.080          | 1.002             | 1.082     | 0.475              | 0.476  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.50            | -0.10    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 1.170          | 1.000             | 1.170     | 0.519              | 0.519  | A16 |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.49            | 0.00     | 0                                               | F9FVT012JM4W | QPSK    | 1         | 50      | 0 mm | top        | 1:1      | 1.120          | 1.002             | 1.122     | 0.489              | 0.490  |     |
| 2510.00                                                                                           | 20850 | Low  | LTE Band 7      | 20                          | 14.5                  | 14.47            | -0.08    | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1      | 1.140          | 1.007             | 1.148     | 0.497              | 0.500  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.48            | 0.02     | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1      | 1.110          | 1.005             | 1.116     | 0.482              | 0.484  |     |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.47            | -0.01    | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1      | 1.150          | 1.007             | 1.158     | 0.496              | 0.499  |     |
| 2560.00                                                                                           | 21350 | High | LTE Band 7      | 20                          | 14.5                  | 14.46            | -0.05    | 0                                               | F9FVT012JM4W | QPSK    | 100       | 0       | 0 mm | top        | 1:1      | 1.100          | 1.009             | 1.110     | 0.477              | 0.481  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.50            | -0.18    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1      | 0.000          | 1.000             | 0.000     | 0.000              | 0.000  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.48            | 0.11     | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | bottom     | 1:1      | 0.000          | 1.005             | 0.000     | 0.000              | 0.000  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.50            | 0.06     | 0                                               | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | right      | 1:1      | 0.188          | 1.000             | 0.188     | 0.076              | 0.076  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.48            | 0.02     | 0                                               | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | right      | 1:1      | 0.165          | 1.005             | 0.166     | 0.067              | 0.067  |     |
| 2535.00                                                                                           | 21100 | Mid  | LTE Band 7      | 20                          | 14.5                  | 14.50            | -0.07    | 0                                               | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1      | 1.160          | 1.000             | 1.160     | 0.508              | 0.508  |     |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT<br>Spatial Peak<br>Uncontrolled Exposure/General Population |       |      |                 |                             |                       |                  |          | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |     |

Note: Blue entries indicate variability measurements.

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 83 of 114                  |

**Table 10-12**  
**LTE Band 41 Body SAR**

| MEASUREMENT RESULTS                      |       |          |                 |                             |                       |                  |          |                      |              |         |           |         |      |            |          |                |                   |           |                    |        |
|------------------------------------------|-------|----------|-----------------|-----------------------------|-----------------------|------------------|----------|----------------------|--------------|---------|-----------|---------|------|------------|----------|----------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                |       | Mode     | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | MPR [dB] | Device Serial Number | Modulation   | RB Size | RB Offset | Spacing | Side | Duty Cycle | SAR (1g) | Scaling Factor | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                      | Ch.   |          |                 |                             |                       |                  |          |                      |              |         |           |         |      |            | (W/kg)   |                | (W/kg)            | (W/kg)    |                    |        |
| 2506.00                                  | 39750 | Low      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.04     | 0                    | F9FVT012JM4W | QPSK    | 1         | 50      | 0 mm | back       | 1:1.58   | 1.002          | 0.917             | 0.372     | 0.373              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.99            | -0.11    | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1.58   | 1.002          | 0.890             | 0.374     | 0.375              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | -0.08    | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1.58   | 1.002          | 0.987             | 0.397     | 0.398              |        |
| 2636.50                                  | 41055 | Mid-High | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.02     | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | back       | 1:1.58   | 1.002          | 0.974             | 0.388     | 0.389              |        |
| 2680.00                                  | 41490 | High     | LTE Band 41     | 20                          | 16.0                  | 15.97            | 0.02     | 0                    | F9FVT012JM4W | QPSK    | 1         | 99      | 0 mm | back       | 1:1.58   | 1.007          | 0.957             | 0.367     | 0.370              |        |
| 2506.00                                  | 39750 | Low      | LTE Band 41     | 20                          | 16.0                  | 15.95            | 0.04     | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1.58   | 1.012          | 0.957             | 0.384     | 0.389              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.02     | 0                    | F9FVT012JM4W | QPSK    | 50        | 25      | 0 mm | back       | 1:1.58   | 1.005          | 1.015             | 0.399     | 0.401              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.00     | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | back       | 1:1.58   | 1.002          | 0.982             | 0.393     | 0.394              |        |
| 2636.50                                  | 41055 | Mid-High | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.02     | 0                    | F9FVT012JM4W | QPSK    | 50        | 50      | 0 mm | back       | 1:1.58   | 1.005          | 0.970             | 0.382     | 0.384              |        |
| 2680.00                                  | 41490 | High     | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.00     | 0                    | F9FVT012JM4W | QPSK    | 50        | 50      | 0 mm | back       | 1:1.58   | 1.005          | 0.934             | 0.359     | 0.361              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.97            | 0.05     | 0                    | F9FVT012JM4W | QPSK    | 100       | 0       | 0 mm | back       | 1:1.58   | 1.007          | 0.971             | 0.365     | 0.368              |        |
| 2506.00                                  | 39750 | Low      | LTE Band 41     | 20                          | 16.0                  | 15.99            | -0.01    | 0                    | F9FVT012JM4W | QPSK    | 1         | 50      | 0 mm | top        | 1:1.58   | 1.002          | 0.910             | 0.397     | 0.398              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.99            | -0.03    | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1.58   | 1.002          | 0.940             | 0.408     | 0.409              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.01     | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1.58   | 1.002          | 1.072             | 0.454     | 0.455              |        |
| 2636.50                                  | 41055 | Mid-High | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.00     | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | top        | 1:1.58   | 1.002          | 1.082             | 0.455     | 0.456              |        |
| 2680.00                                  | 41490 | High     | LTE Band 41     | 20                          | 16.0                  | 15.97            | 0.02     | 0                    | F9FVT012JM4W | QPSK    | 1         | 99      | 0 mm | top        | 1:1.58   | 1.007          | 1.047             | 0.425     | 0.428              |        |
| 2506.00                                  | 39750 | Low      | LTE Band 41     | 20                          | 16.0                  | 15.95            | -0.01    | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1.58   | 1.012          | 0.959             | 0.413     | 0.418              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.03     | 0                    | F9FVT012JM4W | QPSK    | 50        | 25      | 0 mm | top        | 1:1.58   | 1.005          | 0.997             | 0.426     | 0.428              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.00     | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | top        | 1:1.58   | 1.002          | 1.062             | 0.450     | 0.451              |        |
| 2636.50                                  | 41055 | Mid-High | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.00     | 0                    | F9FVT012JM4W | QPSK    | 50        | 50      | 0 mm | top        | 1:1.58   | 1.005          | 1.095             | 0.452     | 0.454              | A17    |
| 2680.00                                  | 41490 | High     | LTE Band 41     | 20                          | 16.0                  | 15.98            | 0.05     | 0                    | F9FVT012JM4W | QPSK    | 50        | 50      | 0 mm | top        | 1:1.58   | 1.005          | 1.035             | 0.420     | 0.422              |        |
| 2549.50                                  | 40185 | Low-Mid  | LTE Band 41     | 20                          | 16.0                  | 15.97            | 0.01     | 0                    | F9FVT012JM4W | QPSK    | 100       | 0       | 0 mm | top        | 1:1.58   | 1.007          | 0.985             | 0.402     | 0.405              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.12     | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | bottom     | 1:1.58   | 1.002          | 0.002             | 0.000     | 0.000              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.16     | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | bottom     | 1:1.58   | 1.002          | 0.001             | 0.000     | 0.000              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.10     | 0                    | F9FVT012JM4W | QPSK    | 1         | 0       | 0 mm | right      | 1:1.58   | 1.002          | 0.157             | 0.062     | 0.062              |        |
| 2593.00                                  | 40620 | Mid      | LTE Band 41     | 20                          | 16.0                  | 15.99            | 0.08     | 0                    | F9FVT012JM4W | QPSK    | 50        | 0       | 0 mm | right      | 1:1.58   | 1.002          | 0.155             | 0.061     | 0.061              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |       |          |                 |                             |                       |                  |          | Body                 |              |         |           |         |      |            |          |                |                   |           |                    |        |
| Spatial Peak                             |       |          |                 |                             |                       |                  |          | 1.6 W/kg (mW/g)      |              |         |           |         |      |            |          |                |                   |           |                    |        |
| Uncontrolled Exposure/General Population |       |          |                 |                             |                       |                  |          | averaged over 1 gram |              |         |           |         |      |            |          |                |                   |           |                    |        |

**Table 10-13**  
**2.4GHz WLAN Body SAR**

| MEASUREMENT RESULTS                      |     |         |         |                 |                             |                       |                  |                      |                 |         |                      |                  |        |                |          |                        |                             |                   |           |                    |        |
|------------------------------------------|-----|---------|---------|-----------------|-----------------------------|-----------------------|------------------|----------------------|-----------------|---------|----------------------|------------------|--------|----------------|----------|------------------------|-----------------------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                |     | Mode    | Service | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing              | Antenna Config. | Variant | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle (%) | SAR (1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                      | Ch. |         |         |                 |                             |                       |                  |                      |                 |         |                      |                  |        |                | (W/kg)   |                        |                             | (W/kg)            |           | (W/kg)             |        |
| 2412                                     | 1   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.10             | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 1                | back   | 100.0          | 0.048    | 1.000                  | 1.000                       | 0.048             | 0.023     | 0.023              |        |
| 2412                                     | 1   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.18             | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 1                | top    | 100.0          | 0.008    | 1.000                  | 1.000                       | 0.008             | 0.003     | 0.003              |        |
| 2412                                     | 1   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.01             | 0 mm                 | A               | 1       | F9FVT00FJM4W         | 1                | bottom | 100.0          | 0.832    | 1.000                  | 1.000                       | 0.832             | 0.264     | 0.264              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.48                 | 0.04             | 0 mm                 | A               | 1       | F9FVT00FJM4W         | 1                | bottom | 100.0          | 1.050    | 1.005                  | 1.000                       | 1.055             | 0.334     | 0.336              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.45                 | -0.03            | 0 mm                 | A               | 2       | F9FVT017JM50         | 1                | bottom | 99.9           | 0.903    | 1.012                  | 1.001                       | 0.915             | 0.290     | 0.294              |        |
| 2462                                     | 11  | 802.11b | DSSS    | 22              | 15.5                        | 15.49                 | 0.03             | 0 mm                 | A               | 1       | F9FVT00FJM4W         | 1                | bottom | 100.0          | 1.010    | 1.002                  | 1.000                       | 1.012             | 0.322     | 0.323              |        |
| 2412                                     | 1   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.06             | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 1                | left   | 100.0          | 0.114    | 1.000                  | 1.000                       | 0.114             | 0.053     | 0.053              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.00             | 0 mm                 | B               | 1       | F9FVT00AJM4W         | 1                | back   | 99.7           | 0.101    | 1.000                  | 1.003                       | 0.101             | 0.048     | 0.048              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.21             | 0 mm                 | B               | 1       | F9FVT00AJM4W         | 1                | top    | 99.7           | 0.011    | 1.000                  | 1.003                       | 0.011             | 0.004     | 0.004              |        |
| 2412                                     | 1   | 802.11b | DSSS    | 22              | 15.5                        | 15.36                 | 0.16             | 0 mm                 | B               | 1       | F9FVT00FJM4W         | 1                | bottom | 99.7           | 0.753    | 1.033                  | 1.003                       | 0.780             | 0.241     | 0.250              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.12             | 0 mm                 | B               | 1       | F9FVT00FJM4W         | 1                | bottom | 99.7           | 0.802    | 1.000                  | 1.003                       | 0.804             | 0.257     | 0.258              |        |
| 2462                                     | 11  | 802.11b | DSSS    | 22              | 15.5                        | 15.47                 | 0.02             | 0 mm                 | B               | 1       | F9FVT00FJM4W         | 1                | bottom | 99.7           | 1.150    | 1.007                  | 1.003                       | 1.162             | 0.373     | 0.377              | A18    |
| 2462                                     | 11  | 802.11b | DSSS    | 22              | 15.5                        | 15.43                 | 0.01             | 0 mm                 | B               | 2       | F9FVT011JM50         | 1                | bottom | 99.9           | 1.060    | 1.016                  | 1.001                       | 1.078             | 0.345     | 0.351              |        |
| 2437                                     | 6   | 802.11b | DSSS    | 22              | 15.5                        | 15.50                 | 0.08             | 0 mm                 | B               | 1       | F9FVT00AJM4W         | 1                | right  | 99.7           | 0.215    | 1.000                  | 1.003                       | 0.216             | 0.095     | 0.095              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |         |         |                 |                             |                       |                  | Body                 |                 |         |                      |                  |        |                |          |                        |                             |                   |           |                    |        |
| Spatial Peak                             |     |         |         |                 |                             |                       |                  | 1.6 W/kg (mW/g)      |                 |         |                      |                  |        |                |          |                        |                             |                   |           |                    |        |
| Uncontrolled Exposure/General Population |     |         |         |                 |                             |                       |                  | averaged over 1 gram |                 |         |                      |                  |        |                |          |                        |                             |                   |           |                    |        |

|                                         |                                                                                     |                              |                                        |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | <b>Approved by:</b><br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 84 of 114                         |

| MEASUREMENT RESULTS                      |     |         |         |                 |                             |                       |                 |                      |                 |         |                      |                  |        |                |         |                        |                             |                   |           |              |        |
|------------------------------------------|-----|---------|---------|-----------------|-----------------------------|-----------------------|-----------------|----------------------|-----------------|---------|----------------------|------------------|--------|----------------|---------|------------------------|-----------------------------|-------------------|-----------|--------------|--------|
| FREQUENCY                                |     | Mode    | Service | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Df/F [dB] | Spacing              | Antenna Config. | Variant | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle (%) | SAR(1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | SAR (10g) | Reported SAR | Plot # |
| MHz                                      | Ch. |         |         |                 |                             |                       |                 |                      |                 |         |                      |                  |        |                | (W/kg)  |                        |                             | (W/kg)            | (W/kg)    |              |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.00                 | 0.16            | 0 mm                 | A               | 1       | F9FVT00GJM4W         | 13.5             | back   | 98.5           | 0.043   | 1.259                  | 1.016                       | 0.055             | 0.017     | 0.022        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.00                 | 0.19            | 0 mm                 | A               | 1       | F9FVT00GJM4W         | 13.5             | top    | 98.5           | 0.018   | 1.259                  | 1.016                       | 0.023             | 0.005     | 0.006        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.00                 | -0.01           | 0 mm                 | A               | 1       | F9FVT00GJM4W         | 13.5             | bottom | 98.5           | 0.801   | 1.259                  | 1.016                       | 1.025             | 0.257     | 0.329        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 15.93                 | -0.04           | 0 mm                 | A               | 2       | F9FVT01JMM50         | 13.5             | bottom | 98.3           | 0.786   | 1.279                  | 1.017                       | 1.022             | 0.256     | 0.333        |        |
| 5310                                     | 62  | 802.11n | P-OFDM  | 40              | 14.5                        | 14.43                 | -0.17           | 0 mm                 | A               | 1       | F9FVT00GJM4W         | 13.5             | bottom | 98.5           | 0.475   | 1.016                  | 1.016                       | 0.490             | 0.158     | 0.163        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.00                 | 0.19            | 0 mm                 | A               | 1       | F9FVT00GJM4W         | 13.5             | left   | 98.5           | 0.094   | 1.259                  | 1.016                       | 0.120             | 0.035     | 0.045        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.92                 | 0.20            | 0 mm                 | B               | 1       | F9FVT00AJM1W         | 13.5             | back   | 98.1           | 0.090   | 1.019                  | 1.020                       | 0.094             | 0.036     | 0.037        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.92                 | 0.11            | 0 mm                 | B               | 1       | F9FVT00AJM1W         | 13.5             | top    | 98.1           | 0.054   | 1.019                  | 1.020                       | 0.056             | 0.014     | 0.015        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.92                 | -0.06           | 0 mm                 | B               | 1       | F9FVT00GJM4W         | 13.5             | bottom | 98.1           | 1.020   | 1.019                  | 1.020                       | 1.164             | 0.385     | 0.400        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.96                 | -0.03           | 0 mm                 | B               | 2       | F9FVT01JLMS0         | 13.5             | bottom | 98.3           | 1.080   | 1.009                  | 1.017                       | 1.108             | 0.369     | 0.379        |        |
| 5310                                     | 62  | 802.11n | OFDM    | 40              | 14.5                        | 14.50                 | 0.12            | 0 mm                 | B               | 1       | F9FVT00GJM4W         | 13.5             | bottom | 98.1           | 0.502   | 1.000                  | 1.020                       | 0.512             | 0.171     | 0.174        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.92                 | 0.10            | 0 mm                 | B               | 1       | F9FVT00AJM1W         | 13.5             | right  | 98.1           | 0.131   | 1.019                  | 1.020                       | 0.136             | 0.045     | 0.047        |        |
| 5270                                     | 54  | 802.11n | OFDM    | 40              | 17.0                        | 16.92                 | -0.06           | 0 mm                 | B               | 1       | F9FVT00GJM4W         | 13.5             | bottom | 98.1           | 1.040   | 1.019                  | 1.020                       | 1.081             | 0.349     | 0.363        |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |         |         |                 |                             |                       |                 | Body                 |                 |         |                      |                  |        |                |         |                        |                             |                   |           |              |        |
| Spatial Peak                             |     |         |         |                 |                             |                       |                 | 1.6 W/kg (mW/g)      |                 |         |                      |                  |        |                |         |                        |                             |                   |           |              |        |
| Uncontrolled Exposure/General Population |     |         |         |                 |                             |                       |                 | averaged over 1 gram |                 |         |                      |                  |        |                |         |                        |                             |                   |           |              |        |

Note: Blue entries indicate variability measurements.

| MEASUREMENT RESULTS                      |     |          |         |                 |                             |                       |                |         |                 |                      |                      |                  |        |                |                |                        |                             |                          |                  |                           |        |
|------------------------------------------|-----|----------|---------|-----------------|-----------------------------|-----------------------|----------------|---------|-----------------|----------------------|----------------------|------------------|--------|----------------|----------------|------------------------|-----------------------------|--------------------------|------------------|---------------------------|--------|
| FREQUENCY                                |     | Mode     | Service | Bandwidth (MHz) | Maximum Allowed Power (dBm) | Conducted Power (dBm) | Power DnR (dB) | Spacing | Antenna Config. | Variant              | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle (%) | SAR(1g) (W/kg) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) (W/kg) | SAR (10g) (W/kg) | Reported SAR (10g) (W/kg) | Plot # |
| MHz                                      | Ch. |          |         |                 |                             |                       |                |         |                 |                      |                      |                  |        |                |                |                        |                             |                          |                  |                           |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | 0.03           | 0 mm    | A               | 1                    | F9FV700AJM4W         | 29.3             | back   | 96.5           | 0.089          | 1.000                  | 1.037                       | 0.092                    | 0.030            | 0.031                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | 0.19           | 0 mm    | A               | 1                    | F9FV700AJM4W         | 29.3             | top    | 96.5           | 0.041          | 1.000                  | 1.037                       | 0.043                    | 0.012            | 0.012                     |        |
| 5530                                     | 106 | 802.11ac | OFDM    | 80              | 14.0                        | 13.88                 | -0.05          | 0 mm    | A               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.5           | 0.533          | 1.028                  | 1.037                       | 0.568                    | 0.179            | 0.191                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | -0.12          | 0 mm    | A               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.5           | 1.140          | 1.000                  | 1.037                       | 1.182                    | 0.389            | 0.403                     | A19    |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.93                 | -0.14          | 0 mm    | A               | 2                    | F9FV7017JM50         | 29.3             | bottom | 96.5           | 0.976          | 1.016                  | 1.037                       | 1.028                    | 0.345            | 0.363                     |        |
| 5690                                     | 138 | 802.11ac | OFDM    | 80              | 17.0                        | 16.97                 | -0.05          | 0 mm    | A               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.5           | 0.870          | 1.007                  | 1.037                       | 0.909                    | 0.298            | 0.311                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | 0.10           | 0 mm    | A               | 1                    | F9FV700AJM4W         | 29.3             | left   | 96.5           | 0.143          | 1.000                  | 1.037                       | 0.148                    | 0.052            | 0.054                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | 0.17           | 0 mm    | B               | 1                    | F9FV700AJM4W         | 29.3             | back   | 96.6           | 0.060          | 1.259                  | 1.035                       | 0.078                    | 0.022            | 0.029                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | 0.12           | 0 mm    | B               | 1                    | F9FV700AJM4W         | 29.3             | top    | 96.6           | 0.022          | 1.259                  | 1.035                       | 0.029                    | 0.006            | 0.008                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | 0.10           | 0 mm    | B               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.6           | 0.837          | 1.259                  | 1.035                       | 1.091                    | 0.299            | 0.390                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | -0.03          | 0 mm    | B               | 2                    | F9FV7017JM50         | 29.3             | bottom | 96.5           | 0.875          | 1.259                  | 1.036                       | 1.141                    | 0.307            | 0.400                     |        |
| 5690                                     | 138 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | -0.01          | 0 mm    | B               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.6           | 0.703          | 1.259                  | 1.035                       | 0.916                    | 0.252            | 0.328                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.00                 | 0.11           | 0 mm    | B               | 1                    | F9FV700TJM4W         | 29.3             | right  | 96.6           | 0.114          | 1.259                  | 1.035                       | 0.149                    | 0.042            | 0.055                     |        |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | 0.00           | 0 mm    | A               | 1                    | F9FV700DJM4W         | 29.3             | bottom | 96.5           | 1.130          | 1.000                  | 1.037                       | 1.172                    | 0.397            | 0.412                     |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |          |         |                 |                             |                       |                |         |                 | Body                 |                      |                  |        |                |                |                        |                             |                          |                  |                           |        |
| Spatial Peak                             |     |          |         |                 |                             |                       |                |         |                 | 1.6 W/kg (mW/g)      |                      |                  |        |                |                |                        |                             |                          |                  |                           |        |
| Uncontrolled Exposure/General Population |     |          |         |                 |                             |                       |                |         |                 | averaged over 1 gram |                      |                  |        |                |                |                        |                             |                          |                  |                           |        |

Note: Blue entries indicate variability measurements.

| MEASUREMENT RESULTS                      |     |          |         |                 |                             |                       |               |                      |                 |         |                      |                  |        |                |         |                        |                             |                   |           |                    |        |
|------------------------------------------|-----|----------|---------|-----------------|-----------------------------|-----------------------|---------------|----------------------|-----------------|---------|----------------------|------------------|--------|----------------|---------|------------------------|-----------------------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                |     | Mode     | Service | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Dn [dB] | Spacing              | Antenna Config. | Variant | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle (%) | SAR(1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                      | Ch. |          |         |                 |                             |                       |               |                      |                 |         |                      |                  |        |                | (W/kg)  |                        |                             | (W/kg)            | (W/kg)    |                    |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.50                 | 0.04          | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 29.3             | back   | 96.5           | 0.080   | 1.000                  | 1.037                       | 0.083             | 0.027     | 0.028              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.50                 | 0.19          | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 29.3             | top    | 96.5           | 0.029   | 1.000                  | 1.037                       | 0.030             | 0.010     | 0.010              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.50                 | 0.07          | 0 mm                 | A               | 1       | F9FVT012JM4W         | 29.3             | bottom | 96.5           | 0.845   | 1.000                  | 1.037                       | 0.876             | 0.286     | 0.297              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.50                 | -0.02         | 0 mm                 | A               | 2       | F9FVT00WJM60         | 29.3             | bottom | 96.5           | 0.808   | 1.000                  | 1.036                       | 0.837             | 0.286     | 0.296              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.50                 | 0.19          | 0 mm                 | A               | 1       | F9FVT00TJM4W         | 29.3             | left   | 96.5           | 0.133   | 1.000                  | 1.037                       | 0.138             | 0.045     | 0.047              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.00                 | -0.13         | 0 mm                 | B               | 1       | F9FVT00TJM4W         | 29.3             | back   | 96.6           | 0.032   | 1.122                  | 1.035                       | 0.037             | 0.013     | 0.015              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.00                 | 0.18          | 0 mm                 | B               | 1       | F9FVT00TJM4W         | 29.3             | top    | 96.6           | 0.021   | 1.122                  | 1.035                       | 0.024             | 0.005     | 0.006              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.00                 | 0.10          | 0 mm                 | B               | 1       | F9FVT012JM4W         | 29.3             | bottom | 96.6           | 0.922   | 1.122                  | 1.035                       | 1.071             | 0.328     | 0.381              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 15.92                 | 0.13          | 0 mm                 | B               | 2       | F9FVT014JM60         | 29.3             | bottom | 96.5           | 0.790   | 1.143                  | 1.036                       | 0.935             | 0.260     | 0.332              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.00                 | 0.18          | 0 mm                 | B               | 1       | F9FVT00TJM4W         | 29.3             | right  | 96.6           | 0.092   | 1.122                  | 1.035                       | 0.107             | 0.033     | 0.038              |        |
| 5775                                     | 155 | 802.11ac | OFDM    | 80              | 16.5                        | 16.00                 | -0.02         | 0 mm                 | B               | 1       | F9FVT012JM4W         | 29.3             | bottom | 96.6           | 0.818   | 1.122                  | 1.035                       | 0.950             | 0.293     | 0.340              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |          |         |                 |                             |                       |               | Body                 |                 |         |                      |                  |        |                |         |                        |                             |                   |           |                    |        |
| Spatial Peak                             |     |          |         |                 |                             |                       |               | 1.6 W/kg (mW/g)      |                 |         |                      |                  |        |                |         |                        |                             |                   |           |                    |        |
| Uncontrolled Exposure/General Population |     |          |         |                 |                             |                       |               | averaged over 1 gram |                 |         |                      |                  |        |                |         |                        |                             |                   |           |                    |        |

Note: Blue entries indicate variability measurements.

|                                                |                                                                                                                  |                                   |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>SAR EVALUATION REPORT</b> |                                   | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                        | <b>DUT Type:</b><br>Tablet Device | Page 85 of 114                         |

**Table 10-17**  
**WLAN MIMO Body SAR**

| MEASUREMENT RESULTS                      |     |          |         |                 |                             |                       |                  |         |                      |      |                      |         |                  |        |                |          |                        |                             |                          |                  |                           |        |  |
|------------------------------------------|-----|----------|---------|-----------------|-----------------------------|-----------------------|------------------|---------|----------------------|------|----------------------|---------|------------------|--------|----------------|----------|------------------------|-----------------------------|--------------------------|------------------|---------------------------|--------|--|
| FREQUENCY                                |     | Mode     | Service | Bandwidth [MHz] | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing | Antenna Config.      | Cube | Device Serial Number | Variant | Data Rate [Mbps] | Side   | Duty Cycle (%) | SAR (1g) | Scaling Factor (Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) (W/kg) | SAR (10g) (W/kg) | Reported SAR (10g) (W/kg) | Plot # |  |
| MHz                                      | Ch. |          |         |                 |                             |                       |                  |         |                      |      |                      |         |                  |        |                | (W/kg)   |                        | (W/kg)                      | (W/kg)                   |                  |                           |        |  |
| 2417                                     | 2   | 802.11g  | OFDM    | 20              | 15.5                        | 15.47                 | -0.05            | 0 mm    | MIMO                 | 1    | F9FVT00FJM4W         | 1       | 6                | bottom | 99.0           | 0.804    | 1.007                  | 1.010                       | 0.818                    | 0.266            | 0.271                     |        |  |
|                                          |     |          |         |                 | 15.5                        | 15.36                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.874    | 1.033                  | 1.010                       | 0.912                    | 0.291            | 0.304                     |        |  |
| 2437                                     | 6   | 802.11g  | OFDM    | 20              | 15.5                        | 15.50                 | 0.00             | 0 mm    | MIMO                 | 1    | F9FVT00FJM4W         | 1       | 6                | bottom | 99.0           | 0.991    | 1.000                  | 1.010                       | 1.001                    | 0.319            | 0.322                     |        |  |
|                                          |     |          |         |                 | 15.5                        | 15.50                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.826    | 1.000                  | 1.010                       | 0.834                    | 0.266            | 0.269                     |        |  |
| 2457                                     | 10  | 802.11g  | OFDM    | 20              | 15.5                        | 15.48                 | -0.18            | 0 mm    | MIMO                 | 1    | F9FVT00FJM4W         | 1       | 6                | bottom | 99.0           | 0.939    | 1.005                  | 1.010                       | 0.953                    | 0.304            | 0.309                     |        |  |
|                                          |     |          |         |                 | 15.5                        | 15.35                 |                  |         |                      | 2    |                      |         |                  |        |                | 1.110    | 1.035                  | 1.010                       | 1.160                    | 0.364            | 0.381                     |        |  |
| 2457                                     | 10  | 802.11g  | OFDM    | 20              | 15.5                        | 15.44                 | -0.10            | 0 mm    | MIMO                 | 1    | F9FVT01MJM50         | 2       | 6                | bottom | 98.9           | 0.751    | 1.014                  | 1.011                       | 0.770                    | 0.242            | 0.256                     |        |  |
|                                          |     |          |         |                 | 15.5                        | 15.31                 |                  |         |                      | 2    |                      |         |                  |        |                | 1.070    | 1.045                  | 1.011                       | 1.130                    | 0.343            | 0.362                     |        |  |
| 5270                                     | 54  | 802.11n  | OFDM    | 40              | 17.0                        | 16.00                 | 0.04             | 0 mm    | MIMO                 | 1    | F9FVT00GJM4W         | 1       | 13.5             | bottom | 98.3           | 0.827    | 1.259                  | 1.018                       | 1.060                    | 0.262            | 0.336                     |        |  |
|                                          |     |          |         |                 | 17.0                        | 16.92                 |                  |         |                      | 2    |                      |         |                  |        |                | 1.030    | 1.019                  | 1.018                       | 1.068                    | 0.347            | 0.360                     |        |  |
| 5270                                     | 54  | 802.11n  | OFDM    | 40              | 17.0                        | 15.90                 | -0.01            | 0 mm    | MIMO                 | 1    | F9FVT01MJM50         | 2       | 13.5             | bottom | 98.3           | 0.787    | 1.288                  | 1.017                       | 1.031                    | 0.255            | 0.334                     |        |  |
|                                          |     |          |         |                 | 17.0                        | 16.95                 |                  |         |                      | 2    |                      |         |                  |        |                | 1.020    | 1.012                  | 1.017                       | 1.050                    | 0.352            | 0.362                     |        |  |
| 5310                                     | 62  | 802.11n  | OFDM    | 40              | 13.5                        | 13.41                 | 0.11             | 0 mm    | MIMO                 | 1    | F9FVT00GJM4W         | 1       | 13.5             | bottom | 98.3           | 0.397    | 1.021                  | 1.018                       | 0.413                    | 0.126            | 0.131                     |        |  |
|                                          |     |          |         |                 | 13.5                        | 13.40                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.413    | 1.023                  | 1.018                       | 0.430                    | 0.136            | 0.142                     |        |  |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | -0.02            | 0 mm    | MIMO                 | 1    | F9FVT00DJM4W         | 1       | 29.3             | bottom | 95.6           | 1.020    | 1.000                  | 1.046                       | 1.067                    | 0.349            | 0.365                     |        |  |
|                                          |     |          |         |                 | 17.0                        | 16.00                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.767    | 1.259                  | 1.046                       | 1.010                    | 0.274            | 0.361                     |        |  |
| 5610                                     | 122 | 802.11ac | OFDM    | 80              | 17.0                        | 16.97                 | -0.17            | 0 mm    | MIMO                 | 1    | F9FVT017JM50         | 2       | 29.3             | bottom | 95.5           | 1.010    | 1.007                  | 1.047                       | 1.065                    | 0.350            | 0.369                     |        |  |
|                                          |     |          |         |                 | 17.0                        | 16.00                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.737    | 1.259                  | 1.047                       | 0.971                    | 0.259            | 0.341                     |        |  |
| 5690                                     | 138 | 802.11ac | OFDM    | 80              | 17.0                        | 17.00                 | 0.14             | 0 mm    | MIMO                 | 1    | F9FVT00DJM4W         | 1       | 29.3             | bottom | 95.6           | 0.842    | 1.000                  | 1.046                       | 0.881                    | 0.289            | 0.391                     |        |  |
|                                          |     |          |         |                 | 17.0                        | 15.88                 |                  |         |                      | 1    |                      |         |                  |        |                | 0.765    | 1.294                  | 1.046                       | 1.035                    | 0.274            | 0.371                     |        |  |
| 5755                                     | 151 | 802.11n  | OFDM    | 40              | 16.5                        | 16.50                 | 0.15             | 0 mm    | MIMO                 | 1    | F9FVT012JM4W         | 1       | 13.5             | bottom | 98.3           | 0.729    | 1.000                  | 1.018                       | 0.742                    | 0.235            | 0.239                     |        |  |
|                                          |     |          |         |                 | 16.5                        | 16.46                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.893    | 1.009                  | 1.018                       | 0.917                    | 0.322            | 0.331                     |        |  |
| 5795                                     | 159 | 802.11n  | OFDM    | 40              | 16.5                        | 16.45                 | -0.15            | 0 mm    | MIMO                 | 1    | F9FVT012JM4W         | 1       | 13.5             | bottom | 98.3           | 0.823    | 1.012                  | 1.018                       | 0.848                    | 0.274            | 0.282                     |        |  |
|                                          |     |          |         |                 | 16.5                        | 16.40                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.905    | 1.023                  | 1.018                       | 0.942                    | 0.328            | 0.342                     |        |  |
| 5795                                     | 159 | 802.11n  | OFDM    | 40              | 16.5                        | 16.47                 | -0.09            | 0 mm    | MIMO                 | 1    | F9FVT01MJM50         | 2       | 13.5             | bottom | 98.3           | 0.856    | 1.007                  | 1.017                       | 0.877                    | 0.298            | 0.316                     |        |  |
|                                          |     |          |         |                 | 16.5                        | 16.32                 |                  |         |                      | 2    |                      |         |                  |        |                | 0.751    | 1.042                  | 1.017                       | 0.796                    | 0.273            | 0.289                     |        |  |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |          |         |                 |                             |                       |                  |         | Body                 |      |                      |         |                  |        |                |          |                        |                             |                          |                  |                           |        |  |
| Spatial Peak                             |     |          |         |                 |                             |                       |                  |         | 1.6 W/kg (mW/g)      |      |                      |         |                  |        |                |          |                        |                             |                          |                  |                           |        |  |
| Uncontrolled Exposure/General Population |     |          |         |                 |                             |                       |                  |         | averaged over 1 gram |      |                      |         |                  |        |                |          |                        |                             |                          |                  |                           |        |  |

Note: Due to the spatial separation of Antenna A and Antenna B, two measurement cubes were evaluated during MIMO SAR testing. Cube 1 and 2 are located over the SAR distributions produced by Antenna A and B, respectively. Due to the spatial separation of the distributions, the conducted power of each antenna was individually considered for each measurement cube to determine the reported SAR, per manufacturer's request.

**Table 10-18**  
**Bluetooth P<sub>High</sub> Body SAR**

| MEASUREMENT RESULTS                      |     |           |         |                             |                       |                  |                      |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |  |
|------------------------------------------|-----|-----------|---------|-----------------------------|-----------------------|------------------|----------------------|---------|----------------------|------------------|--------|------------|----------|-----------------------------|-----------------------------|-------------------|-----------|--------------------|--------|--|
| FREQUENCY                                |     | Mode      | Service | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing              | Variant | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle | SAR (1g) | Scaling Factor (Cond Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |  |
| MHz                                      | Ch. |           |         |                             |                       |                  |                      |         |                      |                  |        |            | (W/kg)   |                             |                             | (W/kg)            |           | (W/kg)             |        |  |
| 2480                                     | 78  | Bluetooth | FHSS    | 17.0                        | 17.00                 | -0.11            | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | back   | 77.2       | 0.084    | 1.000                       | 1.004                       | 0.084             | 0.039     | 0.039              |        |  |
| 2480                                     | 78  | Bluetooth | FHSS    | 17.0                        | 17.00                 | 0.13             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | top    | 77.2       | 0.014    | 1.000                       | 1.004                       | 0.014             | 0.005     | 0.005              |        |  |
| 2402                                     | 0   | Bluetooth | FHSS    | 17.0                        | 15.62                 | 0.14             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | bottom | 77.2       | 0.788    | 1.374                       | 1.004                       | 1.087             | 0.251     | 0.346              |        |  |
| 2441                                     | 39  | Bluetooth | FHSS    | 17.0                        | 15.53                 | 0.11             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | bottom | 77.2       | 0.835    | 1.403                       | 1.004                       | 1.176             | 0.266     | 0.375              |        |  |
| 2441                                     | 39  | Bluetooth | FHSS    | 17.0                        | 15.74                 | 0.06             | 0 mm                 | 2       | F9FVT017JM50         | 1                | bottom | 77.4       | 0.741    | 1.337                       | 1.001                       | 0.992             | 0.236     | 0.316              |        |  |
| 2480                                     | 78  | Bluetooth | FHSS    | 17.0                        | 17.00                 | 0.07             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | bottom | 77.2       | 1.170    | 1.000                       | 1.004                       | 1.175             | 0.380     | 0.382              | A20    |  |
| 2480                                     | 78  | Bluetooth | FHSS    | 17.0                        | 17.00                 | 0.16             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | left   | 77.2       | 0.189    | 1.000                       | 1.004                       | 0.190             | 0.082     | 0.082              |        |  |
| 2480                                     | 78  | Bluetooth | FHSS    | 17.0                        | 17.00                 | 0.16             | 0 mm                 | 1       | F9FVT00FJM4W         | 1                | bottom | 77.2       | 1.160    | 1.000                       | 1.004                       | 1.165             | 0.376     | 0.378              |        |  |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |           |         |                             |                       |                  | Body                 |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |  |
| Spatial Peak                             |     |           |         |                             |                       |                  | 1.6 W/kg (mW/g)      |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |  |
| Uncontrolled Exposure/General Population |     |           |         |                             |                       |                  | averaged over 1 gram |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |  |

Note: The reported SAR was scaled to the 77.5% transmission duty factor to determine compliance since the duty factor of the device is permanently limited to 77.5% per the manufacturer. Blue entries indicate variability measurements.

|                                         |                                                                                     |                              |                                 |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  | <b>SAR EVALUATION REPORT</b> | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                  | DUT Type:<br>Tablet Device   | Page 86 of 114                  |

**Table 10-19**  
**Bluetooth P<sub>Low</sub> Body SAR**

| MEASUREMENT RESULTS                      |     |           |         |                             |                       |                  |                                                 |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |
|------------------------------------------|-----|-----------|---------|-----------------------------|-----------------------|------------------|-------------------------------------------------|---------|----------------------|------------------|--------|------------|----------|-----------------------------|-----------------------------|-------------------|-----------|--------------------|--------|
| FREQUENCY                                |     | Mode      | Service | Maximum Allowed Power [dBm] | Conducted Power [dBm] | Power Drift [dB] | Spacing                                         | Variant | Device Serial Number | Data Rate (Mbps) | Side   | Duty Cycle | SAR (1g) | Scaling Factor (Cond Power) | Scaling Factor (Duty Cycle) | Reported SAR (1g) | SAR (10g) | Reported SAR (10g) | Plot # |
| MHz                                      | Ch. |           |         |                             |                       |                  |                                                 |         |                      |                  |        |            | (W/kg)   |                             |                             | (W/kg)            |           | (W/kg)             |        |
| 2441                                     | 39  | Bluetooth | FHSS    | 9.5                         | 9.25                  | 0.19             | 0 mm                                            | 1       | F9FVT00FJM4W         | 1                | back   | 77.1       | 0.027    | 1.060                       | 1.005                       | 0.029             | 0.012     | 0.013              |        |
| 2441                                     | 39  | Bluetooth | FHSS    | 9.5                         | 9.25                  | -0.01            | 0 mm                                            | 1       | F9FVT00FJM4W         | 1                | top    | 77.1       | 0.004    | 1.060                       | 1.005                       | 0.004             | 0.001     | 0.001              |        |
| 2441                                     | 39  | Bluetooth | FHSS    | 9.5                         | 9.25                  | 0.03             | 0 mm                                            | 1       | F9FVT00FJM4W         | 1                | bottom | 77.1       | 0.206    | 1.060                       | 1.005                       | 0.219             | 0.064     | 0.068              |        |
| 2441                                     | 39  | Bluetooth | FHSS    | 9.5                         | 9.25                  | -0.13            | 0 mm                                            | 1       | F9FVT00FJM4W         | 1                | left   | 77.1       | 0.025    | 1.060                       | 1.005                       | 0.027             | 0.011     | 0.012              |        |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |     |           |         |                             |                       |                  |                                                 |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |
| Spatial Peak                             |     |           |         |                             |                       |                  |                                                 |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |
| Uncontrolled Exposure/General Population |     |           |         |                             |                       |                  | Body<br>1.6 W/kg (mW/g)<br>averaged over 1 gram |         |                      |                  |        |            |          |                             |                             |                   |           |                    |        |

Note: The reported SAR was scaled to the 77.5% transmission duty factor to determine compliance since the duty factor of the device is permanently limited to 77.5% per the manufacturer.

## 10.2 SAR Test Notes

### General Notes:

- The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 616217 D04v01r02 and FCC KDB Publication 447498 D01v06.
- Batteries are fully charged at the beginning of the SAR measurements.
- Liquid tissue depth was at least 15.0 cm for all frequencies.
- The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
- SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
- Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 12 for variability analysis.
- FCC KDB Publication 616217 D04v01r02 Section 4.3, SAR tests are required for the back surface and edges of the tablet with the tablet touching the phantom. The SAR Exclusion Threshold in FCC KDB 447498 D01v06 was applied to determine SAR test exclusion for adjacent edge configurations.

### GSM Test Notes:

- Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.
- Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel was used.

### CDMA Notes:

- CDMA SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. Wireless Router SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policy in KDB Publication 941225 D01v03r01..
- Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel was used.

|                                                |                                                                                                                                   |                                   |  |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>      |  | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                                         | <b>DUT Type:</b><br>Tablet Device |  | Page 87 of 114                         |

- CDMA 1X Advanced technology was not required for SAR since the maximum allowed output powers for 1X Advanced was not more than 0.25 dB higher than the maximum powers for 1X.

#### UMTS Notes:

- UMTS mode in was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
- Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel was used.

#### LTE Notes:

- LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 7.6.4.
- MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
- A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
- Per FCC KDB Publication 447498 D01v06, when the reported (scaled) for LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was  $> 0.6$  W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
- TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.
- Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not  $> 0.25$  dB higher than the maximum output power when downlink carrier aggregation was inactive.

#### WLAN Notes:

- Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 7.7.4 for more information.
- Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 7.7.5 for more information.
- Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Section 11 for complete analysis.
- When the maximum reported 1g averaged SAR is  $\leq 0.8$  W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was  $\leq 1.20$  W/kg for 1g evaluations or all test channels were measured.

|                                         |                                                                                                                  |                            |                                 |
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5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.

#### Bluetooth Notes

1. Bluetooth SAR was evaluated with a test mode with hopping disabled with DH5 operation. The reported SAR was scaled to the 77.5% transmission duty factor to determine compliance since the duty factor of the device is limited to 77.5% per the manufacturer. See Section 8.6 for the time domain plot and calculation for the duty factor of the device.

|                                                |                                                                                                                  |                                   |                                        |
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# 11 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

## 11.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to devices with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

## 11.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g SAR for all the simultaneous transmitting antennas in a specific physical test configuration is  $\leq 1.6$  W/kg. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

## 11.3 Body SAR Simultaneous Transmission Analysis

**Table 11-1**  
**Simultaneous Transmission Scenario with 2.4 GHz WLAN**

| Simult Tx | Configuration | GPRS 850 SAR (W/kg) | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|---------------------|-------------------------------|-------------------------------|---------------------|-------|----------------|
|           |               | 1                   | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.156               | 0.048                         | 0.101                         | 1.204               | 1.257 | <b>1.305</b>   |
|           | Top           | 0.830               | 0.008                         | 0.011                         | 0.838               | 0.841 | 0.849          |
|           | Bottom        | 0.025               | 1.055                         | 1.162                         | 1.080               | 1.187 | See Table 11-2 |
|           | Right         | 0.101               | 0.400*                        | 0.216                         | 0.501               | 0.317 | 0.717          |
|           | Left          | 0.400*              | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |
| Simult Tx | Configuration | UMTS 850 SAR (W/kg) | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                   | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.146               | 0.048                         | 0.101                         | 1.194               | 1.247 | <b>1.295</b>   |
|           | Top           | 0.689               | 0.008                         | 0.011                         | 0.697               | 0.700 | 0.708          |
|           | Bottom        | 0.018               | 1.055                         | 1.162                         | 1.073               | 1.180 | See Table 11-2 |
|           | Right         | 0.111               | 0.400*                        | 0.216                         | 0.511               | 0.327 | 0.727          |
|           | Left          | 0.400*              | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | EVDO BC10<br>(\$90S) SAR<br>(W/kg) | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|-----------|---------------|------------------------------------|-------------------------------------|-------------------------------------|---------------------|--------------|----------------|
|           |               | 1                                  | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.027                              | 0.048                               | 0.101                               | 1.075               | 1.128        | 1.176          |
|           | Top           | 0.670                              | 0.008                               | 0.011                               | 0.678               | 0.681        | 0.689          |
|           | Bottom        | 0.022                              | 1.055                               | 1.162                               | 1.077               | 1.184        | See Table 11-2 |
|           | Right         | 0.113                              | 0.400*                              | 0.216                               | 0.513               | 0.329        | 0.729          |
|           | Left          | 0.400*                             | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | EVDO BC0<br>(\$22H) SAR<br>(W/kg)  | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                  | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.092                              | 0.048                               | 0.101                               | 1.140               | 1.193        | <b>1.241</b>   |
|           | Top           | 0.727                              | 0.008                               | 0.011                               | 0.735               | 0.738        | 0.746          |
|           | Bottom        | 0.019                              | 1.055                               | 1.162                               | 1.074               | 1.181        | See Table 11-2 |
|           | Right         | 0.114                              | 0.400*                              | 0.216                               | 0.514               | 0.330        | 0.730          |
|           | Left          | 0.400*                             | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | UMTS 1750<br>SAR (W/kg)            | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                  | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 0.977                              | 0.048                               | 0.101                               | 1.025               | 1.078        | 1.126          |
|           | Top           | 0.699                              | 0.008                               | 0.011                               | 0.707               | 0.710        | 0.718          |
|           | Bottom        | 0.004                              | 1.055                               | 1.162                               | 1.059               | <b>1.166</b> | See Table 11-2 |
|           | Right         | 0.082                              | 0.400*                              | 0.216                               | 0.482               | 0.298        | 0.698          |
|           | Left          | 0.400*                             | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | GPRS 1900<br>SAR (W/kg)            | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                  | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.112                              | 0.048                               | 0.101                               | 1.160               | 1.213        | <b>1.261</b>   |
|           | Top           | 0.969                              | 0.008                               | 0.011                               | 0.977               | 0.980        | 0.988          |
|           | Bottom        | 0.000                              | 1.055                               | 1.162                               | 1.055               | 1.162        | See Table 11-2 |
|           | Right         | 0.126                              | 0.400*                              | 0.216                               | 0.526               | 0.342        | 0.742          |
|           | Left          | 0.400*                             | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | UMTS 1900 SAR (W/kg)   | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|------------------------|-------------------------------|-------------------------------|---------------------|-------|----------------|
|           |               | 1                      | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.073                  | 0.048                         | 0.101                         | 1.121               | 1.174 | <b>1.222</b>   |
|           | Top           | 0.874                  | 0.008                         | 0.011                         | 0.882               | 0.885 | 0.893          |
|           | Bottom        | 0.001                  | 1.055                         | 1.162                         | 1.056               | 1.163 | See Table 11-2 |
|           | Right         | 0.120                  | 0.400*                        | 0.216                         | 0.520               | 0.336 | 0.736          |
|           | Left          | 0.400*                 | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |
| Simult Tx | Configuration | PCS EVDO SAR (W/kg)    | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.136                  | 0.048                         | 0.101                         | 1.184               | 1.237 | <b>1.285</b>   |
|           | Top           | 0.898                  | 0.008                         | 0.011                         | 0.906               | 0.909 | 0.917          |
|           | Bottom        | 0.000                  | 1.055                         | 1.162                         | 1.055               | 1.162 | See Table 11-2 |
|           | Right         | 0.120                  | 0.400*                        | 0.216                         | 0.520               | 0.336 | 0.736          |
|           | Left          | 0.400*                 | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |
| Simult Tx | Configuration | LTE Band 12 SAR (W/kg) | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.182                  | 0.048                         | 0.101                         | 1.230               | 1.283 | <b>1.331</b>   |
|           | Top           | 0.847                  | 0.008                         | 0.011                         | 0.855               | 0.858 | 0.866          |
|           | Bottom        | 0.030                  | 1.055                         | 1.162                         | 1.085               | 1.192 | See Table 11-2 |
|           | Right         | 0.105                  | 0.400*                        | 0.216                         | 0.505               | 0.321 | 0.721          |
|           | Left          | 0.400*                 | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |
| Simult Tx | Configuration | LTE Band 13 SAR (W/kg) | 2.4 GHz WLAN Ant A SAR (W/kg) | 2.4 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                             | 3                             | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.152                  | 0.048                         | 0.101                         | 1.200               | 1.253 | <b>1.301</b>   |
|           | Top           | 0.756                  | 0.008                         | 0.011                         | 0.764               | 0.767 | 0.775          |
|           | Bottom        | 0.031                  | 1.055                         | 1.162                         | 1.086               | 1.193 | See Table 11-2 |
|           | Right         | 0.120                  | 0.400*                        | 0.216                         | 0.520               | 0.336 | 0.736          |
|           | Left          | 0.400*                 | 0.114                         | 0.400*                        | 0.514               | 0.800 | 0.914          |

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| Simult Tx | Configuration | LTE Band 5<br>(Cell) SAR<br>(W/kg)  | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|-----------|---------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------|--------------|----------------|
|           |               | 1                                   | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.130                               | 0.048                               | 0.101                               | 1.178               | 1.231        | <b>1.279</b>   |
|           | Top           | 0.690                               | 0.008                               | 0.011                               | 0.698               | 0.701        | 0.709          |
|           | Bottom        | 0.022                               | 1.055                               | 1.162                               | 1.077               | 1.184        | See Table 11-2 |
|           | Right         | 0.103                               | 0.400*                              | 0.216                               | 0.503               | 0.319        | 0.719          |
|           | Left          | 0.400*                              | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | LTE Band 26<br>(Cell) SAR<br>(W/kg) | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                   | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.032                               | 0.048                               | 0.101                               | 1.080               | 1.133        | 1.181          |
|           | Top           | 0.634                               | 0.008                               | 0.011                               | 0.642               | 0.645        | 0.653          |
|           | Bottom        | 0.022                               | 1.055                               | 1.162                               | 1.077               | <b>1.184</b> | See Table 11-2 |
|           | Right         | 0.112                               | 0.400*                              | 0.216                               | 0.512               | 0.328        | 0.728          |
|           | Left          | 0.400*                              | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | LTE Band 4<br>(AWS) SAR<br>(W/kg)   | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                   | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.040                               | 0.048                               | 0.101                               | 1.088               | 1.141        | <b>1.189</b>   |
|           | Top           | 0.732                               | 0.008                               | 0.011                               | 0.740               | 0.743        | 0.751          |
|           | Bottom        | 0.006                               | 1.055                               | 1.162                               | 1.061               | 1.168        | See Table 11-2 |
|           | Right         | 0.086                               | 0.400*                              | 0.216                               | 0.486               | 0.302        | 0.702          |
|           | Left          | 0.400*                              | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | LTE Band 25<br>(PCS) SAR<br>(W/kg)  | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                                   | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.092                               | 0.048                               | 0.101                               | 1.140               | 1.193        | <b>1.241</b>   |
|           | Top           | 0.938                               | 0.008                               | 0.011                               | 0.946               | 0.949        | 0.957          |
|           | Bottom        | 0.000                               | 1.055                               | 1.162                               | 1.055               | 1.162        | See Table 11-2 |
|           | Right         | 0.126                               | 0.400*                              | 0.216                               | 0.526               | 0.342        | 0.742          |
|           | Left          | 0.400*                              | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |

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| Simult Tx | Configuration | LTE Band 30<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|-----------|---------------|---------------------------|-------------------------------------|-------------------------------------|---------------------|--------------|----------------|
|           |               | 1                         | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 0.989                     | 0.048                               | 0.101                               | 1.037               | 1.090        | 1.138          |
|           | Top           | 1.065                     | 0.008                               | 0.011                               | 1.073               | 1.076        | 1.084          |
|           | Bottom        | 0.014                     | 1.055                               | 1.162                               | 1.069               | <b>1.176</b> | See Table 11-2 |
|           | Right         | 0.163                     | 0.400*                              | 0.216                               | 0.563               | 0.379        | 0.779          |
|           | Left          | 0.400*                    | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | LTE Band 7<br>SAR (W/kg)  | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                         | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.170                     | 0.048                               | 0.101                               | 1.218               | 1.271        | <b>1.319</b>   |
|           | Top           | 1.170                     | 0.008                               | 0.011                               | 1.178               | 1.181        | 1.189          |
|           | Bottom        | 0.000                     | 1.055                               | 1.162                               | 1.055               | 1.162        | See Table 11-2 |
|           | Right         | 0.188                     | 0.400*                              | 0.216                               | 0.588               | 0.404        | 0.804          |
|           | Left          | 0.400*                    | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |
| Simult Tx | Configuration | LTE Band 41<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant A<br>SAR (W/kg) | 2.4 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |              |                |
|           |               | 1                         | 2                                   | 3                                   | 1+2                 | 1+3          | 1+2+3          |
| Body SAR  | Back          | 1.015                     | 0.048                               | 0.101                               | 1.063               | 1.116        | <b>1.164</b>   |
|           | Top           | 1.095                     | 0.008                               | 0.011                               | 1.103               | 1.106        | 1.114          |
|           | Bottom        | 0.002                     | 1.055                               | 1.162                               | 1.057               | <b>1.164</b> | See Table 11-2 |
|           | Right         | 0.157                     | 0.400*                              | 0.216                               | 0.557               | 0.373        | 0.773          |
|           | Left          | 0.400*                    | 0.114                               | 0.400*                              | 0.514               | 0.800        | 0.914          |

|                                         |                                                                                                                  |                            |                                 |
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**Table 11-2**  
**Bottom Edge Simultaneous Transmission Scenario with 2.4 GHz WLAN**

| Configuration | Mode               | 2G/3G/4G SAR (W/kg) | 2.4 GHz WLAN MIMO SAR (W/kg) | $\Sigma$ SAR (W/kg) |
|---------------|--------------------|---------------------|------------------------------|---------------------|
| Bottom Edge   | GPRS 850           | 0.025               | 1.160                        | 1.185               |
| Bottom Edge   | UMTS 850           | 0.018               | 1.160                        | 1.178               |
| Bottom Edge   | EVDO BC10 (§90S)   | 0.022               | 1.160                        | 1.182               |
| Bottom Edge   | EVDO BC0 (§22H)    | 0.019               | 1.160                        | 1.179               |
| Bottom Edge   | UMTS 1750          | 0.004               | 1.160                        | 1.164               |
| Bottom Edge   | GPRS 1900          | 0.000               | 1.160                        | 1.160               |
| Bottom Edge   | UMTS 1900          | 0.001               | 1.160                        | 1.161               |
| Bottom Edge   | PCS EVDO           | 0.000               | 1.160                        | 1.160               |
| Bottom Edge   | LTE Band 12        | 0.030               | 1.160                        | 1.190               |
| Bottom Edge   | LTE Band 13        | 0.031               | 1.160                        | <b>1.191</b>        |
| Bottom Edge   | LTE Band 5 (Cell)  | 0.022               | 1.160                        | 1.182               |
| Bottom Edge   | LTE Band 26 (Cell) | 0.022               | 1.160                        | 1.182               |
| Bottom Edge   | LTE Band 4 (AWS)   | 0.006               | 1.160                        | 1.166               |
| Bottom Edge   | LTE Band 25 (PCS)  | 0.000               | 1.160                        | 1.160               |
| Bottom Edge   | LTE Band 30        | 0.014               | 1.160                        | 1.174               |
| Bottom Edge   | LTE Band 7         | 0.000               | 1.160                        | 1.160               |
| Bottom Edge   | LTE Band 41        | 0.002               | 1.160                        | 1.162               |

**Table 11-3**  
**Simultaneous Transmission Scenario with 5 GHz WLAN**

| Simult Tx | Configuration | GPRS 850 SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|---------------------|-----------------------------|-----------------------------|---------------------|-------|----------------|
|           |               | 1                   | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.156               | 0.092                       | 0.094                       | 1.248               | 1.250 | <b>1.342</b>   |
|           | Top           | 0.830               | 0.043                       | 0.056                       | 0.873               | 0.886 | 0.929          |
|           | Bottom        | 0.025               | 1.182                       | 1.164                       | 1.207               | 1.189 | See Table 11-4 |
|           | Right         | 0.101               | 0.400*                      | 0.149                       | 0.501               | 0.250 | 0.650          |
|           | Left          | 0.400*              | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | UMTS 850 SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                   | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.146               | 0.092                       | 0.094                       | 1.238               | 1.240 | <b>1.332</b>   |
|           | Top           | 0.689               | 0.043                       | 0.056                       | 0.732               | 0.745 | 0.788          |
|           | Bottom        | 0.018               | 1.182                       | 1.164                       | 1.200               | 1.182 | See Table 11-4 |
|           | Right         | 0.111               | 0.400*                      | 0.149                       | 0.511               | 0.260 | 0.660          |
|           | Left          | 0.400*              | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |

|                                         |                                                                                                                                   |                              |  |                                 |
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| FCC ID: BCGA1954                        |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                                                | DUT Type:<br>Tablet Device   |  | Page 95 of 114                  |

| Simult Tx | Configuration | EVDO BC10<br>(\$90S) SAR<br>(W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|------------------------------------|-----------------------------------|-----------------------------------|---------------------|-------|----------------|
|           |               | 1                                  | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.027                              | 0.092                             | 0.094                             | 1.119               | 1.121 | <b>1.213</b>   |
|           | Top           | 0.670                              | 0.043                             | 0.056                             | 0.713               | 0.726 | 0.769          |
|           | Bottom        | 0.022                              | 1.182                             | 1.164                             | 1.204               | 1.186 | See Table 11-4 |
|           | Right         | 0.113                              | 0.400*                            | 0.149                             | 0.513               | 0.262 | 0.662          |
|           | Left          | 0.400*                             | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | EVDO BC0<br>(\$22H) SAR<br>(W/kg)  | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                  | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.092                              | 0.092                             | 0.094                             | 1.184               | 1.186 | <b>1.278</b>   |
|           | Top           | 0.727                              | 0.043                             | 0.056                             | 0.770               | 0.783 | 0.826          |
|           | Bottom        | 0.019                              | 1.182                             | 1.164                             | 1.201               | 1.183 | See Table 11-4 |
|           | Right         | 0.114                              | 0.400*                            | 0.149                             | 0.514               | 0.263 | 0.663          |
|           | Left          | 0.400*                             | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | UMTS 1750<br>SAR (W/kg)            | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                  | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 0.977                              | 0.092                             | 0.094                             | 1.069               | 1.071 | 1.163          |
|           | Top           | 0.699                              | 0.043                             | 0.056                             | 0.742               | 0.755 | 0.798          |
|           | Bottom        | 0.004                              | 1.182                             | 1.164                             | <b>1.186</b>        | 1.168 | See Table 11-4 |
|           | Right         | 0.082                              | 0.400*                            | 0.149                             | 0.482               | 0.231 | 0.631          |
|           | Left          | 0.400*                             | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | GPRS 1900<br>SAR (W/kg)            | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                  | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.112                              | 0.092                             | 0.094                             | 1.204               | 1.206 | <b>1.298</b>   |
|           | Top           | 0.969                              | 0.043                             | 0.056                             | 1.012               | 1.025 | 1.068          |
|           | Bottom        | 0.000                              | 1.182                             | 1.164                             | 1.182               | 1.164 | See Table 11-4 |
|           | Right         | 0.126                              | 0.400*                            | 0.149                             | 0.526               | 0.275 | 0.675          |
|           | Left          | 0.400*                             | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | UMTS 1900 SAR (W/kg)   | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|------------------------|-----------------------------|-----------------------------|---------------------|-------|----------------|
|           |               | 1                      | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.073                  | 0.092                       | 0.094                       | 1.165               | 1.167 | <b>1.259</b>   |
|           | Top           | 0.874                  | 0.043                       | 0.056                       | 0.917               | 0.930 | 0.973          |
|           | Bottom        | 0.001                  | 1.182                       | 1.164                       | 1.183               | 1.165 | See Table 11-4 |
|           | Right         | 0.120                  | 0.400*                      | 0.149                       | 0.520               | 0.269 | 0.669          |
|           | Left          | 0.400*                 | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | PCS EVDO SAR (W/kg)    | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.136                  | 0.092                       | 0.094                       | 1.228               | 1.230 | <b>1.322</b>   |
|           | Top           | 0.898                  | 0.043                       | 0.056                       | 0.941               | 0.954 | 0.997          |
|           | Bottom        | 0.000                  | 1.182                       | 1.164                       | 1.182               | 1.164 | See Table 11-4 |
|           | Right         | 0.120                  | 0.400*                      | 0.149                       | 0.520               | 0.269 | 0.669          |
|           | Left          | 0.400*                 | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 12 SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.182                  | 0.092                       | 0.094                       | 1.274               | 1.276 | <b>1.368</b>   |
|           | Top           | 0.847                  | 0.043                       | 0.056                       | 0.890               | 0.903 | 0.946          |
|           | Bottom        | 0.030                  | 1.182                       | 1.164                       | 1.212               | 1.194 | See Table 11-4 |
|           | Right         | 0.105                  | 0.400*                      | 0.149                       | 0.505               | 0.254 | 0.654          |
|           | Left          | 0.400*                 | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 13 SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                           | 3                           | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.152                  | 0.092                       | 0.094                       | 1.244               | 1.246 | <b>1.338</b>   |
|           | Top           | 0.756                  | 0.043                       | 0.056                       | 0.799               | 0.812 | 0.855          |
|           | Bottom        | 0.031                  | 1.182                       | 1.164                       | 1.213               | 1.195 | See Table 11-4 |
|           | Right         | 0.120                  | 0.400*                      | 0.149                       | 0.520               | 0.269 | 0.669          |
|           | Left          | 0.400*                 | 0.148                       | 0.400*                      | 0.548               | 0.800 | 0.948          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | LTE Band 5<br>(Cell) SAR<br>(W/kg)  | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|-------------------------------------|-----------------------------------|-----------------------------------|---------------------|-------|----------------|
|           |               | 1                                   | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.130                               | 0.092                             | 0.094                             | 1.222               | 1.224 | <b>1.316</b>   |
|           | Top           | 0.690                               | 0.043                             | 0.056                             | 0.733               | 0.746 | 0.789          |
|           | Bottom        | 0.022                               | 1.182                             | 1.164                             | 1.204               | 1.186 | See Table 11-4 |
|           | Right         | 0.103                               | 0.400*                            | 0.149                             | 0.503               | 0.252 | 0.652          |
|           | Left          | 0.400*                              | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 26<br>(Cell) SAR<br>(W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                   | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.032                               | 0.092                             | 0.094                             | 1.124               | 1.126 | <b>1.218</b>   |
|           | Top           | 0.634                               | 0.043                             | 0.056                             | 0.677               | 0.690 | 0.733          |
|           | Bottom        | 0.022                               | 1.182                             | 1.164                             | 1.204               | 1.186 | See Table 11-4 |
|           | Right         | 0.112                               | 0.400*                            | 0.149                             | 0.512               | 0.261 | 0.661          |
|           | Left          | 0.400*                              | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 4<br>(AWS) SAR<br>(W/kg)   | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                   | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.040                               | 0.092                             | 0.094                             | 1.132               | 1.134 | <b>1.226</b>   |
|           | Top           | 0.732                               | 0.043                             | 0.056                             | 0.775               | 0.788 | 0.831          |
|           | Bottom        | 0.006                               | 1.182                             | 1.164                             | 1.188               | 1.170 | See Table 11-4 |
|           | Right         | 0.086                               | 0.400*                            | 0.149                             | 0.486               | 0.235 | 0.635          |
|           | Left          | 0.400*                              | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 25<br>(PCS) SAR<br>(W/kg)  | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                                   | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.092                               | 0.092                             | 0.094                             | 1.184               | 1.186 | <b>1.278</b>   |
|           | Top           | 0.938                               | 0.043                             | 0.056                             | 0.981               | 0.994 | 1.037          |
|           | Bottom        | 0.000                               | 1.182                             | 1.164                             | 1.182               | 1.164 | See Table 11-4 |
|           | Right         | 0.126                               | 0.400*                            | 0.149                             | 0.526               | 0.275 | 0.675          |
|           | Left          | 0.400*                              | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | LTE Band 30<br>SAR (W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|---------------------------|-----------------------------------|-----------------------------------|---------------------|-------|----------------|
|           |               | 1                         | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 0.989                     | 0.092                             | 0.094                             | 1.081               | 1.083 | 1.175          |
|           | Top           | 1.065                     | 0.043                             | 0.056                             | 1.108               | 1.121 | 1.164          |
|           | Bottom        | 0.014                     | 1.182                             | 1.164                             | <b>1.196</b>        | 1.178 | See Table 11-4 |
|           | Right         | 0.163                     | 0.400*                            | 0.149                             | 0.563               | 0.312 | 0.712          |
|           | Left          | 0.400*                    | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 7<br>SAR (W/kg)  | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                         | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.170                     | 0.092                             | 0.094                             | 1.262               | 1.264 | <b>1.356</b>   |
|           | Top           | 1.170                     | 0.043                             | 0.056                             | 1.213               | 1.226 | 1.269          |
|           | Bottom        | 0.000                     | 1.182                             | 1.164                             | 1.182               | 1.164 | See Table 11-4 |
|           | Right         | 0.188                     | 0.400*                            | 0.149                             | 0.588               | 0.337 | 0.737          |
|           | Left          | 0.400*                    | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |
| Simult Tx | Configuration | LTE Band 41<br>SAR (W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                         | 2                                 | 3                                 | 1+2                 | 1+3   | 1+2+3          |
| Body SAR  | Back          | 1.015                     | 0.092                             | 0.094                             | 1.107               | 1.109 | <b>1.201</b>   |
|           | Top           | 1.095                     | 0.043                             | 0.056                             | 1.138               | 1.151 | 1.194          |
|           | Bottom        | 0.002                     | 1.182                             | 1.164                             | 1.184               | 1.166 | See Table 11-4 |
|           | Right         | 0.157                     | 0.400*                            | 0.149                             | 0.557               | 0.306 | 0.706          |
|           | Left          | 0.400*                    | 0.148                             | 0.400*                            | 0.548               | 0.800 | 0.948          |

|                                         |                                                                                                                  |                            |                                 |
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**Table 11-4**  
**Bottom Edge Simultaneous Transmission Scenario with 5 GHz WLAN**

| Configuration | Mode               | 2G/3G/4G<br>SAR (W/kg) | 5 GHz WLAN<br>MIMO SAR<br>(W/kg) | $\Sigma$ SAR<br>(W/kg) |
|---------------|--------------------|------------------------|----------------------------------|------------------------|
| Bottom Edge   | GSM 850            | 0.025                  | 1.068                            | 1.093                  |
| Bottom Edge   | UMTS 850           | 0.018                  | 1.068                            | 1.086                  |
| Bottom Edge   | CDMA BC10 (§90S)   | 0.022                  | 1.068                            | 1.090                  |
| Bottom Edge   | CDMA BC0 (§22H)    | 0.019                  | 1.068                            | 1.087                  |
| Bottom Edge   | UMTS 1750          | 0.004                  | 1.068                            | 1.072                  |
| Bottom Edge   | GSM 1900           | 0.000                  | 1.068                            | 1.068                  |
| Bottom Edge   | UMTS 1900          | 0.001                  | 1.068                            | 1.069                  |
| Bottom Edge   | PCS CDMA           | 0.000                  | 1.068                            | 1.068                  |
| Bottom Edge   | LTE Band 12        | 0.030                  | 1.068                            | 1.098                  |
| Bottom Edge   | LTE Band 13        | 0.031                  | 1.068                            | <b>1.099</b>           |
| Bottom Edge   | LTE Band 5 (Cell)  | 0.022                  | 1.068                            | 1.090                  |
| Bottom Edge   | LTE Band 26 (Cell) | 0.022                  | 1.068                            | 1.090                  |
| Bottom Edge   | LTE Band 4 (AWS)   | 0.006                  | 1.068                            | 1.074                  |
| Bottom Edge   | LTE Band 25 (PCS)  | 0.000                  | 1.068                            | 1.068                  |
| Bottom Edge   | LTE Band 30        | 0.014                  | 1.068                            | 1.082                  |
| Bottom Edge   | LTE Band 7         | 0.000                  | 1.068                            | 1.068                  |
| Bottom Edge   | LTE Band 41        | 0.002                  | 1.068                            | 1.070                  |

**Table 11-5**  
**Simultaneous Transmission Scenario with Bluetooth**

| Simult Tx | Configuration | GPRS 850<br>SAR (W/kg) | Bluetooth<br>$P_{High}$ SAR<br>(W/kg) | $\Sigma$ SAR<br>(W/kg) |
|-----------|---------------|------------------------|---------------------------------------|------------------------|
| Body SAR  | Back          | 1.156                  | 0.084                                 | <b>1.240</b>           |
|           | Top           | 0.830                  | 0.014                                 | 0.844                  |
|           | Bottom        | 0.025                  | 1.176                                 | 1.201                  |
|           | Right         | 0.101                  | 0.400*                                | 0.501                  |
|           | Left          | 0.400*                 | 0.190                                 | 0.590                  |
| Simult Tx | Configuration | UMTS 850<br>SAR (W/kg) | Bluetooth<br>$P_{High}$ SAR<br>(W/kg) | $\Sigma$ SAR<br>(W/kg) |
| Body SAR  | Back          | 1.146                  | 0.084                                 | <b>1.230</b>           |
|           | Top           | 0.689                  | 0.014                                 | 0.703                  |
|           | Bottom        | 0.018                  | 1.176                                 | 1.194                  |
|           | Right         | 0.111                  | 0.400*                                | 0.511                  |
|           | Left          | 0.400*                 | 0.190                                 | 0.590                  |

|                                         |                                                                                                                                   |                              |  |                                 |
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|           |               |                                    |                                              |                 |
|-----------|---------------|------------------------------------|----------------------------------------------|-----------------|
| Simult Tx | Configuration | EVDO BC10<br>(\$90S) SAR<br>(W/kg) | Bluetooth<br>P <sub>High</sub> SAR<br>(W/kg) | Σ SAR<br>(W/kg) |
| Body SAR  | Back          | 1.027                              | 0.084                                        | 1.111           |
|           | Top           | 0.670                              | 0.014                                        | 0.684           |
|           | Bottom        | 0.022                              | 1.176                                        | <b>1.198</b>    |
|           | Right         | 0.113                              | 0.400*                                       | 0.513           |
|           | Left          | 0.400*                             | 0.190                                        | 0.590           |
| Simult Tx | Configuration | EVDO BC0<br>(\$22H) SAR<br>(W/kg)  | Bluetooth<br>P <sub>High</sub> SAR<br>(W/kg) | Σ SAR<br>(W/kg) |
| Body SAR  | Back          | 1.092                              | 0.084                                        | 1.176           |
|           | Top           | 0.727                              | 0.014                                        | 0.741           |
|           | Bottom        | 0.019                              | 1.176                                        | <b>1.195</b>    |
|           | Right         | 0.114                              | 0.400*                                       | 0.514           |
|           | Left          | 0.400*                             | 0.190                                        | 0.590           |
| Simult Tx | Configuration | UMTS 1750<br>SAR (W/kg)            | Bluetooth<br>P <sub>High</sub> SAR<br>(W/kg) | Σ SAR<br>(W/kg) |
| Body SAR  | Back          | 0.977                              | 0.084                                        | 1.061           |
|           | Top           | 0.699                              | 0.014                                        | 0.713           |
|           | Bottom        | 0.004                              | 1.176                                        | <b>1.180</b>    |
|           | Right         | 0.082                              | 0.400*                                       | 0.482           |
|           | Left          | 0.400*                             | 0.190                                        | 0.590           |
| Simult Tx | Configuration | GPRS 1900<br>SAR (W/kg)            | Bluetooth<br>P <sub>High</sub> SAR<br>(W/kg) | Σ SAR<br>(W/kg) |
| Body SAR  | Back          | 1.112                              | 0.084                                        | <b>1.196</b>    |
|           | Top           | 0.969                              | 0.014                                        | 0.983           |
|           | Bottom        | 0.000                              | 1.176                                        | 1.176           |
|           | Right         | 0.126                              | 0.400*                                       | 0.526           |
|           | Left          | 0.400*                             | 0.190                                        | 0.590           |
| Simult Tx | Configuration | UMTS 1900<br>SAR (W/kg)            | Bluetooth<br>P <sub>High</sub> SAR<br>(W/kg) | Σ SAR<br>(W/kg) |
| Body SAR  | Back          | 1.073                              | 0.084                                        | 1.157           |
|           | Top           | 0.874                              | 0.014                                        | 0.888           |
|           | Bottom        | 0.001                              | 1.176                                        | <b>1.177</b>    |
|           | Right         | 0.120                              | 0.400*                                       | 0.520           |
|           | Left          | 0.400*                             | 0.190                                        | 0.590           |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 101 of 114                 |

| Simult Tx | Configuration | PCS EVDO SAR (W/kg)           | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
|-----------|---------------|-------------------------------|----------------------------------------|--------------|
| Body SAR  | Back          | 1.136                         | 0.084                                  | <b>1.220</b> |
|           | Top           | 0.898                         | 0.014                                  | 0.912        |
|           | Bottom        | 0.000                         | 1.176                                  | 1.176        |
|           | Right         | 0.120                         | 0.400*                                 | 0.520        |
|           | Left          | 0.400*                        | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 12 SAR (W/kg)        | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.182                         | 0.084                                  | <b>1.266</b> |
|           | Top           | 0.847                         | 0.014                                  | 0.861        |
|           | Bottom        | 0.030                         | 1.176                                  | 1.206        |
|           | Right         | 0.105                         | 0.400*                                 | 0.505        |
|           | Left          | 0.400*                        | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 13 SAR (W/kg)        | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.152                         | 0.084                                  | <b>1.236</b> |
|           | Top           | 0.756                         | 0.014                                  | 0.770        |
|           | Bottom        | 0.031                         | 1.176                                  | 1.207        |
|           | Right         | 0.120                         | 0.400*                                 | 0.520        |
|           | Left          | 0.400*                        | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 5 (Cell) SAR (W/kg)  | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.130                         | 0.084                                  | <b>1.214</b> |
|           | Top           | 0.690                         | 0.014                                  | 0.704        |
|           | Bottom        | 0.022                         | 1.176                                  | 1.198        |
|           | Right         | 0.103                         | 0.400*                                 | 0.503        |
|           | Left          | 0.400*                        | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 26 (Cell) SAR (W/kg) | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.032                         | 0.084                                  | 1.116        |
|           | Top           | 0.634                         | 0.014                                  | 0.648        |
|           | Bottom        | 0.022                         | 1.176                                  | <b>1.198</b> |
|           | Right         | 0.112                         | 0.400*                                 | 0.512        |
|           | Left          | 0.400*                        | 0.190                                  | 0.590        |

|                                         |                                                                                                                  |                            |                                 |
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| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
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|           |               |                              |                                        |              |
|-----------|---------------|------------------------------|----------------------------------------|--------------|
| Simult Tx | Configuration | LTE Band 4 (AWS) SAR (W/kg)  | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.040                        | 0.084                                  | 1.124        |
|           | Top           | 0.732                        | 0.014                                  | 0.746        |
|           | Bottom        | 0.006                        | 1.176                                  | <b>1.182</b> |
|           | Right         | 0.086                        | 0.400*                                 | 0.486        |
|           | Left          | 0.400*                       | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 25 (PCS) SAR (W/kg) | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.092                        | 0.084                                  | <b>1.176</b> |
|           | Top           | 0.938                        | 0.014                                  | 0.952        |
|           | Bottom        | 0.000                        | 1.176                                  | <b>1.176</b> |
|           | Right         | 0.126                        | 0.400*                                 | 0.526        |
|           | Left          | 0.400*                       | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 30 SAR (W/kg)       | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 0.989                        | 0.084                                  | 1.073        |
|           | Top           | 1.065                        | 0.014                                  | 1.079        |
|           | Bottom        | 0.014                        | 1.176                                  | <b>1.190</b> |
|           | Right         | 0.163                        | 0.400*                                 | 0.563        |
|           | Left          | 0.400*                       | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 7 SAR (W/kg)        | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.170                        | 0.084                                  | <b>1.254</b> |
|           | Top           | 1.170                        | 0.014                                  | 1.184        |
|           | Bottom        | 0.000                        | 1.176                                  | 1.176        |
|           | Right         | 0.188                        | 0.400*                                 | 0.588        |
|           | Left          | 0.400*                       | 0.190                                  | 0.590        |
| Simult Tx | Configuration | LTE Band 41 SAR (W/kg)       | Bluetooth P <sub>High</sub> SAR (W/kg) | Σ SAR (W/kg) |
| Body SAR  | Back          | 1.015                        | 0.084                                  | 1.099        |
|           | Top           | 1.095                        | 0.014                                  | 1.109        |
|           | Bottom        | 0.002                        | 1.176                                  | <b>1.178</b> |
|           | Right         | 0.157                        | 0.400*                                 | 0.557        |
|           | Left          | 0.400*                       | 0.190                                  | 0.590        |

|                                         |                                                                                                                  |                            |                                 |
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| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 103 of 114                 |

**Table 11-6**  
**Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN**

| Simult Tx | Configuration | GPRS 850 SAR (W/kg)          | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|------------------------------|---------------------------------------|-----------------------------|-----------------------------|---------------------|-------|----------------|
|           |               | 1                            | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.156                        | 0.029                                 | 0.092                       | 0.094                       | 1.277               | 1.279 | 1.371          |
|           | Top           | 0.830                        | 0.004                                 | 0.043                       | 0.056                       | 0.877               | 0.890 | 0.933          |
|           | Bottom        | 0.025                        | 0.219                                 | 1.182                       | 1.164                       | <b>1.426</b>        | 1.408 | See Table 11-7 |
|           | Right         | 0.101                        | 0.400*                                | 0.400*                      | 0.149                       | 0.901               | 0.650 | 1.050          |
|           | Left          | 0.400*                       | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | UMTS 850 SAR (W/kg)          | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                            | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.146                        | 0.029                                 | 0.092                       | 0.094                       | 1.267               | 1.269 | 1.361          |
|           | Top           | 0.689                        | 0.004                                 | 0.043                       | 0.056                       | 0.736               | 0.749 | 0.792          |
|           | Bottom        | 0.018                        | 0.219                                 | 1.182                       | 1.164                       | <b>1.419</b>        | 1.401 | See Table 11-7 |
|           | Right         | 0.111                        | 0.400*                                | 0.400*                      | 0.149                       | 0.911               | 0.660 | 1.060          |
|           | Left          | 0.400*                       | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | EVDO BC10 (\$90S) SAR (W/kg) | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                            | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.027                        | 0.029                                 | 0.092                       | 0.094                       | 1.148               | 1.150 | 1.242          |
|           | Top           | 0.670                        | 0.004                                 | 0.043                       | 0.056                       | 0.717               | 0.730 | 0.773          |
|           | Bottom        | 0.022                        | 0.219                                 | 1.182                       | 1.164                       | <b>1.423</b>        | 1.405 | See Table 11-7 |
|           | Right         | 0.113                        | 0.400*                                | 0.400*                      | 0.149                       | 0.913               | 0.662 | 1.062          |
|           | Left          | 0.400*                       | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | EVDO BC0 (\$22H) SAR (W/kg)  | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                            | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.092                        | 0.029                                 | 0.092                       | 0.094                       | 1.213               | 1.215 | 1.307          |
|           | Top           | 0.727                        | 0.004                                 | 0.043                       | 0.056                       | 0.774               | 0.787 | 0.830          |
|           | Bottom        | 0.019                        | 0.219                                 | 1.182                       | 1.164                       | <b>1.420</b>        | 1.402 | See Table 11-7 |
|           | Right         | 0.114                        | 0.400*                                | 0.400*                      | 0.149                       | 0.914               | 0.663 | 1.063          |
|           | Left          | 0.400*                       | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |

|                                                |                                                                                                                                   |                                   |  |                                        |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b>      |  | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                                         | <b>DUT Type:</b><br>Tablet Device |  | Page 104 of 114                        |

| Simult Tx | Configuration | UMTS 1750 SAR (W/kg)   | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|------------------------|---------------------------------------|-----------------------------|-----------------------------|---------------------|-------|----------------|
|           |               | 1                      | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 0.977                  | 0.029                                 | 0.092                       | 0.094                       | 1.098               | 1.100 | 1.192          |
|           | Top           | 0.699                  | 0.004                                 | 0.043                       | 0.056                       | 0.746               | 0.759 | 0.802          |
|           | Bottom        | 0.004                  | 0.219                                 | 1.182                       | 1.164                       | <b>1.405</b>        | 1.387 | See Table 11-7 |
|           | Right         | 0.082                  | 0.400*                                | 0.400*                      | 0.149                       | 0.882               | 0.631 | 1.031          |
|           | Left          | 0.400*                 | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | GPRS 1900 SAR (W/kg)   | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.112                  | 0.029                                 | 0.092                       | 0.094                       | 1.233               | 1.235 | 1.327          |
|           | Top           | 0.969                  | 0.004                                 | 0.043                       | 0.056                       | 1.016               | 1.029 | 1.072          |
|           | Bottom        | 0.000                  | 0.219                                 | 1.182                       | 1.164                       | <b>1.401</b>        | 1.383 | See Table 11-7 |
|           | Right         | 0.126                  | 0.400*                                | 0.400*                      | 0.149                       | 0.926               | 0.675 | 1.075          |
|           | Left          | 0.400*                 | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | UMTS 1900 SAR (W/kg)   | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.073                  | 0.029                                 | 0.092                       | 0.094                       | 1.194               | 1.196 | 1.288          |
|           | Top           | 0.874                  | 0.004                                 | 0.043                       | 0.056                       | 0.921               | 0.934 | 0.977          |
|           | Bottom        | 0.001                  | 0.219                                 | 1.182                       | 1.164                       | <b>1.402</b>        | 1.384 | See Table 11-7 |
|           | Right         | 0.120                  | 0.400*                                | 0.400*                      | 0.149                       | 0.920               | 0.669 | 1.069          |
|           | Left          | 0.400*                 | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | PCS EVDO SAR (W/kg)    | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.136                  | 0.029                                 | 0.092                       | 0.094                       | 1.257               | 1.259 | 1.351          |
|           | Top           | 0.898                  | 0.004                                 | 0.043                       | 0.056                       | 0.945               | 0.958 | 1.001          |
|           | Bottom        | 0.000                  | 0.219                                 | 1.182                       | 1.164                       | <b>1.401</b>        | 1.383 | See Table 11-7 |
|           | Right         | 0.120                  | 0.400*                                | 0.400*                      | 0.149                       | 0.920               | 0.669 | 1.069          |
|           | Left          | 0.400*                 | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 12 SAR (W/kg) | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                      | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.182                  | 0.029                                 | 0.092                       | 0.094                       | 1.303               | 1.305 | 1.397          |
|           | Top           | 0.847                  | 0.004                                 | 0.043                       | 0.056                       | 0.894               | 0.907 | 0.950          |
|           | Bottom        | 0.030                  | 0.219                                 | 1.182                       | 1.164                       | <b>1.431</b>        | 1.413 | See Table 11-7 |
|           | Right         | 0.105                  | 0.400*                                | 0.400*                      | 0.149                       | 0.905               | 0.654 | 1.054          |
|           | Left          | 0.400*                 | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |

|                                         |                                                                                                                  |                            |                                 |
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| Simult Tx | Configuration | LTE Band 13 SAR (W/kg)        | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|-------------------------------|---------------------------------------|-----------------------------|-----------------------------|---------------------|-------|----------------|
|           |               | 1                             | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.152                         | 0.029                                 | 0.092                       | 0.094                       | 1.273               | 1.275 | 1.367          |
|           | Top           | 0.756                         | 0.004                                 | 0.043                       | 0.056                       | 0.803               | 0.816 | 0.859          |
|           | Bottom        | 0.031                         | 0.219                                 | 1.182                       | 1.164                       | <b>1.432</b>        | 1.414 | See Table 11-7 |
|           | Right         | 0.120                         | 0.400*                                | 0.400*                      | 0.149                       | 0.920               | 0.669 | 1.069          |
|           | Left          | 0.400*                        | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 5 (Cell) SAR (W/kg)  | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                             | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.130                         | 0.029                                 | 0.092                       | 0.094                       | 1.251               | 1.253 | 1.345          |
|           | Top           | 0.690                         | 0.004                                 | 0.043                       | 0.056                       | 0.737               | 0.750 | 0.793          |
|           | Bottom        | 0.022                         | 0.219                                 | 1.182                       | 1.164                       | <b>1.423</b>        | 1.405 | See Table 11-7 |
|           | Right         | 0.103                         | 0.400*                                | 0.400*                      | 0.149                       | 0.903               | 0.652 | 1.052          |
|           | Left          | 0.400*                        | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 26 (Cell) SAR (W/kg) | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                             | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.032                         | 0.029                                 | 0.092                       | 0.094                       | 1.153               | 1.155 | 1.247          |
|           | Top           | 0.634                         | 0.004                                 | 0.043                       | 0.056                       | 0.681               | 0.694 | 0.737          |
|           | Bottom        | 0.022                         | 0.219                                 | 1.182                       | 1.164                       | <b>1.423</b>        | 1.405 | See Table 11-7 |
|           | Right         | 0.112                         | 0.400*                                | 0.400*                      | 0.149                       | 0.912               | 0.661 | 1.061          |
|           | Left          | 0.400*                        | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 4 (AWS) SAR (W/kg)   | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                             | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.040                         | 0.029                                 | 0.092                       | 0.094                       | 1.161               | 1.163 | 1.255          |
|           | Top           | 0.732                         | 0.004                                 | 0.043                       | 0.056                       | 0.779               | 0.792 | 0.835          |
|           | Bottom        | 0.006                         | 0.219                                 | 1.182                       | 1.164                       | <b>1.407</b>        | 1.389 | See Table 11-7 |
|           | Right         | 0.086                         | 0.400*                                | 0.400*                      | 0.149                       | 0.886               | 0.635 | 1.035          |
|           | Left          | 0.400*                        | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 25 (PCS) SAR (W/kg)  | Bluetooth P <sub>Low</sub> SAR (W/kg) | 5 GHz WLAN Ant A SAR (W/kg) | 5 GHz WLAN Ant B SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                             | 2                                     | 3                           | 4                           | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.092                         | 0.029                                 | 0.092                       | 0.094                       | 1.213               | 1.215 | 1.307          |
|           | Top           | 0.938                         | 0.004                                 | 0.043                       | 0.056                       | 0.985               | 0.998 | 1.041          |
|           | Bottom        | 0.000                         | 0.219                                 | 1.182                       | 1.164                       | <b>1.401</b>        | 1.383 | See Table 11-7 |
|           | Right         | 0.126                         | 0.400*                                | 0.400*                      | 0.149                       | 0.926               | 0.675 | 1.075          |
|           | Left          | 0.400*                        | 0.027                                 | 0.148                       | 0.400*                      | 0.575               | 0.827 | 0.975          |

|                                         |                                                                                                                  |                            |                                 |
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| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
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| Simult Tx | Configuration | LTE Band 30<br>SAR (W/kg) | Bluetooth<br>P <sub>Low</sub> SAR<br>(W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|-----------|---------------|---------------------------|---------------------------------------------|-----------------------------------|-----------------------------------|---------------------|-------|----------------|
|           |               | 1                         | 2                                           | 3                                 | 4                                 | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 0.989                     | 0.029                                       | 0.092                             | 0.094                             | 1.110               | 1.112 | 1.204          |
|           | Top           | 1.065                     | 0.004                                       | 0.043                             | 0.056                             | 1.112               | 1.125 | 1.168          |
|           | Bottom        | 0.014                     | 0.219                                       | 1.182                             | 1.164                             | <b>1.415</b>        | 1.397 | See Table 11-7 |
|           | Right         | 0.163                     | 0.400*                                      | 0.400*                            | 0.149                             | 0.963               | 0.712 | 1.112          |
|           | Left          | 0.400*                    | 0.027                                       | 0.148                             | 0.400*                            | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 7<br>SAR (W/kg)  | Bluetooth<br>P <sub>Low</sub> SAR<br>(W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                         | 2                                           | 3                                 | 4                                 | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.170                     | 0.029                                       | 0.092                             | 0.094                             | 1.291               | 1.293 | 1.385          |
|           | Top           | 1.170                     | 0.004                                       | 0.043                             | 0.056                             | 1.217               | 1.230 | 1.273          |
|           | Bottom        | 0.000                     | 0.219                                       | 1.182                             | 1.164                             | <b>1.401</b>        | 1.383 | See Table 11-7 |
|           | Right         | 0.188                     | 0.400*                                      | 0.400*                            | 0.149                             | 0.988               | 0.737 | 1.137          |
|           | Left          | 0.400*                    | 0.027                                       | 0.148                             | 0.400*                            | 0.575               | 0.827 | 0.975          |
| Simult Tx | Configuration | LTE Band 41<br>SAR (W/kg) | Bluetooth<br>P <sub>Low</sub> SAR<br>(W/kg) | 5 GHz<br>WLAN Ant A<br>SAR (W/kg) | 5 GHz<br>WLAN Ant B<br>SAR (W/kg) | $\Sigma$ SAR (W/kg) |       |                |
|           |               | 1                         | 2                                           | 3                                 | 4                                 | 1+2+3               | 1+2+4 | 1+2+3+4        |
| Body SAR  | Back          | 1.015                     | 0.029                                       | 0.092                             | 0.094                             | 1.136               | 1.138 | 1.230          |
|           | Top           | 1.095                     | 0.004                                       | 0.043                             | 0.056                             | 1.142               | 1.155 | 1.198          |
|           | Bottom        | 0.002                     | 0.219                                       | 1.182                             | 1.164                             | <b>1.403</b>        | 1.385 | See Table 11-7 |
|           | Right         | 0.157                     | 0.400*                                      | 0.400*                            | 0.149                             | 0.957               | 0.706 | 1.106          |
|           | Left          | 0.400*                    | 0.027                                       | 0.148                             | 0.400*                            | 0.575               | 0.827 | 0.975          |

**Table 11-7**  
**Bottom Edge Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN**

| Configuration | Mode               | 2G/3G/4G<br>SAR (W/kg) | Bluetooth<br>P <sub>Low</sub> SAR<br>(W/kg) | 5 GHz<br>WLAN<br>MIMO SAR<br>(W/kg) | $\Sigma$ SAR<br>(W/kg) |
|---------------|--------------------|------------------------|---------------------------------------------|-------------------------------------|------------------------|
| Bottom Edge   | GSM 850            | 0.025                  | 0.219                                       | 1.068                               | 1.312                  |
| Bottom Edge   | UMTS 850           | 0.018                  | 0.219                                       | 1.068                               | 1.305                  |
| Bottom Edge   | CDMA BC10 (§90S)   | 0.022                  | 0.219                                       | 1.068                               | 1.309                  |
| Bottom Edge   | CDMA BC0 (§22H)    | 0.019                  | 0.219                                       | 1.068                               | 1.306                  |
| Bottom Edge   | UMTS 1750          | 0.004                  | 0.219                                       | 1.068                               | 1.291                  |
| Bottom Edge   | GSM 1900           | 0.000                  | 0.219                                       | 1.068                               | 1.287                  |
| Bottom Edge   | UMTS 1900          | 0.001                  | 0.219                                       | 1.068                               | 1.288                  |
| Bottom Edge   | PCS CDMA           | 0.000                  | 0.219                                       | 1.068                               | 1.287                  |
| Bottom Edge   | LTE Band 12        | 0.030                  | 0.219                                       | 1.068                               | 1.317                  |
| Bottom Edge   | LTE Band 13        | 0.031                  | 0.219                                       | 1.068                               | <b>1.318</b>           |
| Bottom Edge   | LTE Band 5 (Cell)  | 0.022                  | 0.219                                       | 1.068                               | 1.309                  |
| Bottom Edge   | LTE Band 26 (Cell) | 0.022                  | 0.219                                       | 1.068                               | 1.309                  |
| Bottom Edge   | LTE Band 4 (AWS)   | 0.006                  | 0.219                                       | 1.068                               | 1.293                  |
| Bottom Edge   | LTE Band 25 (PCS)  | 0.000                  | 0.219                                       | 1.068                               | 1.287                  |
| Bottom Edge   | LTE Band 30        | 0.014                  | 0.219                                       | 1.068                               | 1.301                  |
| Bottom Edge   | LTE Band 7         | 0.000                  | 0.219                                       | 1.068                               | 1.287                  |
| Bottom Edge   | LTE Band 41        | 0.002                  | 0.219                                       | 1.068                               | 1.289                  |

|                                         |                                                                                                                  |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------|
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(\*) - When the antenna separation distance was > 50 mm, an estimated SAR of 0.4 W/kg was used to determine the simultaneous transmission SAR exclusion for test positions excluded per FCC KDB Publication 447498 D01v06. The simultaneous SAR sums using this estimation are highlighted in gray.

## 11.4 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528-2013 Section 6.3.4.1.2.

|                                                |                                                                                                                  |                                   |                                        |
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## 12 SAR MEASUREMENT VARIABILITY

### 12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

- 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.
- 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg (~ 10% from the 1g SAR limit).
- 3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .
- 4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg

**Table 12-1**  
**Body SAR Measurement Variability Results**

| BODY VARIABILITY RESULTS                 |           |       |                                    |                           |                 |                  |        |         |                      |                       |       |                       |       |                       |       |
|------------------------------------------|-----------|-------|------------------------------------|---------------------------|-----------------|------------------|--------|---------|----------------------|-----------------------|-------|-----------------------|-------|-----------------------|-------|
| Band                                     | FREQUENCY |       | Mode                               | Service                   | # of Time Slots | Data Rate (Mbps) | Side   | Spacing | Measured SAR (1g)    | 1st Repeated SAR (1g) | Ratio | 2nd Repeated SAR (1g) | Ratio | 3rd Repeated SAR (1g) | Ratio |
|                                          | MHz       | Ch.   |                                    |                           |                 |                  |        |         | (W/kg)               | (W/kg)                |       | (W/kg)                |       | (W/kg)                |       |
| 750                                      | 707.50    | 23095 | LTE Band 12, 10 MHz Bandwidth      | QPSK, 25 RB, 12 RB Offset | N/A             | N/A              | back   | 0 mm    | 1.180                | 1.180                 | 1.00  | N/A                   | N/A   | N/A                   | N/A   |
| 835                                      | 824.20    | 128   | GSM 850                            | GPRS                      | 2               | N/A              | back   | 0 mm    | 1.140                | 1.070                 | 1.07  | N/A                   | N/A   | N/A                   | N/A   |
| 1750                                     | 1732.50   | 20175 | LTE Band 4 (AWS), 20 MHz Bandwidth | QPSK, 50 RB, 50 RB Offset | N/A             | N/A              | back   | 0 mm    | 1.030                | 1.040                 | 1.01  | N/A                   | N/A   | N/A                   | N/A   |
| 1900                                     | 1908.75   | 1175  | PCS CDMA                           | EVDO Rev. 0               | N/A             | N/A              | back   | 0 mm    | 1.120                | 1.120                 | 1.00  | N/A                   | N/A   | N/A                   | N/A   |
| 2300                                     | 2310.00   | 27710 | LTE Band 30, 10 MHz Bandwidth      | QPSK, 25 RB, 0 RB Offset  | N/A             | N/A              | top    | 0 mm    | 1.020                | 1.060                 | 1.04  | N/A                   | N/A   | N/A                   | N/A   |
| 2450                                     | 2480.00   | 78    | Bluetooth                          | FHSS                      | N/A             | 1                | bottom | 0 mm    | 1.170                | 1.160                 | 1.01  | N/A                   | N/A   | N/A                   | N/A   |
| 2600                                     | 2535.00   | 21100 | LTE Band 7, 20 MHz Bandwidth       | QPSK, 1 RB, 0 RB Offset   | N/A             | N/A              | top    | 0 mm    | 1.170                | 1.160                 | 1.01  | N/A                   | N/A   | N/A                   | N/A   |
| 5250                                     | 5270.00   | 54    | 802.11n, 40 MHz Bandwidth          | OFDM , ANT B              | N/A             | 13.5             | bottom | 0 mm    | 1.120                | 1.040                 | 1.08  | N/A                   | N/A   | N/A                   | N/A   |
| 5600                                     | 5610.00   | 122   | 802.11ac, 80 MHz Bandwidth         | OFDM , ANT A              | N/A             | 29.3             | bottom | 0 mm    | 1.140                | 1.130                 | 1.01  | N/A                   | N/A   | N/A                   | N/A   |
| 5750                                     | 5775.00   | 155   | 802.11ac, 80 MHz Bandwidth         | OFDM , ANT B              | N/A             | 29.3             | bottom | 0 mm    | 0.922                | 0.818                 | 1.13  | N/A                   | N/A   | N/A                   | N/A   |
| ANSI / IEEE C95.1 1992 - SAFETY LIMIT    |           |       |                                    |                           |                 |                  |        |         | Body                 |                       |       |                       |       |                       |       |
| Spatial Peak                             |           |       |                                    |                           |                 |                  |        |         | 1.6 W/kg (mW/g)      |                       |       |                       |       |                       |       |
| Uncontrolled Exposure/General Population |           |       |                                    |                           |                 |                  |        |         | averaged over 1 gram |                       |       |                       |       |                       |       |

### 12.2 Measurement Uncertainty

The measured SAR was  $< 1.5$  W/kg for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

|                                         |                                                                                                                  |                            |                                 |
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# 13 EQUIPMENT LIST

| Manufacturer       | Model     | Description                       | Cal Date   | Cal Interval | Cal Due    | Serial Number |
|--------------------|-----------|-----------------------------------|------------|--------------|------------|---------------|
| Agilent            | 8594A     | (9kHz-2.9GHz) Spectrum Analyzer   | N/A        | N/A          | N/A        | 3051A00187    |
| Agilent            | E4432B    | ESG-D Series Signal Generator     | 3/24/2017  | Annual       | 3/24/2018  | US40053896    |
| Agilent            | E5515C    | Wireless Communications Test Set  | 3/4/2016   | Biennial     | 3/4/2018   | GB45360985    |
| Agilent            | E8257D    | (250kHz-20GHz) Signal Generator   | 3/22/2017  | Annual       | 3/22/2018  | MY45470194    |
| Agilent            | N5182A    | MXG Vector Signal Generator       | 2/28/2017  | Annual       | 2/28/2018  | MY47420800    |
| Agilent            | N9030A    | PXA Signal Analyzer (44GHz)       | 3/27/2017  | Annual       | 3/27/2018  | MY52350166    |
| Agilent            | E4438C    | ESG Vector Signal Generator       | 3/24/2017  | Biennial     | 3/24/2019  | MY42082385    |
| Agilent            | E4438C    | ESG Vector Signal Generator       | 3/23/2017  | Annual       | 3/23/2018  | MY47270002    |
| Agilent            | 8753ES    | S-Parameter Network Analyzer      | 9/14/2017  | Annual       | 9/14/2018  | US39170118    |
| Agilent            | N4010A    | Wireless Connectivity Test Set    | N/A        | N/A          | N/A        | GB46170464    |
| Amplifier Research | 1551G6    | Amplifier                         | CBT        | N/A          | CBT        | 433971        |
| Amplifier Research | 1551G6    | Amplifier                         | CBT        | N/A          | CBT        | 433972        |
| Anritsu            | ML2495A   | Power Meter                       | 10/22/2017 | Annual       | 10/22/2018 | 941001        |
| Anritsu            | ML2495A   | Power Meter                       | 11/28/2017 | Annual       | 11/28/2018 | 1039008       |
| Anritsu            | MA24106A  | USB Power Sensor                  | 6/7/2017   | Annual       | 6/7/2018   | 1231538       |
| Anritsu            | MA24106A  | USB Power Sensor                  | 6/7/2017   | Annual       | 6/7/2018   | 1231535       |
| Anritsu            | MA2411B   | Pulse Power Sensor                | 10/16/2017 | Annual       | 10/16/2018 | 1207470       |
| Anritsu            | MA2411B   | Pulse Power Sensor                | 2/10/2017  | Annual       | 2/10/2018  | 1339018       |
| Control Company    | 4040      | Therm./Clock/Humidity Monitor     | 3/1/2017   | Biennial     | 3/1/2019   | 170152009     |
| Control Company    | 4352      | Ultra Long Stem Thermometer       | 5/2/2017   | Biennial     | 5/2/2019   | 170330144     |
| Control Company    | 4040      | Therm./Clock/Humidity Monitor     | 3/31/2017  | Biennial     | 3/31/2019  | 170232394     |
| Control Company    | 4040      | Therm./Clock/Humidity Monitor     | 3/1/2017   | Biennial     | 3/1/2019   | 170152009     |
| Control Company    | 4352      | Ultra Long Stem Thermometer       | 5/2/2017   | Biennial     | 5/2/2019   | 170330144     |
| Control Company    | 4352      | Ultra Long Stem Thermometer       | 5/2/2017   | Biennial     | 5/2/2019   | 170330174     |
| MCL                | BW-N6W5+  | 6dB Attenuator                    | CBT        | N/A          | CBT        | 1139          |
| MiniCircuits       | SLP-2400+ | Low Pass Filter                   | CBT        | N/A          | CBT        | R8979500903   |
| MiniCircuits       | VLF-6000+ | Low Pass Filter                   | CBT        | N/A          | CBT        | N/A           |
| Mini-Circuits      | NLP-2950+ | Low Pass Filter DC to 2700 MHz    | CBT        | N/A          | CBT        | N/A           |
| Mini-Circuits      | NLP-1200+ | Low Pass Filter DC to 1000 MHz    | CBT        | N/A          | CBT        | N/A           |
| Mitutoyo           | CD-6"CSX  | Digital Caliper                   | 3/2/2016   | Biennial     | 3/2/2018   | 13264165      |
| Narda              | 4772-3    | Attenuator (3dB)                  | CBT        | N/A          | CBT        | 9406          |
| Narda              | BW-S3W2   | Attenuator (3dB)                  | CBT        | N/A          | CBT        | 120           |
| Pasternack         | PE2208-6  | Bidirectional Coupler             | CBT        | N/A          | CBT        | N/A           |
| Pasternack         | PE2209-10 | Bidirectional Coupler             | CBT        | N/A          | CBT        | N/A           |
| Pasternack         | PE5011-1  | Torque Wrench                     | 7/19/2017  | Biennial     | 7/19/2019  | N/A           |
| Pasternack         | PE5011-1  | Torque Wrench                     | 7/19/2017  | Biennial     | 7/19/2019  | N/A           |
| Rohde & Schwarz    | CMW500    | Radio Communication Tester        | 11/3/2017  | Annual       | 11/3/2018  | 100976        |
| Rohde & Schwarz    | CMW500    | Radio Communication Tester        | 5/4/2017   | Annual       | 5/4/2018   | 112347        |
| Rohde & Schwarz    | CMW500    | Radio Communication Tester        | 5/4/2017   | Annual       | 5/4/2018   | 101699        |
| SPEAG              | DAK-3.5   | Dielectric Assessment Kit         | 5/10/2017  | Annual       | 5/10/2018  | 1070          |
| SPEAG              | D750V3    | 750 MHz SAR Dipole                | 9/8/2017   | Annual       | 9/8/2018   | 1097          |
| SPEAG              | D835V2    | 850 MHz SAR Dipole                | 5/11/2017  | Annual       | 5/11/2018  | 4d180         |
| SPEAG              | D1750V2   | 1750 MHz SAR Dipole               | 5/9/2017   | Annual       | 5/9/2018   | 1092          |
| SPEAG              | D1900V2   | 1900 MHz SAR Dipole               | 5/10/2017  | Annual       | 5/10/2018  | 5d026         |
| SPEAG              | D2300V2   | 2300 MHz SAR Dipole               | 3/7/2017   | Annual       | 3/7/2018   | 1038          |
| SPEAG              | D2450V2   | 2450 MHz SAR Dipole               | 5/9/2017   | Annual       | 5/9/2018   | 945           |
| SPEAG              | D2450V2   | 2450 MHz SAR Dipole               | 6/7/2017   | Annual       | 6/7/2018   | 750           |
| SPEAG              | D2600V2   | 2600 MHz SAR Dipole               | 9/11/2017  | Annual       | 9/11/2018  | 1069          |
| SPEAG              | D5GHzV2   | 5 GHz SAR Dipole                  | 9/13/2017  | Annual       | 9/13/2018  | 1163          |
| SPEAG              | D5GHzV2   | 5 GHz SAR Dipole                  | 3/9/2017   | Annual       | 3/9/2018   | 1123          |
| SPEAG              | ES3DV2    | SAR Probe                         | 7/17/2017  | Annual       | 7/17/2018  | 3022          |
| SPEAG              | ES3DV3    | SAR Probe                         | 11/10/2017 | Annual       | 11/10/2018 | 3334          |
| SPEAG              | ES3DV3    | SAR Probe                         | 9/18/2017  | Annual       | 9/18/2018  | 3333          |
| SPEAG              | EX3DV4    | SAR Probe                         | 9/20/2017  | Annual       | 9/20/2018  | 7420          |
| SPEAG              | EX3DV4    | SAR Probe                         | 7/18/2017  | Annual       | 7/18/2018  | 7416          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics | 6/21/2017  | Annual       | 6/21/2018  | 701           |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics | 11/8/2017  | Annual       | 11/8/2018  | 1466          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics | 9/15/2017  | Annual       | 9/15/2018  | 1408          |
| SPEAG              | DAE4      | Dasy Data Acquisition Electronics | 9/15/2017  | Annual       | 9/15/2018  | 1449          |

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

|                                         |                                    |                                                                                                                  |                                        |
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# 14 MEASUREMENT UNCERTAINTIES

| a                                                                             | c             | d              | e=<br>f(d,k) | f                     | g                        | h =<br>c x f/e                 | i =<br>c x g/e                   | k              |
|-------------------------------------------------------------------------------|---------------|----------------|--------------|-----------------------|--------------------------|--------------------------------|----------------------------------|----------------|
| Uncertainty Component                                                         | Tol.<br>(± %) | Prob.<br>Dist. | Div.         | c <sub>i</sub><br>1gm | c <sub>i</sub><br>10 gms | 1gm<br>u <sub>i</sub><br>(± %) | 10gms<br>u <sub>i</sub><br>(± %) | v <sub>i</sub> |
| <b>Measurement System</b>                                                     |               |                |              |                       |                          |                                |                                  |                |
| Probe Calibration                                                             | 6.55          | N              | 1            | 1.0                   | 1.0                      | 6.6                            | 6.6                              | ∞              |
| Axial Isotropy                                                                | 0.25          | N              | 1            | 0.7                   | 0.7                      | 0.2                            | 0.2                              | ∞              |
| Hemishperical Isotropy                                                        | 1.3           | N              | 1            | 0.7                   | 0.7                      | 0.9                            | 0.9                              | ∞              |
| Boundary Effect                                                               | 2.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.2                            | 1.2                              | ∞              |
| Linearity                                                                     | 0.3           | N              | 1            | 1.0                   | 1.0                      | 0.3                            | 0.3                              | ∞              |
| System Detection Limits                                                       | 0.25          | R              | 1.73         | 1.0                   | 1.0                      | 0.1                            | 0.1                              | ∞              |
| Readout Electronics                                                           | 0.3           | N              | 1            | 1.0                   | 1.0                      | 0.3                            | 0.3                              | ∞              |
| Response Time                                                                 | 0.8           | R              | 1.73         | 1.0                   | 1.0                      | 0.5                            | 0.5                              | ∞              |
| Integration Time                                                              | 2.6           | R              | 1.73         | 1.0                   | 1.0                      | 1.5                            | 1.5                              | ∞              |
| RF Ambient Conditions - Noise                                                 | 3.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.7                            | 1.7                              | ∞              |
| RF Ambient Conditions - Reflections                                           | 3.0           | R              | 1.73         | 1.0                   | 1.0                      | 1.7                            | 1.7                              | ∞              |
| Probe Positioner Mechanical Tolerance                                         | 0.4           | R              | 1.73         | 1.0                   | 1.0                      | 0.2                            | 0.2                              | ∞              |
| Probe Positioning w/ respect to Phantom                                       | 6.7           | R              | 1.73         | 1.0                   | 1.0                      | 3.9                            | 3.9                              | ∞              |
| Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation | 4.0           | R              | 1.73         | 1.0                   | 1.0                      | 2.3                            | 2.3                              | ∞              |
| <b>Test Sample Related</b>                                                    |               |                |              |                       |                          |                                |                                  |                |
| Test Sample Positioning                                                       | 2.7           | N              | 1            | 1.0                   | 1.0                      | 2.7                            | 2.7                              | 35             |
| Device Holder Uncertainty                                                     | 1.67          | N              | 1            | 1.0                   | 1.0                      | 1.7                            | 1.7                              | 5              |
| Output Power Variation - SAR drift measurement                                | 5.0           | R              | 1.73         | 1.0                   | 1.0                      | 2.9                            | 2.9                              | ∞              |
| SAR Scaling                                                                   | 0.0           | R              | 1.73         | 1.0                   | 1.0                      | 0.0                            | 0.0                              | ∞              |
| <b>Phantom &amp; Tissue Parameters</b>                                        |               |                |              |                       |                          |                                |                                  |                |
| Phantom Uncertainty (Shape & Thickness tolerances)                            | 7.6           | R              | 1.73         | 1.0                   | 1.0                      | 4.4                            | 4.4                              | ∞              |
| Liquid Conductivity - measurement uncertainty                                 | 4.2           | N              | 1            | 0.78                  | 0.71                     | 3.3                            | 3.0                              | 10             |
| Liquid Permittivity - measurement uncertainty                                 | 4.1           | N              | 1            | 0.23                  | 0.26                     | 1.0                            | 1.1                              | 10             |
| Liquid Conductivity - Temperature Uncertainty                                 | 3.4           | R              | 1.73         | 0.78                  | 0.71                     | 1.5                            | 1.4                              | ∞              |
| Liquid Permittivity - Temperature Uncertainty                                 | 0.6           | R              | 1.73         | 0.23                  | 0.26                     | 0.1                            | 0.1                              | ∞              |
| Liquid Conductivity - deviation from target values                            | 5.0           | R              | 1.73         | 0.64                  | 0.43                     | 1.8                            | 1.2                              | ∞              |
| Liquid Permittivity - deviation from target values                            | 5.0           | R              | 1.73         | 0.60                  | 0.49                     | 1.7                            | 1.4                              | ∞              |
| Combined Standard Uncertainty (k=1)                                           | RSS           |                |              |                       |                          | 11.5                           | 11.3                             | 60             |
| Expanded Uncertainty<br>(95% CONFIDENCE LEVEL)                                | k=2           |                |              |                       |                          | 23.0                           | 22.6                             |                |

|                                         |                                                                                                                  |                            |                                 |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|
| FCC ID: BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                            | Approved by:<br>Quality Manager |
| Document S/N:<br>1C1710060006-01-R4.BCG | Test Dates:<br>12/26/17 - 01/22/18                                                                               | DUT Type:<br>Tablet Device | Page 111 of 114                 |

## 15 CONCLUSION

### 15.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

|                                                |                                                                                                                  |                                   |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
| FCC ID: BCGA1954                               |  <b>SAR EVALUATION REPORT</b> |                                   | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                        | <b>DUT Type:</b><br>Tablet Device | Page 112 of 114                        |

## 16 REFERENCES

- [1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.
- [2] ANSI/IEEE C95.1-2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, 2006.
- [3] ANSI/IEEE C95.1-1992, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, Sept. 1992.
- [4] ANSI/IEEE C95.3-2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: IEEE, December 2002.
- [5] IEEE Standards Coordinating Committee 39 –Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.
- [6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for RadioFrequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.
- [7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.
- [8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 1 -124.
- [9] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.
- [10] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.
- [11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.
- [12] N. Kuster and Q. Balzano, Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.
- [13] G. Hartsgrrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bioelectromagnetics, Canada: 1987, pp. 29-36.
- [14] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.
- [15] W. Gander, Computermathematick, Birkhaeuser, Basel, 1992.
- [16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.
- [17] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

|                                                |                                                                                                                  |                                   |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                                   | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                        | <b>DUT Type:</b><br>Tablet Device | Page 113 of 114                        |

- [18] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10kHz-300GHz, Jan. 1995.
- [19] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hochschule Zürich, Dosimetric Evaluation of the Cellular Phone.
- [20] IEC 62209-1, Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz), July 2016.
- [21] Innovation, Science, Economic Development Canada RSS-102 Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 5, March 2015.
- [22] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2015
- [23] FCC SAR Test Procedures for 2G-3G Devices, Mobile Hotspot and UMPC Devices KDB Publications 941225, D01-D07
- [24] SAR Measurement Guidance for IEEE 802.11 Transmitters, KDB Publication 248227 D01
- [25] FCC SAR Considerations for Handsets with Multiple Transmitters and Antennas, KDB Publications 648474 D03-D04
- [26] FCC SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers, FCC KDB Publication 616217 D04
- [27] FCC SAR Measurement and Reporting Requirements for 100MHz – 6 GHz, KDB Publications 865664 D01-D02
- [28] FCC General RF Exposure Guidance and SAR Procedures for Dongles, KDB Publication 447498, D01-D02
- [29] Anexo à Resolução No. 533, de 10 de Setembro de 2009.
- [30] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), Mar. 2010.

|                                                |                                                                                                                  |                                   |                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------|
| <b>FCC ID:</b> BCGA1954                        |  <b>SAR EVALUATION REPORT</b> |                                   | <b>Approved by:</b><br>Quality Manager |
| <b>Document S/N:</b><br>1C1710060006-01-R4.BCG | <b>Test Dates:</b><br>12/26/17 - 01/22/18                                                                        | <b>DUT Type:</b><br>Tablet Device | Page 114 of 114                        |

## APPENDIX A: SAR TEST DATA

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00FJM4W**

Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 824.2 MHz; Duty Cycle: 1:4.15

Medium: 835 Body Medium parameters used (interpolated):

$f = 824.2 \text{ MHz}$ ;  $\sigma = 0.996 \text{ S/m}$ ;  $\epsilon_r = 53.145$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: GPRS 850, Body SAR, Back side, Low.ch, 2 Tx Slots**

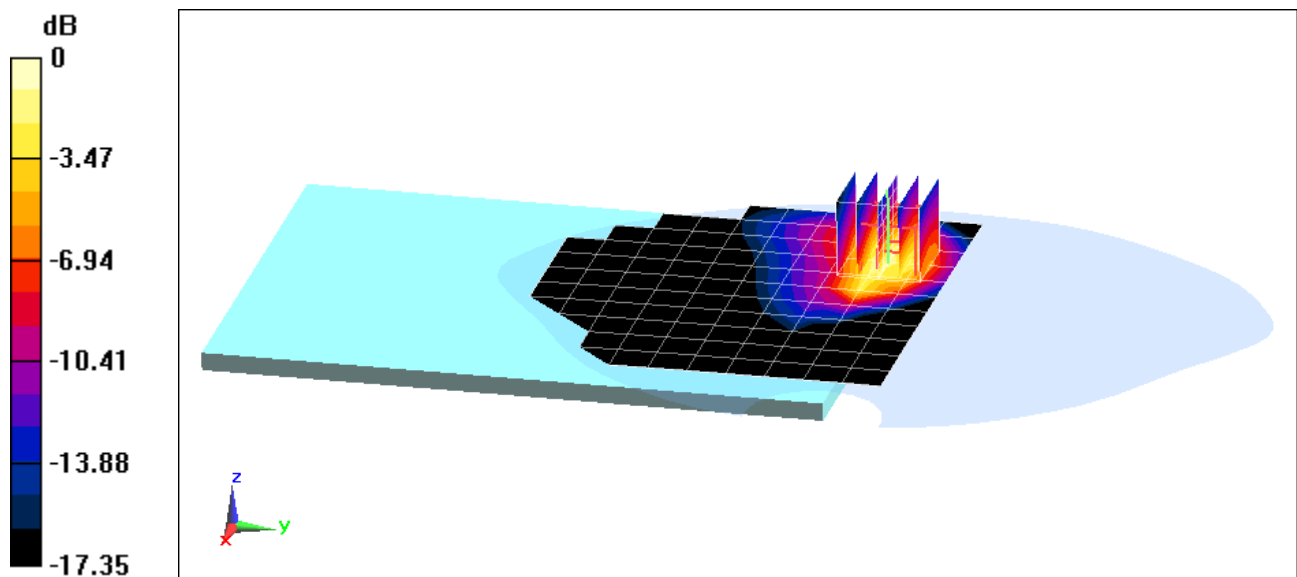
**Area Scan (12x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 36.31 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.35 W/kg

**SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.581 W/kg**



0 dB = 1.52 W/kg = 1.82 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00GJM4W**

Communication System: UID 0, UMTS; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 826.4 \text{ MHz}$ ;  $\sigma = 0.998 \text{ S/m}$ ;  $\epsilon_r = 53.123$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: UMTS 850, Body SAR, Back side, Low.ch**

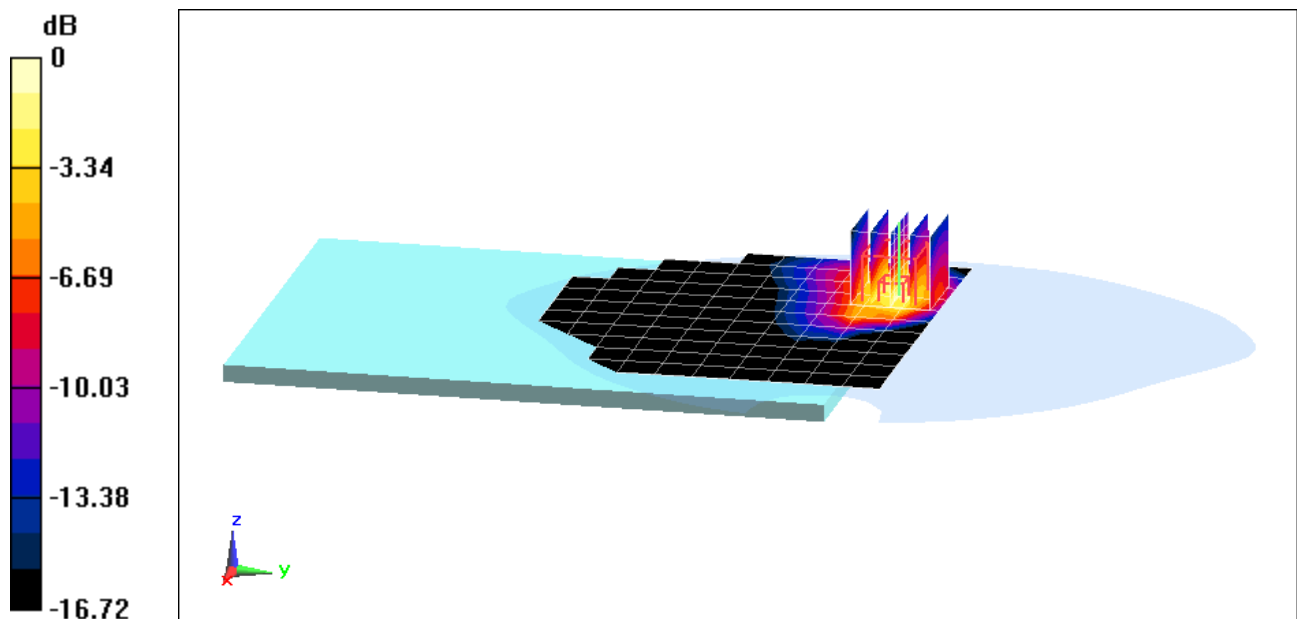
**Area Scan (12x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.84 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.35 W/kg

**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.584 W/kg**



0 dB = 1.43 W/kg = 1.55 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00MJM4W**

Communication System: UID 0, CDMA; Frequency: 820 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 820 \text{ MHz}$ ;  $\sigma = 0.992 \text{ S/m}$ ;  $\epsilon_r = 53.187$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Cell. BC10 EVDO, Rule Part 90S, Body SAR, Back side, Mid.ch**

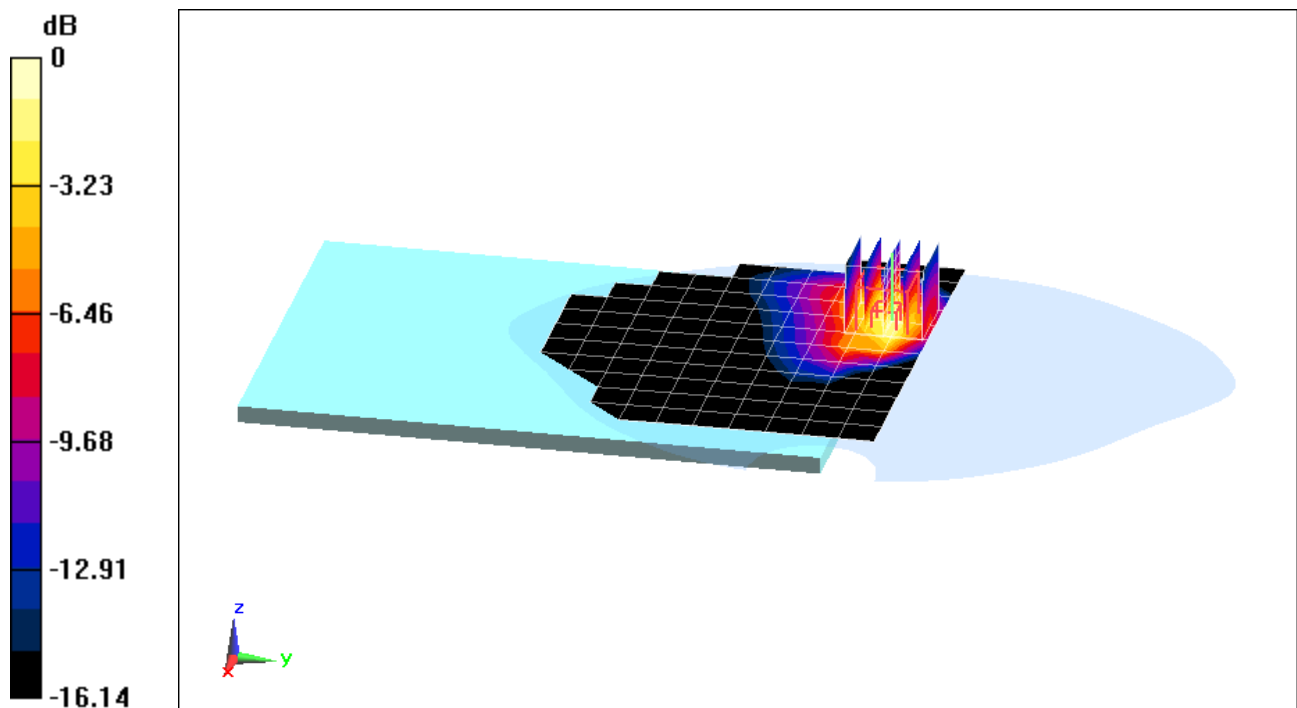
**Area Scan (13x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 33.95 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.10 W/kg

**SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.527 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00MJM4W**

Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 836.52 \text{ MHz}$ ;  $\sigma = 1.009 \text{ S/m}$ ;  $\epsilon_r = 53.023$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Cell. BC0 EVDO, Rule Part 22H, Body SAR, Back side, Mid.ch**

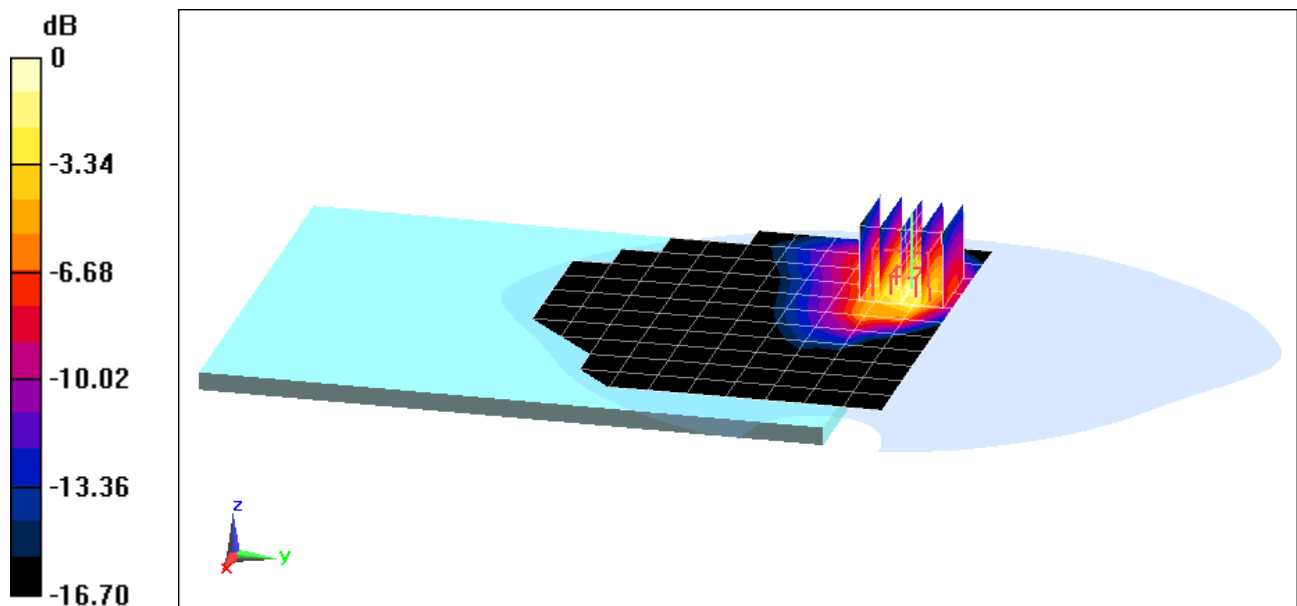
**Area Scan (12x11x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 34.73 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.23 W/kg

**SAR(1 g) = 1.08 W/kg; SAR(10 g) = 0.556 W/kg**



0 dB = 1.36 W/kg = 1.34 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00WJM50**

Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1752.6 \text{ MHz}$ ;  $\sigma = 1.5 \text{ S/m}$ ;  $\epsilon_r = 53.074$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-9-2018; Ambient Temp: 24.2°C; Tissue Temp: 20.6°C

Probe: ES3DV2 - SN3022; ConvF(5.04, 5.04, 5.04); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: UMTS 1750, Body SAR, Back side, High.ch**

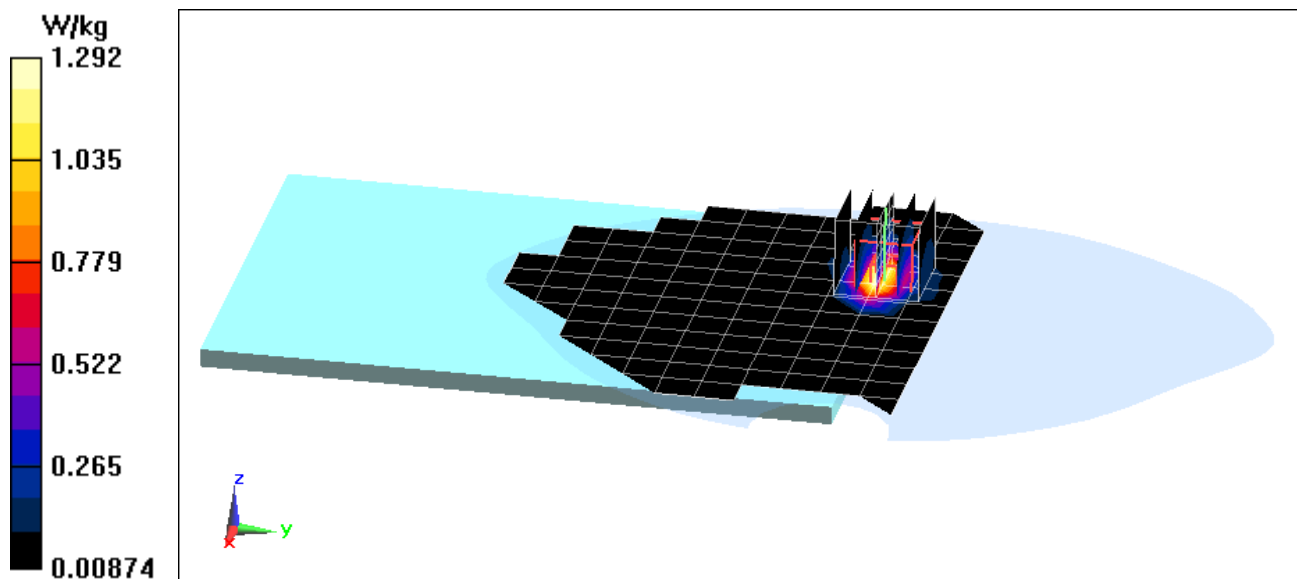
**Area Scan (15x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.91 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.85 W/kg

**SAR(1 g) = 0.962 W/kg; SAR(10 g) = 0.458 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT017JM50**

Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15

Medium: 1900 Body Medium parameters used:

$f = 1910 \text{ MHz}$ ;  $\sigma = 1.594 \text{ S/m}$ ;  $\epsilon_r = 52.123$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 23.4°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: GPRS 1900, Body SAR, Back side, High.ch, 2 Tx Slots**

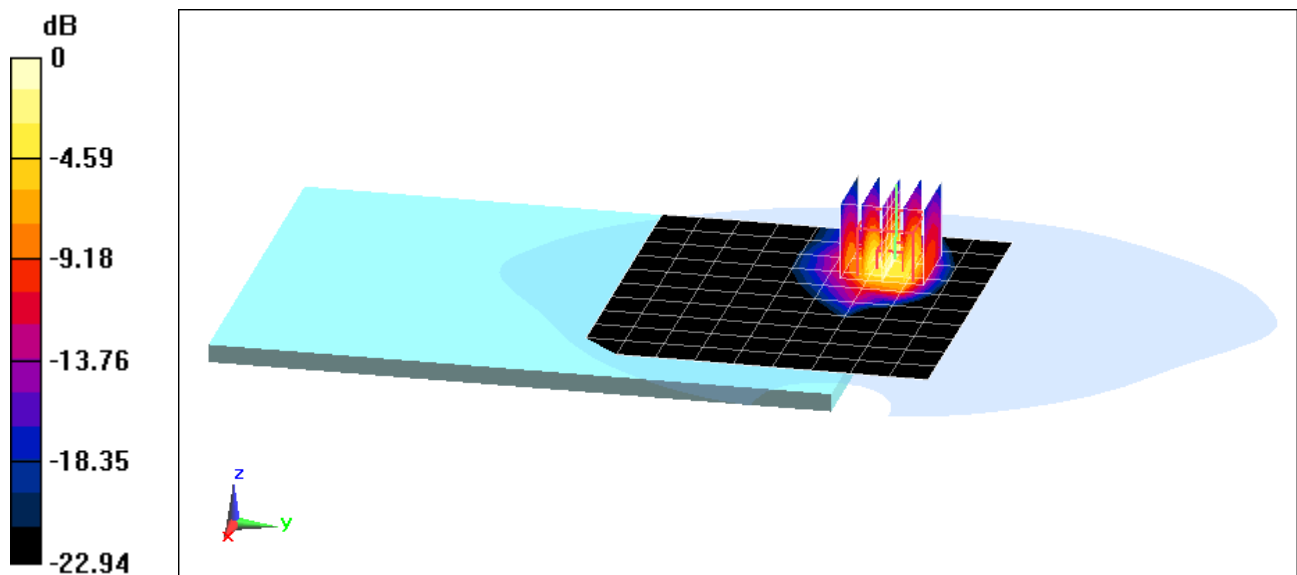
**Area Scan (11x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.71 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.21 W/kg

**SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.533 W/kg**



0 dB = 1.46 W/kg = 1.64 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT017JM50**

Communication System: UID 0, UMTS; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1852.4 \text{ MHz}$ ;  $\sigma = 1.53 \text{ S/m}$ ;  $\epsilon_r = 52.265$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 23.4°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: UMTS 1900, Body SAR, Back side, Low.ch**

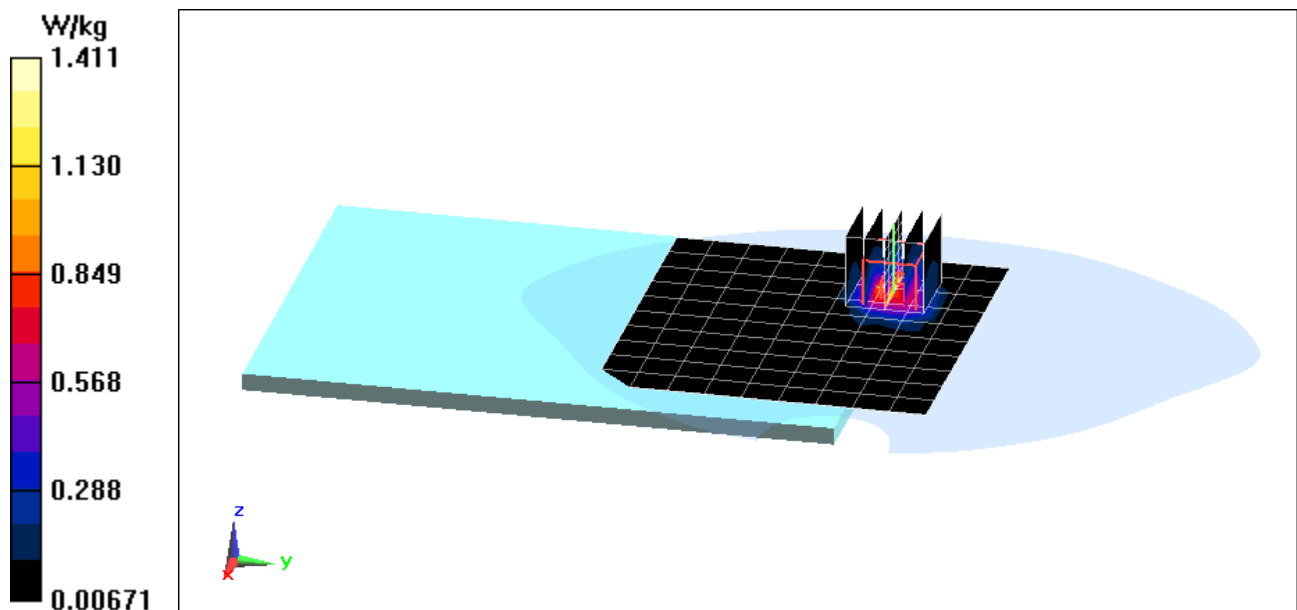
**Area Scan (11x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.94 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.03 W/kg

**SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.502 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00MJM4W**

Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1908.75 \text{ MHz}$ ;  $\sigma = 1.593 \text{ S/m}$ ;  $\epsilon_r = 52.126$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 23.4°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: PCS EVDO, Body SAR, Back side, High.ch**

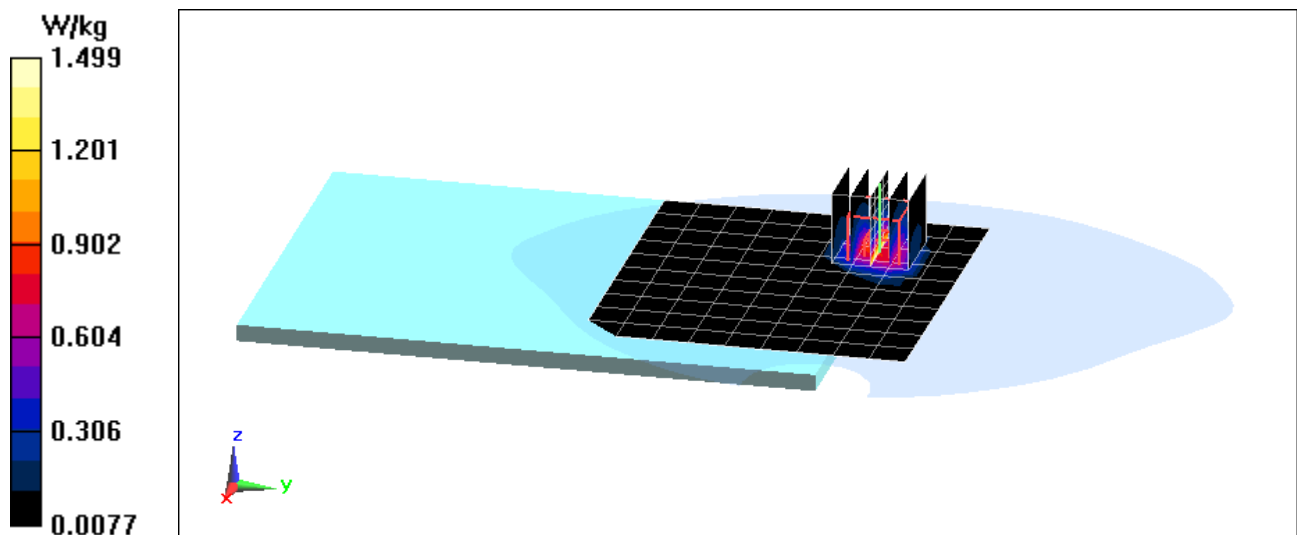
**Area Scan (11x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 29.28 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 2.13 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.537 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00DJM4W**

Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 707.5 \text{ MHz}$ ;  $\sigma = 0.933 \text{ S/m}$ ;  $\epsilon_r = 55.943$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 22.4°C; Tissue Temp: 20.0°C

Probe: ES3DV2 - SN3022; ConvF(6.29, 6.29, 6.29); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 12, Body SAR, Back side, Mid.ch, 10 MHz Bandwidth,  
QPSK, 25 RB, 12 RB Offset**

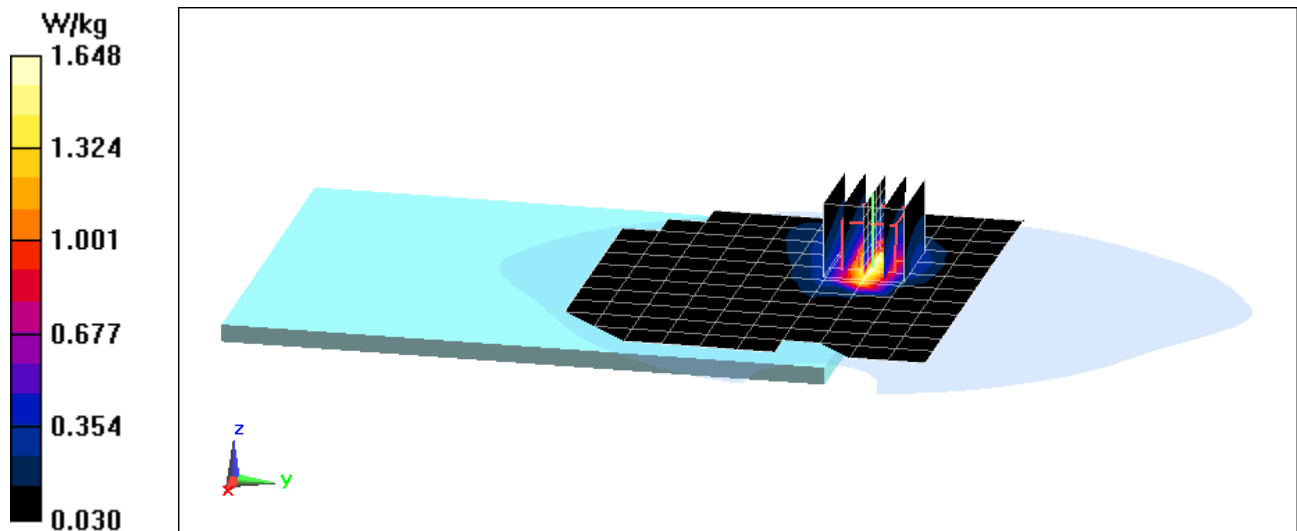
**Area Scan (13x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (6x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 38.18 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.81 W/kg

**SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.588 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00DJM4W**

Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 782 \text{ MHz}$ ;  $\sigma = 1.01 \text{ S/m}$ ;  $\epsilon_r = 55.133$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 22.4°C; Tissue Temp: 20.0°C

Probe: ES3DV2 - SN3022; ConvF(6.29, 6.29, 6.29); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 13, Body SAR, Back side, Mid.ch, 10 MHz Bandwidth,  
QPSK, 50 RB, 0 RB Offset**

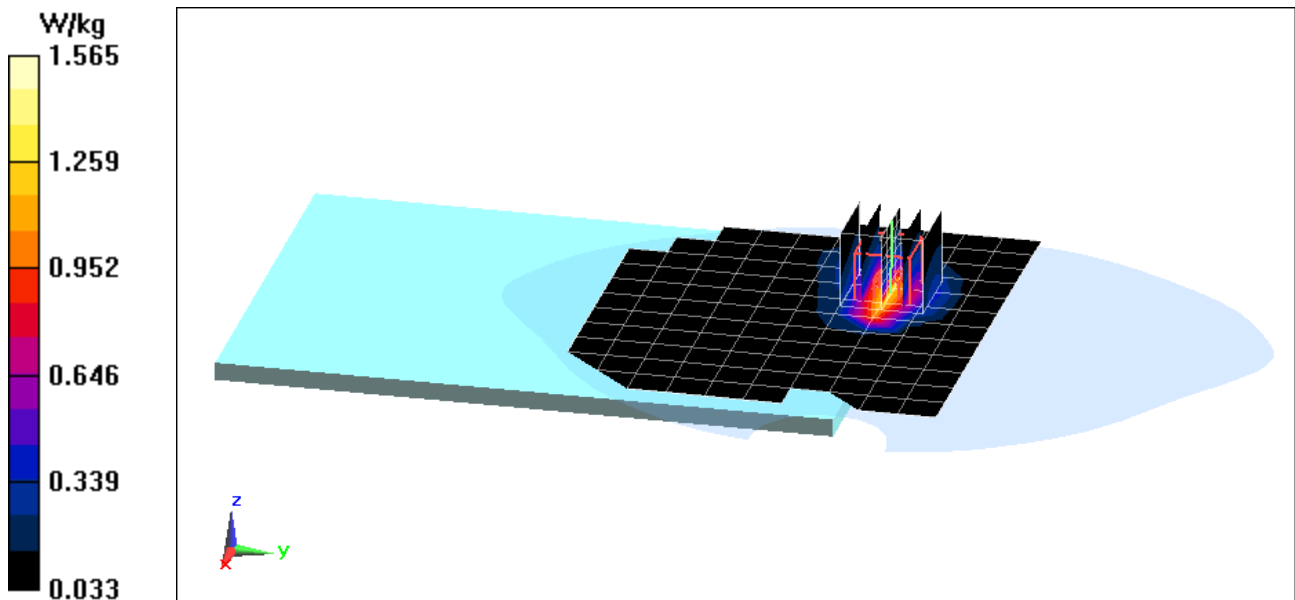
**Area Scan (13x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 37.12 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 2.56 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.586 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00GJM4W**

Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 836.5 \text{ MHz}$ ;  $\sigma = 1.009 \text{ S/m}$ ;  $\epsilon_r = 53.023$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 5 (Cell.), Body SAR, Back side, Mid.ch, 10 MHz Bandwidth,  
QPSK, 1 RB, 25 RB Offset**

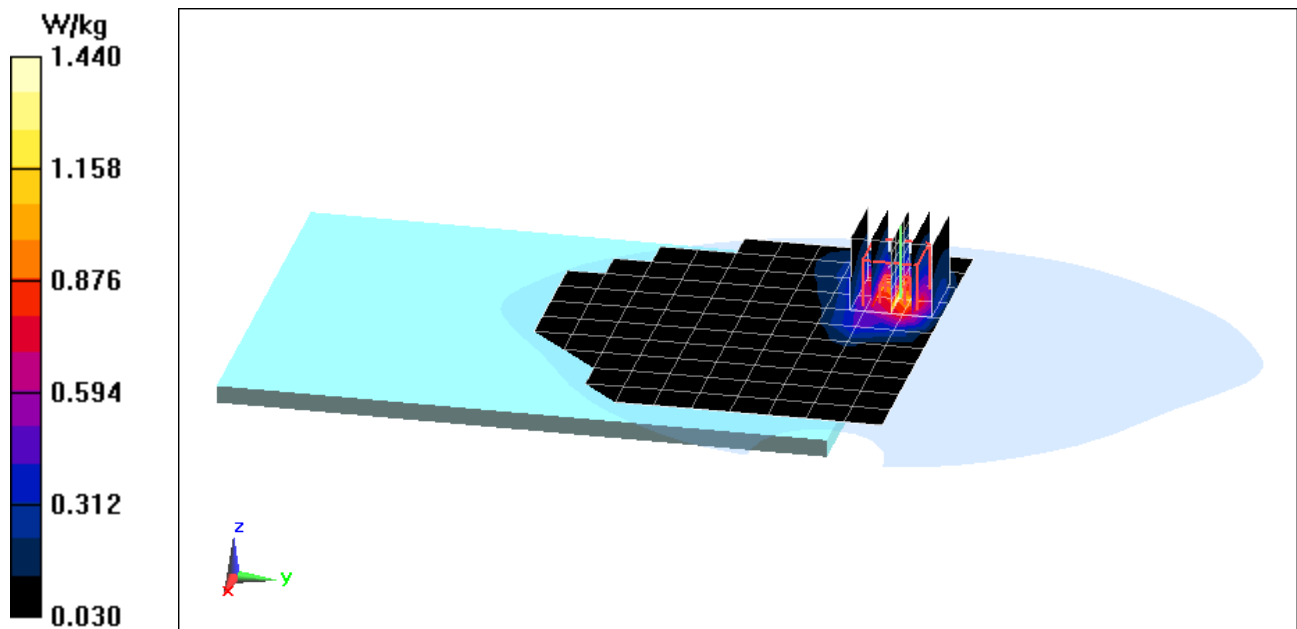
**Area Scan (12x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 35.77 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.35 W/kg

**SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.582 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00FJM4W**

Communication System: UID 0, LTE Band 26; Frequency: 844 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used (interpolated):

$f = 844 \text{ MHz}$ ;  $\sigma = 1.016 \text{ S/m}$ ;  $\epsilon_r = 52.952$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-8-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10;SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 26 (Cell.), Body SAR, Back side, High.ch, 10 MHz Bandwidth,  
QPSK, 25 RB, 25 RB Offset**

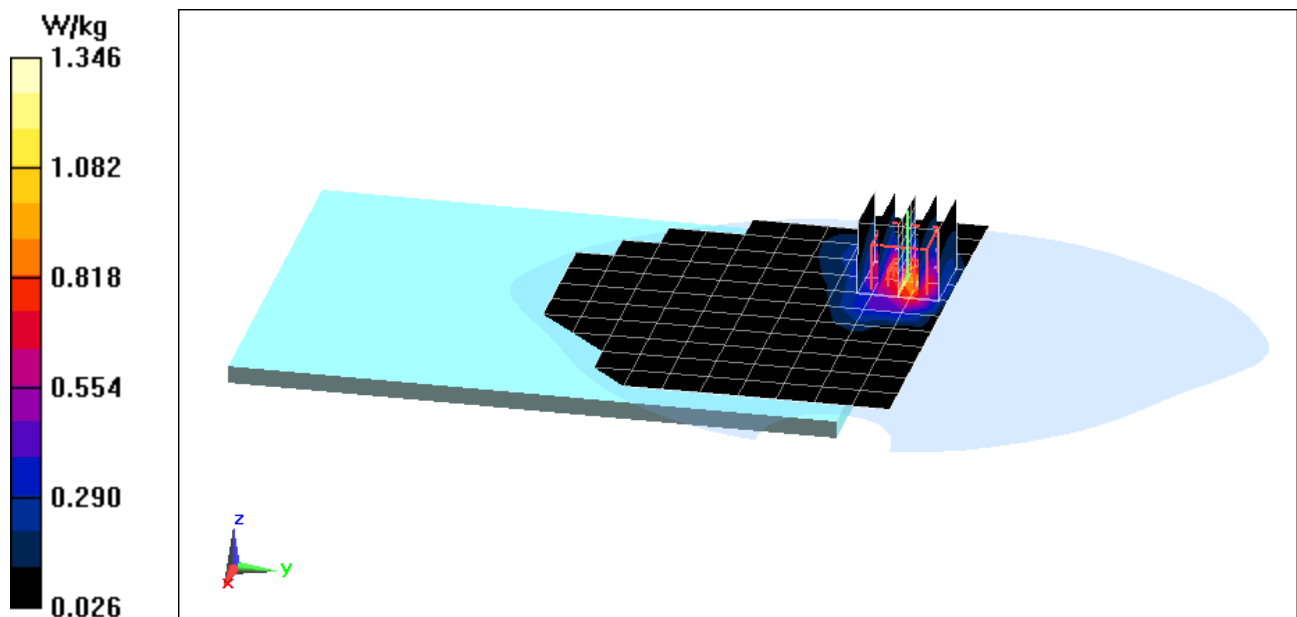
**Area Scan (13x11x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 34.30 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 2.08 W/kg

**SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.528 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT017JM50**

Communication System: UID 0, LTE Band 4 (AWS); Frequency: 1732.5 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used (interpolated):

$f = 1732.5 \text{ MHz}$ ;  $\sigma = 1.476 \text{ S/m}$ ;  $\epsilon_r = 53.125$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-9-2018; Ambient Temp: 24.2°C; Tissue Temp: 20.6°C

Probe: ES3DV2 - SN3022; ConvF(5.04, 5.04, 5.04); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 4 (AWS), Body SAR, Back side, Mid.ch, 20 MHz Bandwidth,  
QPSK, 50 RB, 50 RB Offset**

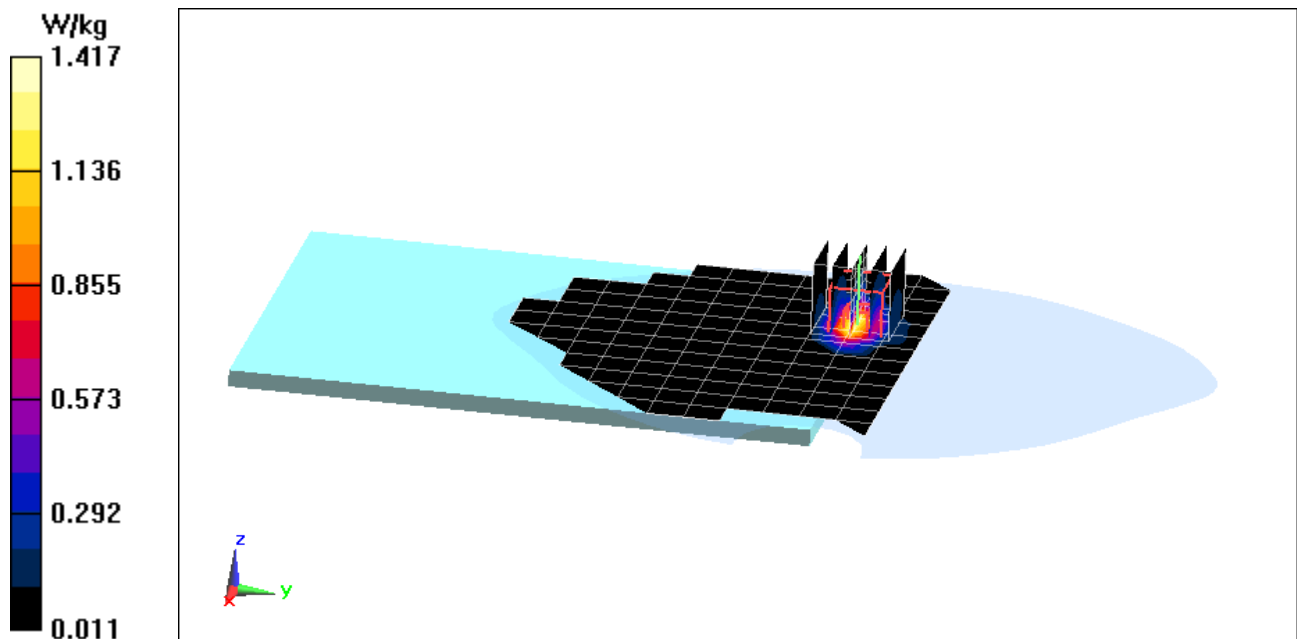
**Area Scan (14x12x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 29.37 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 2.01 W/kg

**SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.495 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT017JM50**

Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1905 \text{ MHz}$ ;  $\sigma = 1.59 \text{ S/m}$ ;  $\epsilon_r = 52.03$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-5-2018; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 25 (PCS), Body SAR, Back side, High.ch, 20 MHz Bandwidth,  
QPSK, 1 RB, 99 RB Offset**

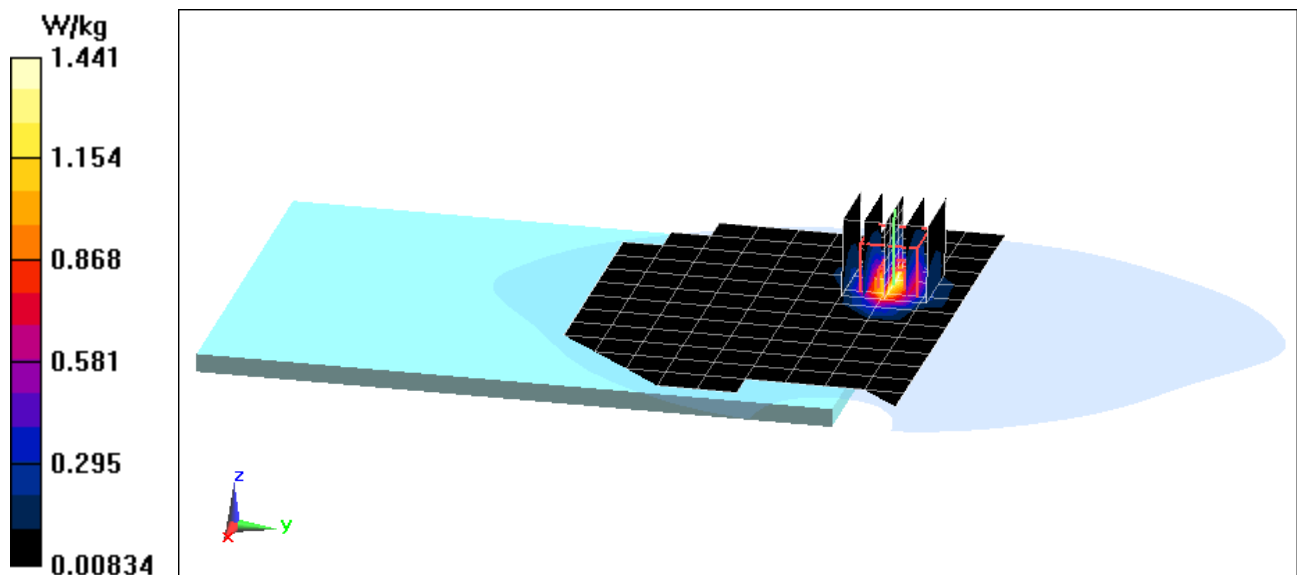
**Area Scan (15x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 28.25 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 2.07 W/kg

**SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.520 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT01MJM50**

Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium: 2300 Body Medium parameters used:

$f = 2310 \text{ MHz}$ ;  $\sigma = 1.828 \text{ S/m}$ ;  $\epsilon_r = 51.843$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-9-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.65, 7.65, 7.65); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 30, Body SAR, Top Edge, Mid.ch, 10 MHz Bandwidth,  
QPSK, 25 RB, 0 RB Offset**

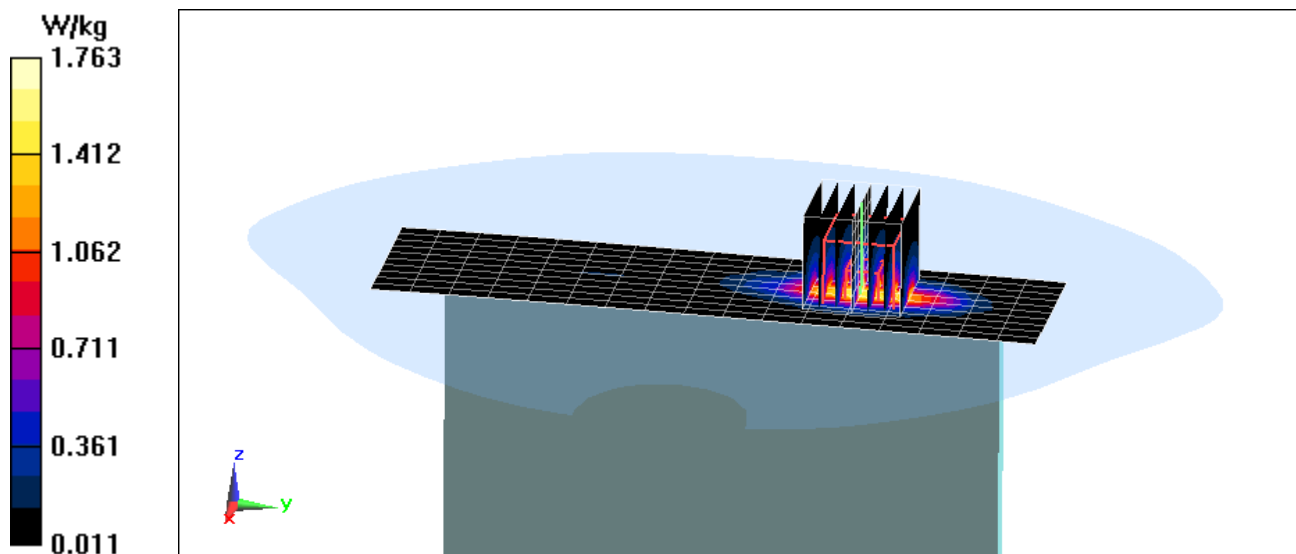
**Area Scan (11x18x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.28 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 2.32 W/kg

**SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.484 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT012JM4W**

Communication System: UID 0, LTE Band 7; Frequency: 2535 MHz; Duty Cycle: 1:1

Medium: 2600 Body Medium parameters used (interpolated):

$f = 2535 \text{ MHz}$ ;  $\sigma = 2.142 \text{ S/m}$ ;  $\epsilon_r = 50.951$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-9-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.28, 7.28, 7.28); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 7, Body SAR, Top Edge, Mid.ch, 20 MHz Bandwidth,  
QPSK, 1 RB, 0 RB Offset**

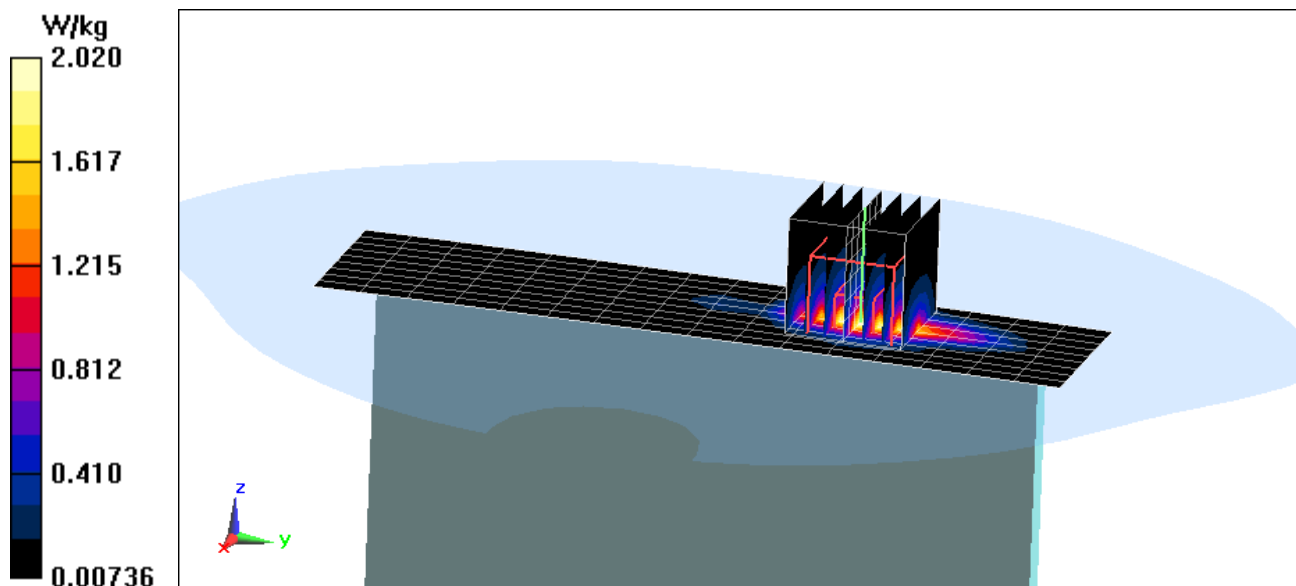
**Area Scan (10x17x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 25.06 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 2.61 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.519 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT012JM4W**

Communication System: UID 0, LTE Band 41; Frequency: 2636.5 MHz; Duty Cycle: 1:1.58

Medium: 2600 Body Medium parameters used (interpolated):

$f = 2636.5$  MHz;  $\sigma = 2.287$  S/m;  $\epsilon_r = 50.55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-9-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.28, 7.28, 7.28); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: LTE Band 41, Body SAR, Top Edge, Mid-High.ch, 20 MHz Bandwidth,  
QPSK, 50 RB, 50 RB Offset**

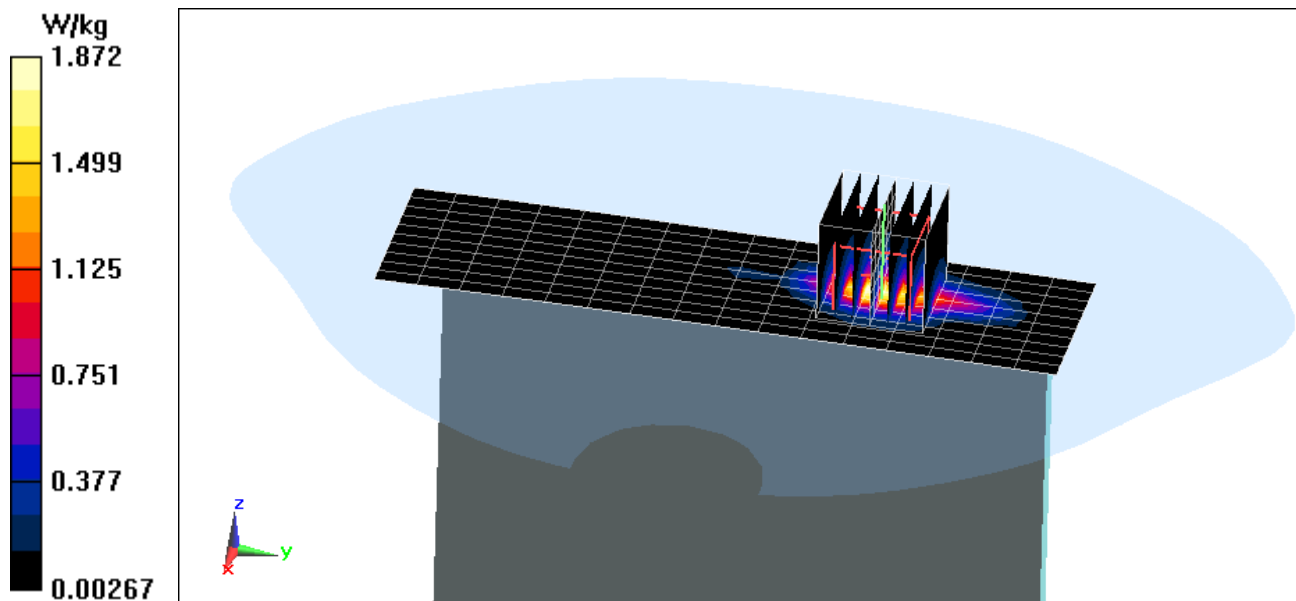
**Area Scan (11x17x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 22.65 V/m; Power Drift = 0.00 dB

Peak SAR (extrapolated) = 2.65 W/kg

**SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.452 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00FJM4W**

Communication System: UID 0, IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used (interpolated):

$f = 2462 \text{ MHz}$ ;  $\sigma = 1.96 \text{ S/m}$ ;  $\epsilon_r = 50.739$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 12-26-2017; Ambient Temp: 23.7°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3333; ConvF(4.35, 4.35, 4.35); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: IEEE 802.11b, 22 MHz Bandwidth, Body SAR,  
Ch 11, 1 Mbps, Bottom Edge, Antenna B, Variant 1**

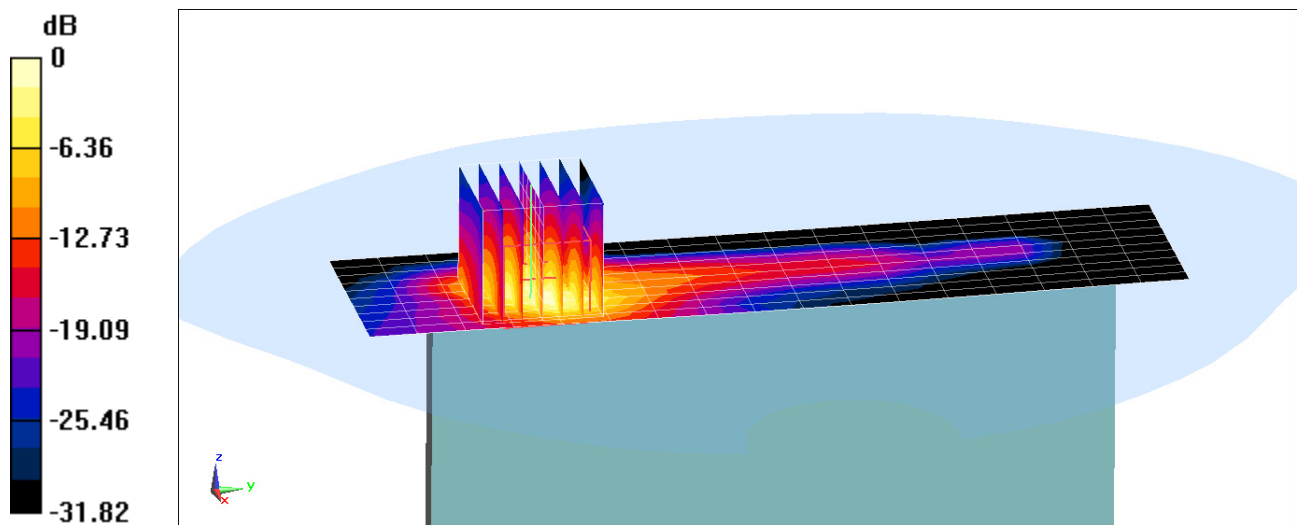
**Area Scan (11x18x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 29.05 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.62 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.373 W/kg**



0 dB = 1.78 W/kg = 2.50 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00DJM4W**

Communication System: UID 0, IEEE 802.11ac; Frequency: 5610 MHz; Duty Cycle: 1:1

Medium: 5 GHz Medium parameters used (interpolated):

$f = 5610 \text{ MHz}$ ;  $\sigma = 5.945 \text{ S/m}$ ;  $\epsilon_r = 48.058$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-2-2018; Ambient Temp: 20.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7416; ConvF(4.15, 4.15, 4.15); Calibrated: 7/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: IEEE 802.11ac, U-NII-2C, 80 MHz Bandwidth, Body SAR,  
Ch 122, 29.3 Mbps, Bottom Edge, Antenna A, Variant 1**

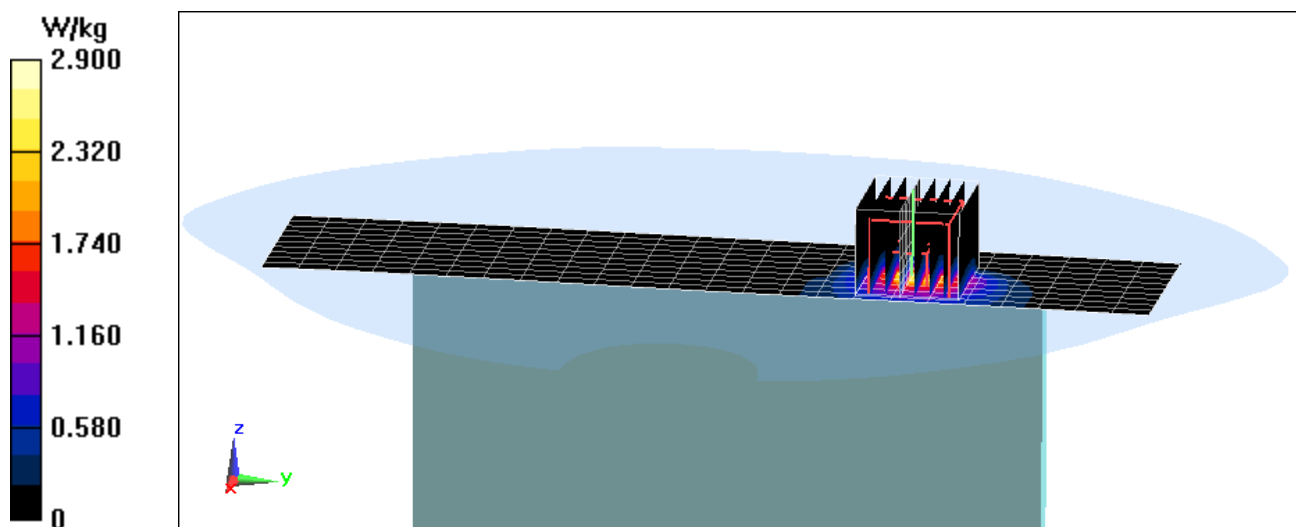
**Area Scan (11x25x1):** Measurement grid:  $dx=5\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (9x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Reference Value = 13.78 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 5.33 W/kg

**SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.389 W/kg**



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: BCGA1954; Type: Tablet Device; Serial: F9FVT00FJM4W**

Communication System: UID 0, Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1.2953

Medium: 2450 MHz Body Medium parameters used (interpolated):

$f = 2480 \text{ MHz}$ ;  $\sigma = 2.067 \text{ S/m}$ ;  $\epsilon_r = 51.373$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 0.0 cm

Test Date: 1-22-2018; Ambient Temp: 22.4°C; Tissue Temp: 21.6°C

Probe: ES3DV2 - SN3022; ConvF(4.35, 4.35, 4.35); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

**Mode: Bluetooth P<sub>High</sub>, Body SAR, Ch 78, 1 Mbps, Bottom Edge, Variant 1**

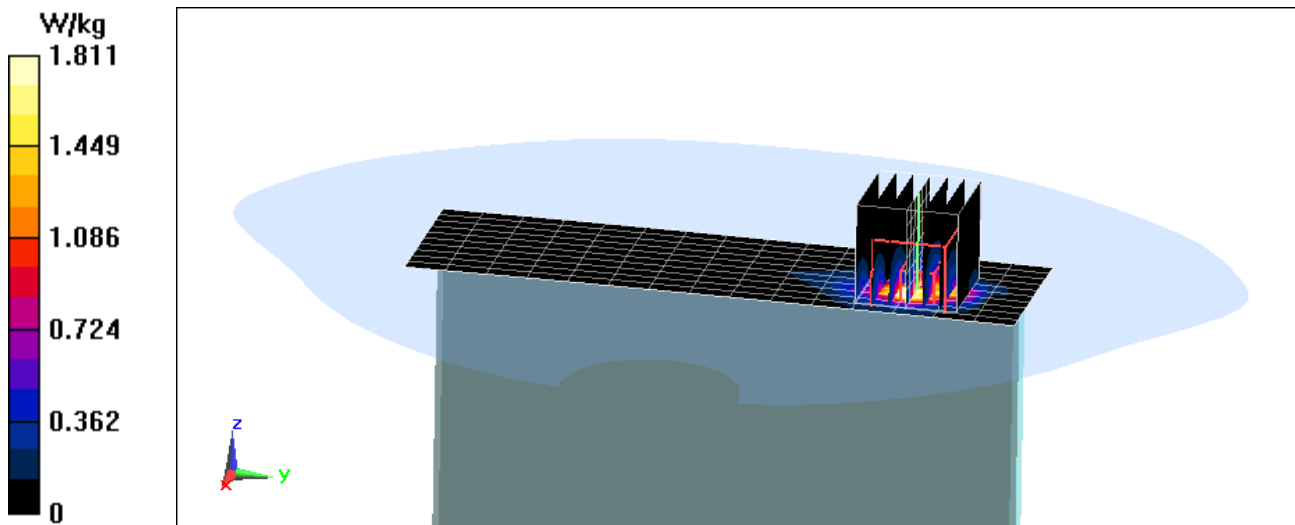
**Area Scan (11x16x1):** Measurement grid: dx=5mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 23.80 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.75 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.380 W/kg**



## APPENDIX B: SYSTEM VERIFICATION

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 750 MHz; Type: D750V3; Serial: 1097**

Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: 750 Body Medium parameters used (interpolated):

$f = 750 \text{ MHz}$ ;  $\sigma = 0.978 \text{ S/m}$ ;  $\epsilon_r = 55.505$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-08-2018; Ambient Temp: 22.4°C; Tissue Temp: 20.0°C

Probe: ES3DV2 - SN3022; ConvF(6.29, 6.29, 6.29); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10;SEMCAD X Version 14.6.10 (7417)

## **750 MHz System Verification at 23.0 dBm (200 mW)**

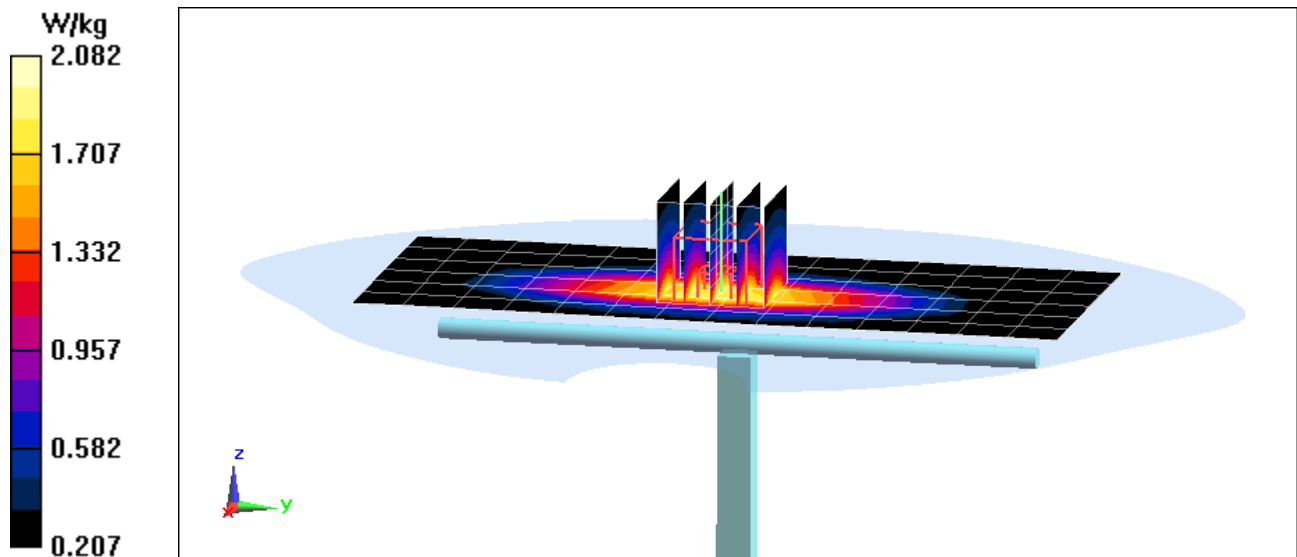
**Area Scan (7x15x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 2.63 W/kg

**SAR(1 g) = 1.8 W/kg; SAR(10 g) = 1.19 W/kg**

Deviation(1 g) = 5.14%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d180**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: 835 Body Medium parameters used:

$f = 835 \text{ MHz}$ ;  $\sigma = 1.007 \text{ S/m}$ ;  $\epsilon_r = 53.037$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-08-2018; Ambient Temp: 20.8°C; Tissue Temp: 20.0°C

Probe: ES3DV3 - SN3334; ConvF(6.41, 6.41, 6.41); Calibrated: 11/10/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1466; Calibrated: 11/8/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **835 MHz System Verification at 23.0 dBm (200 mW)**

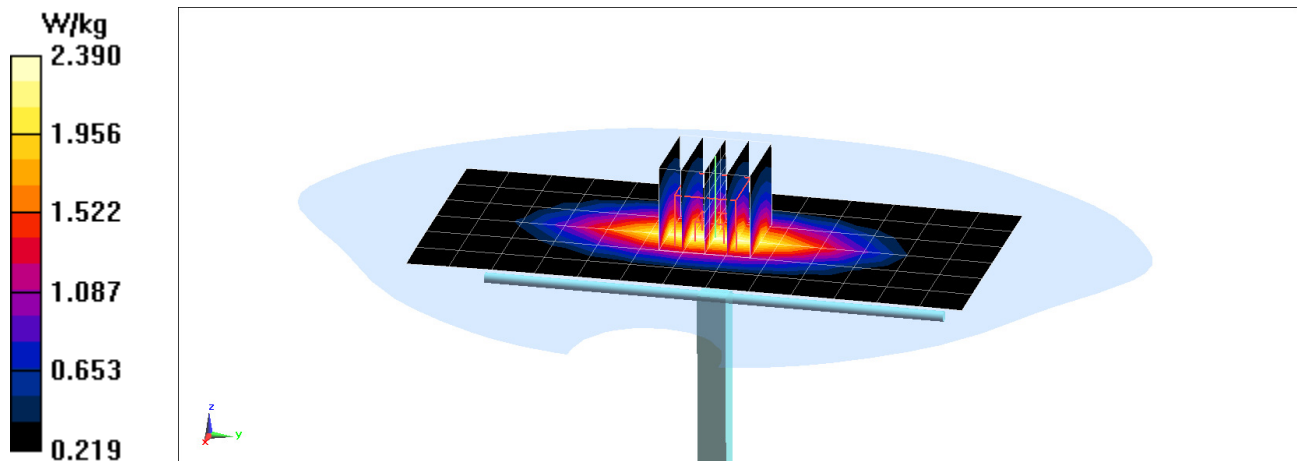
**Area Scan (7x14x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 3.00 W/kg

**SAR(1 g) = 2.05 W/kg; SAR(10 g) = 1.35 W/kg**

Deviation(1 g) = 6.66%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1092**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: 1750 Body Medium parameters used:

$f = 1750 \text{ MHz}$ ;  $\sigma = 1.497 \text{ S/m}$ ;  $\epsilon_r = 53.081$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2018; Ambient Temp: 24.2°C; Tissue Temp: 20.6°C

Probe: ES3DV2 - SN3022; ConvF(5.04, 5.04, 5.04); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 1750 MHz System Verification at 20.0 dBm (100 mW)

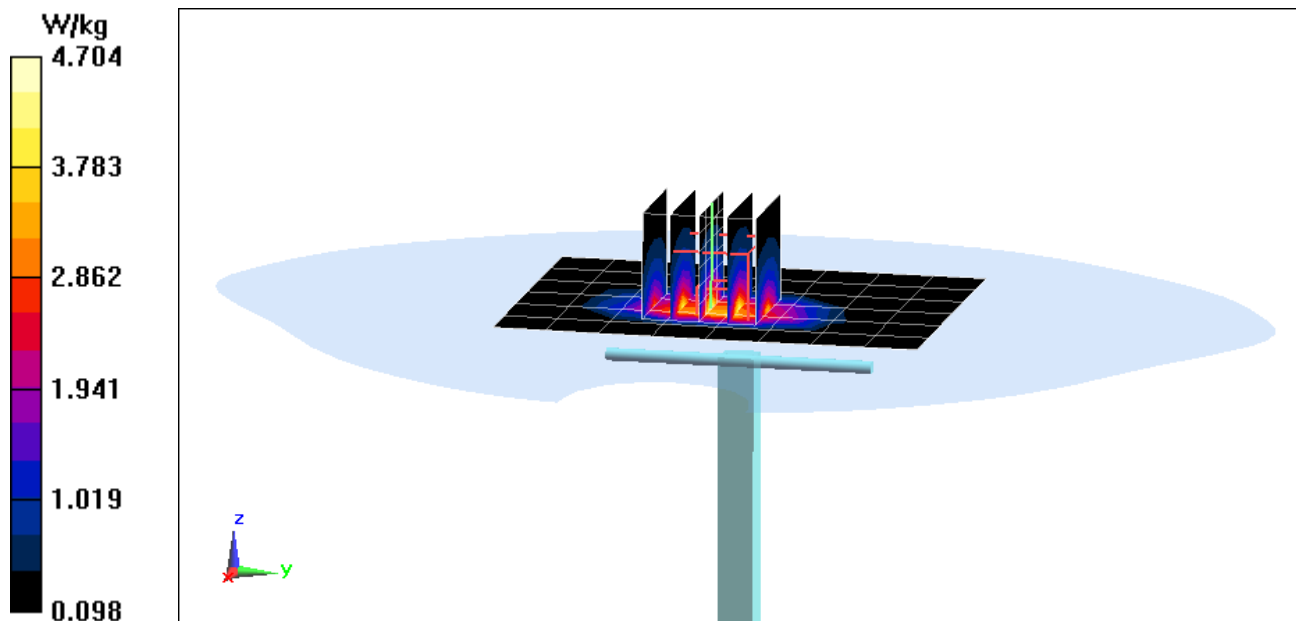
**Area Scan (7x9x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 6.57 W/kg

**SAR(1 g) = 3.74 W/kg; SAR(10 g) = 1.99 W/kg**

Deviation(1 g) = 1.08%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.584 \text{ S/m}$ ;  $\epsilon_r = 52.05$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-05-2018; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

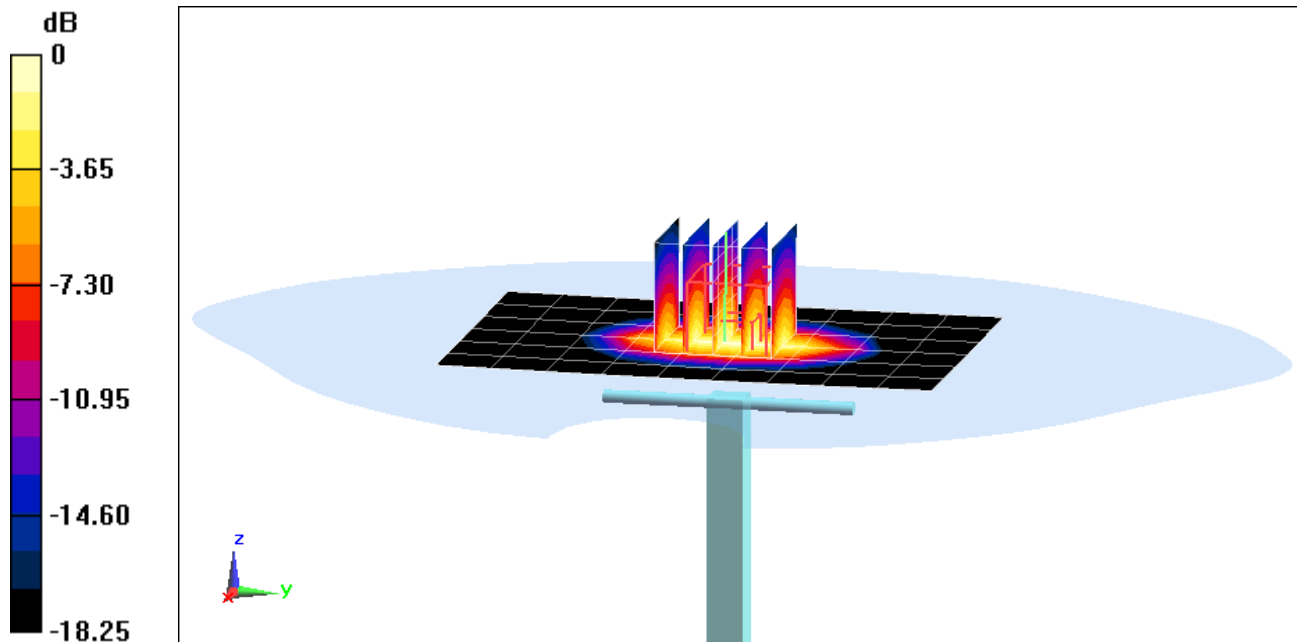
**Area Scan (7x10x1):** Measurement grid: dx=15mm, dy=15mm

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Peak SAR (extrapolated) = 7.24 W/kg

**SAR(1 g) = 4.00 W/kg; SAR(10 g) = 2.09 W/kg**

Deviation(1 g) = -0.74%



0 dB = 4.95 W/kg = 6.95 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d026**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: 1900 Body Medium parameters used (interpolated):

$f = 1900 \text{ MHz}$ ;  $\sigma = 1.583 \text{ S/m}$ ;  $\epsilon_r = 52.151$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-08-2018; Ambient Temp: 23.4°C; Tissue Temp: 22.0°C

Probe: ES3DV3 - SN3333; ConvF(4.77, 4.77, 4.77); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 1900 MHz System Verification at 20.0 dBm (100 mW)

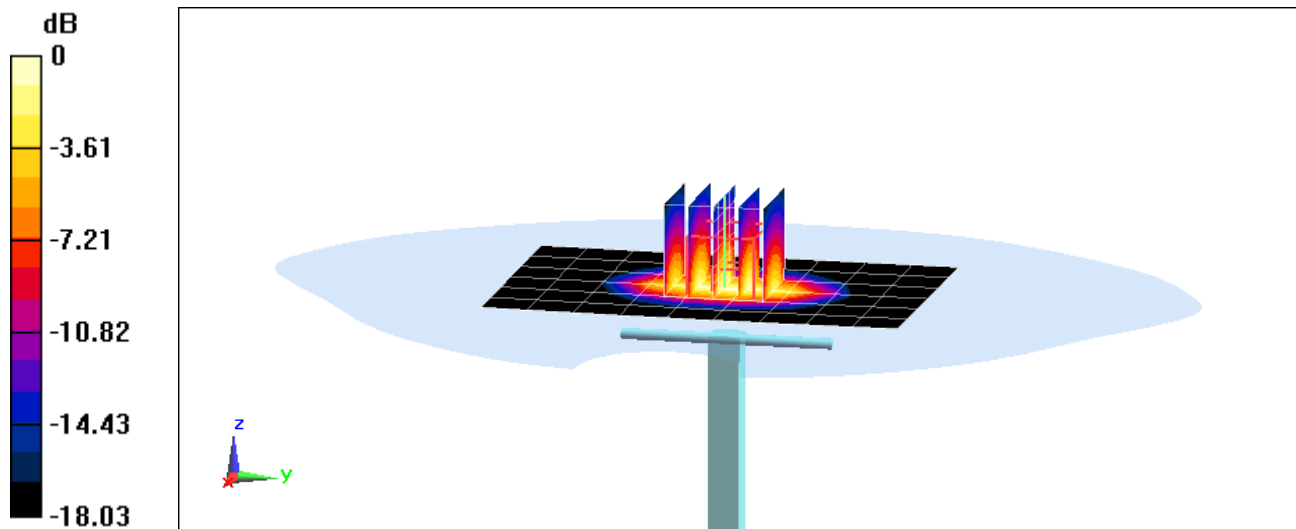
**Area Scan (7x10x1):** Measurement grid:  $dx=15\text{mm}$ ,  $dy=15\text{mm}$

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 7.55 W/kg

**SAR(1 g) = 4.19 W/kg; SAR(10 g) = 2.16 W/kg**

Deviation(1 g) = 3.97%



0 dB = 5.29 W/kg = 7.23 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1038**

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: 2300 Body Medium parameters used:

$f = 2300 \text{ MHz}$ ;  $\sigma = 1.815 \text{ S/m}$ ;  $\epsilon_r = 51.871$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.65, 7.65, 7.65); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2300 MHz System Verification at 20.0 dBm (100 mW)

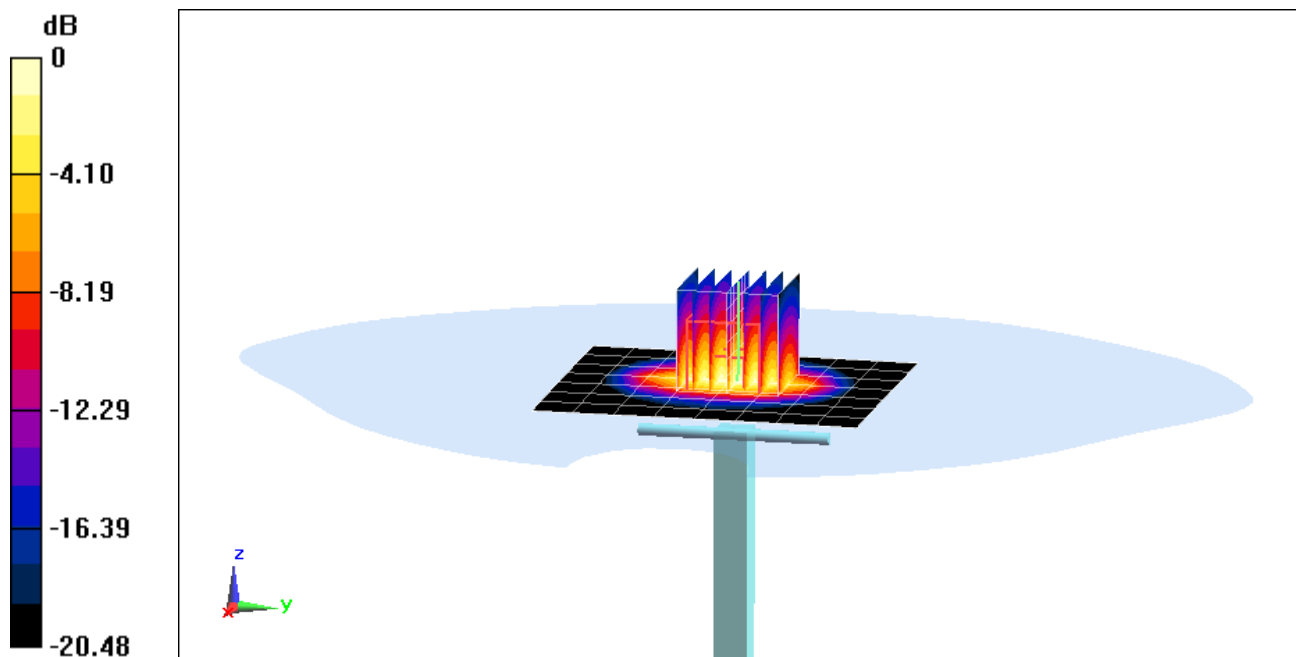
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 9.85 W/kg

**SAR(1 g) = 5 W/kg; SAR(10 g) = 2.41 W/kg**

Deviation(1 g) = 5.26%



0 dB = 8.06 W/kg = 9.06 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 945**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 1.944 \text{ S/m}$ ;  $\epsilon_r = 50.79$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-26-2017; Ambient Temp: 23.7°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3333; ConvF(4.35, 4.35, 4.35); Calibrated: 9/18/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1408; Calibrated: 9/15/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1868

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

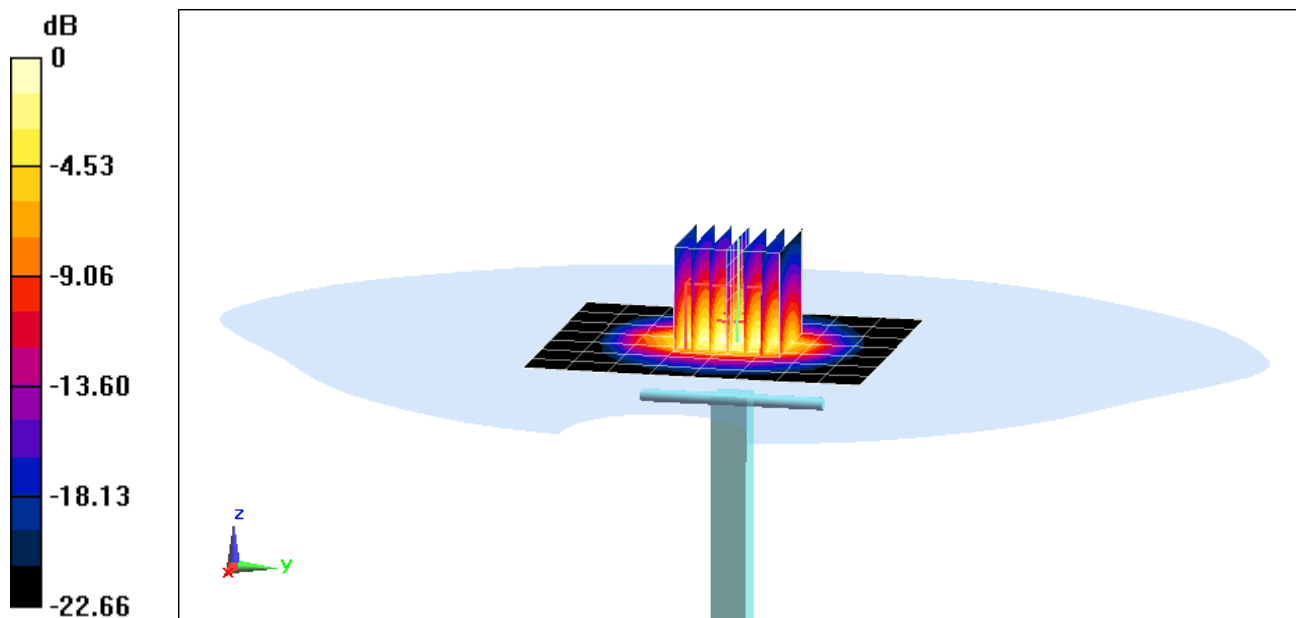
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 11.1 W/kg

**SAR(1 g) = 5.23 W/kg; SAR(10 g) = 2.4 W/kg**

Deviation(1 g) = 4.18%



0 dB = 6.83 W/kg = 8.34 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 921**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2300-2600 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.026 \text{ S/m}$ ;  $\epsilon_r = 51.31$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 1-9-2017; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.5, 7.5, 7.5); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **2450 MHz System Verification at 20.0 dBm (100 mW)**

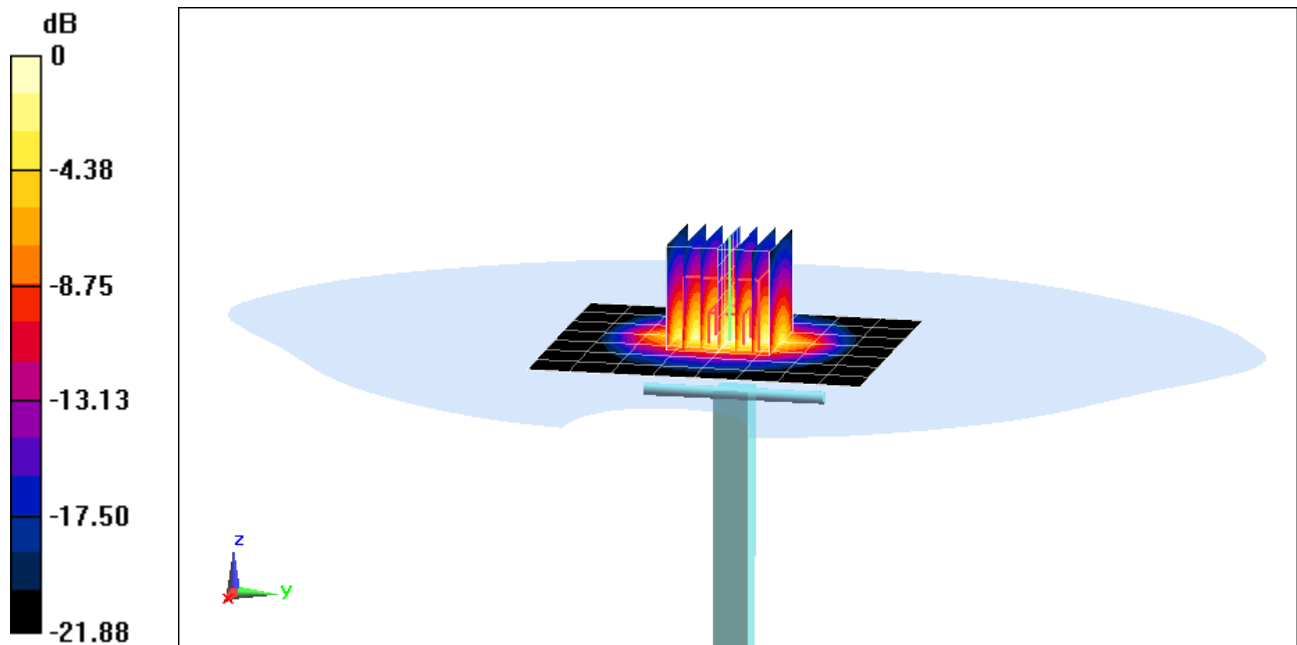
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 10.8 W/kg

**SAR(1 g) = 5.19 W/kg; SAR(10 g) = 2.4 W/kg**

Deviation(1 g) = 2.37%



0 dB = 8.66 W/kg = 9.38 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 750**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: 2450 Body Medium parameters used:

$f = 2450 \text{ MHz}$ ;  $\sigma = 2.024 \text{ S/m}$ ;  $\epsilon_r = 51.495$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-22-2018; Ambient Temp: 22.4°C; Tissue Temp: 21.6°C

Probe: ES3DV2 - SN3022; ConvF(4.35, 4.35, 4.35); Calibrated: 7/17/2017;

Sensor-Surface: 3mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## 2450 MHz System Verification at 20.0 dBm (100 mW)

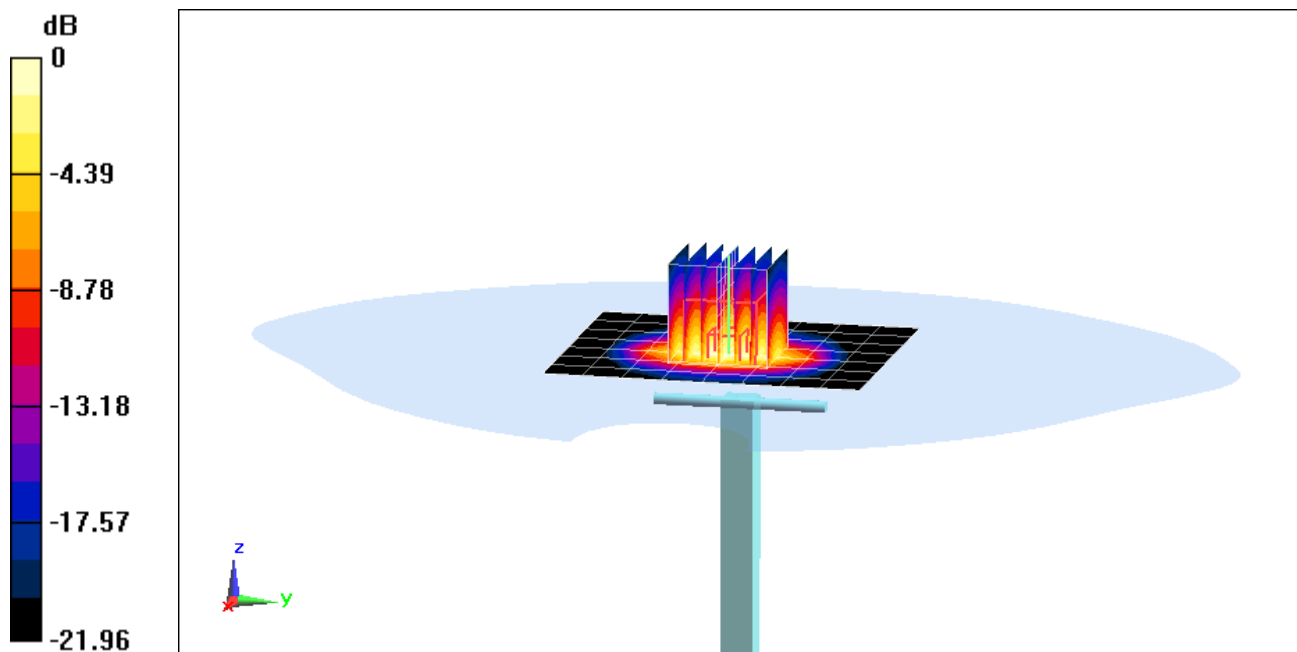
**Area Scan (8x9x1):** Measurement grid: dx=12mm, dy=12mm

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 10.6 W/kg

**SAR(1 g) = 4.99 W/kg; SAR(10 g) = 2.29 W/kg**

Deviation(1 g) = -2.54%



0 dB = 6.63 W/kg = 8.22 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1069**

Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: 2600 Body Medium parameters used:

$f = 2600 \text{ MHz}$ ;  $\sigma = 2.237 \text{ S/m}$ ;  $\epsilon_r = 50.697$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-09-2018; Ambient Temp: 22.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7420; ConvF(7.28, 7.28, 7.28); Calibrated: 9/20/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn1449; Calibrated: 9/15/2017

Phantom: SAM V5.0 Front; Type: QD000P40CD; Serial: TP:1793

Measurement SW: DASY52, Version 52.10;SEMCAD X Version 14.6.10 (7417)

## **2600 MHz System Verification at 20.0 dBm (100 mW)**

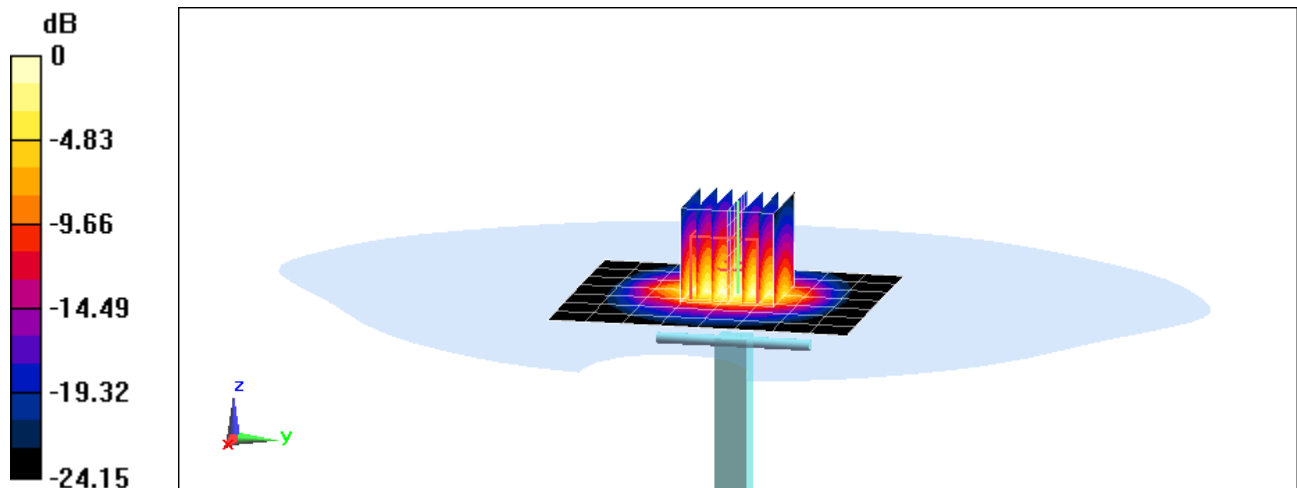
**Area Scan (8x9x1):** Measurement grid:  $dx=12\text{mm}$ ,  $dy=12\text{mm}$

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ ,  $dz=5\text{mm}$

Peak SAR (extrapolated) = 12.9 W/kg

**SAR(1 g) = 5.88 W/kg; SAR(10 g) = 2.6 W/kg**

Deviation(1 g) = 6.33%



0 dB = 10.1 W/kg = 10.04 dBW/kg

# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1163**

Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: 5 GHz Medium parameters used (interpolated):

$f = 5250 \text{ MHz}$ ;  $\sigma = 5.486 \text{ S/m}$ ;  $\epsilon_r = 48.344$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 1-15-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7416; ConvF(4.88, 4.88, 4.88); Calibrated: 7/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **5250 MHz System Verification at 17.0 dBm (50 mW)**

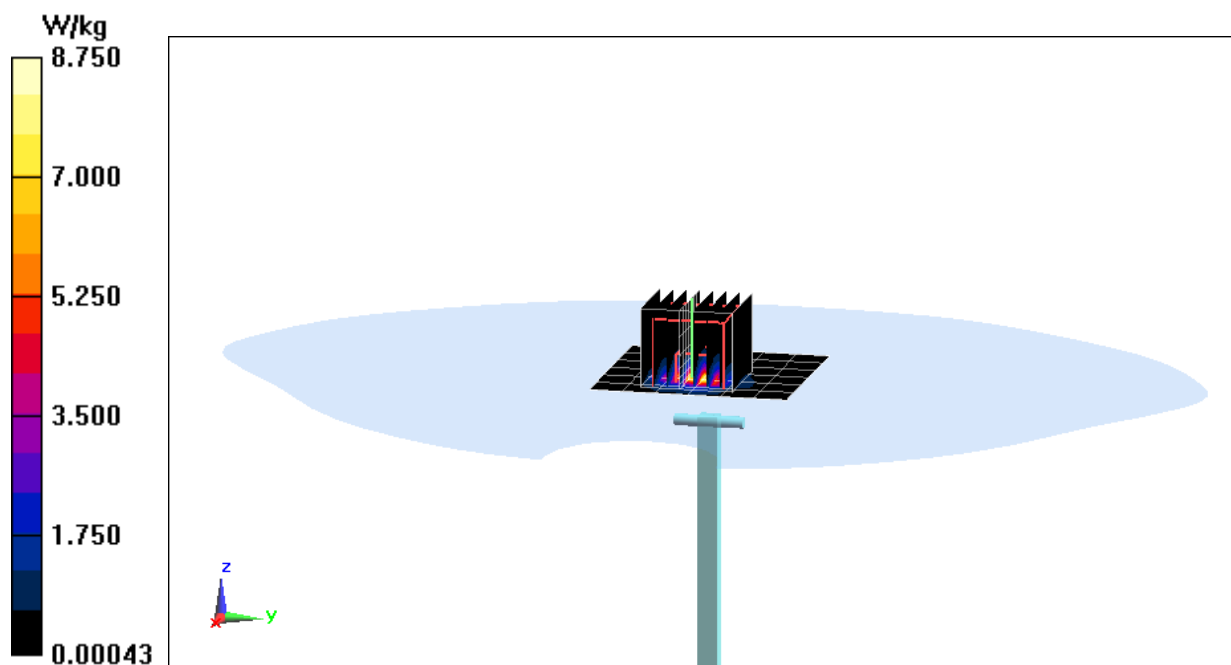
**Area Scan (7x7x1):** Measurement grid:  $dx=10\text{mm}$ ,  $dy=10\text{mm}$

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid:  $dx=4\text{mm}$ ,  $dy=4\text{mm}$ ,  $dz=1.4\text{mm}$ ; Graded Ratio: 1.4

Peak SAR (extrapolated) = 15.6 W/kg

**SAR(1 g) = 3.64 W/kg; SAR(10 g) = 1.02 W/kg**

Deviation(1 g) = -5.94%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1123**

Communication System: UID 0, CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: 5 GHz Medium parameters used:

$f = 5600 \text{ MHz}$ ;  $\sigma = 5.931 \text{ S/m}$ ;  $\epsilon_r = 48.089$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-02-2018; Ambient Temp: 20.7°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7416; ConvF(4.15, 4.15, 4.15); Calibrated: 7/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10;SEMCAD X Version 14.6.10 (7417)

## **5600 MHz System Verification at 17.0 dBm (50 mW)**

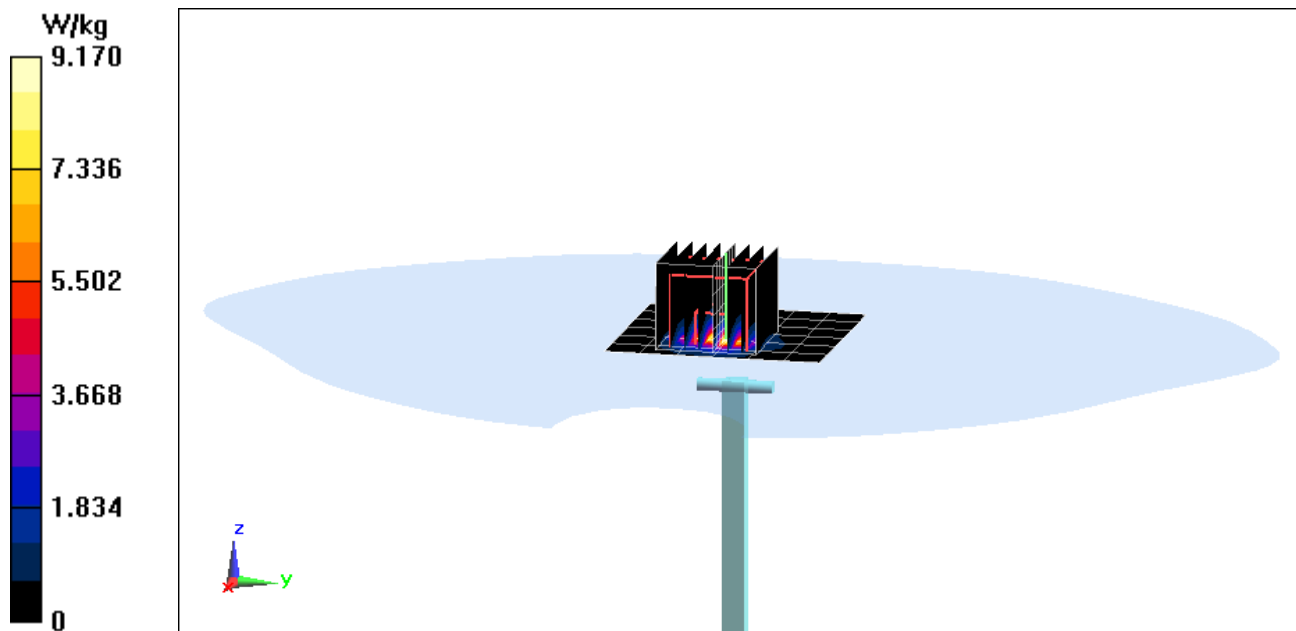
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 17.5 W/kg

**SAR(1 g) = 3.76 W/kg; SAR(10 g) = 1.04 W/kg**

Deviation(1 g) = -4.69%



# PCTEST ENGINEERING LABORATORY, INC.

**DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1163**

Communication System: UID 0, CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: 5 GHz Medium parameters used (interpolated):

$f = 5750 \text{ MHz}$ ;  $\sigma = 6.163 \text{ S/m}$ ;  $\epsilon_r = 47.542$ ;  $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section; Space: 1.0 cm

Test Date: 1-15-2018; Ambient Temp: 22.2°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7416; ConvF(4.35, 4.35, 4.35); Calibrated: 7/18/2017;

Sensor-Surface: 1.4mm (Mechanical Surface Detection)

Electronics: DAE4 Sn701; Calibrated: 6/21/2017

Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1873

Measurement SW: DASY52, Version 52.10; SEMCAD X Version 14.6.10 (7417)

## **5750 MHz System Verification at 17.0 dBm (50 mW)**

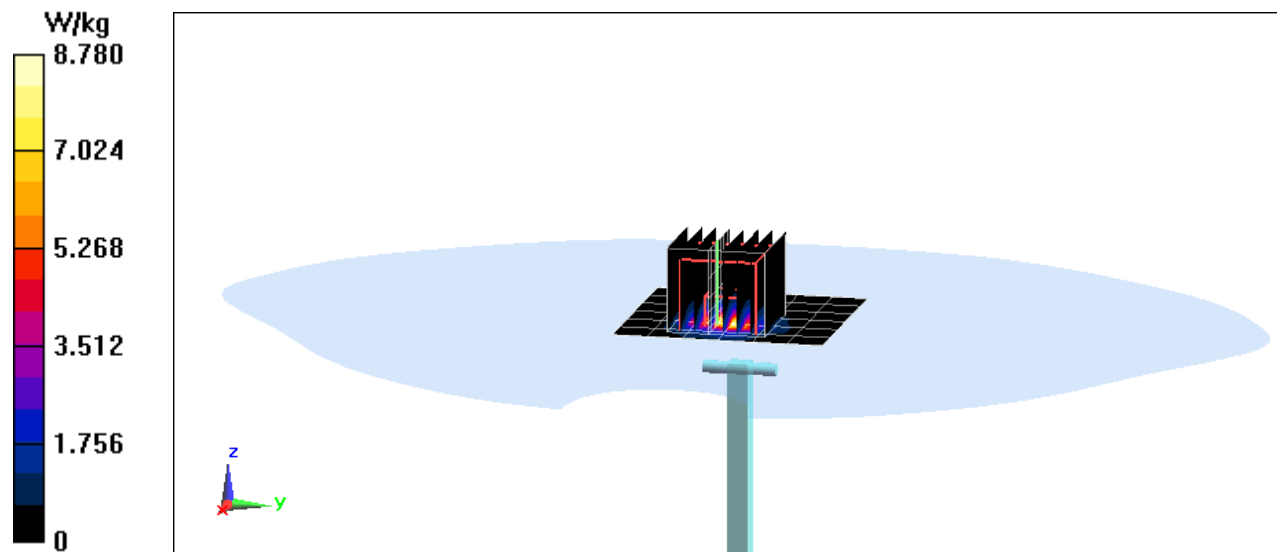
**Area Scan (7x7x1):** Measurement grid: dx=10mm, dy=10mm

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4

Peak SAR (extrapolated) = 16.4 W/kg

**SAR(1 g) = 3.59 W/kg; SAR(10 g) = 1 W/kg**

Deviation(1 g) = -7.24%



## APPENDIX C: PROBE CALIBRATION



Accredited by the Swiss Accreditation Service (SAS)  
The Swiss Accreditation Service is one of the signatories to the EA  
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **ES3-3022\_Jul17**

## CALIBRATION CERTIFICATE

Object **ES3DV2 - SN:3022**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6**  
**Calibration procedure for dosimetric E-field probes**

*BNW*  
*8/31/2017*

Calibration date: **July 17, 2017**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature  $(22 \pm 3)^\circ\text{C}$  and humidity  $< 70\%$ .

Calibration Equipment used (M&TE critical for calibration)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-16 (No. ES3-3013_Dec16)    | Dec-17                 |
| DAE4                       | SN: 660          | 7-Dec-16 (No. DAE4-660_Dec16)     | Dec-17                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-16) | In house check: Oct-17 |

|                                                                                                                 |                               |                                          |                       |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|-----------------------|
| Calibrated by:                                                                                                  | Name<br><b>Jeton Kastrati</b> | Function<br><b>Laboratory Technician</b> | Signature<br>         |
| Approved by:                                                                                                    | Name<br><b>Katja Pokovic</b>  | Technical Manager                        |                       |
| This calibration certificate shall not be reproduced except in full without written approval of the laboratory. |                               |                                          | Issued: July 17, 2017 |



Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

## Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

## Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

## Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the  $E^2$ -field uncertainty inside TSL (see below **ConvF**).
- NORM( $f$ )<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of **ConvF**.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe ES3DV2

## SN:3022

Manufactured: April 15, 2003  
Calibrated: July 17, 2017

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: ES3DV2 - SN:3022

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2)     |
|-----------------------------------------------------------|----------|----------|----------|---------------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.97     | 1.00     | 0.95     | $\pm 10.1 \%$ |
| DCP (mV) <sup>B</sup>                                     | 101.0    | 98.3     | 99.3     |               |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 193.8    | $\pm 3.8 \%$              |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 198.4    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 197.6    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms} \cdot \text{V}^{-2}$ | T2<br>$\text{ms} \cdot \text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|---------------------------------------|---------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 47.34    | 345.6    | 36.48                       | 29.67                                 | 3.198                                 | 5.1      | 0.000                 | 0.623                 | 1.010 |
| Y | 45.50    | 331.3    | 36.31                       | 29.51                                 | 2.954                                 | 5.1      | 0.000                 | 0.586                 | 1.008 |
| Z | 39.22    | 283.3    | 35.92                       | 29.08                                 | 2.726                                 | 5.1      | 0.143                 | 0.519                 | 1.007 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: ES3DV2 - SN:3022

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 6.67    | 6.67    | 6.67    | 0.80               | 1.06                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.32    | 6.32    | 6.32    | 0.24               | 2.01                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.42    | 5.42    | 5.42    | 0.31               | 1.88                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.19    | 5.19    | 5.19    | 0.40               | 1.72                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 4.90    | 4.90    | 4.90    | 0.52               | 1.43                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.59    | 4.59    | 4.59    | 0.64               | 1.32                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.39    | 4.39    | 4.39    | 0.69               | 1.32                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: ES3DV2 - SN:3022

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 6.29    | 6.29    | 6.29    | 0.34               | 1.63                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 6.16    | 6.16    | 6.16    | 0.74               | 1.10                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 5.04    | 5.04    | 5.04    | 0.56               | 1.37                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 4.79    | 4.79    | 4.79    | 0.36               | 1.85                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 4.53    | 4.53    | 4.53    | 0.62               | 1.32                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 4.35    | 4.35    | 4.35    | 0.80               | 1.09                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 4.16    | 4.16    | 4.16    | 0.80               | 0.80                    | ± 12.0 %  |

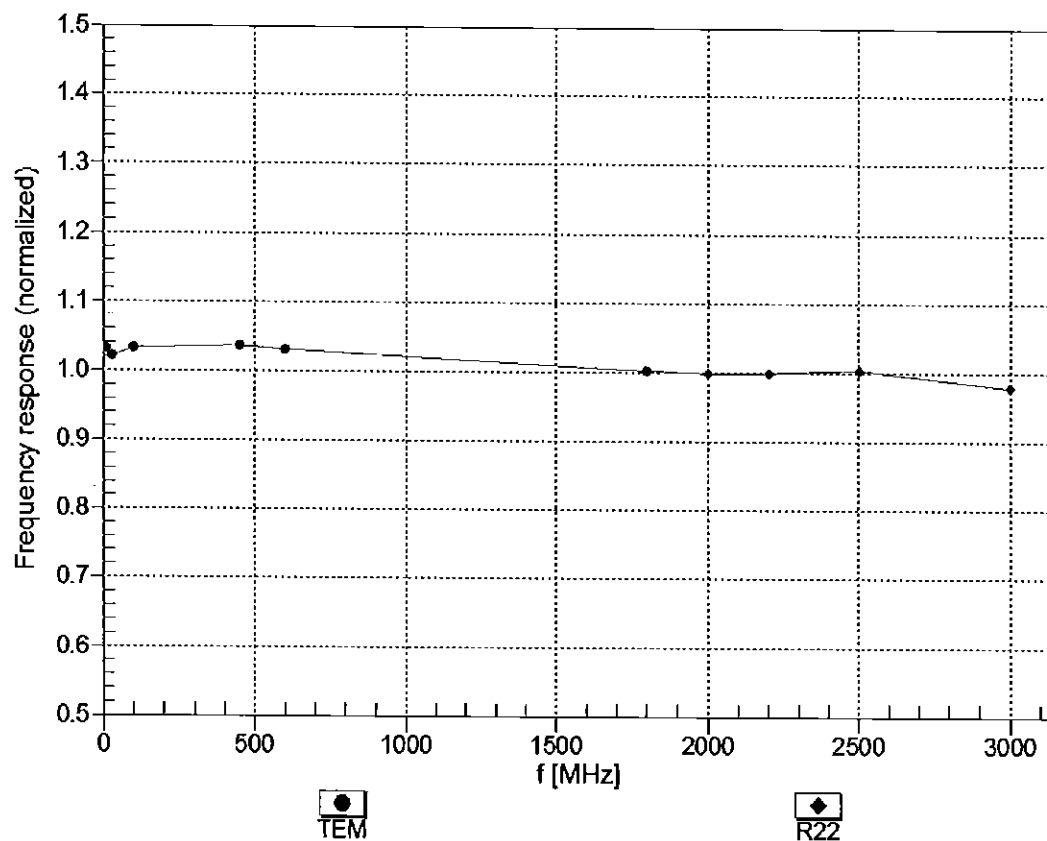
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

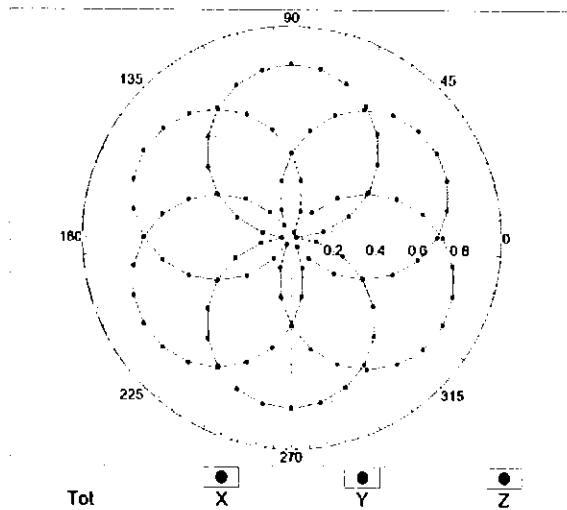
(TEM-Cell:ifi110 EXX, Waveguide: R22)



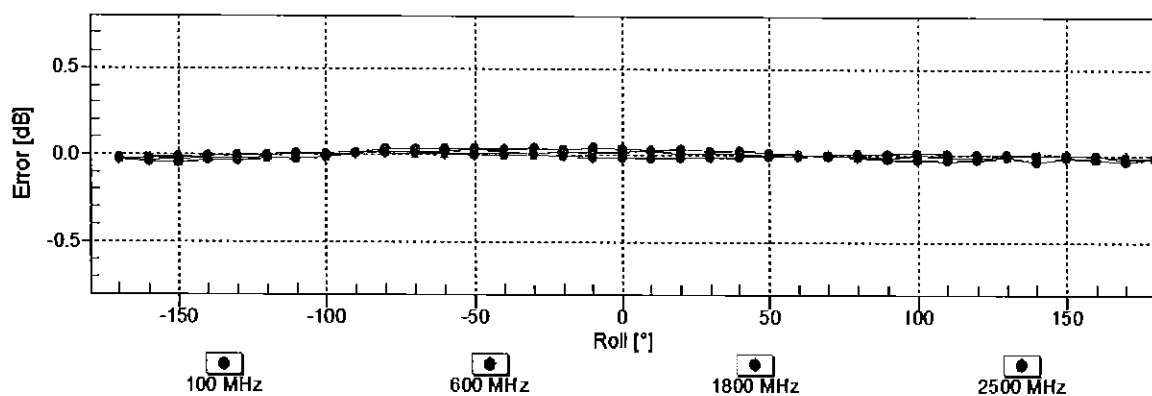
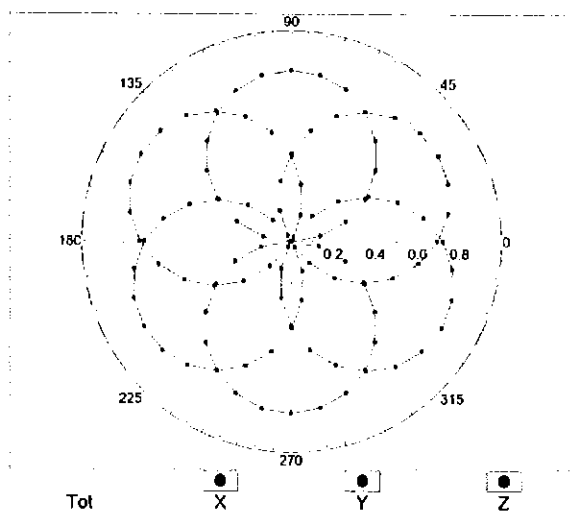
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz,TEM

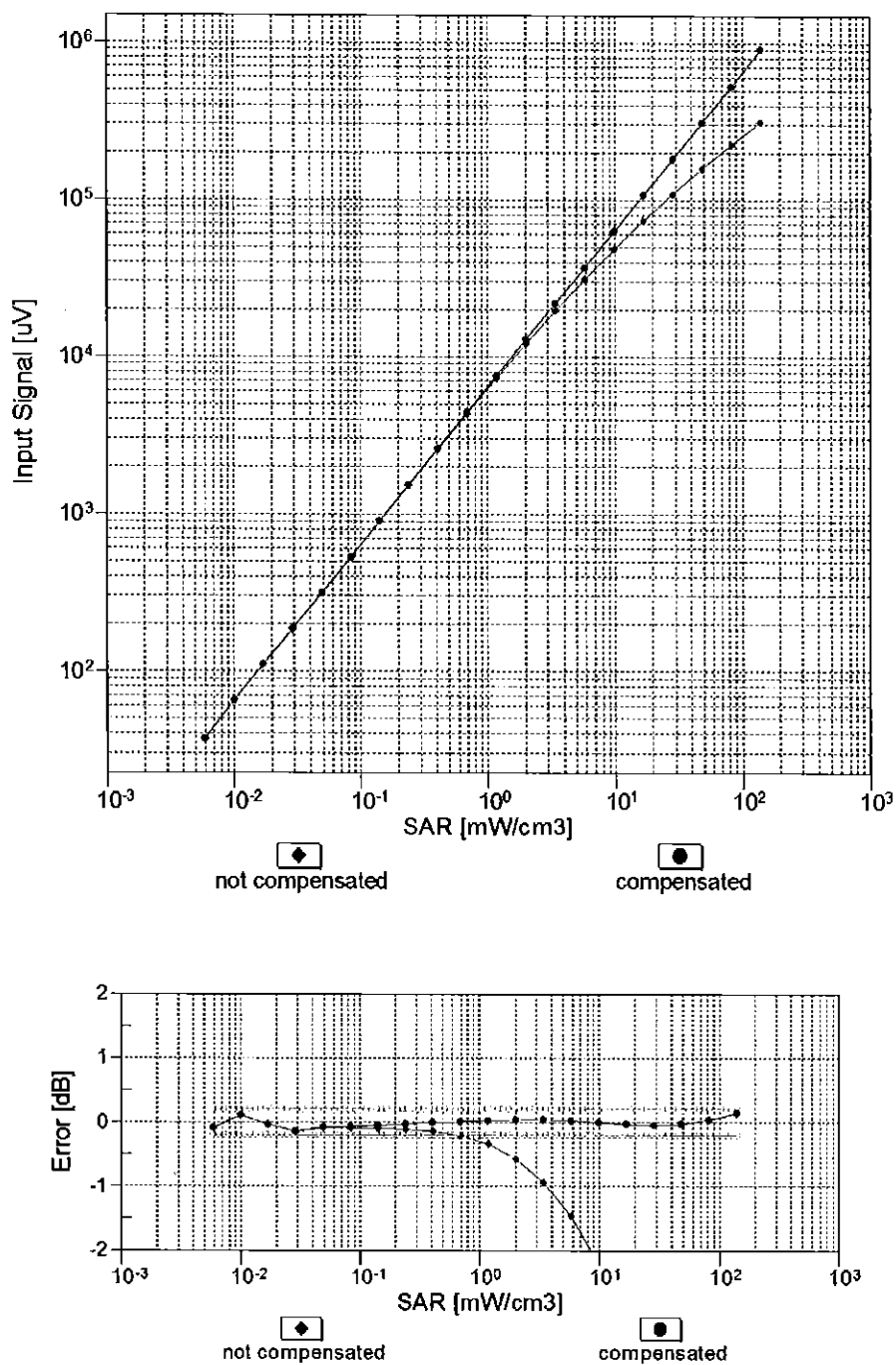


f=1800 MHz,R22



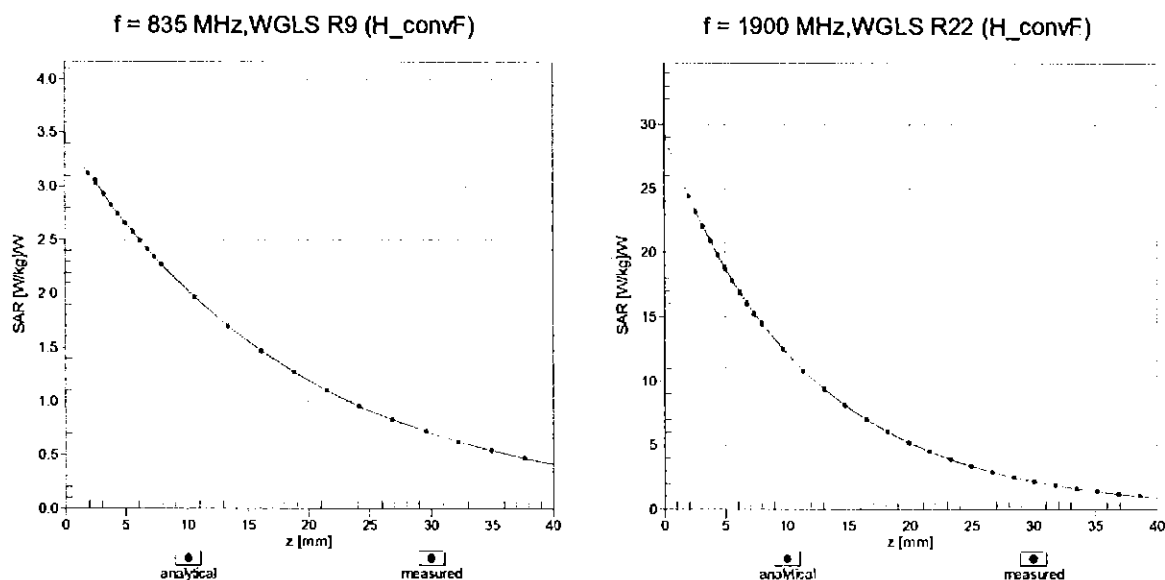
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$ )



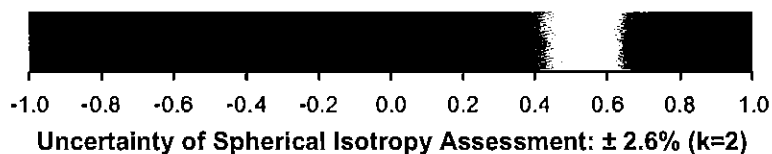
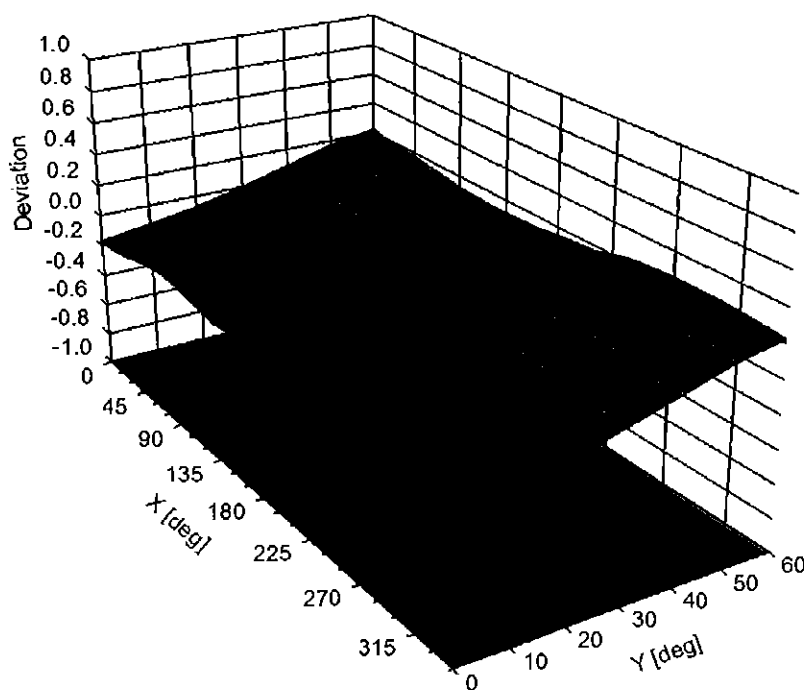
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: ES3DV2 - SN:3022

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 99.8       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB-μV | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00       | 1.00  | 0.00    | 193.8    | ± 3.8 %                          |
|               |                                               | Y | 0.00    | 0.00       | 1.00  |         | 198.4    |                                  |
|               |                                               | Z | 0.00    | 0.00       | 1.00  |         | 197.6    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 10.15   | 82.79      | 20.92 | 10.00   | 25.0     | ± 9.6 %                          |
|               |                                               | Y | 11.00   | 84.18      | 21.27 |         | 25.0     |                                  |
|               |                                               | Z | 13.18   | 87.26      | 22.28 |         | 25.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 1.07    | 67.65      | 15.42 | 0.00    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.03    | 66.95      | 15.00 |         | 150.0    |                                  |
|               |                                               | Z | 1.17    | 69.88      | 16.78 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.33    | 65.15      | 15.88 | 0.41    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 1.32    | 64.91      | 15.69 |         | 150.0    |                                  |
|               |                                               | Z | 1.37    | 66.00      | 16.53 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 5.13    | 67.46      | 17.58 | 1.46    | 150.0    | ± 9.6 %                          |
|               |                                               | Y | 5.10    | 67.43      | 17.52 |         | 150.0    |                                  |
|               |                                               | Z | 5.06    | 67.78      | 17.74 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 20.37   | 96.35      | 27.25 | 9.39    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 30.15   | 103.40     | 29.29 |         | 50.0     |                                  |
|               |                                               | Z | 41.77   | 109.26     | 30.88 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 18.09   | 94.11      | 26.57 | 9.57    | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 24.69   | 99.76      | 28.23 |         | 50.0     |                                  |
|               |                                               | Z | 31.82   | 104.38     | 29.52 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 121.09     | 32.13 | 6.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 120.92     | 31.95 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 121.26     | 32.02 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 16.64   | 101.52     | 38.86 | 12.57   | 50.0     | ± 9.6 %                          |
|               |                                               | Y | 14.30   | 96.85      | 36.79 |         | 50.0     |                                  |
|               |                                               | Z | 18.02   | 105.47     | 40.62 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 17.53   | 100.53     | 34.97 | 9.56    | 60.0     | ± 9.6 %                          |
|               |                                               | Y | 15.70   | 97.79      | 33.87 |         | 60.0     |                                  |
|               |                                               | Z | 18.78   | 103.59     | 36.29 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 119.96     | 30.61 | 4.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 119.86     | 30.47 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 120.68     | 30.80 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 120.21     | 29.86 | 3.55    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 120.13     | 29.75 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 121.64     | 30.39 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 12.10   | 92.41      | 31.01 | 7.80    | 80.0     | ± 9.6 %                          |
|               |                                               | Y | 11.04   | 90.30      | 30.11 |         | 80.0     |                                  |
|               |                                               | Z | 12.29   | 93.86      | 31.78 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 119.42     | 30.71 | 5.30    | 70.0     | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 119.20     | 30.51 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 119.69     | 30.67 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 121.29     | 28.69 | 1.88    | 100.0    | ± 9.6 %                          |
|               |                                               | Y | 100.00  | 120.94     | 28.48 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 124.18     | 29.88 |         | 100.0    |                                  |

|           |                                                     |   |        |        |        |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|--------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 125.86 | 29.49  | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 125.32 | 29.21  |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 131.58 | 31.85  |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 13.23  | 91.21  | 24.95  | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 14.63  | 92.92  | 25.38  |       | 70.0  |         |
|           |                                                     | Z | 19.17  | 97.16  | 26.47  |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 6.92   | 85.11  | 21.11  | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 7.14   | 85.43  | 21.05  |       | 100.0 |         |
|           |                                                     | Z | 15.27  | 95.64  | 23.84  |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 4.19   | 79.73  | 18.91  | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.08   | 79.31  | 18.60  |       | 100.0 |         |
|           |                                                     | Z | 8.20   | 88.56  | 21.33  |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 15.17  | 93.63  | 25.78  | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 17.34  | 95.89  | 26.37  |       | 70.0  |         |
|           |                                                     | Z | 23.43  | 100.60 | 27.54  |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 6.49   | 84.25  | 20.80  | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 6.58   | 84.34  | 20.67  |       | 100.0 |         |
|           |                                                     | Z | 12.88  | 93.39  | 23.18  |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 4.28   | 80.30  | 19.21  | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 4.18   | 79.89  | 18.90  |       | 100.0 |         |
|           |                                                     | Z | 8.48   | 89.36  | 21.70  |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 1.77   | 71.50  | 15.36  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.66   | 70.75  | 14.87  |       | 150.0 |         |
|           |                                                     | Z | 2.21   | 75.44  | 16.46  |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 48.24  | 108.61 | 29.02  | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 119.74 | 31.68  |       | 50.0  |         |
|           |                                                     | Z | 100.00 | 119.87 | 31.65  |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.01   | 105.78 | 1.57   | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.01   | 93.12  | 0.05   |       | 150.0 |         |
|           |                                                     | Z | 0.02   | 60.00  | 125.29 |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 11.48  | 83.66  | 24.77  | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 12.98  | 86.43  | 25.67  |       | 25.0  |         |
|           |                                                     | Z | 13.85  | 88.07  | 26.16  |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 13.59  | 88.34  | 25.05  | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 16.07  | 91.66  | 26.08  |       | 40.0  |         |
|           |                                                     | Z | 18.23  | 94.18  | 26.81  |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 12.43  | 86.66  | 24.58  | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 13.12  | 87.85  | 24.89  |       | 50.0  |         |
|           |                                                     | Z | 14.66  | 90.10  | 25.55  |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 9.05   | 86.84  | 28.23  | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 8.40   | 85.23  | 27.51  |       | 100.0 |         |
|           |                                                     | Z | 9.03   | 87.73  | 28.80  |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.51   | 67.27  | 16.92  | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.49   | 66.96  | 16.70  |       | 110.0 |         |
|           |                                                     | Z | 1.57   | 68.38  | 17.68  |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 131.76 | 34.11  | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 71.17  | 126.60 | 32.90  |       | 110.0 |         |
|           |                                                     | Z | 100.00 | 134.48 | 35.28  |       | 110.0 |         |

|           |                                                |   |       |        |       |      |       |         |
|-----------|------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 8.26  | 92.40  | 25.92 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 7.86  | 91.67  | 25.64 |      | 110.0 |         |
|           |                                                | Z | 13.05 | 101.28 | 28.90 |      | 110.0 |         |
| 10062-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.81  | 67.11  | 16.81 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.78  | 67.08  | 16.75 |      | 100.0 |         |
|           |                                                | Z | 4.74  | 67.40  | 16.96 |      | 100.0 |         |
| 10063-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 4.86  | 67.28  | 16.95 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.83  | 67.26  | 16.90 |      | 100.0 |         |
|           |                                                | Z | 4.78  | 67.59  | 17.10 |      | 100.0 |         |
| 10064-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.15  | 67.58  | 17.21 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.12  | 67.54  | 17.15 |      | 100.0 |         |
|           |                                                | Z | 5.05  | 67.83  | 17.33 |      | 100.0 |         |
| 10065-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 5.08  | 67.64  | 17.40 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.04  | 67.60  | 17.34 |      | 100.0 |         |
|           |                                                | Z | 4.98  | 67.88  | 17.52 |      | 100.0 |         |
| 10066-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 5.14  | 67.80  | 17.64 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.10  | 67.75  | 17.57 |      | 100.0 |         |
|           |                                                | Z | 5.04  | 68.03  | 17.76 |      | 100.0 |         |
| 10067-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.49  | 68.13  | 18.17 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.45  | 68.07  | 18.10 |      | 100.0 |         |
|           |                                                | Z | 5.40  | 68.44  | 18.33 |      | 100.0 |         |
| 10068-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.62  | 68.39  | 18.51 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.57  | 68.30  | 18.42 |      | 100.0 |         |
|           |                                                | Z | 5.50  | 68.59  | 18.61 |      | 100.0 |         |
| 10069-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.71  | 68.45  | 18.74 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.66  | 68.35  | 18.64 |      | 100.0 |         |
|           |                                                | Z | 5.60  | 68.69  | 18.85 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.29  | 67.74  | 17.99 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.26  | 67.69  | 17.92 |      | 100.0 |         |
|           |                                                | Z | 5.22  | 68.04  | 18.14 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.35  | 68.29  | 18.32 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.31  | 68.23  | 18.25 |      | 100.0 |         |
|           |                                                | Z | 5.28  | 68.58  | 18.48 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.52  | 68.74  | 18.79 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.47  | 68.65  | 18.71 |      | 100.0 |         |
|           |                                                | Z | 5.45  | 69.06  | 18.97 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.59  | 68.87  | 19.06 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.54  | 68.78  | 18.97 |      | 100.0 |         |
|           |                                                | Z | 5.53  | 69.22  | 19.24 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.75  | 69.32  | 19.54 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.69  | 69.19  | 19.42 |      | 90.0  |         |
|           |                                                | Z | 5.67  | 69.59  | 19.68 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.81  | 69.26  | 19.74 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.75  | 69.12  | 19.62 |      | 90.0  |         |
|           |                                                | Z | 5.75  | 69.59  | 19.91 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.86  | 69.39  | 19.87 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.80  | 69.25  | 19.74 |      | 90.0  |         |
|           |                                                | Z | 5.81  | 69.74  | 20.05 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 0.85   | 66.00  | 12.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.81   | 65.47  | 12.03 |      | 150.0 |         |
|           |                                                     | Z | 0.94   | 68.28  | 13.16 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 2.43   | 65.12  | 9.91  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 2.34   | 64.85  | 9.65  |      | 80.0  |         |
|           |                                                     | Z | 2.38   | 65.28  | 9.85  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 121.17 | 32.19 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 100.00 | 121.01 | 32.01 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 121.33 | 32.08 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 1.86   | 67.76  | 15.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.83   | 67.55  | 15.52 |      | 150.0 |         |
|           |                                                     | Z | 1.97   | 69.46  | 16.51 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 1.82   | 67.73  | 15.68 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.79   | 67.50  | 15.49 |      | 150.0 |         |
|           |                                                     | Z | 1.93   | 69.44  | 16.51 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 17.45  | 100.38 | 34.92 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 15.65  | 97.69  | 33.83 |      | 60.0  |         |
|           |                                                     | Z | 18.70  | 103.43 | 36.23 |      | 60.0  |         |
| 10100-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.14   | 70.27  | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.08   | 69.98  | 16.58 |      | 150.0 |         |
|           |                                                     | Z | 3.18   | 71.07  | 17.31 |      | 150.0 |         |
| 10101-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.27   | 67.60  | 16.02 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.24   | 67.45  | 15.92 |      | 150.0 |         |
|           |                                                     | Z | 3.25   | 67.98  | 16.32 |      | 150.0 |         |
| 10102-CAC | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.37   | 67.55  | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.34   | 67.44  | 16.01 |      | 150.0 |         |
|           |                                                     | Z | 3.35   | 67.93  | 16.39 |      | 150.0 |         |
| 10103-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 8.45   | 77.94  | 21.35 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.48   | 78.19  | 21.44 |      | 65.0  |         |
|           |                                                     | Z | 8.84   | 79.49  | 22.08 |      | 65.0  |         |
| 10104-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 8.46   | 76.71  | 21.64 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.36   | 76.61  | 21.55 |      | 65.0  |         |
|           |                                                     | Z | 8.48   | 77.41  | 21.99 |      | 65.0  |         |
| 10105-CAC | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 8.01   | 75.57  | 21.42 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.41   | 74.17  | 20.76 |      | 65.0  |         |
|           |                                                     | Z | 8.02   | 76.24  | 21.75 |      | 65.0  |         |
| 10108-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 2.75   | 69.57  | 16.59 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.69   | 69.29  | 16.42 |      | 150.0 |         |
|           |                                                     | Z | 2.77   | 70.47  | 17.20 |      | 150.0 |         |
| 10109-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 2.92   | 67.46  | 15.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.89   | 67.32  | 15.79 |      | 150.0 |         |
|           |                                                     | Z | 2.90   | 67.99  | 16.24 |      | 150.0 |         |
| 10110-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.24   | 68.78  | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.18   | 68.45  | 16.00 |      | 150.0 |         |
|           |                                                     | Z | 2.26   | 69.90  | 16.86 |      | 150.0 |         |
| 10111-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.62   | 68.17  | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.59   | 68.10  | 16.00 |      | 150.0 |         |
|           |                                                     | Z | 2.64   | 69.23  | 16.57 |      | 150.0 |         |

|           |                                                |   |      |       |       |      |       |         |
|-----------|------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10112-CAD | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.04 | 67.45 | 15.96 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.01 | 67.33 | 15.86 |      | 150.0 |         |
|           |                                                | Z | 3.02 | 67.99 | 16.29 |      | 150.0 |         |
| 10113-CAD | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 2.77 | 68.30 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.74 | 68.27 | 16.14 |      | 150.0 |         |
|           |                                                | Z | 2.78 | 69.35 | 16.67 |      | 150.0 |         |
| 10114-CAB | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.20 | 67.44 | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.18 | 67.41 | 16.58 |      | 150.0 |         |
|           |                                                | Z | 5.11 | 67.54 | 16.73 |      | 150.0 |         |
| 10115-CAB | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.49 | 67.57 | 16.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.45 | 67.52 | 16.64 |      | 150.0 |         |
|           |                                                | Z | 5.37 | 67.63 | 16.78 |      | 150.0 |         |
| 10116-CAB | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.29 | 67.63 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.26 | 67.58 | 16.59 |      | 150.0 |         |
|           |                                                | Z | 5.20 | 67.76 | 16.77 |      | 150.0 |         |
| 10117-CAB | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.15 | 67.25 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.13 | 67.22 | 16.50 |      | 150.0 |         |
|           |                                                | Z | 5.10 | 67.48 | 16.72 |      | 150.0 |         |
| 10118-CAB | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.59 | 67.86 | 16.86 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.55 | 67.77 | 16.78 |      | 150.0 |         |
|           |                                                | Z | 5.46 | 67.90 | 16.92 |      | 150.0 |         |
| 10119-CAB | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.28 | 67.60 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.25 | 67.56 | 16.60 |      | 150.0 |         |
|           |                                                | Z | 5.20 | 67.76 | 16.78 |      | 150.0 |         |
| 10140-CAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.41 | 67.57 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.37 | 67.45 | 15.93 |      | 150.0 |         |
|           |                                                | Z | 3.38 | 67.96 | 16.31 |      | 150.0 |         |
| 10141-CAC | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.53 | 67.66 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.50 | 67.56 | 16.11 |      | 150.0 |         |
|           |                                                | Z | 3.50 | 68.06 | 16.47 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 2.01 | 68.74 | 15.81 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.95 | 68.39 | 15.56 |      | 150.0 |         |
|           |                                                | Z | 2.05 | 70.20 | 16.46 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.46 | 68.78 | 15.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.42 | 68.70 | 15.55 |      | 150.0 |         |
|           |                                                | Z | 2.52 | 70.18 | 16.10 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.25 | 66.70 | 14.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.20 | 66.47 | 13.95 |      | 150.0 |         |
|           |                                                | Z | 2.19 | 67.27 | 14.16 |      | 150.0 |         |
| 10145-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.20 | 64.86 | 11.51 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.14 | 64.37 | 11.05 |      | 150.0 |         |
|           |                                                | Z | 1.05 | 64.17 | 10.40 |      | 150.0 |         |
| 10146-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 2.15 | 67.51 | 12.50 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.81 | 65.51 | 11.14 |      | 150.0 |         |
|           |                                                | Z | 1.50 | 63.99 | 9.68  |      | 150.0 |         |
| 10147-CAD | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 2.58 | 69.81 | 13.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.07 | 67.09 | 12.05 |      | 150.0 |         |
|           |                                                | Z | 1.67 | 65.16 | 10.38 |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 2.93 | 67.51 | 15.95 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.89 | 67.37 | 15.84 |      | 150.0 |         |
|           |                                            | Z | 2.91 | 68.06 | 16.29 |      | 150.0 |         |
| 10150-CAC | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.05 | 67.49 | 16.00 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.02 | 67.39 | 15.90 |      | 150.0 |         |
|           |                                            | Z | 3.03 | 68.05 | 16.33 |      | 150.0 |         |
| 10151-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 9.08 | 80.52 | 22.42 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 9.13 | 80.81 | 22.51 |      | 65.0  |         |
|           |                                            | Z | 9.76 | 82.67 | 23.33 |      | 65.0  |         |
| 10152-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 8.07 | 76.89 | 21.41 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 7.96 | 76.76 | 21.29 |      | 65.0  |         |
|           |                                            | Z | 8.13 | 77.71 | 21.72 |      | 65.0  |         |
| 10153-CAC | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 8.46 | 77.69 | 22.06 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.40 | 77.70 | 22.02 |      | 65.0  |         |
|           |                                            | Z | 8.58 | 78.68 | 22.44 |      | 65.0  |         |
| 10154-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.28 | 69.12 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.23 | 68.81 | 16.23 |      | 150.0 |         |
|           |                                            | Z | 2.30 | 70.27 | 17.09 |      | 150.0 |         |
| 10155-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.62 | 68.18 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.59 | 68.12 | 16.02 |      | 150.0 |         |
|           |                                            | Z | 2.64 | 69.26 | 16.59 |      | 150.0 |         |
| 10156-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 1.85 | 68.75 | 15.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.78 | 68.36 | 15.25 |      | 150.0 |         |
|           |                                            | Z | 1.89 | 70.32 | 16.14 |      | 150.0 |         |
| 10157-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.08 | 67.19 | 14.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.03 | 66.92 | 13.89 |      | 150.0 |         |
|           |                                            | Z | 2.04 | 67.88 | 14.11 |      | 150.0 |         |
| 10158-CAD | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 2.77 | 68.35 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.74 | 68.33 | 16.19 |      | 150.0 |         |
|           |                                            | Z | 2.79 | 69.42 | 16.72 |      | 150.0 |         |
| 10159-CAD | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.17 | 67.54 | 14.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.12 | 67.30 | 14.13 |      | 150.0 |         |
|           |                                            | Z | 2.13 | 68.22 | 14.31 |      | 150.0 |         |
| 10160-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 2.81 | 68.96 | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.76 | 68.74 | 16.34 |      | 150.0 |         |
|           |                                            | Z | 2.82 | 69.86 | 17.03 |      | 150.0 |         |
| 10161-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 2.94 | 67.43 | 15.92 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.91 | 67.33 | 15.82 |      | 150.0 |         |
|           |                                            | Z | 2.92 | 68.05 | 16.24 |      | 150.0 |         |
| 10162-CAC | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.05 | 67.59 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.02 | 67.50 | 15.94 |      | 150.0 |         |
|           |                                            | Z | 3.03 | 68.24 | 16.36 |      | 150.0 |         |
| 10166-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 3.71 | 70.07 | 19.58 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.58 | 69.54 | 19.20 |      | 150.0 |         |
|           |                                            | Z | 3.50 | 70.06 | 19.64 |      | 150.0 |         |
| 10167-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 4.56 | 72.95 | 20.02 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.33 | 72.21 | 19.56 |      | 150.0 |         |
|           |                                            | Z | 4.27 | 73.08 | 20.12 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAD | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 4.99  | 74.96  | 21.22 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.79  | 74.43  | 20.89 |      | 150.0 |         |
|           |                                            | Z | 4.73  | 75.38  | 21.47 |      | 150.0 |         |
| 10169-CAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 3.13  | 69.41  | 19.31 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.99  | 68.61  | 18.78 |      | 150.0 |         |
|           |                                            | Z | 2.92  | 68.79  | 19.07 |      | 150.0 |         |
| 10170-CAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 4.17  | 74.56  | 21.28 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.92  | 73.66  | 20.79 |      | 150.0 |         |
|           |                                            | Z | 3.82  | 73.97  | 21.12 |      | 150.0 |         |
| 10171-AAC | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 3.57  | 71.25  | 18.95 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.32  | 70.13  | 18.28 |      | 150.0 |         |
|           |                                            | Z | 3.27  | 70.64  | 18.73 |      | 150.0 |         |
| 10172-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 17.56 | 100.63 | 31.42 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 14.98 | 97.57  | 30.29 |      | 65.0  |         |
|           |                                            | Z | 16.82 | 101.42 | 31.85 |      | 65.0  |         |
| 10173-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 21.78 | 100.59 | 29.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 20.29 | 99.47  | 29.30 |      | 65.0  |         |
|           |                                            | Z | 24.24 | 104.02 | 30.87 |      | 65.0  |         |
| 10174-CAC | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 17.68 | 95.76  | 27.82 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 16.71 | 94.95  | 27.43 |      | 65.0  |         |
|           |                                            | Z | 18.60 | 98.14  | 28.62 |      | 65.0  |         |
| 10175-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 3.11  | 69.16  | 19.10 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.96  | 68.35  | 18.55 |      | 150.0 |         |
|           |                                            | Z | 2.90  | 68.55  | 18.86 |      | 150.0 |         |
| 10176-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 4.17  | 74.58  | 21.29 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.93  | 73.68  | 20.80 |      | 150.0 |         |
|           |                                            | Z | 3.83  | 73.99  | 21.13 |      | 150.0 |         |
| 10177-CAF | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 3.13  | 69.28  | 19.17 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.98  | 68.47  | 18.64 |      | 150.0 |         |
|           |                                            | Z | 2.92  | 68.66  | 18.93 |      | 150.0 |         |
| 10178-CAD | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 4.14  | 74.42  | 21.20 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.90  | 73.51  | 20.70 |      | 150.0 |         |
|           |                                            | Z | 3.81  | 73.86  | 21.06 |      | 150.0 |         |
| 10179-CAD | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 3.85  | 72.86  | 20.02 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.60  | 71.81  | 19.42 |      | 150.0 |         |
|           |                                            | Z | 3.53  | 72.27  | 19.84 |      | 150.0 |         |
| 10180-CAD | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 3.56  | 71.20  | 18.91 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.32  | 70.08  | 18.24 |      | 150.0 |         |
|           |                                            | Z | 3.27  | 70.61  | 18.70 |      | 150.0 |         |
| 10181-CAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 3.12  | 69.26  | 19.17 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.97  | 68.46  | 18.63 |      | 150.0 |         |
|           |                                            | Z | 2.91  | 68.64  | 18.92 |      | 150.0 |         |
| 10182-CAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 4.14  | 74.40  | 21.19 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.89  | 73.49  | 20.69 |      | 150.0 |         |
|           |                                            | Z | 3.80  | 73.84  | 21.05 |      | 150.0 |         |
| 10183-AAB | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 3.56  | 71.18  | 18.90 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.31  | 70.05  | 18.23 |      | 150.0 |         |
|           |                                            | Z | 3.26  | 70.58  | 18.69 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 3.13 | 69.30 | 19.18 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.98 | 68.50 | 18.65 |      | 150.0 |         |
|           |                                               | Z | 2.92 | 68.68 | 18.94 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 4.15 | 74.46 | 21.23 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.91 | 73.55 | 20.73 |      | 150.0 |         |
|           |                                               | Z | 3.82 | 73.90 | 21.08 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 3.57 | 71.24 | 18.93 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.32 | 70.11 | 18.27 |      | 150.0 |         |
|           |                                               | Z | 3.27 | 70.64 | 18.72 |      | 150.0 |         |
| 10187-CAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 3.14 | 69.35 | 19.25 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 2.99 | 68.55 | 18.71 |      | 150.0 |         |
|           |                                               | Z | 2.93 | 68.74 | 19.01 |      | 150.0 |         |
| 10188-CAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 4.25 | 74.96 | 21.53 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.01 | 74.10 | 21.06 |      | 150.0 |         |
|           |                                               | Z | 3.90 | 74.38 | 21.38 |      | 150.0 |         |
| 10189-AAD | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 3.64 | 71.59 | 19.17 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.39 | 70.47 | 18.51 |      | 150.0 |         |
|           |                                               | Z | 3.33 | 70.98 | 18.95 |      | 150.0 |         |
| 10193-CAB | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.56 | 66.78 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.54 | 66.76 | 16.21 |      | 150.0 |         |
|           |                                               | Z | 4.49 | 67.10 | 16.41 |      | 150.0 |         |
| 10194-CAB | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.73 | 67.09 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.70 | 67.06 | 16.34 |      | 150.0 |         |
|           |                                               | Z | 4.65 | 67.36 | 16.55 |      | 150.0 |         |
| 10195-CAB | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.77 | 67.12 | 16.42 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.74 | 67.09 | 16.36 |      | 150.0 |         |
|           |                                               | Z | 4.68 | 67.39 | 16.57 |      | 150.0 |         |
| 10196-CAB | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.56 | 66.84 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.54 | 66.81 | 16.22 |      | 150.0 |         |
|           |                                               | Z | 4.48 | 67.12 | 16.42 |      | 150.0 |         |
| 10197-CAB | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.74 | 67.11 | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.71 | 67.08 | 16.35 |      | 150.0 |         |
|           |                                               | Z | 4.66 | 67.37 | 16.56 |      | 150.0 |         |
| 10198-CAB | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.77 | 67.14 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.74 | 67.11 | 16.37 |      | 150.0 |         |
|           |                                               | Z | 4.68 | 67.40 | 16.58 |      | 150.0 |         |
| 10219-CAB | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.51 | 66.85 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.48 | 66.82 | 16.18 |      | 150.0 |         |
|           |                                               | Z | 4.44 | 67.15 | 16.39 |      | 150.0 |         |
| 10220-CAB | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.74 | 67.08 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.71 | 67.05 | 16.34 |      | 150.0 |         |
|           |                                               | Z | 4.65 | 67.33 | 16.55 |      | 150.0 |         |
| 10221-CAB | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.78 | 67.07 | 16.41 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.75 | 67.04 | 16.36 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 67.33 | 16.56 |      | 150.0 |         |
| 10222-CAB | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.13 | 67.26 | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.10 | 67.22 | 16.49 |      | 150.0 |         |
|           |                                               | Z | 5.06 | 67.45 | 16.69 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAB | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.46  | 67.58  | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.43  | 67.54  | 16.68 |      | 150.0 |         |
|           |                                           | Z | 5.36  | 67.71  | 16.84 |      | 150.0 |         |
| 10224-CAB | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.17  | 67.37  | 16.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.15  | 67.33  | 16.48 |      | 150.0 |         |
|           |                                           | Z | 5.10  | 67.55  | 16.67 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 2.82  | 66.24  | 15.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.79  | 66.17  | 15.23 |      | 150.0 |         |
|           |                                           | Z | 2.78  | 66.79  | 15.47 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 22.77 | 101.50 | 30.12 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 21.41 | 100.55 | 29.70 |      | 65.0  |         |
|           |                                           | Z | 25.66 | 105.18 | 31.28 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 20.66 | 98.55  | 28.73 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 19.77 | 97.95  | 28.42 |      | 65.0  |         |
|           |                                           | Z | 23.57 | 102.34 | 29.92 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 21.73 | 105.25 | 32.91 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.56 | 102.16 | 31.81 |      | 65.0  |         |
|           |                                           | Z | 22.09 | 107.23 | 33.68 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 21.82 | 100.60 | 29.79 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.36 | 99.51  | 29.32 |      | 65.0  |         |
|           |                                           | Z | 24.28 | 104.03 | 30.88 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 19.85 | 97.78  | 28.44 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.83 | 97.02  | 28.07 |      | 65.0  |         |
|           |                                           | Z | 22.32 | 101.31 | 29.56 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 20.80 | 104.28 | 32.55 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 17.68 | 101.10 | 31.41 |      | 65.0  |         |
|           |                                           | Z | 20.96 | 106.07 | 33.27 |      | 65.0  |         |
| 10232-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 21.80 | 100.60 | 29.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.34 | 99.50  | 29.31 |      | 65.0  |         |
|           |                                           | Z | 24.27 | 104.04 | 30.88 |      | 65.0  |         |
| 10233-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 19.85 | 97.78  | 28.44 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.81 | 97.01  | 28.07 |      | 65.0  |         |
|           |                                           | Z | 22.30 | 101.30 | 29.56 |      | 65.0  |         |
| 10234-CAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 19.96 | 103.30 | 32.16 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 16.93 | 100.08 | 31.00 |      | 65.0  |         |
|           |                                           | Z | 20.02 | 104.97 | 32.84 |      | 65.0  |         |
| 10235-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 21.86 | 100.65 | 29.80 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.38 | 99.55  | 29.33 |      | 65.0  |         |
|           |                                           | Z | 24.35 | 104.11 | 30.91 |      | 65.0  |         |
| 10236-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 20.00 | 97.89  | 28.47 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.96 | 97.12  | 28.10 |      | 65.0  |         |
|           |                                           | Z | 22.51 | 101.44 | 29.59 |      | 65.0  |         |
| 10237-CAC | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 20.93 | 104.44 | 32.60 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 17.76 | 101.22 | 31.45 |      | 65.0  |         |
|           |                                           | Z | 21.10 | 106.24 | 33.32 |      | 65.0  |         |
| 10238-CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 21.80 | 100.60 | 29.78 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.32 | 99.50  | 29.31 |      | 65.0  |         |
|           |                                           | Z | 24.27 | 104.04 | 30.88 |      | 65.0  |         |

|           |                                            |   |       |        |       |      |      |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|------|---------|
| 10239-CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 19.83 | 97.78  | 28.45 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 18.79 | 97.00  | 28.07 |      | 65.0 |         |
|           |                                            | Z | 22.28 | 101.30 | 29.56 |      | 65.0 |         |
| 10240-CAC | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 20.88 | 104.40 | 32.59 | 6.02 | 65.0 | ± 9.6 % |
|           |                                            | Y | 17.72 | 101.18 | 31.44 |      | 65.0 |         |
|           |                                            | Z | 21.06 | 106.20 | 33.31 |      | 65.0 |         |
| 10241-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 12.24 | 87.14  | 27.71 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 11.66 | 86.26  | 27.23 |      | 65.0 |         |
|           |                                            | Z | 12.84 | 89.53  | 28.59 |      | 65.0 |         |
| 10242-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 11.23 | 85.25  | 26.91 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 10.73 | 84.46  | 26.46 |      | 65.0 |         |
|           |                                            | Z | 11.65 | 87.43  | 27.73 |      | 65.0 |         |
| 10243-CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 9.26  | 82.71  | 26.82 | 6.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.77  | 81.59  | 26.19 |      | 65.0 |         |
|           |                                            | Z | 9.38  | 84.29  | 27.48 |      | 65.0 |         |
| 10244-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)   | X | 8.43  | 78.33  | 19.80 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.13  | 77.78  | 19.35 |      | 65.0 |         |
|           |                                            | Z | 7.78  | 77.16  | 18.63 |      | 65.0 |         |
| 10245-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)   | X | 8.24  | 77.75  | 19.52 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.93  | 77.16  | 19.05 |      | 65.0 |         |
|           |                                            | Z | 7.52  | 76.42  | 18.28 |      | 65.0 |         |
| 10246-CAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)     | X | 8.27  | 80.82  | 20.82 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.37  | 81.12  | 20.81 |      | 65.0 |         |
|           |                                            | Z | 8.70  | 81.90  | 20.78 |      | 65.0 |         |
| 10247-CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 7.26  | 76.56  | 19.69 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.23  | 76.62  | 19.60 |      | 65.0 |         |
|           |                                            | Z | 7.23  | 76.89  | 19.40 |      | 65.0 |         |
| 10248-CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 7.22  | 76.08  | 19.48 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.14  | 76.02  | 19.34 |      | 65.0 |         |
|           |                                            | Z | 7.07  | 76.17  | 19.09 |      | 65.0 |         |
| 10249-CAC | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 9.57  | 83.59  | 22.64 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.80  | 84.14  | 22.75 |      | 65.0 |         |
|           |                                            | Z | 10.88 | 86.27  | 23.34 |      | 65.0 |         |
| 10250-CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 8.32  | 79.09  | 22.19 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.34  | 79.30  | 22.22 |      | 65.0 |         |
|           |                                            | Z | 8.61  | 80.36  | 22.55 |      | 65.0 |         |
| 10251-CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 7.92  | 77.18  | 21.13 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.83  | 77.10  | 21.02 |      | 65.0 |         |
|           |                                            | Z | 7.98  | 77.95  | 21.27 |      | 65.0 |         |
| 10252-CAC | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 9.71  | 83.44  | 23.44 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 9.86  | 83.90  | 23.57 |      | 65.0 |         |
|           |                                            | Z | 10.97 | 86.45  | 24.51 |      | 65.0 |         |
| 10253-CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 7.91  | 76.41  | 21.19 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 7.81  | 76.30  | 21.07 |      | 65.0 |         |
|           |                                            | Z | 7.99  | 77.25  | 21.46 |      | 65.0 |         |
| 10254-CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 8.29  | 77.17  | 21.78 | 3.98 | 65.0 | ± 9.6 % |
|           |                                            | Y | 8.22  | 77.16  | 21.71 |      | 65.0 |         |
|           |                                            | Z | 8.39  | 78.10  | 22.09 |      | 65.0 |         |

|           |                                             |   |       |       |       |      |      |         |
|-----------|---------------------------------------------|---|-------|-------|-------|------|------|---------|
| 10255-CAC | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | X | 8.83  | 80.22 | 22.48 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.85  | 80.45 | 22.54 |      | 65.0 |         |
|           |                                             | Z | 9.46  | 82.31 | 23.33 |      | 65.0 |         |
| 10256-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | X | 7.10  | 75.22 | 17.68 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.68  | 74.31 | 17.02 |      | 65.0 |         |
|           |                                             | Z | 6.06  | 72.93 | 15.89 |      | 65.0 |         |
| 10257-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | X | 6.89  | 74.46 | 17.27 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.47  | 73.52 | 16.59 |      | 65.0 |         |
|           |                                             | Z | 5.82  | 72.04 | 15.40 |      | 65.0 |         |
| 10258-CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | X | 6.67  | 76.86 | 18.56 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 6.60  | 76.76 | 18.36 |      | 65.0 |         |
|           |                                             | Z | 6.32  | 76.16 | 17.69 |      | 65.0 |         |
| 10259-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | X | 7.69  | 77.52 | 20.59 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.67  | 77.62 | 20.54 |      | 65.0 |         |
|           |                                             | Z | 7.79  | 78.24 | 20.55 |      | 65.0 |         |
| 10260-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | X | 7.68  | 77.21 | 20.48 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.65  | 77.29 | 20.41 |      | 65.0 |         |
|           |                                             | Z | 7.72  | 77.81 | 20.37 |      | 65.0 |         |
| 10261-CAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | X | 9.27  | 82.88 | 22.74 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.41  | 83.32 | 22.83 |      | 65.0 |         |
|           |                                             | Z | 10.41 | 85.52 | 23.51 |      | 65.0 |         |
| 10262-CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | X | 8.31  | 79.04 | 22.15 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.32  | 79.24 | 22.17 |      | 65.0 |         |
|           |                                             | Z | 8.58  | 80.29 | 22.51 |      | 65.0 |         |
| 10263-CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | X | 7.91  | 77.16 | 21.13 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.82  | 77.08 | 21.01 |      | 65.0 |         |
|           |                                             | Z | 7.96  | 77.93 | 21.26 |      | 65.0 |         |
| 10264-CAC | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | X | 9.64  | 83.29 | 23.36 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.78  | 83.73 | 23.49 |      | 65.0 |         |
|           |                                             | Z | 10.86 | 86.24 | 24.42 |      | 65.0 |         |
| 10265-CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | X | 8.07  | 76.89 | 21.41 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 7.96  | 76.76 | 21.30 |      | 65.0 |         |
|           |                                             | Z | 8.13  | 77.71 | 21.73 |      | 65.0 |         |
| 10266-CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | X | 8.46  | 77.69 | 22.06 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.39  | 77.69 | 22.01 |      | 65.0 |         |
|           |                                             | Z | 8.58  | 78.67 | 22.44 |      | 65.0 |         |
| 10267-CAC | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | X | 9.07  | 80.49 | 22.41 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 9.12  | 80.78 | 22.50 |      | 65.0 |         |
|           |                                             | Z | 9.74  | 82.63 | 23.31 |      | 65.0 |         |
| 10268-CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | X | 8.57  | 76.52 | 21.67 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.48  | 76.44 | 21.59 |      | 65.0 |         |
|           |                                             | Z | 8.59  | 77.23 | 22.00 |      | 65.0 |         |
| 10269-CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | X | 8.52  | 76.15 | 21.57 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.43  | 76.06 | 21.48 |      | 65.0 |         |
|           |                                             | Z | 8.53  | 76.82 | 21.88 |      | 65.0 |         |
| 10270-CAC | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | X | 8.64  | 77.89 | 21.55 | 3.98 | 65.0 | ± 9.6 % |
|           |                                             | Y | 8.64  | 78.05 | 21.60 |      | 65.0 |         |
|           |                                             | Z | 8.94  | 79.27 | 22.20 |      | 65.0 |         |

|           |                                                                    |   |       |       |       |      |       |         |
|-----------|--------------------------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10274-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)                          | X | 2.62  | 66.64 | 15.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.59  | 66.55 | 15.16 |      | 150.0 |         |
|           |                                                                    | Z | 2.63  | 67.50 | 15.60 |      | 150.0 |         |
| 10275-CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)                           | X | 1.64  | 68.06 | 15.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.60  | 67.63 | 15.35 |      | 150.0 |         |
|           |                                                                    | Z | 1.73  | 69.70 | 16.54 |      | 150.0 |         |
| 10277-CAA | PHS (QPSK)                                                         | X | 5.88  | 70.18 | 14.54 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 5.68  | 69.81 | 14.16 |      | 50.0  |         |
|           |                                                                    | Z | 5.54  | 69.69 | 13.87 |      | 50.0  |         |
| 10278-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)                                 | X | 8.18  | 77.17 | 19.59 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 8.15  | 77.23 | 19.44 |      | 50.0  |         |
|           |                                                                    | Z | 7.72  | 76.23 | 18.65 |      | 50.0  |         |
| 10279-CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)                                | X | 8.28  | 77.30 | 19.66 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 8.23  | 77.33 | 19.50 |      | 50.0  |         |
|           |                                                                    | Z | 7.77  | 76.29 | 18.70 |      | 50.0  |         |
| 10290-AAB | CDMA2000, RC1, SO55, Full Rate                                     | X | 1.42  | 68.46 | 13.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.34  | 67.80 | 13.24 |      | 150.0 |         |
|           |                                                                    | Z | 1.48  | 70.09 | 13.96 |      | 150.0 |         |
| 10291-AAB | CDMA2000, RC3, SO55, Full Rate                                     | X | 0.84  | 65.79 | 12.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 0.80  | 65.28 | 11.91 |      | 150.0 |         |
|           |                                                                    | Z | 0.91  | 67.95 | 12.99 |      | 150.0 |         |
| 10292-AAB | CDMA2000, RC3, SO32, Full Rate                                     | X | 1.07  | 69.90 | 14.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.00  | 69.07 | 14.17 |      | 150.0 |         |
|           |                                                                    | Z | 1.74  | 77.32 | 17.34 |      | 150.0 |         |
| 10293-AAB | CDMA2000, RC3, SO3, Full Rate                                      | X | 1.62  | 75.91 | 17.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.53  | 75.09 | 17.23 |      | 150.0 |         |
|           |                                                                    | Z | 7.44  | 97.52 | 24.35 |      | 150.0 |         |
| 10295-AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.                              | X | 12.04 | 85.34 | 24.52 | 9.03 | 50.0  | ± 9.6 % |
|           |                                                                    | Y | 12.55 | 86.23 | 24.70 |      | 50.0  |         |
|           |                                                                    | Z | 15.64 | 90.11 | 25.74 |      | 50.0  |         |
| 10297-AAB | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)                            | X | 2.76  | 69.66 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.70  | 69.38 | 16.48 |      | 150.0 |         |
|           |                                                                    | Z | 2.78  | 70.57 | 17.27 |      | 150.0 |         |
| 10298-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)                             | X | 1.54  | 67.45 | 13.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.47  | 66.96 | 13.48 |      | 150.0 |         |
|           |                                                                    | Z | 1.50  | 68.20 | 13.78 |      | 150.0 |         |
| 10299-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)                           | X | 2.88  | 70.95 | 15.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 2.48  | 68.96 | 13.86 |      | 150.0 |         |
|           |                                                                    | Z | 2.31  | 68.66 | 13.20 |      | 150.0 |         |
| 10300-AAC | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                           | X | 2.10  | 65.97 | 12.01 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                    | Y | 1.89  | 64.80 | 11.10 |      | 150.0 |         |
|           |                                                                    | Z | 1.66  | 64.02 | 10.16 |      | 150.0 |         |
| 10301-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                 | X | 5.92  | 69.22 | 19.15 | 4.17 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 5.77  | 68.82 | 18.86 |      | 80.0  |         |
|           |                                                                    | Z | 6.22  | 71.21 | 20.04 |      | 80.0  |         |
| 10302-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols) | X | 6.47  | 70.15 | 20.09 | 4.96 | 80.0  | ± 9.6 % |
|           |                                                                    | Y | 6.20  | 69.19 | 19.48 |      | 80.0  |         |
|           |                                                                    | Z | 6.39  | 70.50 | 20.11 |      | 80.0  |         |

|           |                                                                     |   |       |       |       |       |       |         |
|-----------|---------------------------------------------------------------------|---|-------|-------|-------|-------|-------|---------|
| 10303-AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                 | X | 6.36  | 70.32 | 20.16 | 4.96  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 6.06  | 69.23 | 19.48 |       | 80.0  |         |
|           |                                                                     | Z | 6.28  | 70.68 | 20.15 |       | 80.0  |         |
| 10304-AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                 | X | 5.91  | 69.37 | 19.22 | 4.17  | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.68  | 68.51 | 18.68 |       | 80.0  |         |
|           |                                                                     | Z | 5.86  | 69.83 | 19.29 |       | 80.0  |         |
| 10305-AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)    | X | 16.21 | 94.41 | 30.34 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 11.60 | 86.75 | 27.25 |       | 50.0  |         |
|           |                                                                     | Z | 18.29 | 96.43 | 30.39 |       | 50.0  |         |
| 10306-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)    | X | 7.35  | 74.65 | 22.62 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 7.81  | 77.09 | 23.87 |       | 50.0  |         |
|           |                                                                     | Z | 9.06  | 81.01 | 25.42 |       | 50.0  |         |
| 10307-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)     | X | 9.57  | 82.17 | 26.08 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 8.26  | 78.63 | 24.33 |       | 50.0  |         |
|           |                                                                     | Z | 9.84  | 83.01 | 26.02 |       | 50.0  |         |
| 10308-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                | X | 10.14 | 83.68 | 26.69 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 8.59  | 79.71 | 24.79 |       | 50.0  |         |
|           |                                                                     | Z | 10.51 | 84.66 | 26.67 |       | 50.0  |         |
| 10309-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols) | X | 7.46  | 74.98 | 22.81 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 7.92  | 77.40 | 24.04 |       | 50.0  |         |
|           |                                                                     | Z | 9.17  | 81.30 | 25.60 |       | 50.0  |         |
| 10310-AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)  | X | 9.11  | 80.95 | 25.70 | 6.02  | 50.0  | ± 9.6 % |
|           |                                                                     | Y | 8.00  | 77.79 | 24.08 |       | 50.0  |         |
|           |                                                                     | Z | 9.43  | 82.00 | 25.74 |       | 50.0  |         |
| 10311-AAB | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                            | X | 3.11  | 68.90 | 16.27 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 3.06  | 68.65 | 16.14 |       | 150.0 |         |
|           |                                                                     | Z | 3.14  | 69.68 | 16.83 |       | 150.0 |         |
| 10313-AAA | iDEN 1:3                                                            | X | 7.89  | 79.50 | 19.60 | 6.99  | 70.0  | ± 9.6 % |
|           |                                                                     | Y | 8.11  | 80.06 | 19.75 |       | 70.0  |         |
|           |                                                                     | Z | 9.64  | 83.11 | 20.94 |       | 70.0  |         |
| 10314-AAA | iDEN 1:6                                                            | X | 9.33  | 83.91 | 23.59 | 10.00 | 30.0  | ± 9.6 % |
|           |                                                                     | Y | 10.37 | 86.04 | 24.32 |       | 30.0  |         |
|           |                                                                     | Z | 12.43 | 89.77 | 25.69 |       | 30.0  |         |
| 10315-AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)           | X | 1.19  | 64.61 | 15.58 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 1.18  | 64.40 | 15.40 |       | 150.0 |         |
|           |                                                                     | Z | 1.23  | 65.52 | 16.28 |       | 150.0 |         |
| 10316-AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)       | X | 4.68  | 67.02 | 16.52 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.65  | 66.98 | 16.46 |       | 150.0 |         |
|           |                                                                     | Z | 4.60  | 67.30 | 16.67 |       | 150.0 |         |
| 10317-AAB | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)             | X | 4.68  | 67.02 | 16.52 | 0.17  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.65  | 66.98 | 16.46 |       | 150.0 |         |
|           |                                                                     | Z | 4.60  | 67.30 | 16.67 |       | 150.0 |         |
| 10400-AAC | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                 | X | 4.72  | 67.17 | 16.41 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.69  | 67.12 | 16.34 |       | 150.0 |         |
|           |                                                                     | Z | 4.62  | 67.42 | 16.56 |       | 150.0 |         |
| 10401-AAC | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                 | X | 5.50  | 67.58 | 16.71 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 5.48  | 67.55 | 16.66 |       | 150.0 |         |
|           |                                                                     | Z | 5.35  | 67.50 | 16.70 |       | 150.0 |         |

|           |                                                                                |   |        |        |       |      |       |         |
|-----------|--------------------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10402-AAC | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                            | X | 5.69   | 67.63  | 16.58 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.67   | 67.58  | 16.53 |      | 150.0 |         |
|           |                                                                                | Z | 5.62   | 67.76  | 16.70 |      | 150.0 |         |
| 10403-AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                     | X | 1.42   | 68.46  | 13.72 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.34   | 67.80  | 13.24 |      | 115.0 |         |
|           |                                                                                | Z | 1.48   | 70.09  | 13.96 |      | 115.0 |         |
| 10404-AAB | CDMA2000 (1xEV-DO, Rev. A)                                                     | X | 1.42   | 68.46  | 13.72 | 0.00 | 115.0 | ± 9.6 % |
|           |                                                                                | Y | 1.34   | 67.80  | 13.24 |      | 115.0 |         |
|           |                                                                                | Z | 1.48   | 70.09  | 13.96 |      | 115.0 |         |
| 10406-AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                           | X | 25.26  | 105.36 | 27.54 | 0.00 | 100.0 | ± 9.6 % |
|           |                                                                                | Y | 18.34  | 100.25 | 25.80 |      | 100.0 |         |
|           |                                                                                | Z | 100.00 | 124.04 | 31.32 |      | 100.0 |         |
| 10410-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                 | X | 100.00 | 123.38 | 32.10 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                                | Y | 100.00 | 122.73 | 31.64 |      | 80.0  |         |
|           |                                                                                | Z | 100.00 | 124.27 | 32.20 |      | 80.0  |         |
| 10415-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                      | X | 1.03   | 63.11  | 14.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 1.03   | 62.94  | 14.52 |      | 150.0 |         |
|           |                                                                                | Z | 1.07   | 63.91  | 15.37 |      | 150.0 |         |
| 10416-AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                  | X | 4.57   | 66.82  | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.54   | 66.80  | 16.29 |      | 150.0 |         |
|           |                                                                                | Z | 4.49   | 67.11  | 16.49 |      | 150.0 |         |
| 10417-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                      | X | 4.57   | 66.82  | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.54   | 66.80  | 16.29 |      | 150.0 |         |
|           |                                                                                | Z | 4.49   | 67.11  | 16.49 |      | 150.0 |         |
| 10418-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)  | X | 4.56   | 66.98  | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.53   | 66.96  | 16.31 |      | 150.0 |         |
|           |                                                                                | Z | 4.49   | 67.31  | 16.55 |      | 150.0 |         |
| 10419-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble) | X | 4.58   | 66.93  | 16.36 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.55   | 66.91  | 16.31 |      | 150.0 |         |
|           |                                                                                | Z | 4.51   | 67.25  | 16.53 |      | 150.0 |         |
| 10422-AAA | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                   | X | 4.69   | 66.93  | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.66   | 66.91  | 16.33 |      | 150.0 |         |
|           |                                                                                | Z | 4.61   | 67.22  | 16.54 |      | 150.0 |         |
| 10423-AAA | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                | X | 4.85   | 67.25  | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.82   | 67.21  | 16.44 |      | 150.0 |         |
|           |                                                                                | Z | 4.75   | 67.49  | 16.63 |      | 150.0 |         |
| 10424-AAA | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                | X | 4.78   | 67.20  | 16.47 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 4.74   | 67.16  | 16.41 |      | 150.0 |         |
|           |                                                                                | Z | 4.68   | 67.45  | 16.62 |      | 150.0 |         |
| 10425-AAA | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                    | X | 5.41   | 67.59  | 16.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.38   | 67.51  | 16.64 |      | 150.0 |         |
|           |                                                                                | Z | 5.32   | 67.71  | 16.82 |      | 150.0 |         |
| 10426-AAA | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                  | X | 5.45   | 67.71  | 16.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                                | Y | 5.42   | 67.67  | 16.71 |      | 150.0 |         |
|           |                                                                                | Z | 5.36   | 67.86  | 16.89 |      | 150.0 |         |

|           |                                                                |   |        |        |       |      |       |         |
|-----------|----------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10427-AAA | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                 | X | 5.44   | 67.60  | 16.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 5.40   | 67.55  | 16.65 |      | 150.0 |         |
|           |                                                                | Z | 5.31   | 67.63  | 16.77 |      | 150.0 |         |
| 10430-AAA | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                               | X | 4.17   | 70.51  | 17.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.22   | 70.96  | 18.12 |      | 150.0 |         |
|           |                                                                | Z | 4.22   | 71.80  | 18.36 |      | 150.0 |         |
| 10431-AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                              | X | 4.23   | 67.37  | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.19   | 67.33  | 16.23 |      | 150.0 |         |
|           |                                                                | Z | 4.13   | 67.76  | 16.44 |      | 150.0 |         |
| 10432-AAA | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                              | X | 4.54   | 67.24  | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.50   | 67.21  | 16.34 |      | 150.0 |         |
|           |                                                                | Z | 4.44   | 67.56  | 16.56 |      | 150.0 |         |
| 10433-AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                              | X | 4.79   | 67.22  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.76   | 67.19  | 16.43 |      | 150.0 |         |
|           |                                                                | Z | 4.70   | 67.48  | 16.63 |      | 150.0 |         |
| 10434-AAA | W-CDMA (BS Test Model 1, 64 DPCH)                              | X | 4.24   | 71.26  | 17.83 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.30   | 71.77  | 18.02 |      | 150.0 |         |
|           |                                                                | Z | 4.33   | 72.71  | 18.23 |      | 150.0 |         |
| 10435-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 123.20 | 32.02 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                | Y | 100.00 | 122.55 | 31.56 |      | 80.0  |         |
|           |                                                                | Z | 100.00 | 124.07 | 32.11 |      | 80.0  |         |
| 10447-AAA | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                 | X | 3.50   | 67.32  | 15.52 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.46   | 67.24  | 15.39 |      | 150.0 |         |
|           |                                                                | Z | 3.40   | 67.77  | 15.51 |      | 150.0 |         |
| 10448-AAA | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                | X | 4.07   | 67.15  | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.04   | 67.11  | 16.09 |      | 150.0 |         |
|           |                                                                | Z | 3.99   | 67.55  | 16.31 |      | 150.0 |         |
| 10449-AAA | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                | X | 4.35   | 67.06  | 16.29 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.32   | 67.02  | 16.23 |      | 150.0 |         |
|           |                                                                | Z | 4.28   | 67.38  | 16.46 |      | 150.0 |         |
| 10450-AAA | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                | X | 4.55   | 66.98  | 16.33 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.53   | 66.95  | 16.28 |      | 150.0 |         |
|           |                                                                | Z | 4.48   | 67.26  | 16.49 |      | 150.0 |         |
| 10451-AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                | X | 3.38   | 67.43  | 15.07 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.32   | 67.31  | 14.91 |      | 150.0 |         |
|           |                                                                | Z | 3.24   | 67.74  | 14.91 |      | 150.0 |         |
| 10456-AAA | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)           | X | 6.31   | 68.16  | 16.88 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 6.29   | 68.13  | 16.84 |      | 150.0 |         |
|           |                                                                | Z | 6.30   | 68.44  | 17.07 |      | 150.0 |         |
| 10457-AAA | UMTS-FDD (DC-HSDPA)                                            | X | 3.83   | 65.46  | 16.04 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.82   | 65.44  | 15.98 |      | 150.0 |         |
|           |                                                                | Z | 3.81   | 65.80  | 16.21 |      | 150.0 |         |
| 10458-AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                         | X | 3.20   | 66.78  | 14.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 3.13   | 66.58  | 14.21 |      | 150.0 |         |
|           |                                                                | Z | 2.98   | 66.69  | 13.92 |      | 150.0 |         |
| 10459-AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                         | X | 4.30   | 65.22  | 15.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                | Y | 4.22   | 65.02  | 15.33 |      | 150.0 |         |
|           |                                                                | Z | 4.06   | 65.17  | 15.18 |      | 150.0 |         |

|           |                                                                   |   |        |        |       |      |       |         |
|-----------|-------------------------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10460-AAA | UMTS-FDD (WCDMA, AMR)                                             | X | 0.93   | 68.27  | 16.16 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                   | Y | 0.89   | 67.49  | 15.68 |      | 150.0 |         |
|           |                                                                   | Z | 1.06   | 71.27  | 17.94 |      | 150.0 |         |
| 10461-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 100.00 | 125.90 | 33.34 | 3.29 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 125.17 | 32.85 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 127.50 | 33.76 |      | 80.0  |         |
| 10462-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 100.00 | 111.89 | 26.65 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 67.91  | 106.25 | 24.94 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 111.54 | 26.15 |      | 80.0  |         |
| 10463-AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 29.54  | 95.45  | 22.07 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 13.75  | 86.30  | 19.24 |      | 80.0  |         |
|           |                                                                   | Z | 37.03  | 97.67  | 22.15 |      | 80.0  |         |
| 10464-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 124.16 | 32.38 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.29 | 31.82 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.61 | 32.72 |      | 80.0  |         |
| 10465-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 66.16  | 106.63 | 25.35 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 30.09  | 96.61  | 22.52 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 111.07 | 25.92 |      | 80.0  |         |
| 10466-AAA | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 17.69  | 89.44  | 20.41 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 8.89   | 81.36  | 17.72 |      | 80.0  |         |
|           |                                                                   | Z | 17.98  | 89.61  | 20.02 |      | 80.0  |         |
| 10467-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 100.00 | 124.37 | 32.48 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.52 | 31.93 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.86 | 32.84 |      | 80.0  |         |
| 10468-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 81.85  | 109.27 | 25.98 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 36.61  | 98.96  | 23.14 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 111.26 | 26.01 |      | 80.0  |         |
| 10469-AAB | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 18.22  | 89.79  | 20.50 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 9.08   | 81.60  | 17.79 |      | 80.0  |         |
|           |                                                                   | Z | 18.79  | 90.11  | 20.16 |      | 80.0  |         |
| 10470-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 124.40 | 32.48 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.54 | 31.93 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.89 | 32.84 |      | 80.0  |         |
| 10471-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 82.59  | 109.34 | 25.99 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 36.63  | 98.94  | 23.12 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 111.22 | 25.99 |      | 80.0  |         |
| 10472-AAB | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 18.32  | 89.83  | 20.50 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 9.07   | 81.58  | 17.77 |      | 80.0  |         |
|           |                                                                   | Z | 18.89  | 90.14  | 20.15 |      | 80.0  |         |
| 10473-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 100.00 | 124.38 | 32.47 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 100.00 | 123.52 | 31.92 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 125.87 | 32.83 |      | 80.0  |         |
| 10474-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 81.05  | 109.13 | 25.94 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 36.00  | 98.75  | 23.08 |      | 80.0  |         |
|           |                                                                   | Z | 100.00 | 111.22 | 25.99 |      | 80.0  |         |
| 10475-AAB | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 18.03  | 89.66  | 20.46 | 3.23 | 80.0  | ± 9.6 % |
|           |                                                                   | Y | 8.96   | 81.46  | 17.74 |      | 80.0  |         |
|           |                                                                   | Z | 18.51  | 89.93  | 20.10 |      | 80.0  |         |

|           |                                                                     |   |        |        |       |      |      |         |
|-----------|---------------------------------------------------------------------|---|--------|--------|-------|------|------|---------|
| 10477-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)    | X | 70.79  | 107.40 | 25.51 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 31.53  | 97.13  | 22.64 |      | 80.0 |         |
|           |                                                                     | Z | 100.00 | 111.05 | 25.90 |      | 80.0 |         |
| 10478-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)    | X | 17.80  | 89.49  | 20.40 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 8.85   | 81.30  | 17.68 |      | 80.0 |         |
|           |                                                                     | Z | 18.16  | 89.69  | 20.02 |      | 80.0 |         |
| 10479-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 19.83  | 99.06  | 27.29 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 19.61  | 98.63  | 26.89 |      | 80.0 |         |
|           |                                                                     | Z | 78.35  | 120.52 | 32.40 |      | 80.0 |         |
| 10480-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 16.61  | 90.83  | 23.15 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 15.83  | 89.91  | 22.58 |      | 80.0 |         |
|           |                                                                     | Z | 38.83  | 102.03 | 25.59 |      | 80.0 |         |
| 10481-AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 13.26  | 86.91  | 21.60 | 3.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 12.12  | 85.49  | 20.86 |      | 80.0 |         |
|           |                                                                     | Z | 23.00  | 93.95  | 22.99 |      | 80.0 |         |
| 10482-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.33   | 77.38  | 18.81 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.31   | 77.41  | 18.69 |      | 80.0 |         |
|           |                                                                     | Z | 7.14   | 81.68  | 19.85 |      | 80.0 |         |
| 10483-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 7.75   | 79.50  | 19.33 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.97   | 77.90  | 18.46 |      | 80.0 |         |
|           |                                                                     | Z | 7.26   | 78.33  | 18.08 |      | 80.0 |         |
| 10484-AAA | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 6.99   | 77.88  | 18.76 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 6.28   | 76.29  | 17.88 |      | 80.0 |         |
|           |                                                                     | Z | 6.27   | 76.25  | 17.33 |      | 80.0 |         |
| 10485-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.79   | 78.98  | 20.34 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.80   | 79.17  | 20.32 |      | 80.0 |         |
|           |                                                                     | Z | 7.84   | 84.21  | 21.96 |      | 80.0 |         |
| 10486-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.64   | 72.76  | 17.47 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.63   | 72.85  | 17.40 |      | 80.0 |         |
|           |                                                                     | Z | 5.11   | 74.68  | 17.84 |      | 80.0 |         |
| 10487-AAB | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.57   | 72.21  | 17.23 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.54   | 72.26  | 17.14 |      | 80.0 |         |
|           |                                                                     | Z | 4.92   | 73.82  | 17.47 |      | 80.0 |         |
| 10488-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.59   | 77.20  | 20.43 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.51   | 77.16  | 20.39 |      | 80.0 |         |
|           |                                                                     | Z | 6.40   | 80.34  | 21.68 |      | 80.0 |         |
| 10489-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.78   | 72.24  | 18.52 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.75   | 72.30  | 18.49 |      | 80.0 |         |
|           |                                                                     | Z | 5.06   | 73.95  | 19.15 |      | 80.0 |         |
| 10490-AAB | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.84   | 71.95  | 18.41 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.80   | 72.00  | 18.38 |      | 80.0 |         |
|           |                                                                     | Z | 5.08   | 73.52  | 18.98 |      | 80.0 |         |
| 10491-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.40   | 74.66  | 19.63 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 5.32   | 74.60  | 19.59 |      | 80.0 |         |
|           |                                                                     | Z | 5.75   | 76.59  | 20.52 |      | 80.0 |         |
| 10492-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 4.99   | 71.09  | 18.39 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                     | Y | 4.94   | 71.07  | 18.35 |      | 80.0 |         |
|           |                                                                     | Z | 5.10   | 72.20  | 18.87 |      | 80.0 |         |

|           |                                                                      |   |      |       |       |      |      |         |
|-----------|----------------------------------------------------------------------|---|------|-------|-------|------|------|---------|
| 10493-AAB | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.04 | 70.89 | 18.32 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.98 | 70.87 | 18.27 |      | 80.0 |         |
|           |                                                                      | Z | 5.12 | 71.93 | 18.76 |      | 80.0 |         |
| 10494-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.91 | 76.22 | 20.09 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.83 | 76.18 | 20.06 |      | 80.0 |         |
|           |                                                                      | Z | 6.39 | 78.40 | 21.09 |      | 80.0 |         |
| 10495-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.06 | 71.51 | 18.60 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.00 | 71.48 | 18.56 |      | 80.0 |         |
|           |                                                                      | Z | 5.16 | 72.58 | 19.10 |      | 80.0 |         |
| 10496-AAB | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 5.10 | 71.13 | 18.48 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.04 | 71.11 | 18.44 |      | 80.0 |         |
|           |                                                                      | Z | 5.18 | 72.13 | 18.95 |      | 80.0 |         |
| 10497-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 3.82 | 72.39 | 15.97 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 3.67 | 71.93 | 15.62 |      | 80.0 |         |
|           |                                                                      | Z | 4.13 | 73.43 | 15.68 |      | 80.0 |         |
| 10498-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.53 | 64.95 | 11.78 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.34 | 64.18 | 11.22 |      | 80.0 |         |
|           |                                                                      | Z | 1.97 | 62.73 | 9.95  |      | 80.0 |         |
| 10499-AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 2.42 | 64.21 | 11.29 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 2.24 | 63.45 | 10.72 |      | 80.0 |         |
|           |                                                                      | Z | 1.86 | 61.93 | 9.39  |      | 80.0 |         |
| 10500-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.57 | 77.88 | 20.25 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.54 | 77.96 | 20.22 |      | 80.0 |         |
|           |                                                                      | Z | 6.96 | 82.14 | 21.69 |      | 80.0 |         |
| 10501-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.72 | 72.59 | 17.88 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.70 | 72.69 | 17.83 |      | 80.0 |         |
|           |                                                                      | Z | 5.15 | 74.57 | 18.39 |      | 80.0 |         |
| 10502-AAA | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.74 | 72.31 | 17.71 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.72 | 72.40 | 17.66 |      | 80.0 |         |
|           |                                                                      | Z | 5.12 | 74.14 | 18.15 |      | 80.0 |         |
| 10503-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | X | 5.52 | 77.00 | 20.34 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.44 | 76.94 | 20.29 |      | 80.0 |         |
|           |                                                                      | Z | 6.30 | 80.09 | 21.57 |      | 80.0 |         |
| 10504-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.76 | 72.15 | 18.46 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.72 | 72.20 | 18.43 |      | 80.0 |         |
|           |                                                                      | Z | 5.03 | 73.83 | 19.08 |      | 80.0 |         |
| 10505-AAB | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | X | 4.81 | 71.86 | 18.36 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.78 | 71.90 | 18.33 |      | 80.0 |         |
|           |                                                                      | Z | 5.05 | 73.41 | 18.92 |      | 80.0 |         |
| 10506-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | X | 5.86 | 76.08 | 20.03 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 5.78 | 76.02 | 19.99 |      | 80.0 |         |
|           |                                                                      | Z | 6.33 | 78.23 | 21.01 |      | 80.0 |         |
| 10507-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | X | 5.04 | 71.45 | 18.56 | 2.23 | 80.0 | ± 9.6 % |
|           |                                                                      | Y | 4.98 | 71.42 | 18.52 |      | 80.0 |         |
|           |                                                                      | Z | 5.14 | 72.52 | 19.07 |      | 80.0 |         |

|           |                                                                     |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10508-AAB | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.08 | 71.07 | 18.44 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.03 | 71.03 | 18.40 |      | 80.0  |         |
|           |                                                                     | Z | 5.16 | 72.06 | 18.91 |      | 80.0  |         |
| 10509-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 5.85 | 73.94 | 19.23 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.79 | 73.92 | 19.21 |      | 80.0  |         |
|           |                                                                     | Z | 6.09 | 75.36 | 19.96 |      | 80.0  |         |
| 10510-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.44 | 70.78 | 18.41 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.38 | 70.72 | 18.37 |      | 80.0  |         |
|           |                                                                     | Z | 5.46 | 71.49 | 18.81 |      | 80.0  |         |
| 10511-AAB | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.47 | 70.48 | 18.33 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.41 | 70.42 | 18.29 |      | 80.0  |         |
|           |                                                                     | Z | 5.48 | 71.16 | 18.70 |      | 80.0  |         |
| 10512-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | X | 6.26 | 75.69 | 19.76 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 6.19 | 75.64 | 19.74 |      | 80.0  |         |
|           |                                                                     | Z | 6.63 | 77.34 | 20.58 |      | 80.0  |         |
| 10513-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.36 | 71.15 | 18.55 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.30 | 71.08 | 18.50 |      | 80.0  |         |
|           |                                                                     | Z | 5.39 | 71.86 | 18.96 |      | 80.0  |         |
| 10514-AAB | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | X | 5.34 | 70.66 | 18.41 | 2.23 | 80.0  | ± 9.6 % |
|           |                                                                     | Y | 5.28 | 70.59 | 18.36 |      | 80.0  |         |
|           |                                                                     | Z | 5.36 | 71.32 | 18.79 |      | 80.0  |         |
| 10515-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)           | X | 1.00 | 63.30 | 14.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.99 | 63.10 | 14.57 |      | 150.0 |         |
|           |                                                                     | Z | 1.03 | 64.16 | 15.47 |      | 150.0 |         |
| 10516-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)         | X | 0.64 | 70.61 | 17.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.59 | 68.85 | 16.42 |      | 150.0 |         |
|           |                                                                     | Z | 0.86 | 76.49 | 20.74 |      | 150.0 |         |
| 10517-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)          | X | 0.85 | 65.21 | 15.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 0.83 | 64.76 | 15.05 |      | 150.0 |         |
|           |                                                                     | Z | 0.90 | 66.69 | 16.52 |      | 150.0 |         |
| 10518-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)           | X | 4.56 | 66.90 | 16.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.53 | 66.87 | 16.26 |      | 150.0 |         |
|           |                                                                     | Z | 4.48 | 67.21 | 16.48 |      | 150.0 |         |
| 10519-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)          | X | 4.74 | 67.13 | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.70 | 67.09 | 16.38 |      | 150.0 |         |
|           |                                                                     | Z | 4.64 | 67.39 | 16.58 |      | 150.0 |         |
| 10520-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)          | X | 4.59 | 67.08 | 16.35 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.56 | 67.04 | 16.30 |      | 150.0 |         |
|           |                                                                     | Z | 4.50 | 67.34 | 16.50 |      | 150.0 |         |
| 10521-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)          | X | 4.52 | 67.06 | 16.34 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.49 | 67.02 | 16.28 |      | 150.0 |         |
|           |                                                                     | Z | 4.43 | 67.31 | 16.48 |      | 150.0 |         |
| 10522-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)          | X | 4.58 | 67.19 | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                     | Y | 4.55 | 67.15 | 16.38 |      | 150.0 |         |
|           |                                                                     | Z | 4.49 | 67.46 | 16.59 |      | 150.0 |         |

|           |                                                            |   |      |       |       |      |       |         |
|-----------|------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10523-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle) | X | 4.47 | 67.04 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.44 | 67.02 | 16.23 |      | 150.0 |         |
|           |                                                            | Z | 4.40 | 67.40 | 16.48 |      | 150.0 |         |
| 10524-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle) | X | 4.52 | 67.10 | 16.40 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 67.06 | 16.34 |      | 150.0 |         |
|           |                                                            | Z | 4.43 | 67.39 | 16.57 |      | 150.0 |         |
| 10525-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)          | X | 4.52 | 66.14 | 15.98 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.49 | 66.11 | 15.93 |      | 150.0 |         |
|           |                                                            | Z | 4.46 | 66.47 | 16.17 |      | 150.0 |         |
| 10526-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)          | X | 4.68 | 66.50 | 16.13 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.65 | 66.46 | 16.07 |      | 150.0 |         |
|           |                                                            | Z | 4.59 | 66.78 | 16.30 |      | 150.0 |         |
| 10527-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)          | X | 4.60 | 66.45 | 16.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.57 | 66.41 | 16.01 |      | 150.0 |         |
|           |                                                            | Z | 4.52 | 66.75 | 16.24 |      | 150.0 |         |
| 10528-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)          | X | 4.62 | 66.47 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.43 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 4.53 | 66.76 | 16.27 |      | 150.0 |         |
| 10529-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)          | X | 4.62 | 66.47 | 16.10 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.58 | 66.43 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 4.53 | 66.76 | 16.27 |      | 150.0 |         |
| 10531-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)          | X | 4.60 | 66.56 | 16.11 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.57 | 66.51 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 4.51 | 66.81 | 16.26 |      | 150.0 |         |
| 10532-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)          | X | 4.47 | 66.41 | 16.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.43 | 66.36 | 15.97 |      | 150.0 |         |
|           |                                                            | Z | 4.38 | 66.67 | 16.19 |      | 150.0 |         |
| 10533-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)          | X | 4.63 | 66.52 | 16.09 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 4.59 | 66.49 | 16.04 |      | 150.0 |         |
|           |                                                            | Z | 4.54 | 66.84 | 16.27 |      | 150.0 |         |
| 10534-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)          | X | 5.17 | 66.58 | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.14 | 66.54 | 16.13 |      | 150.0 |         |
|           |                                                            | Z | 5.10 | 66.77 | 16.33 |      | 150.0 |         |
| 10535-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)          | X | 5.25 | 66.80 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.22 | 66.76 | 16.23 |      | 150.0 |         |
|           |                                                            | Z | 5.15 | 66.94 | 16.41 |      | 150.0 |         |
| 10536-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)          | X | 5.11 | 66.73 | 16.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.08 | 66.69 | 16.18 |      | 150.0 |         |
|           |                                                            | Z | 5.04 | 66.93 | 16.38 |      | 150.0 |         |
| 10537-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)          | X | 5.17 | 66.69 | 16.21 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.14 | 66.65 | 16.16 |      | 150.0 |         |
|           |                                                            | Z | 5.10 | 66.90 | 16.37 |      | 150.0 |         |
| 10538-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)          | X | 5.25 | 66.70 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.22 | 66.66 | 16.21 |      | 150.0 |         |
|           |                                                            | Z | 5.17 | 66.87 | 16.39 |      | 150.0 |         |
| 10540-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)          | X | 5.20 | 66.76 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                            | Y | 5.17 | 66.70 | 16.24 |      | 150.0 |         |
|           |                                                            | Z | 5.09 | 66.83 | 16.39 |      | 150.0 |         |

|           |                                                     |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10541-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)   | X | 5.16 | 66.59 | 16.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.13 | 66.54 | 16.15 |      | 150.0 |         |
|           |                                                     | Z | 5.07 | 66.71 | 16.31 |      | 150.0 |         |
| 10542-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)   | X | 5.32 | 66.67 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.29 | 66.63 | 16.21 |      | 150.0 |         |
|           |                                                     | Z | 5.23 | 66.83 | 16.39 |      | 150.0 |         |
| 10543-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)   | X | 5.39 | 66.71 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.35 | 66.65 | 16.25 |      | 150.0 |         |
|           |                                                     | Z | 5.30 | 66.89 | 16.45 |      | 150.0 |         |
| 10544-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)   | X | 5.49 | 66.69 | 16.17 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.47 | 66.65 | 16.13 |      | 150.0 |         |
|           |                                                     | Z | 5.44 | 66.83 | 16.30 |      | 150.0 |         |
| 10545-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)   | X | 5.71 | 67.19 | 16.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.68 | 67.15 | 16.34 |      | 150.0 |         |
|           |                                                     | Z | 5.64 | 67.35 | 16.52 |      | 150.0 |         |
| 10546-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)   | X | 5.55 | 66.89 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.53 | 66.84 | 16.19 |      | 150.0 |         |
|           |                                                     | Z | 5.48 | 66.97 | 16.34 |      | 150.0 |         |
| 10547-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)   | X | 5.63 | 66.95 | 16.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.60 | 66.91 | 16.22 |      | 150.0 |         |
|           |                                                     | Z | 5.56 | 67.10 | 16.40 |      | 150.0 |         |
| 10548-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)   | X | 5.95 | 68.11 | 16.82 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.89 | 67.97 | 16.72 |      | 150.0 |         |
|           |                                                     | Z | 5.78 | 67.97 | 16.81 |      | 150.0 |         |
| 10550-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)   | X | 5.60 | 66.99 | 16.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.58 | 66.96 | 16.26 |      | 150.0 |         |
|           |                                                     | Z | 5.56 | 67.22 | 16.48 |      | 150.0 |         |
| 10551-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)   | X | 5.58 | 66.94 | 16.24 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.56 | 66.90 | 16.20 |      | 150.0 |         |
|           |                                                     | Z | 5.48 | 66.97 | 16.32 |      | 150.0 |         |
| 10552-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)   | X | 5.50 | 66.74 | 16.14 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.47 | 66.71 | 16.10 |      | 150.0 |         |
|           |                                                     | Z | 5.44 | 66.92 | 16.29 |      | 150.0 |         |
| 10553-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)   | X | 5.57 | 66.76 | 16.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.55 | 66.72 | 16.14 |      | 150.0 |         |
|           |                                                     | Z | 5.50 | 66.88 | 16.30 |      | 150.0 |         |
| 10554-AAA | IEEE 1602.11ac WiFi (160MHz, MCS0, 99pc duty cycle) | X | 5.91 | 67.06 | 16.27 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 5.89 | 67.03 | 16.23 |      | 150.0 |         |
|           |                                                     | Z | 5.87 | 67.18 | 16.38 |      | 150.0 |         |
| 10555-AAA | IEEE 1602.11ac WiFi (160MHz, MCS1, 99pc duty cycle) | X | 6.05 | 67.41 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 6.03 | 67.36 | 16.38 |      | 150.0 |         |
|           |                                                     | Z | 5.98 | 67.47 | 16.51 |      | 150.0 |         |
| 10556-AAA | IEEE 1602.11ac WiFi (160MHz, MCS2, 99pc duty cycle) | X | 6.07 | 67.44 | 16.43 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 6.04 | 67.39 | 16.39 |      | 150.0 |         |
|           |                                                     | Z | 6.02 | 67.56 | 16.55 |      | 150.0 |         |
| 10557-AAA | IEEE 1602.11ac WiFi (160MHz, MCS3, 99pc duty cycle) | X | 6.02 | 67.31 | 16.39 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 6.00 | 67.26 | 16.34 |      | 150.0 |         |
|           |                                                     | Z | 5.96 | 67.39 | 16.48 |      | 150.0 |         |

|           |                                                                 |   |       |        |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10558-AAA | IEEE 1602.11ac WiFi (160MHz, MCS4, 99pc duty cycle)             | X | 6.07  | 67.48  | 16.49 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.05  | 67.43  | 16.44 |      | 150.0 |         |
|           |                                                                 | Z | 5.98  | 67.50  | 16.55 |      | 150.0 |         |
| 10560-AAA | IEEE 1602.11ac WiFi (160MHz, MCS6, 99pc duty cycle)             | X | 6.06  | 67.31  | 16.44 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.04  | 67.26  | 16.39 |      | 150.0 |         |
|           |                                                                 | Z | 5.99  | 67.39  | 16.53 |      | 150.0 |         |
| 10561-AAA | IEEE 1602.11ac WiFi (160MHz, MCS7, 99pc duty cycle)             | X | 6.00  | 67.32  | 16.48 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.97  | 67.28  | 16.43 |      | 150.0 |         |
|           |                                                                 | Z | 5.93  | 67.41  | 16.58 |      | 150.0 |         |
| 10562-AAA | IEEE 1602.11ac WiFi (160MHz, MCS8, 99pc duty cycle)             | X | 6.11  | 67.68  | 16.66 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.07  | 67.59  | 16.59 |      | 150.0 |         |
|           |                                                                 | Z | 5.99  | 67.59  | 16.67 |      | 150.0 |         |
| 10563-AAA | IEEE 1602.11ac WiFi (160MHz, MCS9, 99pc duty cycle)             | X | 6.27  | 67.80  | 16.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 6.20  | 67.61  | 16.57 |      | 150.0 |         |
|           |                                                                 | Z | 6.10  | 67.59  | 16.63 |      | 150.0 |         |
| 10564-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | X | 4.90  | 67.04  | 16.52 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.87  | 66.99  | 16.45 |      | 150.0 |         |
|           |                                                                 | Z | 4.82  | 67.29  | 16.66 |      | 150.0 |         |
| 10565-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | X | 5.12  | 67.45  | 16.82 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 5.09  | 67.42  | 16.77 |      | 150.0 |         |
|           |                                                                 | Z | 5.02  | 67.68  | 16.95 |      | 150.0 |         |
| 10566-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | X | 4.96  | 67.32  | 16.65 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.93  | 67.27  | 16.59 |      | 150.0 |         |
|           |                                                                 | Z | 4.86  | 67.53  | 16.78 |      | 150.0 |         |
| 10567-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | X | 4.98  | 67.66  | 16.97 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.95  | 67.64  | 16.94 |      | 150.0 |         |
|           |                                                                 | Z | 4.89  | 67.90  | 17.12 |      | 150.0 |         |
| 10568-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | X | 4.89  | 67.16  | 16.47 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.85  | 67.08  | 16.38 |      | 150.0 |         |
|           |                                                                 | Z | 4.78  | 67.36  | 16.58 |      | 150.0 |         |
| 10569-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | X | 4.95  | 67.77  | 17.04 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.93  | 67.78  | 17.03 |      | 150.0 |         |
|           |                                                                 | Z | 4.88  | 68.11  | 17.25 |      | 150.0 |         |
| 10570-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | X | 4.97  | 67.62  | 16.98 | 0.46 | 150.0 | ± 9.6 % |
|           |                                                                 | Y | 4.94  | 67.61  | 16.94 |      | 150.0 |         |
|           |                                                                 | Z | 4.88  | 67.90  | 17.15 |      | 150.0 |         |
| 10571-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | X | 1.38  | 66.02  | 16.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.36  | 65.75  | 16.07 |      | 130.0 |         |
|           |                                                                 | Z | 1.42  | 67.01  | 16.99 |      | 130.0 |         |
| 10572-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | X | 1.40  | 66.64  | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.38  | 66.37  | 16.43 |      | 130.0 |         |
|           |                                                                 | Z | 1.45  | 67.74  | 17.41 |      | 130.0 |         |
| 10573-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | X | 3.83  | 91.83  | 24.91 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 2.89  | 87.23  | 23.34 |      | 130.0 |         |
|           |                                                                 | Z | 14.03 | 115.08 | 32.19 |      | 130.0 |         |
| 10574-AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | X | 1.62  | 72.82  | 19.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 1.59  | 72.39  | 19.30 |      | 130.0 |         |
|           |                                                                 | Z | 1.82  | 75.58  | 21.09 |      | 130.0 |         |

|           |                                                                 |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10575-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | X | 4.73 | 66.96 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 66.92 | 16.58 |      | 130.0 |         |
|           |                                                                 | Z | 4.66 | 67.23 | 16.78 |      | 130.0 |         |
| 10576-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | X | 4.76 | 67.11 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.73 | 67.09 | 16.64 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.42 | 16.85 |      | 130.0 |         |
| 10577-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | X | 4.95 | 67.38 | 16.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.35 | 16.80 |      | 130.0 |         |
|           |                                                                 | Z | 4.85 | 67.64 | 16.99 |      | 130.0 |         |
| 10578-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | X | 4.85 | 67.52 | 16.94 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82 | 67.51 | 16.90 |      | 130.0 |         |
|           |                                                                 | Z | 4.76 | 67.79 | 17.09 |      | 130.0 |         |
| 10579-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | X | 4.63 | 66.89 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.80 | 16.22 |      | 130.0 |         |
|           |                                                                 | Z | 4.53 | 67.10 | 16.43 |      | 130.0 |         |
| 10580-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | X | 4.68 | 66.96 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.86 | 16.25 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 67.17 | 16.46 |      | 130.0 |         |
| 10581-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | X | 4.75 | 67.59 | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.72 | 67.57 | 16.86 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.91 | 17.09 |      | 130.0 |         |
| 10582-AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | X | 4.57 | 66.69 | 16.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.58 | 16.01 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.89 | 16.23 |      | 130.0 |         |
| 10583-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | X | 4.73 | 66.96 | 16.64 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.70 | 66.92 | 16.58 |      | 130.0 |         |
|           |                                                                 | Z | 4.66 | 67.23 | 16.78 |      | 130.0 |         |
| 10584-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | X | 4.76 | 67.11 | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.73 | 67.09 | 16.64 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.42 | 16.85 |      | 130.0 |         |
| 10585-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | X | 4.95 | 67.38 | 16.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.92 | 67.35 | 16.80 |      | 130.0 |         |
|           |                                                                 | Z | 4.85 | 67.64 | 16.99 |      | 130.0 |         |
| 10586-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | X | 4.85 | 67.52 | 16.94 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.82 | 67.51 | 16.90 |      | 130.0 |         |
|           |                                                                 | Z | 4.76 | 67.79 | 17.09 |      | 130.0 |         |
| 10587-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | X | 4.63 | 66.89 | 16.32 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.59 | 66.80 | 16.22 |      | 130.0 |         |
|           |                                                                 | Z | 4.53 | 67.10 | 16.43 |      | 130.0 |         |
| 10588-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)      | X | 4.68 | 66.96 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.64 | 66.86 | 16.25 |      | 130.0 |         |
|           |                                                                 | Z | 4.57 | 67.17 | 16.46 |      | 130.0 |         |
| 10589-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)      | X | 4.75 | 67.59 | 16.90 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.72 | 67.57 | 16.86 |      | 130.0 |         |
|           |                                                                 | Z | 4.68 | 67.91 | 17.09 |      | 130.0 |         |
| 10590-AAA | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)      | X | 4.57 | 66.69 | 16.13 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                                 | Y | 4.53 | 66.58 | 16.01 |      | 130.0 |         |
|           |                                                                 | Z | 4.46 | 66.89 | 16.23 |      | 130.0 |         |

|           |                                                       |   |      |       |       |      |       |         |
|-----------|-------------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10591-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle) | X | 4.88 | 67.00 | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.85 | 66.97 | 16.68 |      | 130.0 |         |
|           |                                                       | Z | 4.80 | 67.27 | 16.87 |      | 130.0 |         |
| 10592-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle) | X | 5.03 | 67.32 | 16.86 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.99 | 67.29 | 16.81 |      | 130.0 |         |
|           |                                                       | Z | 4.93 | 67.57 | 17.00 |      | 130.0 |         |
| 10593-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle) | X | 4.95 | 67.24 | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.92 | 67.19 | 16.68 |      | 130.0 |         |
|           |                                                       | Z | 4.85 | 67.47 | 16.87 |      | 130.0 |         |
| 10594-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle) | X | 5.00 | 67.39 | 16.89 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.97 | 67.36 | 16.84 |      | 130.0 |         |
|           |                                                       | Z | 4.91 | 67.64 | 17.03 |      | 130.0 |         |
| 10595-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle) | X | 4.97 | 67.36 | 16.80 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.94 | 67.33 | 16.74 |      | 130.0 |         |
|           |                                                       | Z | 4.88 | 67.63 | 16.94 |      | 130.0 |         |
| 10596-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle) | X | 4.91 | 67.37 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.88 | 67.33 | 16.75 |      | 130.0 |         |
|           |                                                       | Z | 4.81 | 67.62 | 16.95 |      | 130.0 |         |
| 10597-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle) | X | 4.86 | 67.27 | 16.69 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.83 | 67.22 | 16.62 |      | 130.0 |         |
|           |                                                       | Z | 4.76 | 67.50 | 16.81 |      | 130.0 |         |
| 10598-AAA | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle) | X | 4.84 | 67.47 | 16.92 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 4.81 | 67.44 | 16.87 |      | 130.0 |         |
|           |                                                       | Z | 4.75 | 67.70 | 17.06 |      | 130.0 |         |
| 10599-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle) | X | 5.56 | 67.55 | 16.97 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.53 | 67.50 | 16.91 |      | 130.0 |         |
|           |                                                       | Z | 5.50 | 67.77 | 17.13 |      | 130.0 |         |
| 10600-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle) | X | 5.76 | 68.20 | 17.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.71 | 68.09 | 17.18 |      | 130.0 |         |
|           |                                                       | Z | 5.65 | 68.30 | 17.37 |      | 130.0 |         |
| 10601-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle) | X | 5.60 | 67.80 | 17.08 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.57 | 67.74 | 17.02 |      | 130.0 |         |
|           |                                                       | Z | 5.51 | 67.95 | 17.21 |      | 130.0 |         |
| 10602-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle) | X | 5.73 | 67.93 | 17.08 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.70 | 67.89 | 17.02 |      | 130.0 |         |
|           |                                                       | Z | 5.64 | 68.11 | 17.21 |      | 130.0 |         |
| 10603-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle) | X | 5.77 | 68.12 | 17.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.76 | 68.12 | 17.26 |      | 130.0 |         |
|           |                                                       | Z | 5.74 | 68.49 | 17.53 |      | 130.0 |         |
| 10604-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle) | X | 5.59 | 67.61 | 17.02 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.59 | 67.66 | 17.02 |      | 130.0 |         |
|           |                                                       | Z | 5.61 | 68.11 | 17.33 |      | 130.0 |         |
| 10605-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle) | X | 5.72 | 68.02 | 17.24 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.69 | 67.96 | 17.17 |      | 130.0 |         |
|           |                                                       | Z | 5.62 | 68.13 | 17.34 |      | 130.0 |         |
| 10606-AAA | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle) | X | 5.42 | 67.17 | 16.67 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                       | Y | 5.39 | 67.11 | 16.60 |      | 130.0 |         |
|           |                                                       | Z | 5.37 | 67.46 | 16.86 |      | 130.0 |         |

|           |                                                   |   |      |       |       |      |       |         |
|-----------|---------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10607-AAA | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle) | X | 4.71 | 66.29 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.69 | 66.27 | 16.29 |      | 130.0 |         |
|           |                                                   | Z | 4.65 | 66.61 | 16.51 |      | 130.0 |         |
| 10608-AAA | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle) | X | 4.89 | 66.68 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.86 | 66.65 | 16.45 |      | 130.0 |         |
|           |                                                   | Z | 4.80 | 66.96 | 16.66 |      | 130.0 |         |
| 10609-AAA | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle) | X | 4.78 | 66.54 | 16.34 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.75 | 66.50 | 16.28 |      | 130.0 |         |
|           |                                                   | Z | 4.70 | 66.82 | 16.50 |      | 130.0 |         |
| 10610-AAA | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle) | X | 4.83 | 66.69 | 16.50 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.80 | 66.65 | 16.45 |      | 130.0 |         |
|           |                                                   | Z | 4.75 | 66.97 | 16.66 |      | 130.0 |         |
| 10611-AAA | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle) | X | 4.75 | 66.51 | 16.35 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.47 | 16.30 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.79 | 16.52 |      | 130.0 |         |
| 10612-AAA | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle) | X | 4.76 | 66.68 | 16.41 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.63 | 16.35 |      | 130.0 |         |
|           |                                                   | Z | 4.67 | 66.96 | 16.58 |      | 130.0 |         |
| 10613-AAA | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle) | X | 4.76 | 66.56 | 16.29 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.49 | 16.22 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.78 | 16.42 |      | 130.0 |         |
| 10614-AAA | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle) | X | 4.70 | 66.70 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.67 | 66.67 | 16.45 |      | 130.0 |         |
|           |                                                   | Z | 4.62 | 66.97 | 16.65 |      | 130.0 |         |
| 10615-AAA | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle) | X | 4.76 | 66.38 | 16.16 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 4.72 | 66.31 | 16.08 |      | 130.0 |         |
|           |                                                   | Z | 4.66 | 66.66 | 16.31 |      | 130.0 |         |
| 10616-AAA | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle) | X | 5.36 | 66.73 | 16.54 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.34 | 66.70 | 16.49 |      | 130.0 |         |
|           |                                                   | Z | 5.29 | 66.90 | 16.67 |      | 130.0 |         |
| 10617-AAA | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle) | X | 5.45 | 67.00 | 16.65 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.42 | 66.96 | 16.59 |      | 130.0 |         |
|           |                                                   | Z | 5.36 | 67.13 | 16.76 |      | 130.0 |         |
| 10618-AAA | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle) | X | 5.33 | 66.96 | 16.63 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.30 | 66.93 | 16.59 |      | 130.0 |         |
|           |                                                   | Z | 5.26 | 67.16 | 16.79 |      | 130.0 |         |
| 10619-AAA | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle) | X | 5.35 | 66.79 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.32 | 66.73 | 16.43 |      | 130.0 |         |
|           |                                                   | Z | 5.27 | 66.97 | 16.63 |      | 130.0 |         |
| 10620-AAA | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle) | X | 5.43 | 66.80 | 16.55 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.40 | 66.75 | 16.49 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 66.97 | 16.68 |      | 130.0 |         |
| 10621-AAA | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle) | X | 5.43 | 66.90 | 16.71 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.40 | 66.88 | 16.68 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 67.03 | 16.82 |      | 130.0 |         |
| 10622-AAA | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle) | X | 5.45 | 67.09 | 16.80 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                   | Y | 5.42 | 67.04 | 16.75 |      | 130.0 |         |
|           |                                                   | Z | 5.34 | 67.16 | 16.88 |      | 130.0 |         |

|           |                                                     |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10623-AAA | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)   | X | 5.32 | 66.63 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.29 | 66.57 | 16.38 |      | 130.0 |         |
|           |                                                     | Z | 5.21 | 66.68 | 16.51 |      | 130.0 |         |
| 10624-AAA | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)   | X | 5.51 | 66.81 | 16.60 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.48 | 66.77 | 16.55 |      | 130.0 |         |
|           |                                                     | Z | 5.42 | 66.94 | 16.71 |      | 130.0 |         |
| 10625-AAA | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)   | X | 5.88 | 67.82 | 17.16 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.80 | 67.63 | 17.03 |      | 130.0 |         |
|           |                                                     | Z | 5.55 | 67.23 | 16.91 |      | 130.0 |         |
| 10626-AAA | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)   | X | 5.67 | 66.77 | 16.49 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.64 | 66.74 | 16.44 |      | 130.0 |         |
|           |                                                     | Z | 5.61 | 66.90 | 16.60 |      | 130.0 |         |
| 10627-AAA | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)   | X | 5.94 | 67.48 | 16.81 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.92 | 67.44 | 16.76 |      | 130.0 |         |
|           |                                                     | Z | 5.88 | 67.65 | 16.95 |      | 130.0 |         |
| 10628-AAA | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)   | X | 5.71 | 66.90 | 16.45 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.67 | 66.83 | 16.39 |      | 130.0 |         |
|           |                                                     | Z | 5.61 | 66.93 | 16.52 |      | 130.0 |         |
| 10629-AAA | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)   | X | 5.78 | 66.96 | 16.48 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.76 | 66.92 | 16.43 |      | 130.0 |         |
|           |                                                     | Z | 5.73 | 67.14 | 16.63 |      | 130.0 |         |
| 10630-AAA | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)   | X | 6.35 | 68.87 | 17.43 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.27 | 68.66 | 17.29 |      | 130.0 |         |
|           |                                                     | Z | 6.10 | 68.46 | 17.29 |      | 130.0 |         |
| 10631-AAA | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)   | X | 6.11 | 68.22 | 17.28 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.07 | 68.14 | 17.23 |      | 130.0 |         |
|           |                                                     | Z | 5.96 | 68.13 | 17.30 |      | 130.0 |         |
| 10632-AAA | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)   | X | 5.90 | 67.49 | 16.94 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.88 | 67.49 | 16.93 |      | 130.0 |         |
|           |                                                     | Z | 5.86 | 67.76 | 17.14 |      | 130.0 |         |
| 10633-AAA | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)   | X | 5.74 | 66.98 | 16.52 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.72 | 66.95 | 16.48 |      | 130.0 |         |
|           |                                                     | Z | 5.67 | 67.09 | 16.64 |      | 130.0 |         |
| 10634-AAA | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)   | X | 5.73 | 67.01 | 16.59 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.70 | 66.97 | 16.55 |      | 130.0 |         |
|           |                                                     | Z | 5.65 | 67.13 | 16.70 |      | 130.0 |         |
| 10635-AAA | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)   | X | 5.62 | 66.42 | 16.05 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 5.59 | 66.32 | 15.96 |      | 130.0 |         |
|           |                                                     | Z | 5.53 | 66.46 | 16.12 |      | 130.0 |         |
| 10636-AAA | IEEE 1602.11ac WiFi (160MHz, MCS0, 90pc duty cycle) | X | 6.09 | 67.15 | 16.58 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.07 | 67.11 | 16.54 |      | 130.0 |         |
|           |                                                     | Z | 6.04 | 67.26 | 16.69 |      | 130.0 |         |
| 10637-AAA | IEEE 1602.11ac WiFi (160MHz, MCS1, 90pc duty cycle) | X | 6.27 | 67.61 | 16.80 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.25 | 67.57 | 16.75 |      | 130.0 |         |
|           |                                                     | Z | 6.19 | 67.65 | 16.88 |      | 130.0 |         |
| 10638-AAA | IEEE 1602.11ac WiFi (160MHz, MCS2, 90pc duty cycle) | X | 6.27 | 67.58 | 16.76 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                     | Y | 6.24 | 67.53 | 16.71 |      | 130.0 |         |
|           |                                                     | Z | 6.20 | 67.67 | 16.86 |      | 130.0 |         |

|           |                                                        |   |       |        |       |      |       |         |
|-----------|--------------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10639-AAA | IEEE 1602.11ac WiFi (160MHz, MCS3, 90pc duty cycle)    | X | 6.22  | 67.45  | 16.74 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20  | 67.40  | 16.69 |      | 130.0 |         |
|           |                                                        | Z | 6.15  | 67.52  | 16.82 |      | 130.0 |         |
| 10640-AAA | IEEE 1602.11ac WiFi (160MHz, MCS4, 90pc duty cycle)    | X | 6.23  | 67.49  | 16.70 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.20  | 67.42  | 16.64 |      | 130.0 |         |
|           |                                                        | Z | 6.14  | 67.49  | 16.76 |      | 130.0 |         |
| 10641-AAA | IEEE 1602.11ac WiFi (160MHz, MCS5, 90pc duty cycle)    | X | 6.29  | 67.45  | 16.71 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.27  | 67.42  | 16.66 |      | 130.0 |         |
|           |                                                        | Z | 6.24  | 67.57  | 16.82 |      | 130.0 |         |
| 10642-AAA | IEEE 1602.11ac WiFi (160MHz, MCS6, 90pc duty cycle)    | X | 6.30  | 67.59  | 16.93 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.28  | 67.57  | 16.90 |      | 130.0 |         |
|           |                                                        | Z | 6.23  | 67.67  | 17.03 |      | 130.0 |         |
| 10643-AAA | IEEE 1602.11ac WiFi (160MHz, MCS7, 90pc duty cycle)    | X | 6.16  | 67.37  | 16.73 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.14  | 67.32  | 16.68 |      | 130.0 |         |
|           |                                                        | Z | 6.10  | 67.46  | 16.83 |      | 130.0 |         |
| 10644-AAA | IEEE 1602.11ac WiFi (160MHz, MCS8, 90pc duty cycle)    | X | 6.30  | 67.80  | 16.96 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.26  | 67.68  | 16.87 |      | 130.0 |         |
|           |                                                        | Z | 6.16  | 67.65  | 16.94 |      | 130.0 |         |
| 10645-AAA | IEEE 1602.11ac WiFi (160MHz, MCS9, 90pc duty cycle)    | X | 6.57  | 68.22  | 17.14 | 0.46 | 130.0 | ± 9.6 % |
|           |                                                        | Y | 6.46  | 67.94  | 16.97 |      | 130.0 |         |
|           |                                                        | Z | 6.42  | 68.09  | 17.13 |      | 130.0 |         |
| 10646-AAC | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)  | X | 33.65 | 116.52 | 38.94 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 27.40 | 111.74 | 37.31 |      | 60.0  |         |
|           |                                                        | Z | 40.30 | 122.93 | 41.09 |      | 60.0  |         |
| 10647-AAB | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7) | X | 35.33 | 118.59 | 39.70 | 9.30 | 60.0  | ± 9.6 % |
|           |                                                        | Y | 27.66 | 112.83 | 37.78 |      | 60.0  |         |
|           |                                                        | Z | 41.07 | 124.43 | 41.69 |      | 60.0  |         |
| 10648-AAA | CDMA2000 (1x Advanced)                                 | X | 0.69  | 63.56  | 10.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                        | Y | 0.67  | 63.24  | 10.30 |      | 150.0 |         |
|           |                                                        | Z | 0.68  | 64.29  | 10.59 |      | 150.0 |         |

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **PC Test**

Certificate No: **ES3-3334\_Nov17**

## CALIBRATION CERTIFICATE

Object **ES3DV3 - SN:3334**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v6  
Calibration procedure for dosimetric E-field probes**

Calibration date: **November 10, 2017**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).  
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature ( $22 \pm 3$ )°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

SC ✓  
11/11/2017

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-17 (No. 217-02521/02522)   | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-17 (No. 217-02521)         | Apr-18                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-17 (No. 217-02525)         | Apr-18                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 07-Apr-17 (No. 217-02528)         | Apr-18                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-16 (No. ES3-3013_Dec16)    | Dec-17                 |
| DAE4                       | SN: 660          | 7-Dec-16 (No. DAE4-660_Dec16)     | Dec-17                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-16) | In house check: Jun-18 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-16) | In house check: Jun-18 |
| Network Analyzer HP 8753E  | SN: US37390585   | 18-Oct-01 (in house check Oct-17) | In house check: Oct-18 |

|                |                               |                                          |                           |
|----------------|-------------------------------|------------------------------------------|---------------------------|
| Calibrated by: | Name<br><b>Jeton Kastrati</b> | Function<br><b>Laboratory Technician</b> | Signature<br>             |
| Approved by:   | Name<br><b>Katja Pokovic</b>  | Function<br><b>Technical Manager</b>     | Signature<br>             |
|                |                               |                                          | Issued: November 11, 2017 |

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



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Accreditation No.: **SCS 0108**

### Glossary:

|                          |                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSL                      | tissue simulating liquid                                                                                                                                |
| NORM <sub>x,y,z</sub>    | sensitivity in free space                                                                                                                               |
| ConvF                    | sensitivity in TSL / NORM <sub>x,y,z</sub>                                                                                                              |
| DCP                      | diode compression point                                                                                                                                 |
| CF                       | crest factor (1/duty_cycle) of the RF signal                                                                                                            |
| A, B, C, D               | modulation dependent linearization parameters                                                                                                           |
| Polarization $\phi$      | $\phi$ rotation around probe axis                                                                                                                       |
| Polarization $\vartheta$ | $\vartheta$ rotation around an axis that is in the plane normal to probe axis (at measurement center),<br>i.e., $\vartheta = 0$ is normal to probe axis |
| Connector Angle          | information used in DASY system to align probe sensor X to the robot coordinate system                                                                  |

### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

### Methods Applied and Interpretation of Parameters:

- NORM<sub>x,y,z</sub>**: Assessed for E-field polarization  $\vartheta = 0$  ( $f \leq 900$  MHz in TEM-cell;  $f > 1800$  MHz: R22 waveguide). NORM<sub>x,y,z</sub> are only intermediate values, i.e., the uncertainties of NORM<sub>x,y,z</sub> does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF).
- NORM(f)<sub>x,y,z</sub>** = NORM<sub>x,y,z</sub> \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP<sub>x,y,z</sub>**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A<sub>x,y,z</sub>; B<sub>x,y,z</sub>; C<sub>x,y,z</sub>; D<sub>x,y,z</sub>; VR<sub>x,y,z</sub>; A, B, C, D** are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for  $f \leq 800$  MHz) and inside waveguide using analytical field distributions based on power measurements for  $f > 800$  MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM<sub>x,y,z</sub> \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from  $\pm 50$  MHz to  $\pm 100$  MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM<sub>x</sub> (no uncertainty required).

# Probe ES3DV3

## SN:3334

Manufactured: January 24, 2012  
Calibrated: November 10, 2017

Calibrated for DASY/EASY Systems  
(Note: non-compatible with DASY2 system!)

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

### Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 1.01     | 1.01     | 0.97     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 103.7    | 100.6    | 102.2    |           |

### Modulation Calibration Parameters

| UID | Communication System Name |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C   | D<br>dB | VR<br>mV | Unc <sup>E</sup><br>(k=2) |
|-----|---------------------------|---|---------|------------------------------|-----|---------|----------|---------------------------|
| 0   | CW                        | X | 0.0     | 0.0                          | 1.0 | 0.00    | 140.7    | ±3.3 %                    |
|     |                           | Y | 0.0     | 0.0                          | 1.0 |         | 133.5    |                           |
|     |                           | Z | 0.0     | 0.0                          | 1.0 |         | 142.2    |                           |

Note: For details on UID parameters see Appendix.

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$\text{V}^{-1}$ | T1<br>$\text{ms}\cdot\text{V}^{-2}$ | T2<br>$\text{ms}\cdot\text{V}^{-1}$ | T3<br>ms | T4<br>$\text{V}^{-2}$ | T5<br>$\text{V}^{-1}$ | T6    |
|---|----------|----------|-----------------------------|-------------------------------------|-------------------------------------|----------|-----------------------|-----------------------|-------|
| X | 66.71    | 471.5    | 34.69                       | 29.60                               | 3.155                               | 5.1      | 0.787                 | 0.567                 | 1.012 |
| Y | 62.63    | 447.6    | 35.13                       | 29.82                               | 3.519                               | 5.1      | 0.000                 | 0.671                 | 1.011 |
| Z | 62.22    | 440.3    | 34.76                       | 29.70                               | 3.085                               | 5.1      | 1.091                 | 0.490                 | 1.014 |

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k=2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the  $E^2$ -field uncertainty inside TSL (see Pages 5 and 6).

<sup>B</sup> Numerical linearization parameter: uncertainty not required.

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

### Calibration Parameter Determined in Head Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 41.9                               | 0.89                            | 6.83    | 6.83    | 6.83    | 0.80               | 1.16                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 6.49    | 6.49    | 6.49    | 0.63               | 1.30                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 5.57    | 5.57    | 5.57    | 0.48               | 1.57                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 5.37    | 5.37    | 5.37    | 0.80               | 1.18                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 4.97    | 4.97    | 4.97    | 0.76               | 1.24                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 4.72    | 4.72    | 4.72    | 0.65               | 1.42                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 4.58    | 4.58    | 4.58    | 0.69               | 1.42                    | ± 12.0 %  |

<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

### Calibration Parameter Determined in Body Tissue Simulating Media

| f (MHz) <sup>C</sup> | Relative Permittivity <sup>F</sup> | Conductivity (S/m) <sup>F</sup> | ConvF X | ConvF Y | ConvF Z | Alpha <sup>G</sup> | Depth <sup>G</sup> (mm) | Unc (k=2) |
|----------------------|------------------------------------|---------------------------------|---------|---------|---------|--------------------|-------------------------|-----------|
| 750                  | 55.5                               | 0.96                            | 6.53    | 6.53    | 6.53    | 0.73               | 1.24                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 6.41    | 6.41    | 6.41    | 0.76               | 1.21                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 5.21    | 5.21    | 5.21    | 0.57               | 1.43                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 4.98    | 4.98    | 4.98    | 0.54               | 1.57                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 4.74    | 4.74    | 4.74    | 0.80               | 1.17                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 4.61    | 4.61    | 4.61    | 0.77               | 1.22                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 4.49    | 4.49    | 4.49    | 0.80               | 1.11                    | ± 12.0 %  |

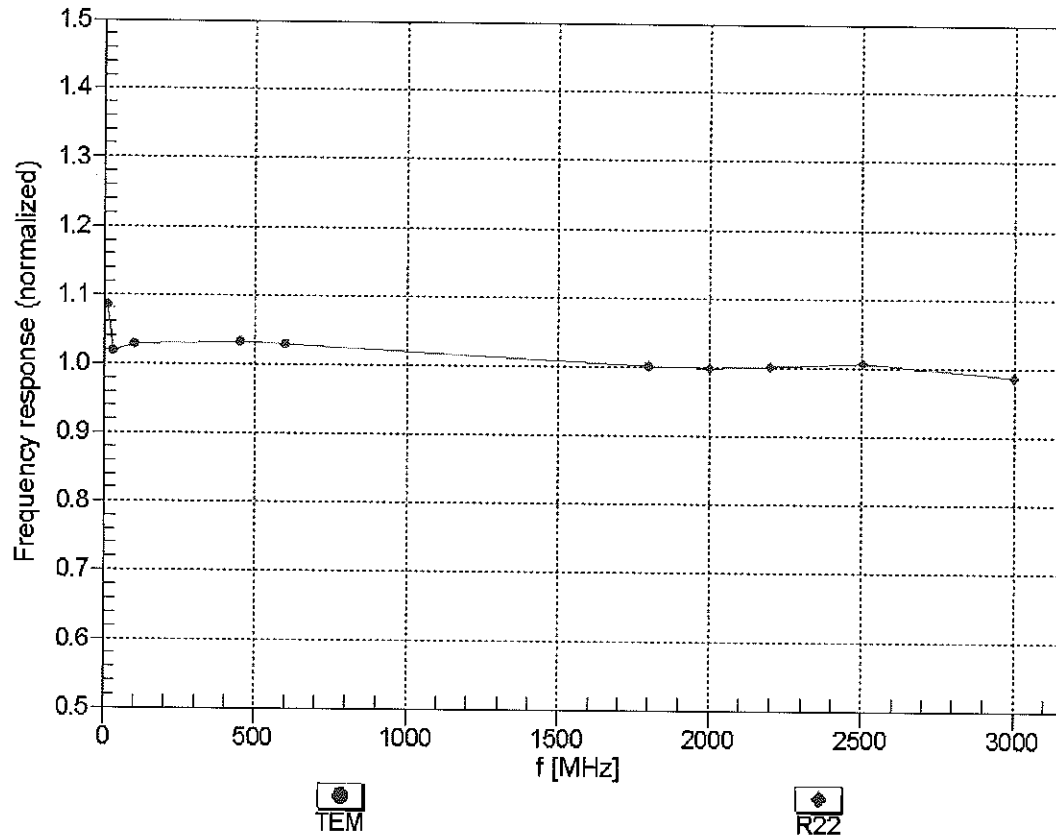
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

<sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters ( $\epsilon$  and  $\sigma$ ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

<sup>G</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

## Frequency Response of E-Field

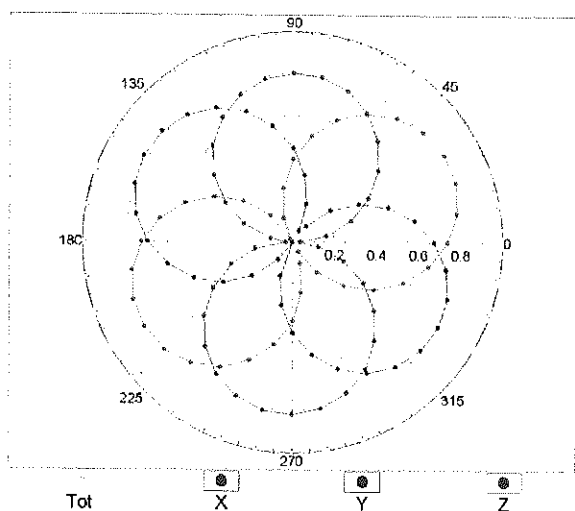
(TEM-Cell:ifi110 EXX, Waveguide: R22)



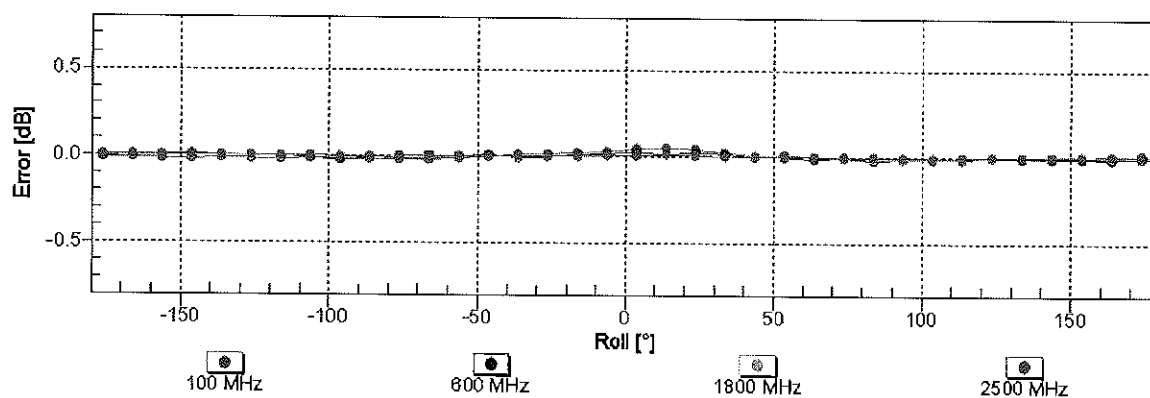
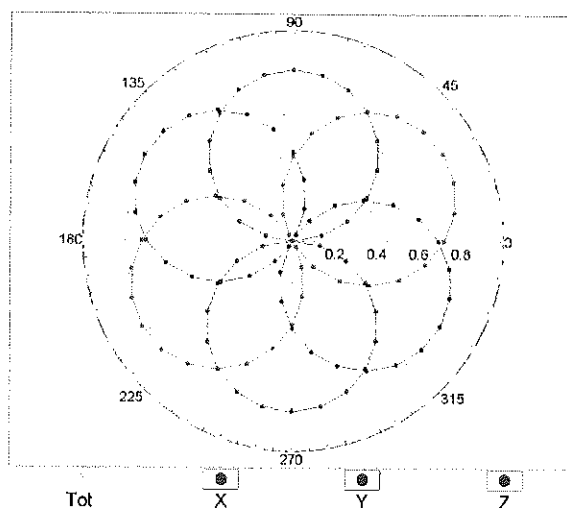
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

## Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

f=600 MHz, TEM

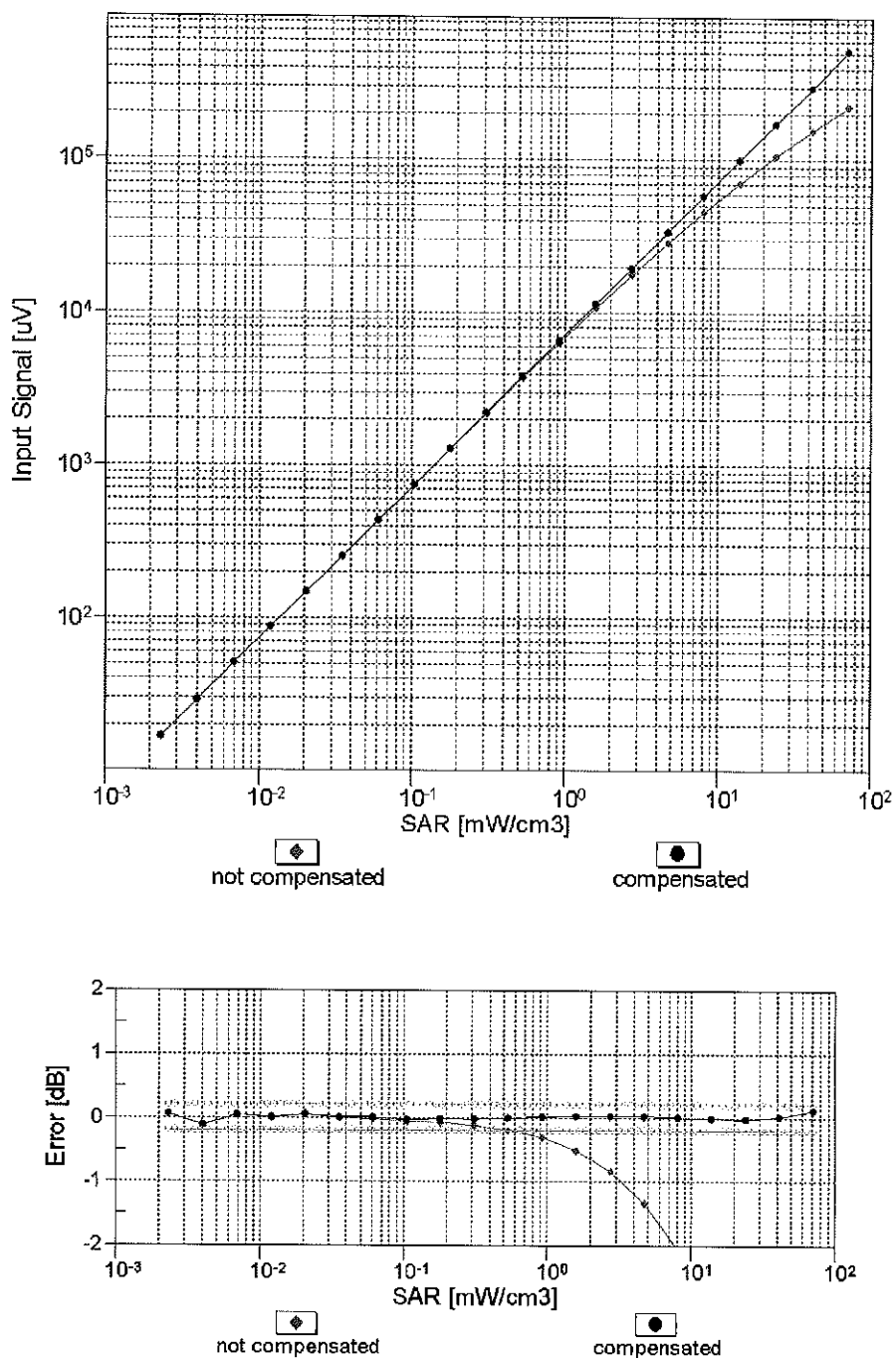


f=1800 MHz, R22



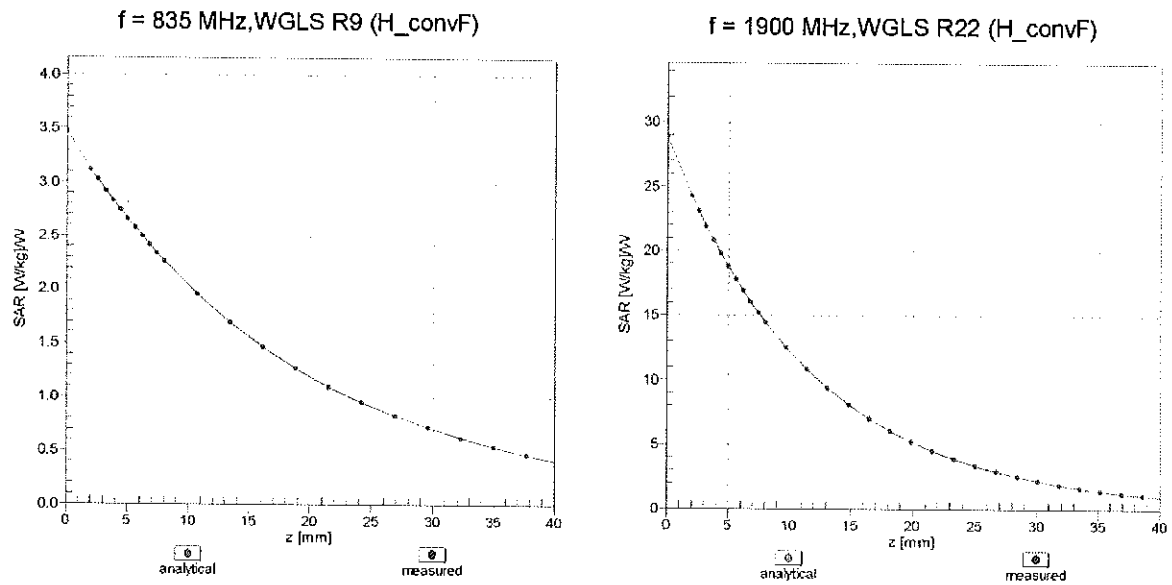
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



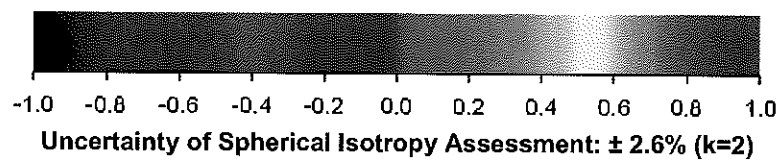
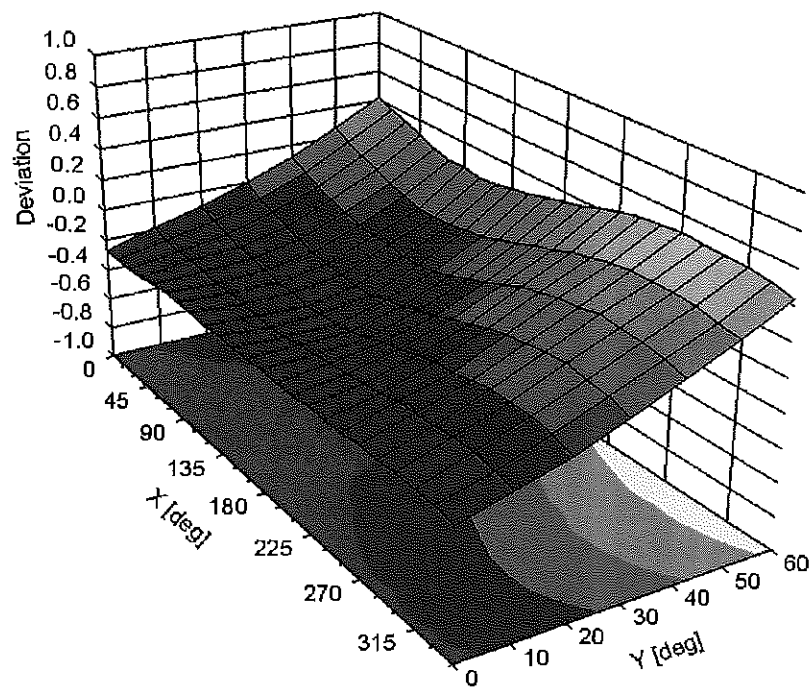
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi$ ,  $\theta$ ),  $f = 900 \text{ MHz}$



## DASY/EASY - Parameters of Probe: ES3DV3 - SN:3334

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 13.7       |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 10 mm      |
| Tip Diameter                                  | 4 mm       |
| Probe Tip to Sensor X Calibration Point       | 2 mm       |
| Probe Tip to Sensor Y Calibration Point       | 2 mm       |
| Probe Tip to Sensor Z Calibration Point       | 2 mm       |
| Recommended Measurement Distance from Surface | 3 mm       |

**Appendix: Modulation Calibration Parameters**

| UID           | Communication System Name                     |   | A<br>dB | B<br>dB $\sqrt{\mu V}$ | C     | D<br>dB | VR<br>mV | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------------------------|---|---------|------------------------|-------|---------|----------|----------------------------------|
| 0             | CW                                            | X | 0.00    | 0.00                   | 1.00  | 0.00    | 140.7    | $\pm 3.3 \%$                     |
|               |                                               | Y | 0.00    | 0.00                   | 1.00  |         | 133.5    |                                  |
|               |                                               | Z | 0.00    | 0.00                   | 1.00  |         | 142.2    |                                  |
| 10010-<br>CAA | SAR Validation (Square, 100ms, 10ms)          | X | 9.62    | 81.30                  | 20.10 | 10.00   | 25.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 8.83    | 79.81                  | 19.77 |         | 25.0     |                                  |
|               |                                               | Z | 9.63    | 81.31                  | 20.03 |         | 25.0     |                                  |
| 10011-<br>CAB | UMTS-FDD (WCDMA)                              | X | 1.46    | 74.04                  | 18.98 | 0.00    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.01    | 66.70                  | 14.70 |         | 150.0    |                                  |
|               |                                               | Z | 1.43    | 73.78                  | 18.81 |         | 150.0    |                                  |
| 10012-<br>CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)      | X | 1.39    | 66.99                  | 17.32 | 0.41    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 1.29    | 64.79                  | 15.49 |         | 150.0    |                                  |
|               |                                               | Z | 1.38    | 66.97                  | 17.28 |         | 150.0    |                                  |
| 10013-<br>CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps) | X | 5.22    | 67.48                  | 17.66 | 1.46    | 150.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 5.19    | 67.20                  | 17.35 |         | 150.0    |                                  |
|               |                                               | Z | 5.20    | 67.52                  | 17.67 |         | 150.0    |                                  |
| 10021-<br>DAC | GSM-FDD (TDMA, GMSK)                          | X | 18.88   | 94.13                  | 26.24 | 9.39    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 15.82   | 91.07                  | 25.49 |         | 50.0     |                                  |
|               |                                               | Z | 19.85   | 94.99                  | 26.46 |         | 50.0     |                                  |
| 10023-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0)                   | X | 17.29   | 92.50                  | 25.77 | 9.57    | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 14.72   | 89.66                  | 25.07 |         | 50.0     |                                  |
|               |                                               | Z | 17.97   | 93.17                  | 25.93 |         | 50.0     |                                  |
| 10024-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                 | X | 100.00  | 119.84                 | 31.52 | 6.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 52.94   | 110.38                 | 29.38 |         | 60.0     |                                  |
|               |                                               | Z | 100.00  | 119.65                 | 31.39 |         | 60.0     |                                  |
| 10025-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                   | X | 18.82   | 104.47                 | 39.60 | 12.57   | 50.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 14.20   | 94.41                  | 35.21 |         | 50.0     |                                  |
|               |                                               | Z | 17.87   | 103.04                 | 39.06 |         | 50.0     |                                  |
| 10026-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                 | X | 21.11   | 104.02                 | 35.80 | 9.56    | 60.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 15.35   | 95.14                  | 32.37 |         | 60.0     |                                  |
|               |                                               | Z | 21.21   | 104.33                 | 35.91 |         | 60.0     |                                  |
| 10027-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)               | X | 100.00  | 118.82                 | 30.06 | 4.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 118.59                 | 30.06 |         | 80.0     |                                  |
|               |                                               | Z | 100.00  | 118.61                 | 29.93 |         | 80.0     |                                  |
| 10028-<br>DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)             | X | 100.00  | 119.26                 | 29.39 | 3.55    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 118.22                 | 29.01 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 119.03                 | 29.26 |         | 100.0    |                                  |
| 10029-<br>DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)               | X | 15.23   | 96.97                  | 32.35 | 7.80    | 80.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 11.61   | 89.73                  | 29.40 |         | 80.0     |                                  |
|               |                                               | Z | 15.15   | 97.02                  | 32.38 |         | 80.0     |                                  |
| 10030-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)           | X | 100.00  | 118.48                 | 30.26 | 5.30    | 70.0     | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 118.46                 | 30.37 |         | 70.0     |                                  |
|               |                                               | Z | 100.00  | 118.24                 | 30.12 |         | 70.0     |                                  |
| 10031-<br>CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)           | X | 100.00  | 122.12                 | 28.99 | 1.88    | 100.0    | $\pm 9.6 \%$                     |
|               |                                               | Y | 100.00  | 118.17                 | 27.33 |         | 100.0    |                                  |
|               |                                               | Z | 100.00  | 121.61                 | 28.73 |         | 100.0    |                                  |

|           |                                                     |   |        |        |       |       |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|-------|-------|---------|
| 10032-CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | X | 100.00 | 129.40 | 30.83 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 100.00 | 120.57 | 27.19 |       | 100.0 |         |
|           |                                                     | Z | 100.00 | 128.57 | 30.45 |       | 100.0 |         |
| 10033-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | X | 22.47  | 101.12 | 28.50 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 12.60  | 90.36  | 24.91 |       | 70.0  |         |
|           |                                                     | Z | 22.66  | 101.00 | 28.31 |       | 70.0  |         |
| 10034-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | X | 17.36  | 101.33 | 27.20 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 5.95   | 83.41  | 21.05 |       | 100.0 |         |
|           |                                                     | Z | 19.00  | 102.17 | 27.18 |       | 100.0 |         |
| 10035-CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | X | 9.13   | 93.50  | 24.73 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.60   | 77.93  | 18.79 |       | 100.0 |         |
|           |                                                     | Z | 9.92   | 94.31  | 24.71 |       | 100.0 |         |
| 10036-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | X | 27.70  | 104.87 | 29.65 | 5.30  | 70.0  | ± 9.6 % |
|           |                                                     | Y | 14.38  | 92.74  | 25.75 |       | 70.0  |         |
|           |                                                     | Z | 28.14  | 104.83 | 29.48 |       | 70.0  |         |
| 10037-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | X | 16.86  | 100.89 | 27.03 | 1.88  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 5.74   | 82.91  | 20.84 |       | 100.0 |         |
|           |                                                     | Z | 18.13  | 101.47 | 26.94 |       | 100.0 |         |
| 10038-CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | X | 9.87   | 95.00  | 25.28 | 1.17  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 3.70   | 78.55  | 19.10 |       | 100.0 |         |
|           |                                                     | Z | 10.76  | 95.86  | 25.27 |       | 100.0 |         |
| 10039-CAB | CDMA2000 (1xRTT, RC1)                               | X | 3.28   | 80.63  | 20.39 | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.81   | 70.79  | 15.68 |       | 150.0 |         |
|           |                                                     | Z | 3.40   | 81.32  | 20.41 |       | 150.0 |         |
| 10042-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | X | 47.24  | 107.28 | 28.38 | 7.78  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 26.10  | 98.32  | 26.11 |       | 50.0  |         |
|           |                                                     | Z | 52.73  | 108.80 | 28.70 |       | 50.0  |         |
| 10044-CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | X | 0.00   | 128.47 | 1.04  | 0.00  | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.00   | 105.51 | 9.25  |       | 150.0 |         |
|           |                                                     | Z | 0.00   | 125.30 | 1.92  |       | 150.0 |         |
| 10048-CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | X | 11.22  | 82.53  | 24.09 | 13.80 | 25.0  | ± 9.6 % |
|           |                                                     | Y | 10.79  | 81.48  | 23.95 |       | 25.0  |         |
|           |                                                     | Z | 11.33  | 82.82  | 24.14 |       | 25.0  |         |
| 10049-CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | X | 13.01  | 86.88  | 24.28 | 10.79 | 40.0  | ± 9.6 % |
|           |                                                     | Y | 12.08  | 85.39  | 23.99 |       | 40.0  |         |
|           |                                                     | Z | 13.26  | 87.24  | 24.34 |       | 40.0  |         |
| 10056-CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | X | 13.20  | 87.68  | 25.05 | 9.03  | 50.0  | ± 9.6 % |
|           |                                                     | Y | 11.44  | 84.52  | 23.88 |       | 50.0  |         |
|           |                                                     | Z | 13.33  | 87.82  | 25.01 |       | 50.0  |         |
| 10058-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | X | 11.48  | 91.60  | 29.78 | 6.55  | 100.0 | ± 9.6 % |
|           |                                                     | Y | 9.13   | 85.62  | 27.20 |       | 100.0 |         |
|           |                                                     | Z | 11.34  | 91.49  | 29.75 |       | 100.0 |         |
| 10059-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | X | 1.65   | 69.97  | 18.70 | 0.61  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 1.47   | 66.89  | 16.50 |       | 110.0 |         |
|           |                                                     | Z | 1.64   | 69.94  | 18.66 |       | 110.0 |         |
| 10060-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | X | 100.00 | 133.89 | 34.96 | 1.30  | 110.0 | ± 9.6 % |
|           |                                                     | Y | 42.65  | 116.96 | 30.13 |       | 110.0 |         |
|           |                                                     | Z | 100.00 | 133.64 | 34.83 |       | 110.0 |         |

|           |                                                |   |       |        |       |      |       |         |
|-----------|------------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10061-CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)      | X | 31.72 | 116.07 | 32.89 | 2.04 | 110.0 | ± 9.6 % |
|           |                                                | Y | 7.63  | 90.13  | 24.83 |      | 110.0 |         |
|           |                                                | Z | 32.96 | 116.64 | 32.98 |      | 110.0 |         |
| 10062-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)       | X | 4.95  | 67.28  | 16.98 | 0.49 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.89  | 66.92  | 16.62 |      | 100.0 |         |
|           |                                                | Z | 4.92  | 67.30  | 16.98 |      | 100.0 |         |
| 10063-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)       | X | 5.00  | 67.45  | 17.13 | 0.72 | 100.0 | ± 9.6 % |
|           |                                                | Y | 4.93  | 67.10  | 16.77 |      | 100.0 |         |
|           |                                                | Z | 4.96  | 67.47  | 17.12 |      | 100.0 |         |
| 10064-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)      | X | 5.35  | 67.80  | 17.38 | 0.86 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.28  | 67.46  | 17.04 |      | 100.0 |         |
|           |                                                | Z | 5.30  | 67.80  | 17.38 |      | 100.0 |         |
| 10065-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)      | X | 5.25  | 67.85  | 17.56 | 1.21 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.19  | 67.51  | 17.22 |      | 100.0 |         |
|           |                                                | Z | 5.21  | 67.87  | 17.56 |      | 100.0 |         |
| 10066-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)      | X | 5.31  | 68.00  | 17.80 | 1.46 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.26  | 67.66  | 17.46 |      | 100.0 |         |
|           |                                                | Z | 5.27  | 68.01  | 17.80 |      | 100.0 |         |
| 10067-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)      | X | 5.63  | 68.11  | 18.23 | 2.04 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.58  | 67.83  | 17.92 |      | 100.0 |         |
|           |                                                | Z | 5.59  | 68.13  | 18.23 |      | 100.0 |         |
| 10068-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)      | X | 5.79  | 68.54  | 18.63 | 2.55 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.75  | 68.24  | 18.31 |      | 100.0 |         |
|           |                                                | Z | 5.75  | 68.55  | 18.63 |      | 100.0 |         |
| 10069-CAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)      | X | 5.86  | 68.43  | 18.79 | 2.67 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.83  | 68.16  | 18.48 |      | 100.0 |         |
|           |                                                | Z | 5.82  | 68.46  | 18.80 |      | 100.0 |         |
| 10071-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)  | X | 5.38  | 67.73  | 18.05 | 1.99 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.35  | 67.47  | 17.75 |      | 100.0 |         |
|           |                                                | Z | 5.35  | 67.77  | 18.06 |      | 100.0 |         |
| 10072-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps) | X | 5.46  | 68.37  | 18.40 | 2.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.43  | 68.07  | 18.08 |      | 100.0 |         |
|           |                                                | Z | 5.43  | 68.40  | 18.41 |      | 100.0 |         |
| 10073-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps) | X | 5.61  | 68.74  | 18.84 | 2.83 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.58  | 68.46  | 18.52 |      | 100.0 |         |
|           |                                                | Z | 5.58  | 68.79  | 18.85 |      | 100.0 |         |
| 10074-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps) | X | 5.65  | 68.85  | 19.12 | 3.30 | 100.0 | ± 9.6 % |
|           |                                                | Y | 5.64  | 68.57  | 18.79 |      | 100.0 |         |
|           |                                                | Z | 5.63  | 68.89  | 19.12 |      | 100.0 |         |
| 10075-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps) | X | 5.85  | 69.46  | 19.68 | 3.82 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.82  | 69.13  | 19.31 |      | 90.0  |         |
|           |                                                | Z | 5.81  | 69.47  | 19.66 |      | 90.0  |         |
| 10076-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps) | X | 5.84  | 69.22  | 19.77 | 4.15 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.84  | 68.93  | 19.43 |      | 90.0  |         |
|           |                                                | Z | 5.82  | 69.25  | 19.77 |      | 90.0  |         |
| 10077-CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps) | X | 5.88  | 69.32  | 19.88 | 4.30 | 90.0  | ± 9.6 % |
|           |                                                | Y | 5.88  | 69.03  | 19.54 |      | 90.0  |         |
|           |                                                | Z | 5.86  | 69.35  | 19.88 |      | 90.0  |         |

|           |                                                     |   |        |        |       |      |       |         |
|-----------|-----------------------------------------------------|---|--------|--------|-------|------|-------|---------|
| 10081-CAB | CDMA2000 (1xRTT, RC3)                               | X | 1.49   | 74.36  | 17.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 0.88   | 65.69  | 12.84 |      | 150.0 |         |
|           |                                                     | Z | 1.45   | 74.15  | 17.39 |      | 150.0 |         |
| 10082-CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | X | 2.45   | 65.03  | 9.72  | 4.77 | 80.0  | ± 9.6 % |
|           |                                                     | Y | 2.45   | 64.73  | 9.69  |      | 80.0  |         |
|           |                                                     | Z | 2.41   | 64.88  | 9.59  |      | 80.0  |         |
| 10090-DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | X | 100.00 | 119.93 | 31.59 | 6.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 51.03  | 109.88 | 29.29 |      | 60.0  |         |
|           |                                                     | Z | 100.00 | 119.74 | 31.46 |      | 60.0  |         |
| 10097-CAB | UMTS-FDD (HSDPA)                                    | X | 2.06   | 69.89  | 17.30 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.80   | 67.00  | 15.35 |      | 150.0 |         |
|           |                                                     | Z | 2.05   | 69.92  | 17.26 |      | 150.0 |         |
| 10098-CAB | UMTS-FDD (HSUPA, Subtest 2)                         | X | 2.02   | 69.92  | 17.31 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 1.76   | 66.95  | 15.31 |      | 150.0 |         |
|           |                                                     | Z | 2.01   | 69.95  | 17.26 |      | 150.0 |         |
| 10099-DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | X | 20.97  | 103.82 | 35.73 | 9.56 | 60.0  | ± 9.6 % |
|           |                                                     | Y | 15.30  | 95.03  | 32.33 |      | 60.0  |         |
|           |                                                     | Z | 21.08  | 104.13 | 35.84 |      | 60.0  |         |
| 10100-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 3.71   | 73.18  | 18.06 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.19   | 70.22  | 16.42 |      | 150.0 |         |
|           |                                                     | Z | 3.65   | 73.01  | 18.00 |      | 150.0 |         |
| 10101-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 3.53   | 68.94  | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.33   | 67.62  | 15.83 |      | 150.0 |         |
|           |                                                     | Z | 3.49   | 68.84  | 16.70 |      | 150.0 |         |
| 10102-CAD | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 3.61   | 68.75  | 16.77 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.43   | 67.57  | 15.93 |      | 150.0 |         |
|           |                                                     | Z | 3.57   | 68.67  | 16.73 |      | 150.0 |         |
| 10103-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | X | 9.08   | 78.80  | 21.54 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.49   | 77.27  | 20.81 |      | 65.0  |         |
|           |                                                     | Z | 9.07   | 78.93  | 21.60 |      | 65.0  |         |
| 10104-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | X | 8.95   | 77.46  | 21.89 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 8.55   | 76.20  | 21.20 |      | 65.0  |         |
|           |                                                     | Z | 8.91   | 77.50  | 21.90 |      | 65.0  |         |
| 10105-CAD | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | X | 7.83   | 74.81  | 21.03 | 3.98 | 65.0  | ± 9.6 % |
|           |                                                     | Y | 7.68   | 74.08  | 20.55 |      | 65.0  |         |
|           |                                                     | Z | 8.23   | 75.91  | 21.51 |      | 65.0  |         |
| 10108-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | X | 3.26   | 72.29  | 17.90 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.82   | 69.43  | 16.24 |      | 150.0 |         |
|           |                                                     | Z | 3.20   | 72.15  | 17.85 |      | 150.0 |         |
| 10109-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)          | X | 3.20   | 68.82  | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 3.00   | 67.39  | 15.74 |      | 150.0 |         |
|           |                                                     | Z | 3.16   | 68.75  | 16.71 |      | 150.0 |         |
| 10110-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)             | X | 2.69   | 71.43  | 17.70 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.31   | 68.43  | 15.87 |      | 150.0 |         |
|           |                                                     | Z | 2.64   | 71.35  | 17.65 |      | 150.0 |         |
| 10111-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)           | X | 2.92   | 69.57  | 17.19 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                     | Y | 2.69   | 67.85  | 15.98 |      | 150.0 |         |
|           |                                                     | Z | 2.88   | 69.60  | 17.16 |      | 150.0 |         |

|           |                                                |   |       |       |       |      |       |         |
|-----------|------------------------------------------------|---|-------|-------|-------|------|-------|---------|
| 10112-CAE | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | X | 3.31  | 68.62 | 16.72 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.12  | 67.34 | 15.80 |      | 150.0 |         |
|           |                                                | Z | 3.27  | 68.57 | 16.69 |      | 150.0 |         |
| 10113-CAE | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | X | 3.06  | 69.50 | 17.22 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.84  | 67.96 | 16.11 |      | 150.0 |         |
|           |                                                | Z | 3.03  | 69.55 | 17.20 |      | 150.0 |         |
| 10114-CAB | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | X | 5.29  | 67.63 | 16.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.22  | 67.22 | 16.35 |      | 150.0 |         |
|           |                                                | Z | 5.26  | 67.61 | 16.70 |      | 150.0 |         |
| 10115-CAB | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | X | 5.68  | 67.94 | 16.86 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.59  | 67.55 | 16.53 |      | 150.0 |         |
|           |                                                | Z | 5.63  | 67.91 | 16.85 |      | 150.0 |         |
| 10116-CAB | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | X | 5.43  | 67.90 | 16.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.35  | 67.50 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.39  | 67.89 | 16.77 |      | 150.0 |         |
| 10117-CAB | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | X | 5.30  | 67.66 | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.23  | 67.25 | 16.39 |      | 150.0 |         |
|           |                                                | Z | 5.27  | 67.64 | 16.74 |      | 150.0 |         |
| 10118-CAB | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | X | 5.73  | 68.01 | 16.91 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.66  | 67.70 | 16.61 |      | 150.0 |         |
|           |                                                | Z | 5.70  | 68.07 | 16.94 |      | 150.0 |         |
| 10119-CAB | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | X | 5.40  | 67.85 | 16.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 5.32  | 67.46 | 16.41 |      | 150.0 |         |
|           |                                                | Z | 5.37  | 67.85 | 16.76 |      | 150.0 |         |
| 10140-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | X | 3.67  | 68.74 | 16.69 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.48  | 67.57 | 15.86 |      | 150.0 |         |
|           |                                                | Z | 3.62  | 68.67 | 16.65 |      | 150.0 |         |
| 10141-CAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | X | 3.78  | 68.70 | 16.79 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.60  | 67.64 | 16.01 |      | 150.0 |         |
|           |                                                | Z | 3.73  | 68.65 | 16.76 |      | 150.0 |         |
| 10142-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | X | 2.49  | 71.67 | 17.71 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.08  | 68.27 | 15.63 |      | 150.0 |         |
|           |                                                | Z | 2.44  | 71.66 | 17.65 |      | 150.0 |         |
| 10143-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | X | 2.86  | 70.64 | 17.32 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.55  | 68.40 | 15.82 |      | 150.0 |         |
|           |                                                | Z | 2.83  | 70.75 | 17.28 |      | 150.0 |         |
| 10144-CAD | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | X | 2.64  | 68.51 | 15.87 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 2.38  | 66.60 | 14.49 |      | 150.0 |         |
|           |                                                | Z | 2.59  | 68.48 | 15.74 |      | 150.0 |         |
| 10145-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | X | 1.97  | 71.47 | 16.37 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 1.44  | 66.31 | 13.22 |      | 150.0 |         |
|           |                                                | Z | 1.89  | 71.06 | 15.90 |      | 150.0 |         |
| 10146-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | X | 5.50  | 80.46 | 19.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.00  | 71.50 | 15.48 |      | 150.0 |         |
|           |                                                | Z | 8.01  | 85.94 | 21.25 |      | 150.0 |         |
| 10147-CAE | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | X | 8.05  | 86.24 | 21.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                                | Y | 3.78  | 74.87 | 17.09 |      | 150.0 |         |
|           |                                                | Z | 15.29 | 95.55 | 24.46 |      | 150.0 |         |

|           |                                            |   |      |       |       |      |       |         |
|-----------|--------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10149-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 3.21 | 68.87 | 16.80 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.01 | 67.44 | 15.79 |      | 150.0 |         |
|           |                                            | Z | 3.17 | 68.81 | 16.75 |      | 150.0 |         |
| 10150-CAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 3.32 | 68.67 | 16.76 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.13 | 67.39 | 15.84 |      | 150.0 |         |
|           |                                            | Z | 3.27 | 68.63 | 16.73 |      | 150.0 |         |
| 10151-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)    | X | 9.61 | 81.00 | 22.52 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.85 | 79.13 | 21.65 |      | 65.0  |         |
|           |                                            | Z | 9.68 | 81.30 | 22.64 |      | 65.0  |         |
| 10152-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)  | X | 8.64 | 77.80 | 21.86 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.16 | 76.30 | 21.04 |      | 65.0  |         |
|           |                                            | Z | 8.60 | 77.85 | 21.85 |      | 65.0  |         |
| 10153-CAD | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)  | X | 8.96 | 78.39 | 22.42 | 3.98 | 65.0  | ± 9.6 % |
|           |                                            | Y | 8.52 | 77.03 | 21.67 |      | 65.0  |         |
|           |                                            | Z | 8.93 | 78.48 | 22.44 |      | 65.0  |         |
| 10154-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)    | X | 2.77 | 71.99 | 18.03 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.36 | 68.88 | 16.16 |      | 150.0 |         |
|           |                                            | Z | 2.71 | 71.90 | 17.97 |      | 150.0 |         |
| 10155-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)  | X | 2.92 | 69.57 | 17.20 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.69 | 67.85 | 15.99 |      | 150.0 |         |
|           |                                            | Z | 2.88 | 69.60 | 17.17 |      | 150.0 |         |
| 10156-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)     | X | 2.40 | 72.39 | 17.94 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 1.94 | 68.40 | 15.54 |      | 150.0 |         |
|           |                                            | Z | 2.35 | 72.39 | 17.85 |      | 150.0 |         |
| 10157-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)   | X | 2.53 | 69.59 | 16.28 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.21 | 67.11 | 14.58 |      | 150.0 |         |
|           |                                            | Z | 2.49 | 69.60 | 16.14 |      | 150.0 |         |
| 10158-CAE | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)  | X | 3.07 | 69.55 | 17.26 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.85 | 68.01 | 16.15 |      | 150.0 |         |
|           |                                            | Z | 3.03 | 69.61 | 17.24 |      | 150.0 |         |
| 10159-CAE | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)   | X | 2.66 | 70.03 | 16.55 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.32 | 67.55 | 14.88 |      | 150.0 |         |
|           |                                            | Z | 2.62 | 70.07 | 16.43 |      | 150.0 |         |
| 10160-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)    | X | 3.11 | 70.49 | 17.38 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 2.82 | 68.44 | 16.07 |      | 150.0 |         |
|           |                                            | Z | 3.07 | 70.47 | 17.37 |      | 150.0 |         |
| 10161-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)  | X | 3.21 | 68.57 | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.02 | 67.28 | 15.78 |      | 150.0 |         |
|           |                                            | Z | 3.17 | 68.54 | 16.69 |      | 150.0 |         |
| 10162-CAD | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)  | X | 3.30 | 68.55 | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.13 | 67.34 | 15.85 |      | 150.0 |         |
|           |                                            | Z | 3.27 | 68.56 | 16.73 |      | 150.0 |         |
| 10166-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)   | X | 4.20 | 71.56 | 20.34 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.87 | 69.78 | 19.23 |      | 150.0 |         |
|           |                                            | Z | 4.26 | 72.23 | 20.77 |      | 150.0 |         |
| 10167-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM) | X | 5.62 | 75.43 | 21.16 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.84 | 72.55 | 19.67 |      | 150.0 |         |
|           |                                            | Z | 5.83 | 76.66 | 21.77 |      | 150.0 |         |

|           |                                            |   |       |        |       |      |       |         |
|-----------|--------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10168-CAE | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM) | X | 6.16  | 77.44  | 22.29 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 5.29  | 74.48  | 20.84 |      | 150.0 |         |
|           |                                            | Z | 6.49  | 79.01  | 23.05 |      | 150.0 |         |
| 10169-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 4.12  | 74.44  | 21.59 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.46  | 70.65  | 19.59 |      | 150.0 |         |
|           |                                            | Z | 4.16  | 75.11  | 22.06 |      | 150.0 |         |
| 10170-CAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 6.90  | 83.29  | 24.63 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.89  | 76.53  | 21.79 |      | 150.0 |         |
|           |                                            | Z | 7.53  | 85.69  | 25.72 |      | 150.0 |         |
| 10171-AAD | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 5.38  | 77.83  | 21.62 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.02  | 72.35  | 19.11 |      | 150.0 |         |
|           |                                            | Z | 5.66  | 79.36  | 22.38 |      | 150.0 |         |
| 10172-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)      | X | 40.92 | 115.38 | 35.36 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 18.61 | 99.18  | 30.36 |      | 65.0  |         |
|           |                                            | Z | 73.37 | 127.97 | 38.91 |      | 65.0  |         |
| 10173-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)    | X | 41.50 | 110.23 | 32.21 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 20.84 | 97.54  | 28.42 |      | 65.0  |         |
|           |                                            | Z | 70.49 | 120.72 | 35.16 |      | 65.0  |         |
| 10174-CAD | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)    | X | 30.45 | 103.27 | 29.74 | 6.02 | 65.0  | ± 9.6 % |
|           |                                            | Y | 17.55 | 93.43  | 26.69 |      | 65.0  |         |
|           |                                            | Z | 47.52 | 111.89 | 32.29 |      | 65.0  |         |
| 10175-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)      | X | 4.05  | 74.02  | 21.30 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.41  | 70.30  | 19.32 |      | 150.0 |         |
|           |                                            | Z | 4.09  | 74.67  | 21.77 |      | 150.0 |         |
| 10176-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)    | X | 6.91  | 83.32  | 24.64 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.90  | 76.56  | 21.80 |      | 150.0 |         |
|           |                                            | Z | 7.54  | 85.72  | 25.73 |      | 150.0 |         |
| 10177-CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)       | X | 4.09  | 74.22  | 21.42 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.44  | 70.48  | 19.43 |      | 150.0 |         |
|           |                                            | Z | 4.13  | 74.88  | 21.88 |      | 150.0 |         |
| 10178-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)     | X | 6.77  | 82.91  | 24.46 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.83  | 76.25  | 21.65 |      | 150.0 |         |
|           |                                            | Z | 7.38  | 85.26  | 25.54 |      | 150.0 |         |
| 10179-CAE | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)    | X | 6.06  | 80.34  | 22.96 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.41  | 74.27  | 20.29 |      | 150.0 |         |
|           |                                            | Z | 6.50  | 82.31  | 23.89 |      | 150.0 |         |
| 10180-CAE | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)     | X | 5.35  | 77.70  | 21.54 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.00  | 72.25  | 19.04 |      | 150.0 |         |
|           |                                            | Z | 5.62  | 79.22  | 22.31 |      | 150.0 |         |
| 10181-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)      | X | 4.09  | 74.20  | 21.41 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 3.44  | 70.46  | 19.42 |      | 150.0 |         |
|           |                                            | Z | 4.13  | 74.86  | 21.88 |      | 150.0 |         |
| 10182-CAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)    | X | 6.76  | 82.88  | 24.45 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.82  | 76.23  | 21.63 |      | 150.0 |         |
|           |                                            | Z | 7.37  | 85.23  | 25.52 |      | 150.0 |         |
| 10183-AAC | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)    | X | 5.33  | 77.67  | 21.53 | 3.01 | 150.0 | ± 9.6 % |
|           |                                            | Y | 4.00  | 72.23  | 19.03 |      | 150.0 |         |
|           |                                            | Z | 5.61  | 79.18  | 22.29 |      | 150.0 |         |

|           |                                               |   |      |       |       |      |       |         |
|-----------|-----------------------------------------------|---|------|-------|-------|------|-------|---------|
| 10184-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)          | X | 4.10 | 74.25 | 21.43 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.45 | 70.50 | 19.45 |      | 150.0 |         |
|           |                                               | Z | 4.14 | 74.91 | 21.90 |      | 150.0 |         |
| 10185-CAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)        | X | 6.80 | 82.97 | 24.49 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.84 | 76.30 | 21.67 |      | 150.0 |         |
|           |                                               | Z | 7.41 | 85.33 | 25.57 |      | 150.0 |         |
| 10186-AAD | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)        | X | 5.37 | 77.75 | 21.57 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.02 | 72.30 | 19.06 |      | 150.0 |         |
|           |                                               | Z | 5.65 | 79.28 | 22.33 |      | 150.0 |         |
| 10187-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)        | X | 4.11 | 74.29 | 21.48 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 3.45 | 70.54 | 19.49 |      | 150.0 |         |
|           |                                               | Z | 4.15 | 74.96 | 21.95 |      | 150.0 |         |
| 10188-CAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)      | X | 7.12 | 83.93 | 24.94 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.01 | 77.04 | 22.07 |      | 150.0 |         |
|           |                                               | Z | 7.81 | 86.44 | 26.07 |      | 150.0 |         |
| 10189-AAE | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)      | X | 5.53 | 78.35 | 21.89 | 3.01 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.11 | 72.75 | 19.35 |      | 150.0 |         |
|           |                                               | Z | 5.84 | 79.95 | 22.69 |      | 150.0 |         |
| 10193-CAB | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)  | X | 4.73 | 67.05 | 16.53 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.65 | 66.63 | 16.12 |      | 150.0 |         |
|           |                                               | Z | 4.69 | 67.06 | 16.51 |      | 150.0 |         |
| 10194-CAB | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM) | X | 4.93 | 67.44 | 16.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.84 | 67.00 | 16.24 |      | 150.0 |         |
|           |                                               | Z | 4.89 | 67.43 | 16.63 |      | 150.0 |         |
| 10195-CAB | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM) | X | 4.97 | 67.44 | 16.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.88 | 67.01 | 16.24 |      | 150.0 |         |
|           |                                               | Z | 4.93 | 67.44 | 16.63 |      | 150.0 |         |
| 10196-CAB | IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)       | X | 4.75 | 67.17 | 16.57 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.66 | 66.73 | 16.16 |      | 150.0 |         |
|           |                                               | Z | 4.71 | 67.16 | 16.55 |      | 150.0 |         |
| 10197-CAB | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)      | X | 4.95 | 67.46 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.86 | 67.02 | 16.25 |      | 150.0 |         |
|           |                                               | Z | 4.91 | 67.45 | 16.64 |      | 150.0 |         |
| 10198-CAB | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)      | X | 4.98 | 67.45 | 16.64 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.89 | 67.03 | 16.25 |      | 150.0 |         |
|           |                                               | Z | 4.93 | 67.46 | 16.64 |      | 150.0 |         |
| 10219-CAB | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)       | X | 4.70 | 67.19 | 16.54 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.61 | 66.74 | 16.12 |      | 150.0 |         |
|           |                                               | Z | 4.66 | 67.19 | 16.52 |      | 150.0 |         |
| 10220-CAB | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)    | X | 4.95 | 67.46 | 16.65 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.86 | 67.01 | 16.25 |      | 150.0 |         |
|           |                                               | Z | 4.90 | 67.44 | 16.64 |      | 150.0 |         |
| 10221-CAB | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)    | X | 4.98 | 67.38 | 16.63 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 4.90 | 66.96 | 16.25 |      | 150.0 |         |
|           |                                               | Z | 4.94 | 67.38 | 16.63 |      | 150.0 |         |
| 10222-CAB | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)        | X | 5.29 | 67.69 | 16.75 | 0.00 | 150.0 | ± 9.6 % |
|           |                                               | Y | 5.21 | 67.27 | 16.38 |      | 150.0 |         |
|           |                                               | Z | 5.25 | 67.66 | 16.74 |      | 150.0 |         |

|           |                                           |   |       |        |       |      |       |         |
|-----------|-------------------------------------------|---|-------|--------|-------|------|-------|---------|
| 10223-CAB | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)  | X | 5.67  | 68.02  | 16.93 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.59  | 67.65  | 16.60 |      | 150.0 |         |
|           |                                           | Z | 5.63  | 68.00  | 16.93 |      | 150.0 |         |
| 10224-CAB | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM) | X | 5.34  | 67.81  | 16.73 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 5.25  | 67.37  | 16.36 |      | 150.0 |         |
|           |                                           | Z | 5.30  | 67.76  | 16.71 |      | 150.0 |         |
| 10225-CAB | UMTS-FDD (HSPA+)                          | X | 3.02  | 66.95  | 16.18 | 0.00 | 150.0 | ± 9.6 % |
|           |                                           | Y | 2.89  | 66.01  | 15.36 |      | 150.0 |         |
|           |                                           | Z | 2.98  | 66.97  | 16.13 |      | 150.0 |         |
| 10226-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)  | X | 43.88 | 111.39 | 32.61 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 21.78 | 98.45  | 28.78 |      | 65.0  |         |
|           |                                           | Z | 76.19 | 122.34 | 35.65 |      | 65.0  |         |
| 10227-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)  | X | 32.37 | 104.53 | 30.20 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.90 | 94.83  | 27.22 |      | 65.0  |         |
|           |                                           | Z | 50.93 | 113.37 | 32.79 |      | 65.0  |         |
| 10228-CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)    | X | 47.31 | 118.81 | 36.42 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.88 | 101.86 | 31.29 |      | 65.0  |         |
|           |                                           | Z | 73.13 | 128.59 | 39.21 |      | 65.0  |         |
| 10229-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)    | X | 41.46 | 110.20 | 32.21 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.89 | 97.57  | 28.44 |      | 65.0  |         |
|           |                                           | Z | 70.28 | 120.66 | 35.15 |      | 65.0  |         |
| 10230-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)    | X | 30.97 | 103.64 | 29.88 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.22 | 94.11  | 26.93 |      | 65.0  |         |
|           |                                           | Z | 48.00 | 112.18 | 32.41 |      | 65.0  |         |
| 10231-CAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)      | X | 44.75 | 117.58 | 36.01 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.02 | 100.95 | 30.95 |      | 65.0  |         |
|           |                                           | Z | 67.93 | 126.95 | 38.72 |      | 65.0  |         |
| 10232-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)    | X | 41.47 | 110.21 | 32.21 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.87 | 97.56  | 28.44 |      | 65.0  |         |
|           |                                           | Z | 70.35 | 120.69 | 35.15 |      | 65.0  |         |
| 10233-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)    | X | 31.01 | 103.68 | 29.89 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.21 | 94.11  | 26.93 |      | 65.0  |         |
|           |                                           | Z | 48.11 | 112.24 | 32.42 |      | 65.0  |         |
| 10234-CAD | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)      | X | 42.05 | 116.13 | 35.52 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 19.19 | 99.98  | 30.56 |      | 65.0  |         |
|           |                                           | Z | 62.72 | 125.09 | 38.14 |      | 65.0  |         |
| 10235-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)   | X | 41.63 | 110.30 | 32.23 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.90 | 97.60  | 28.45 |      | 65.0  |         |
|           |                                           | Z | 70.79 | 120.81 | 35.19 |      | 65.0  |         |
| 10236-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)   | X | 31.28 | 103.81 | 29.93 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 18.32 | 94.20  | 26.96 |      | 65.0  |         |
|           |                                           | Z | 48.64 | 112.40 | 32.46 |      | 65.0  |         |
| 10237-CAD | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)     | X | 45.36 | 117.87 | 36.09 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.12 | 101.07 | 30.98 |      | 65.0  |         |
|           |                                           | Z | 69.18 | 127.33 | 38.82 |      | 65.0  |         |
| 10238-CAD | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)   | X | 41.53 | 110.25 | 32.22 | 6.02 | 65.0  | ± 9.6 % |
|           |                                           | Y | 20.86 | 97.57  | 28.44 |      | 65.0  |         |
|           |                                           | Z | 70.54 | 120.74 | 35.17 |      | 65.0  |         |