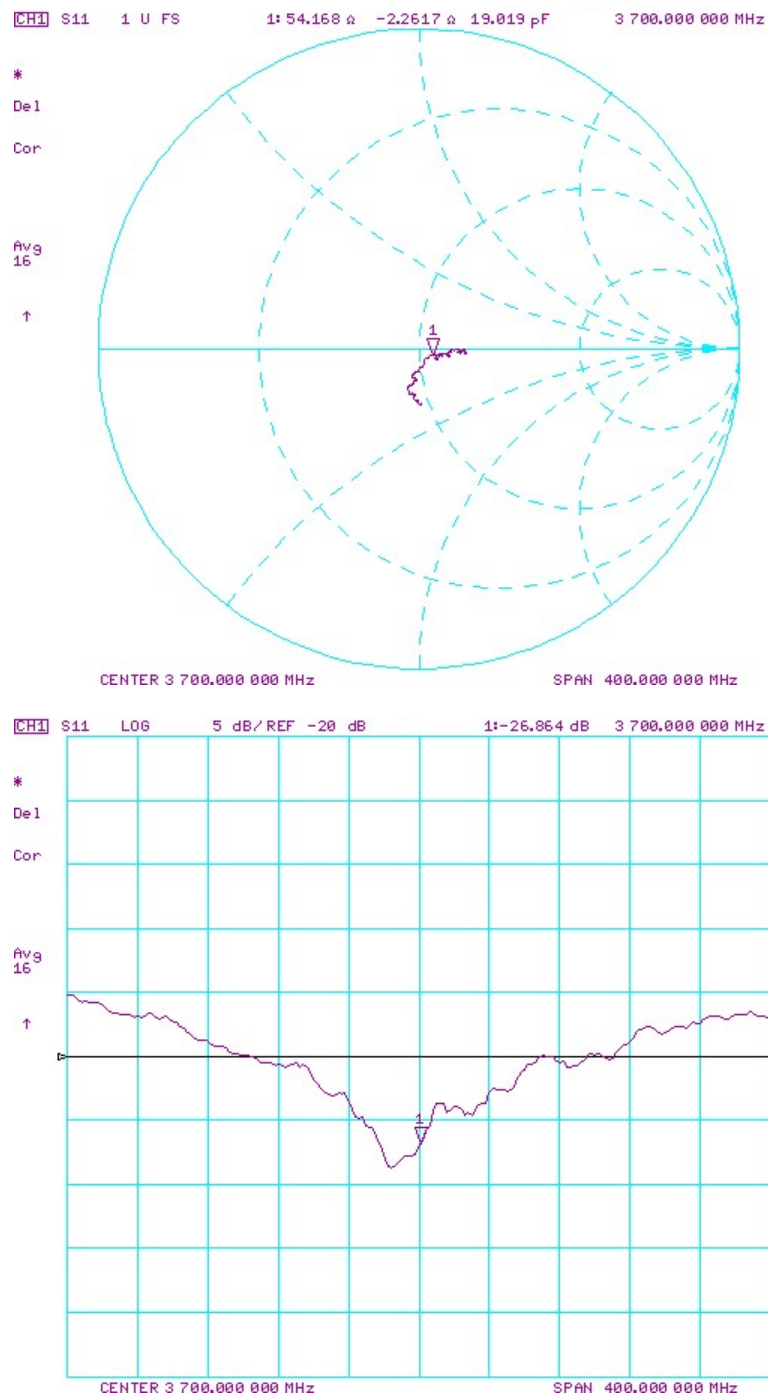


Impedance & Return-Loss Measurement Plot for Body TSL





Accredited by the Swiss Accreditation Service (SAS)

Accreditation No.: **SCS 0108**

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 Multilateral Agreement for the recognition of calibration certificates

Client **PC Test**

Certificate No: **EX3-7417\_Feb19**

## CALIBRATION CERTIFICATE

Object **EX3DV4 - SN:7417**

Calibration procedure(s) **QA CAL-01.v9, QA CAL-23.v5, QA CAL-25.v7**  
**Calibration procedure for dosimetric E-field probes**

Calibration date: **February 19, 2019**

BN ✓  
 02-26-2019

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)

| Primary Standards          | ID               | Cal Date (Certificate No.)        | Scheduled Calibration  |
|----------------------------|------------------|-----------------------------------|------------------------|
| Power meter NRP            | SN: 104778       | 04-Apr-18 (No. 217-02672/02673)   | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103244       | 04-Apr-18 (No. 217-02672)         | Apr-19                 |
| Power sensor NRP-Z91       | SN: 103245       | 04-Apr-18 (No. 217-02673)         | Apr-19                 |
| Reference 20 dB Attenuator | SN: S5277 (20x)  | 04-Apr-18 (No. 217-02682)         | Apr-19                 |
| DAE4                       | SN: 660          | 19-Dec-18 (No. DAE4-660_Dec18)    | Dec-19                 |
| Reference Probe ES3DV2     | SN: 3013         | 31-Dec-18 (No. ES3-3013_Dec18)    | Dec-19                 |
| Secondary Standards        | ID               | Check Date (in house)             | Scheduled Check        |
| Power meter E4419B         | SN: GB41293874   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: MY41498087   | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| Power sensor E4412A        | SN: 000110210    | 06-Apr-16 (in house check Jun-18) | In house check: Jun-20 |
| RF generator HP 8648C      | SN: US3642U01700 | 04-Aug-99 (in house check Jun-18) | In house check: Jun-20 |
| Network Analyzer E8358A    | SN: US41080477   | 31-Mar-14 (in house check Oct-18) | In house check: Oct-19 |

|                |                 |                       |           |
|----------------|-----------------|-----------------------|-----------|
| Calibrated by: | Name            | Function              | Signature |
|                | Claudio Leubler | Laboratory Technician |           |
| Approved by:   | Katja Pokovic   | Technical Manager     |           |

Issued: February 20, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.



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### 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).

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

## Basic Calibration Parameters

|                                                           | Sensor X | Sensor Y | Sensor Z | Unc (k=2) |
|-----------------------------------------------------------|----------|----------|----------|-----------|
| Norm ( $\mu\text{V}/(\text{V}/\text{m})^2$ ) <sup>A</sup> | 0.54     | 0.43     | 0.53     | ± 10.1 %  |
| DCP (mV) <sup>B</sup>                                     | 98.7     | 97.4     | 100.4    |           |

## Calibration Results for Modulation Response

| UID           | Communication System Name   |   | A<br>dB | B<br>dB $\sqrt{\mu\text{V}}$ | C     | D<br>dB | VR<br>mV | Max<br>dev. | Max<br>Unc <sup>E</sup><br>(k=2) |
|---------------|-----------------------------|---|---------|------------------------------|-------|---------|----------|-------------|----------------------------------|
| 0             | CW                          | X | 0.00    | 0.00                         | 1.00  | 0.00    | 144.6    | ± 3.3 %     | ± 4.7 %                          |
|               |                             | Y | 0.00    | 0.00                         | 1.00  |         | 149.7    |             |                                  |
|               |                             | Z | 0.00    | 0.00                         | 1.00  |         | 143.1    |             |                                  |
| 10352-<br>AAA | Pulse Waveform (200Hz, 10%) | X | 15.00   | 88.38                        | 19.65 | 10.00   | 60.0     | ± 3.3 %     | ± 9.6 %                          |
|               |                             | Y | 4.33    | 71.38                        | 13.30 |         | 60.0     |             |                                  |
|               |                             | Z | 7.40    | 77.44                        | 14.95 |         | 60.0     |             |                                  |
| 10353-<br>AAA | Pulse Waveform (200Hz, 20%) | X | 15.00   | 92.19                        | 20.43 | 6.99    | 80.0     | ± 2.2 %     | ± 9.6 %                          |
|               |                             | Y | 5.53    | 76.01                        | 13.64 |         | 80.0     |             |                                  |
|               |                             | Z | 15.00   | 85.74                        | 16.43 |         | 80.0     |             |                                  |
| 10354-<br>AAA | Pulse Waveform (200Hz, 40%) | X | 15.00   | 107.68                       | 26.54 | 3.98    | 95.0     | ± 1.3 %     | ± 9.6 %                          |
|               |                             | Y | 9.05    | 79.53                        | 12.66 |         | 95.0     |             |                                  |
|               |                             | Z | 15.00   | 90.71                        | 17.41 |         | 95.0     |             |                                  |
| 10355-<br>AAA | Pulse Waveform (200Hz, 60%) | X | 15.00   | 127.17                       | 33.83 | 2.22    | 120.0    | ± 1.2 %     | ± 9.6 %                          |
|               |                             | Y | 0.26    | 60.00                        | 4.45  |         | 120.0    |             |                                  |
|               |                             | Z | 15.00   | 99.84                        | 20.30 |         | 120.0    |             |                                  |
| 10387-<br>AAA | QPSK Waveform, 1 MHz        | X | 0.56    | 60.62                        | 7.74  | 0.00    | 150.0    | ± 3.6 %     | ± 9.6 %                          |
|               |                             | Y | 0.42    | 60.00                        | 4.69  |         | 150.0    |             |                                  |
|               |                             | Z | 0.44    | 60.00                        | 5.48  |         | 150.0    |             |                                  |
| 10388-<br>AAA | QPSK Waveform, 10 MHz       | X | 2.27    | 69.09                        | 16.46 | 0.00    | 150.0    | ± 1.3 %     | ± 9.6 %                          |
|               |                             | Y | 1.94    | 67.43                        | 15.43 |         | 150.0    |             |                                  |
|               |                             | Z | 2.06    | 68.27                        | 16.05 |         | 150.0    |             |                                  |
| 10396-<br>AAA | 64-QAM Waveform, 100 kHz    | X | 3.15    | 72.71                        | 19.95 | 3.01    | 150.0    | ± 2.5 %     | ± 9.6 %                          |
|               |                             | Y | 2.04    | 67.08                        | 18.19 |         | 150.0    |             |                                  |
|               |                             | Z | 2.07    | 66.03                        | 16.88 |         | 150.0    |             |                                  |
| 10399-<br>AAA | 64-QAM Waveform, 40 MHz     | X | 3.52    | 67.53                        | 16.10 | 0.00    | 150.0    | ± 2.4 %     | ± 9.6 %                          |
|               |                             | Y | 3.32    | 66.83                        | 15.68 |         | 150.0    |             |                                  |
|               |                             | Z | 3.38    | 67.15                        | 15.89 |         | 150.0    |             |                                  |
| 10414-<br>AAA | WLAN CCDF, 64-QAM, 40MHz    | X | 4.80    | 65.90                        | 15.74 | 0.00    | 150.0    | ± 4.4 %     | ± 9.6 %                          |
|               |                             | Y | 4.58    | 65.58                        | 15.59 |         | 150.0    |             |                                  |
|               |                             | Z | 4.60    | 65.76                        | 15.65 |         | 150.0    |             |                                  |

Note: For details on UID parameters see Appendix

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<sup>2</sup>-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: EX3DV4 - SN:7417

### Sensor Model Parameters

|   | C1<br>fF | C2<br>fF | $\alpha$<br>$V^{-1}$ | T1<br>$ms.V^{-2}$ | T2<br>$ms.V^{-1}$ | T3<br>ms | T4<br>$V^{-2}$ | T5<br>$V^{-1}$ | T6   |
|---|----------|----------|----------------------|-------------------|-------------------|----------|----------------|----------------|------|
| X | 37.6     | 279.10   | 35.33                | 9.45              | 0.00              | 5.09     | 1.69           | 0.14           | 1.01 |
| Y | 29.6     | 227.60   | 37.50                | 5.19              | 0.43              | 5.04     | 0.00           | 0.16           | 1.01 |
| Z | 28.8     | 214.34   | 35.37                | 6.91              | 0.00              | 5.04     | 0.00           | 0.24           | 1.00 |

### Other Probe Parameters

|                                               |            |
|-----------------------------------------------|------------|
| Sensor Arrangement                            | Triangular |
| Connector Angle (°)                           | 120.5      |
| Mechanical Surface Detection Mode             | enabled    |
| Optical Surface Detection Mode                | disabled   |
| Probe Overall Length                          | 337 mm     |
| Probe Body Diameter                           | 10 mm      |
| Tip Length                                    | 9 mm       |
| Tip Diameter                                  | 2.5 mm     |
| Probe Tip to Sensor X Calibration Point       | 1 mm       |
| Probe Tip to Sensor Y Calibration Point       | 1 mm       |
| Probe Tip to Sensor Z Calibration Point       | 1 mm       |
| Recommended Measurement Distance from Surface | 1.4 mm     |

## DASY/EASY - Parameters of Probe: EX3DV4 - SN:7417

### 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                            | 10.36   | 10.36   | 10.36   | 0.54               | 0.99                    | ± 12.0 %  |
| 835                  | 41.5                               | 0.90                            | 10.07   | 10.07   | 10.07   | 0.48               | 0.84                    | ± 12.0 %  |
| 1750                 | 40.1                               | 1.37                            | 8.39    | 8.39    | 8.39    | 0.38               | 0.85                    | ± 12.0 %  |
| 1900                 | 40.0                               | 1.40                            | 8.11    | 8.11    | 8.11    | 0.39               | 0.84                    | ± 12.0 %  |
| 2300                 | 39.5                               | 1.67                            | 7.73    | 7.73    | 7.73    | 0.30               | 0.93                    | ± 12.0 %  |
| 2450                 | 39.2                               | 1.80                            | 7.46    | 7.46    | 7.46    | 0.39               | 0.95                    | ± 12.0 %  |
| 2600                 | 39.0                               | 1.96                            | 7.17    | 7.17    | 7.17    | 0.31               | 1.05                    | ± 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. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. 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: EX3DV4 - SN:7417

### 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                            | 10.35   | 10.35   | 10.35   | 0.63               | 0.84                    | ± 12.0 %  |
| 835                  | 55.2                               | 0.97                            | 10.11   | 10.11   | 10.11   | 0.43               | 0.84                    | ± 12.0 %  |
| 1750                 | 53.4                               | 1.49                            | 8.21    | 8.21    | 8.21    | 0.43               | 0.88                    | ± 12.0 %  |
| 1900                 | 53.3                               | 1.52                            | 7.86    | 7.86    | 7.86    | 0.43               | 0.87                    | ± 12.0 %  |
| 2300                 | 52.9                               | 1.81                            | 7.64    | 7.64    | 7.64    | 0.41               | 0.93                    | ± 12.0 %  |
| 2450                 | 52.7                               | 1.95                            | 7.51    | 7.51    | 7.51    | 0.40               | 0.95                    | ± 12.0 %  |
| 2600                 | 52.5                               | 2.16                            | 7.37    | 7.37    | 7.37    | 0.33               | 1.05                    | ± 12.0 %  |

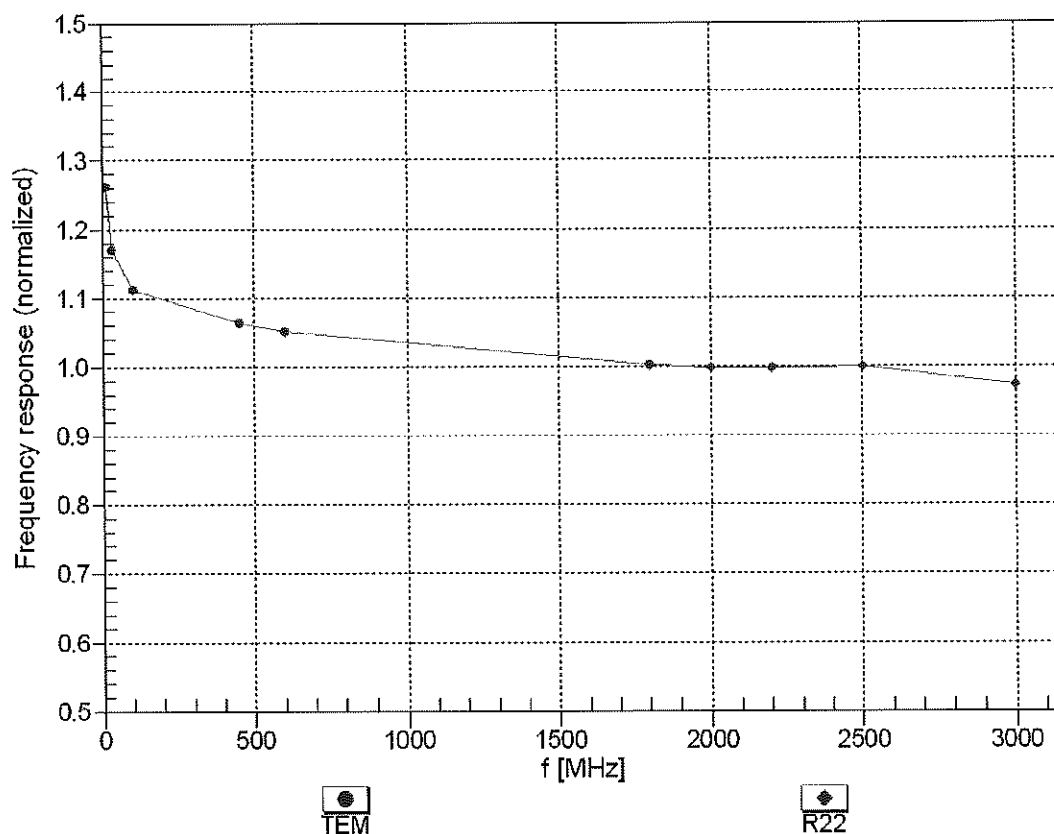
<sup>C</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. 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

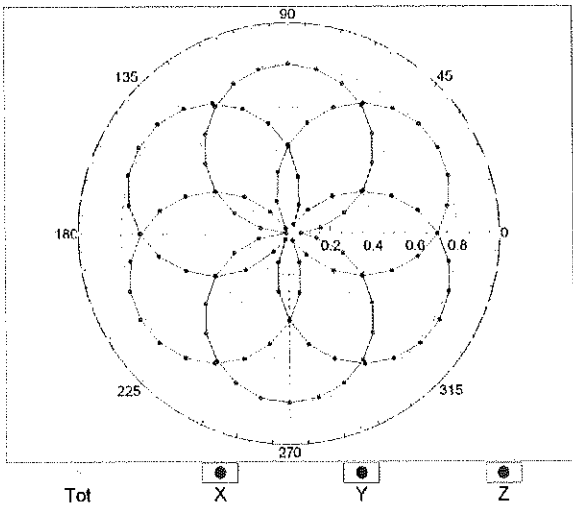
(TEM-Cell:ifi110 EXX, Waveguide: R22)



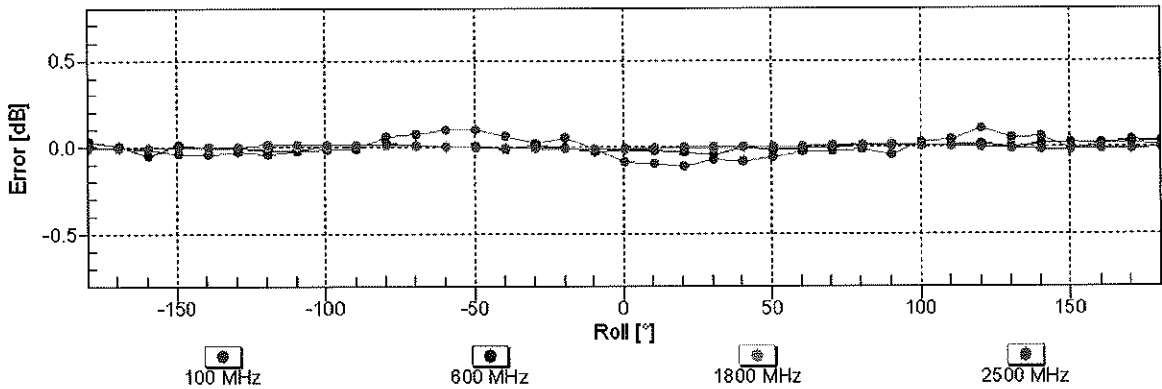
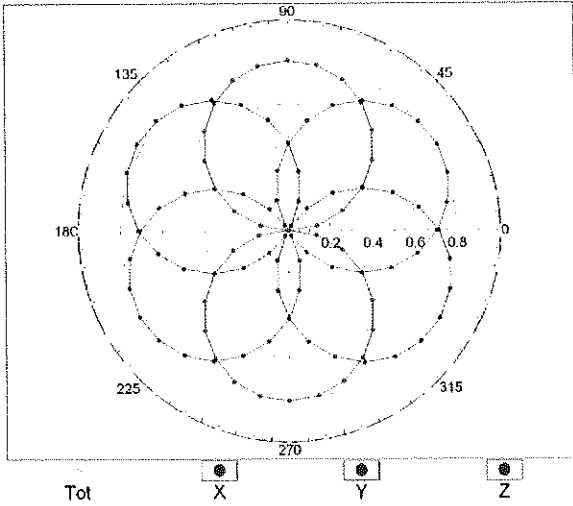
Uncertainty of Frequency Response of E-field:  $\pm 6.3\%$  ( $k=2$ )

Receiving Pattern ( $\phi$ ),  $\theta = 0^\circ$

f=600 MHz,TEM

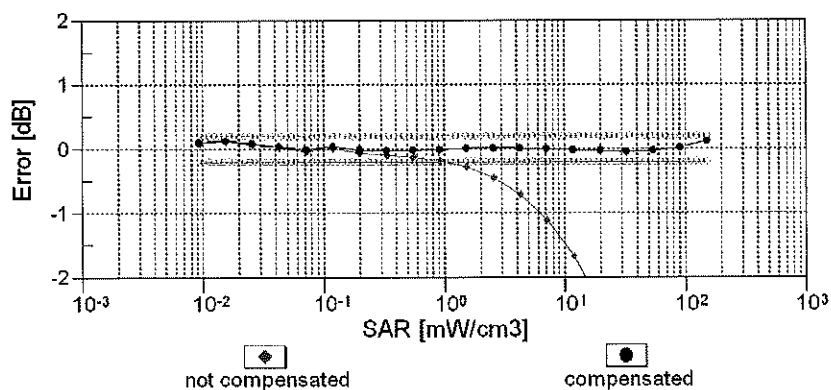
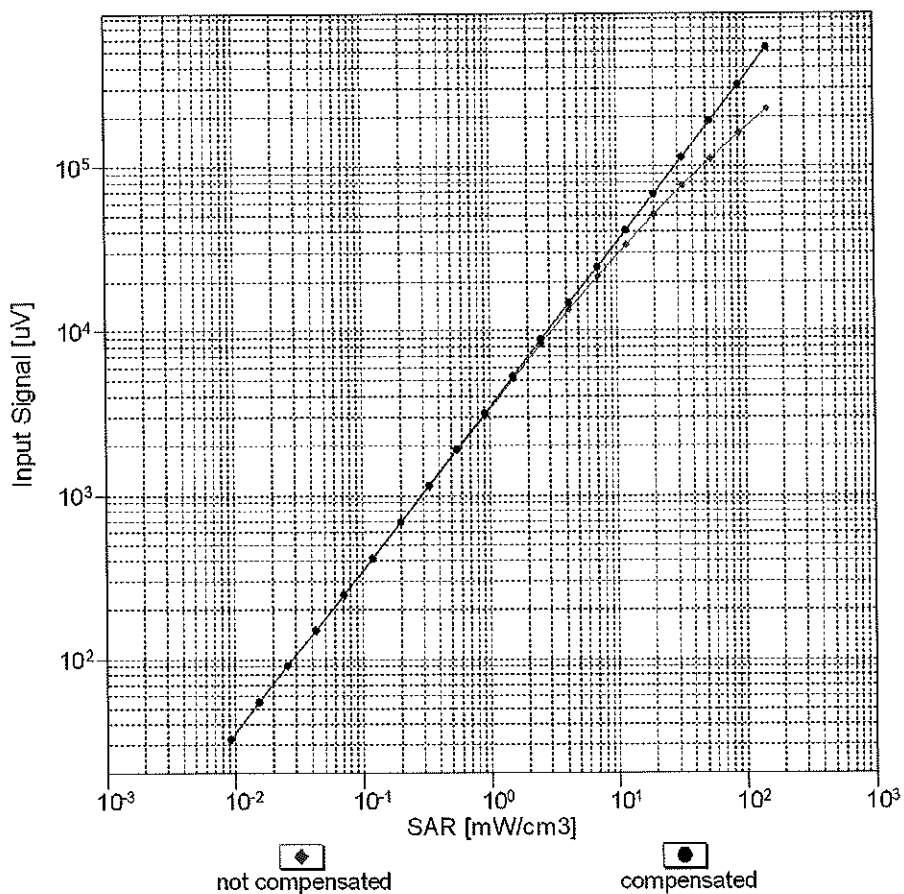


f=1800 MHz,R22



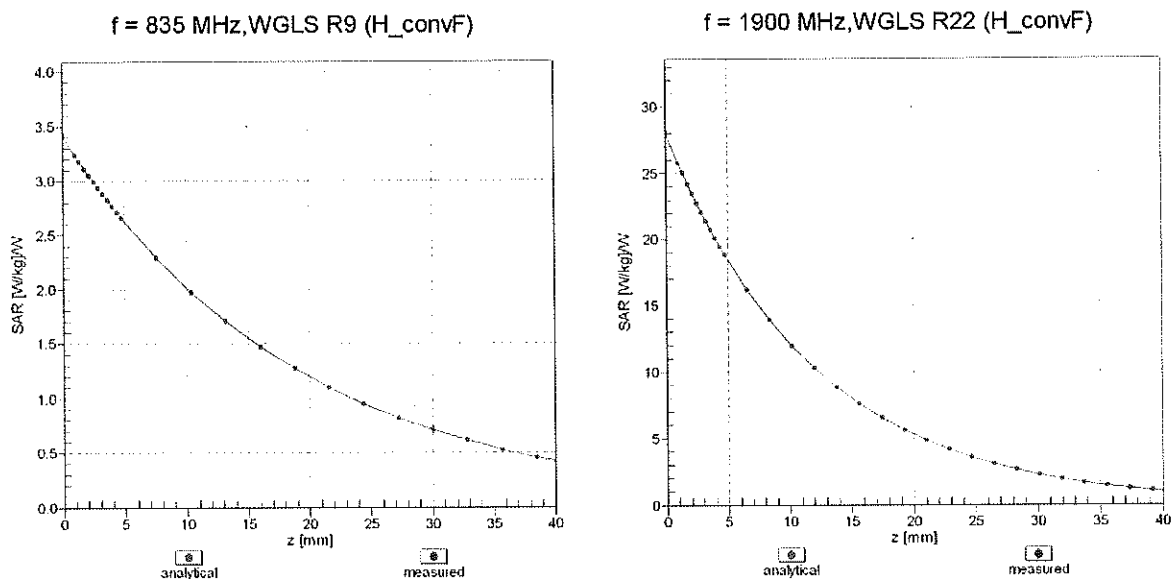
Uncertainty of Axial Isotropy Assessment:  $\pm 0.5\%$  ( $k=2$ )

## Dynamic Range $f(\text{SAR}_{\text{head}})$ (TEM cell , $f_{\text{eval}} = 1900 \text{ MHz}$ )



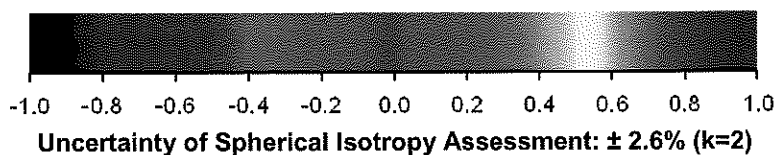
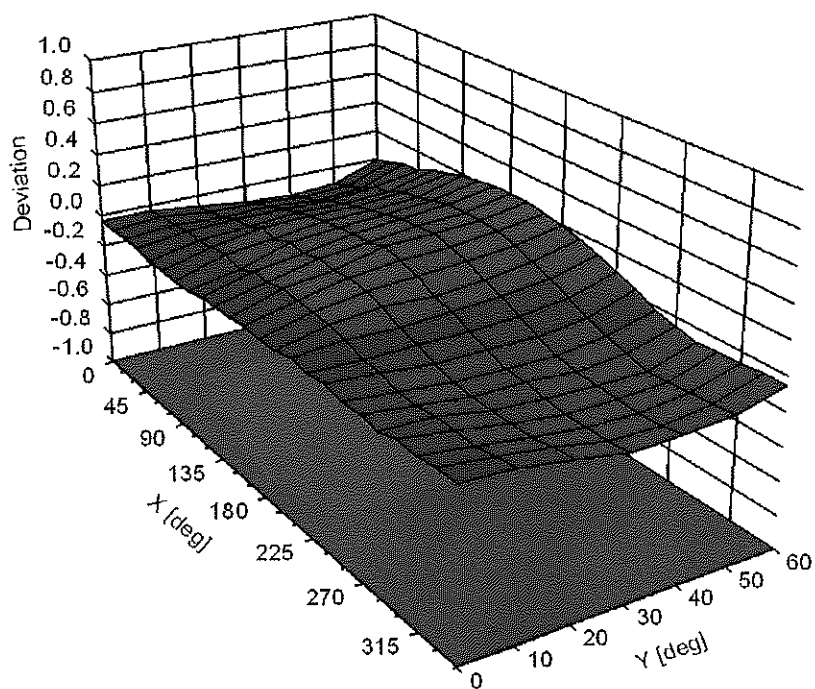
Uncertainty of Linearity Assessment:  $\pm 0.6\%$  ( $k=2$ )

## Conversion Factor Assessment



## Deviation from Isotropy in Liquid

Error ( $\phi, \theta$ ),  $f = 900 \text{ MHz}$



**Appendix: Modulation Calibration Parameters**

| UID   | Rev | Communication System Name                           | Group     | PAR (dB) | Unc <sup>F</sup> (k=2) |
|-------|-----|-----------------------------------------------------|-----------|----------|------------------------|
| 0     |     | CW                                                  | CW        | 0.00     | ± 4.7 %                |
| 10010 | CAA | SAR Validation (Square, 100ms, 10ms)                | Test      | 10.00    | ± 9.6 %                |
| 10011 | CAB | UMTS-FDD (WCDMA)                                    | WCDMA     | 2.91     | ± 9.6 %                |
| 10012 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)            | WLAN      | 1.87     | ± 9.6 %                |
| 10013 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)       | WLAN      | 9.46     | ± 9.6 %                |
| 10021 | DAC | GSM-FDD (TDMA, GMSK)                                | GSM       | 9.39     | ± 9.6 %                |
| 10023 | DAC | GPRS-FDD (TDMA, GMSK, TN 0)                         | GSM       | 9.57     | ± 9.6 %                |
| 10024 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1)                       | GSM       | 6.56     | ± 9.6 %                |
| 10025 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0)                         | GSM       | 12.62    | ± 9.6 %                |
| 10026 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1)                       | GSM       | 9.55     | ± 9.6 %                |
| 10027 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2)                     | GSM       | 4.80     | ± 9.6 %                |
| 10028 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)                   | GSM       | 3.55     | ± 9.6 %                |
| 10029 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2)                     | GSM       | 7.78     | ± 9.6 %                |
| 10030 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH1)                 | Bluetooth | 5.30     | ± 9.6 %                |
| 10031 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH3)                 | Bluetooth | 1.87     | ± 9.6 %                |
| 10032 | CAA | IEEE 802.15.1 Bluetooth (GFSK, DH5)                 | Bluetooth | 1.16     | ± 9.6 %                |
| 10033 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)           | Bluetooth | 7.74     | ± 9.6 %                |
| 10034 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)           | Bluetooth | 4.53     | ± 9.6 %                |
| 10035 | CAA | IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)           | Bluetooth | 3.83     | ± 9.6 %                |
| 10036 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH1)               | Bluetooth | 8.01     | ± 9.6 %                |
| 10037 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH3)               | Bluetooth | 4.77     | ± 9.6 %                |
| 10038 | CAA | IEEE 802.15.1 Bluetooth (8-DPSK, DH5)               | Bluetooth | 4.10     | ± 9.6 %                |
| 10039 | CAB | CDMA2000 (1xRTT, RC1)                               | CDMA2000  | 4.57     | ± 9.6 %                |
| 10042 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate) | AMPS      | 7.78     | ± 9.6 %                |
| 10044 | CAA | IS-91/EIA/TIA-553 FDD (FDMA, FM)                    | AMPS      | 0.00     | ± 9.6 %                |
| 10048 | CAA | DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)           | DECT      | 13.80    | ± 9.6 %                |
| 10049 | CAA | DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)         | DECT      | 10.79    | ± 9.6 %                |
| 10056 | CAA | UMTS-TDD (TD-SCDMA, 1.28 Mcps)                      | TD-SCDMA  | 11.01    | ± 9.6 %                |
| 10058 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)                   | GSM       | 6.52     | ± 9.6 %                |
| 10059 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)            | WLAN      | 2.12     | ± 9.6 %                |
| 10060 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)          | WLAN      | 2.83     | ± 9.6 %                |
| 10061 | CAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)           | WLAN      | 3.60     | ± 9.6 %                |
| 10062 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)            | WLAN      | 8.68     | ± 9.6 %                |
| 10063 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)            | WLAN      | 8.63     | ± 9.6 %                |
| 10064 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)           | WLAN      | 9.09     | ± 9.6 %                |
| 10065 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)           | WLAN      | 9.00     | ± 9.6 %                |
| 10066 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)           | WLAN      | 9.38     | ± 9.6 %                |
| 10067 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)           | WLAN      | 10.12    | ± 9.6 %                |
| 10068 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)           | WLAN      | 10.24    | ± 9.6 %                |
| 10069 | CAC | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)           | WLAN      | 10.56    | ± 9.6 %                |
| 10071 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)       | WLAN      | 9.83     | ± 9.6 %                |
| 10072 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)      | WLAN      | 9.62     | ± 9.6 %                |
| 10073 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)      | WLAN      | 9.94     | ± 9.6 %                |
| 10074 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)      | WLAN      | 10.30    | ± 9.6 %                |
| 10075 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)      | WLAN      | 10.77    | ± 9.6 %                |
| 10076 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)      | WLAN      | 10.94    | ± 9.6 %                |
| 10077 | CAB | IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)      | WLAN      | 11.00    | ± 9.6 %                |
| 10081 | CAB | CDMA2000 (1xRTT, RC3)                               | CDMA2000  | 3.97     | ± 9.6 %                |
| 10082 | CAB | IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate) | AMPS      | 4.77     | ± 9.6 %                |
| 10090 | DAC | GPRS-FDD (TDMA, GMSK, TN 0-4)                       | GSM       | 6.56     | ± 9.6 %                |
| 10097 | CAB | UMTS-FDD (HSDPA)                                    | WCDMA     | 3.98     | ± 9.6 %                |
| 10098 | CAB | UMTS-FDD (HSUPA, Subtest 2)                         | WCDMA     | 3.98     | ± 9.6 %                |
| 10099 | DAC | EDGE-FDD (TDMA, 8PSK, TN 0-4)                       | GSM       | 9.55     | ± 9.6 %                |
| 10100 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-FDD   | 5.67     | ± 9.6 %                |
| 10101 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-FDD   | 6.42     | ± 9.6 %                |
| 10102 | CAE | LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-FDD   | 6.60     | ± 9.6 %                |
| 10103 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)            | LTE-TDD   | 9.29     | ± 9.6 %                |
| 10104 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)          | LTE-TDD   | 9.97     | ± 9.6 %                |
| 10105 | CAG | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)          | LTE-TDD   | 10.01    | ± 9.6 %                |
| 10108 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)            | LTE-FDD   | 5.80     | ± 9.6 %                |

|       |     |                                                |         |       |         |
|-------|-----|------------------------------------------------|---------|-------|---------|
| 10109 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)     | LTE-FDD | 6.43  | ± 9.6 % |
| 10110 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10111 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)      | LTE-FDD | 6.44  | ± 9.6 % |
| 10112 | CAG | LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)     | LTE-FDD | 6.59  | ± 9.6 % |
| 10113 | CAG | LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10114 | CAC | IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)  | WLAN    | 8.10  | ± 9.6 % |
| 10115 | CAC | IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)  | WLAN    | 8.46  | ± 9.6 % |
| 10116 | CAC | IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM) | WLAN    | 8.15  | ± 9.6 % |
| 10117 | CAC | IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)       | WLAN    | 8.07  | ± 9.6 % |
| 10118 | CAC | IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)       | WLAN    | 8.59  | ± 9.6 % |
| 10119 | CAC | IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)      | WLAN    | 8.13  | ± 9.6 % |
| 10140 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)     | LTE-FDD | 6.49  | ± 9.6 % |
| 10141 | CAE | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)     | LTE-FDD | 6.53  | ± 9.6 % |
| 10142 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)        | LTE-FDD | 5.73  | ± 9.6 % |
| 10143 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)      | LTE-FDD | 6.35  | ± 9.6 % |
| 10144 | CAE | LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)      | LTE-FDD | 6.65  | ± 9.6 % |
| 10145 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)      | LTE-FDD | 5.76  | ± 9.6 % |
| 10146 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)    | LTE-FDD | 6.41  | ± 9.6 % |
| 10147 | CAF | LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)    | LTE-FDD | 6.72  | ± 9.6 % |
| 10149 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-FDD | 6.42  | ± 9.6 % |
| 10150 | CAE | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-FDD | 6.60  | ± 9.6 % |
| 10151 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)        | LTE-TDD | 9.28  | ± 9.6 % |
| 10152 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)      | LTE-TDD | 9.92  | ± 9.6 % |
| 10153 | CAG | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)      | LTE-TDD | 10.05 | ± 9.6 % |
| 10154 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)        | LTE-FDD | 5.75  | ± 9.6 % |
| 10155 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10156 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)         | LTE-FDD | 5.79  | ± 9.6 % |
| 10157 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)       | LTE-FDD | 6.49  | ± 9.6 % |
| 10158 | CAG | LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)      | LTE-FDD | 6.62  | ± 9.6 % |
| 10159 | CAG | LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)       | LTE-FDD | 6.56  | ± 9.6 % |
| 10160 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)        | LTE-FDD | 5.82  | ± 9.6 % |
| 10161 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)      | LTE-FDD | 6.43  | ± 9.6 % |
| 10162 | CAE | LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)      | LTE-FDD | 6.58  | ± 9.6 % |
| 10166 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)       | LTE-FDD | 5.46  | ± 9.6 % |
| 10167 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)     | LTE-FDD | 6.21  | ± 9.6 % |
| 10168 | CAF | LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)     | LTE-FDD | 6.79  | ± 9.6 % |
| 10169 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-FDD | 5.73  | ± 9.6 % |
| 10170 | CAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10171 | AAE | LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-FDD | 6.49  | ± 9.6 % |
| 10172 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)          | LTE-TDD | 9.21  | ± 9.6 % |
| 10173 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)        | LTE-TDD | 9.48  | ± 9.6 % |
| 10174 | CAG | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)        | LTE-TDD | 10.25 | ± 9.6 % |
| 10175 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10176 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10177 | CAI | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10178 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)         | LTE-FDD | 6.52  | ± 9.6 % |
| 10179 | CAG | LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10180 | CAG | LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10181 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)          | LTE-FDD | 5.72  | ± 9.6 % |
| 10182 | CAE | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)        | LTE-FDD | 6.52  | ± 9.6 % |
| 10183 | AAD | LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)        | LTE-FDD | 6.50  | ± 9.6 % |
| 10184 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)           | LTE-FDD | 5.73  | ± 9.6 % |
| 10185 | CAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)         | LTE-FDD | 6.51  | ± 9.6 % |
| 10186 | AAE | LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)         | LTE-FDD | 6.50  | ± 9.6 % |
| 10187 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)         | LTE-FDD | 5.73  | ± 9.6 % |
| 10188 | CAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)       | LTE-FDD | 6.52  | ± 9.6 % |
| 10189 | AAF | LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)       | LTE-FDD | 6.50  | ± 9.6 % |
| 10193 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.09  | ± 9.6 % |
| 10194 | CAC | IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)  | WLAN    | 8.12  | ± 9.6 % |
| 10195 | CAC | IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)  | WLAN    | 8.21  | ± 9.6 % |
| 10196 | CAC | IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)   | WLAN    | 8.10  | ± 9.6 % |
| 10197 | CAC | IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)       | WLAN    | 8.13  | ± 9.6 % |
| 10198 | CAC | IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)       | WLAN    | 8.27  | ± 9.6 % |
| 10219 | CAC | IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)        | WLAN    | 8.03  | ± 9.6 % |

|       |     |                                             |          |       |         |
|-------|-----|---------------------------------------------|----------|-------|---------|
| 10220 | CAC | IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)  | WLAN     | 8.13  | ± 9.6 % |
| 10221 | CAC | IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)  | WLAN     | 8.27  | ± 9.6 % |
| 10222 | CAC | IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)      | WLAN     | 8.06  | ± 9.6 % |
| 10223 | CAC | IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)    | WLAN     | 8.48  | ± 9.6 % |
| 10224 | CAC | IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)   | WLAN     | 8.08  | ± 9.6 % |
| 10225 | CAB | UMTS-FDD (HSPA+)                            | WCDMA    | 5.97  | ± 9.6 % |
| 10226 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)    | LTE-TDD  | 9.49  | ± 9.6 % |
| 10227 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)    | LTE-TDD  | 10.26 | ± 9.6 % |
| 10228 | CAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)      | LTE-TDD  | 9.22  | ± 9.6 % |
| 10229 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10230 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10231 | CAC | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)        | LTE-TDD  | 9.19  | ± 9.6 % |
| 10232 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)      | LTE-TDD  | 9.48  | ± 9.6 % |
| 10233 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)      | LTE-TDD  | 10.25 | ± 9.6 % |
| 10234 | CAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)        | LTE-TDD  | 9.21  | ± 9.6 % |
| 10235 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10236 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10237 | CAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10238 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)     | LTE-TDD  | 9.48  | ± 9.6 % |
| 10239 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)     | LTE-TDD  | 10.25 | ± 9.6 % |
| 10240 | CAF | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)       | LTE-TDD  | 9.21  | ± 9.6 % |
| 10241 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)  | LTE-TDD  | 9.82  | ± 9.6 % |
| 10242 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)  | LTE-TDD  | 9.86  | ± 9.6 % |
| 10243 | CAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)    | LTE-TDD  | 9.46  | ± 9.6 % |
| 10244 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10245 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)    | LTE-TDD  | 10.06 | ± 9.6 % |
| 10246 | CAC | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-TDD  | 9.30  | ± 9.6 % |
| 10247 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)    | LTE-TDD  | 9.91  | ± 9.6 % |
| 10248 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)    | LTE-TDD  | 10.09 | ± 9.6 % |
| 10249 | CAF | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)      | LTE-TDD  | 9.29  | ± 9.6 % |
| 10250 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)   | LTE-TDD  | 9.81  | ± 9.6 % |
| 10251 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)   | LTE-TDD  | 10.17 | ± 9.6 % |
| 10252 | CAF | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10253 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)   | LTE-TDD  | 9.90  | ± 9.6 % |
| 10254 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)   | LTE-TDD  | 10.14 | ± 9.6 % |
| 10255 | CAF | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)     | LTE-TDD  | 9.20  | ± 9.6 % |
| 10256 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM) | LTE-TDD  | 9.96  | ± 9.6 % |
| 10257 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM) | LTE-TDD  | 10.08 | ± 9.6 % |
| 10258 | CAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)   | LTE-TDD  | 9.34  | ± 9.6 % |
| 10259 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)   | LTE-TDD  | 9.98  | ± 9.6 % |
| 10260 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)   | LTE-TDD  | 9.97  | ± 9.6 % |
| 10261 | CAC | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)     | LTE-TDD  | 9.24  | ± 9.6 % |
| 10262 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)   | LTE-TDD  | 9.83  | ± 9.6 % |
| 10263 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)   | LTE-TDD  | 10.16 | ± 9.6 % |
| 10264 | CAF | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)     | LTE-TDD  | 9.23  | ± 9.6 % |
| 10265 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)  | LTE-TDD  | 9.92  | ± 9.6 % |
| 10266 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)  | LTE-TDD  | 10.07 | ± 9.6 % |
| 10267 | CAF | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)    | LTE-TDD  | 9.30  | ± 9.6 % |
| 10268 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)  | LTE-TDD  | 10.06 | ± 9.6 % |
| 10269 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)  | LTE-TDD  | 10.13 | ± 9.6 % |
| 10270 | CAF | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)    | LTE-TDD  | 9.58  | ± 9.6 % |
| 10274 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)   | WCDMA    | 4.87  | ± 9.6 % |
| 10275 | CAB | UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)    | WCDMA    | 3.96  | ± 9.6 % |
| 10277 | CAA | PHS (QPSK)                                  | PHS      | 11.81 | ± 9.6 % |
| 10278 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.5)          | PHS      | 11.81 | ± 9.6 % |
| 10279 | CAA | PHS (QPSK, BW 884MHz, Rolloff 0.38)         | PHS      | 12.18 | ± 9.6 % |
| 10290 | AAB | CDMA2000, RC1, SO55, Full Rate              | CDMA2000 | 3.91  | ± 9.6 % |
| 10291 | AAB | CDMA2000, RC3, SO55, Full Rate              | CDMA2000 | 3.46  | ± 9.6 % |
| 10292 | AAB | CDMA2000, RC3, SO32, Full Rate              | CDMA2000 | 3.39  | ± 9.6 % |
| 10293 | AAB | CDMA2000, RC3, SO3, Full Rate               | CDMA2000 | 3.50  | ± 9.6 % |
| 10295 | AAB | CDMA2000, RC1, SO3, 1/8th Rate 25 fr.       | CDMA2000 | 12.49 | ± 9.6 % |
| 10297 | AAD | LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)     | LTE-FDD  | 5.81  | ± 9.6 % |
| 10298 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)      | LTE-FDD  | 5.72  | ± 9.6 % |
| 10299 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)    | LTE-FDD  | 6.39  | ± 9.6 % |

|       |     |                                                                                 |          |       |         |
|-------|-----|---------------------------------------------------------------------------------|----------|-------|---------|
| 10300 | AAD | LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)                                        | LTE-FDD  | 6.60  | ± 9.6 % |
| 10301 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)                              | WiMAX    | 12.03 | ± 9.6 % |
| 10302 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)              | WiMAX    | 12.57 | ± 9.6 % |
| 10303 | AAA | IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)                             | WiMAX    | 12.52 | ± 9.6 % |
| 10304 | AAA | IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)                             | WiMAX    | 11.86 | ± 9.6 % |
| 10305 | AAA | IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)                | WiMAX    | 15.24 | ± 9.6 % |
| 10306 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)                | WiMAX    | 14.67 | ± 9.6 % |
| 10307 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)                 | WiMAX    | 14.49 | ± 9.6 % |
| 10308 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)                            | WiMAX    | 14.46 | ± 9.6 % |
| 10309 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)             | WiMAX    | 14.58 | ± 9.6 % |
| 10310 | AAA | IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)              | WiMAX    | 14.57 | ± 9.6 % |
| 10311 | AAD | LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)                                        | LTE-FDD  | 6.06  | ± 9.6 % |
| 10313 | AAA | IDEN 1:3                                                                        | IDEN     | 10.51 | ± 9.6 % |
| 10314 | AAA | IDEN 1:6                                                                        | IDEN     | 13.48 | ± 9.6 % |
| 10315 | AAB | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)                       | WLAN     | 1.71  | ± 9.6 % |
| 10316 | AAB | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)                   | WLAN     | 8.36  | ± 9.6 % |
| 10317 | AAC | IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)                         | WLAN     | 8.36  | ± 9.6 % |
| 10352 | AAA | Pulse Waveform (200Hz, 10%)                                                     | Generic  | 10.00 | ± 9.6 % |
| 10353 | AAA | Pulse Waveform (200Hz, 20%)                                                     | Generic  | 6.99  | ± 9.6 % |
| 10354 | AAA | Pulse Waveform (200Hz, 40%)                                                     | Generic  | 3.98  | ± 9.6 % |
| 10355 | AAA | Pulse Waveform (200Hz, 60%)                                                     | Generic  | 2.22  | ± 9.6 % |
| 10356 | AAA | Pulse Waveform (200Hz, 80%)                                                     | Generic  | 0.97  | ± 9.6 % |
| 10387 | AAA | QPSK Waveform, 1 MHz                                                            | Generic  | 5.10  | ± 9.6 % |
| 10388 | AAA | QPSK Waveform, 10 MHz                                                           | Generic  | 5.22  | ± 9.6 % |
| 10396 | AAA | 64-QAM Waveform, 100 kHz                                                        | Generic  | 6.27  | ± 9.6 % |
| 10399 | AAA | 64-QAM Waveform, 40 MHz                                                         | Generic  | 6.27  | ± 9.6 % |
| 10400 | AAD | IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.37  | ± 9.6 % |
| 10401 | AAD | IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.60  | ± 9.6 % |
| 10402 | AAD | IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)                             | WLAN     | 8.53  | ± 9.6 % |
| 10403 | AAB | CDMA2000 (1xEV-DO, Rev. 0)                                                      | CDMA2000 | 3.76  | ± 9.6 % |
| 10404 | AAB | CDMA2000 (1xEV-DO, Rev. A)                                                      | CDMA2000 | 3.77  | ± 9.6 % |
| 10406 | AAB | CDMA2000, RC3, SO32, SCH0, Full Rate                                            | CDMA2000 | 5.22  | ± 9.6 % |
| 10410 | AAF | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4) | LTE-TDD  | 7.82  | ± 9.6 % |
| 10414 | AAA | WLAN CCDF, 64-QAM, 40MHz                                                        | Generic  | 8.54  | ± 9.6 % |
| 10415 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)                       | WLAN     | 1.54  | ± 9.6 % |
| 10416 | AAA | IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)                   | WLAN     | 8.23  | ± 9.6 % |
| 10417 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)                       | WLAN     | 8.23  | ± 9.6 % |
| 10418 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)   | WLAN     | 8.14  | ± 9.6 % |
| 10419 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)  | WLAN     | 8.19  | ± 9.6 % |
| 10422 | AAB | IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)                                    | WLAN     | 8.32  | ± 9.6 % |
| 10423 | AAB | IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)                                 | WLAN     | 8.47  | ± 9.6 % |
| 10424 | AAB | IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)                                 | WLAN     | 8.40  | ± 9.6 % |
| 10425 | AAB | IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)                                     | WLAN     | 8.41  | ± 9.6 % |
| 10426 | AAB | IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)                                   | WLAN     | 8.45  | ± 9.6 % |
| 10427 | AAB | IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)                                  | WLAN     | 8.41  | ± 9.6 % |
| 10430 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)                                                | LTE-FDD  | 8.28  | ± 9.6 % |
| 10431 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.38  | ± 9.6 % |
| 10432 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10433 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)                                               | LTE-FDD  | 8.34  | ± 9.6 % |
| 10434 | AAA | W-CDMA (BS Test Model 1, 64 DPCH)                                               | WCDMA    | 8.60  | ± 9.6 % |
| 10435 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)                  | LTE-TDD  | 7.82  | ± 9.6 % |
| 10447 | AAD | LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)                                  | LTE-FDD  | 7.56  | ± 9.6 % |
| 10448 | AAD | LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.53  | ± 9.6 % |
| 10449 | AAC | LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.51  | ± 9.6 % |
| 10450 | AAC | LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)                                 | LTE-FDD  | 7.48  | ± 9.6 % |

|       |     |                                                                        |          |      |         |
|-------|-----|------------------------------------------------------------------------|----------|------|---------|
| 10451 | AAA | W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)                        | WCDMA    | 7.59 | ± 9.6 % |
| 10456 | AAB | IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)                   | WLAN     | 8.63 | ± 9.6 % |
| 10457 | AAA | UMTS-FDD (DC-HSDPA)                                                    | WCDMA    | 6.62 | ± 9.6 % |
| 10458 | AAA | CDMA2000 (1xEV-DO, Rev. B, 2 carriers)                                 | CDMA2000 | 6.55 | ± 9.6 % |
| 10459 | AAA | CDMA2000 (1xEV-DO, Rev. B, 3 carriers)                                 | CDMA2000 | 8.25 | ± 9.6 % |
| 10460 | AAA | UMTS-FDD (WCDMA, AMR)                                                  | WCDMA    | 2.39 | ± 9.6 % |
| 10461 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.82 | ± 9.6 % |
| 10462 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.30 | ± 9.6 % |
| 10463 | AAA | LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.56 | ± 9.6 % |
| 10464 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10465 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10466 | AAB | LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.57 | ± 9.6 % |
| 10467 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)       | LTE-TDD  | 7.82 | ± 9.6 % |
| 10468 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.32 | ± 9.6 % |
| 10469 | AAE | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 8.56 | ± 9.6 % |
| 10470 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10471 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10472 | AAE | LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10473 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)      | LTE-TDD  | 7.82 | ± 9.6 % |
| 10474 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10475 | AAE | LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10477 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.32 | ± 9.6 % |
| 10478 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 8.57 | ± 9.6 % |
| 10479 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 7.74 | ± 9.6 % |
| 10480 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.18 | ± 9.6 % |
| 10481 | AAA | LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9) | LTE-TDD  | 8.45 | ± 9.6 % |
| 10482 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.71 | ± 9.6 % |
| 10483 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.39 | ± 9.6 % |
| 10484 | AAB | LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.47 | ± 9.6 % |
| 10485 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)     | LTE-TDD  | 7.59 | ± 9.6 % |
| 10486 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.38 | ± 9.6 % |
| 10487 | AAE | LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)   | LTE-TDD  | 8.60 | ± 9.6 % |
| 10488 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.70 | ± 9.6 % |
| 10489 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.31 | ± 9.6 % |
| 10490 | AAE | LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL<br>Subframe=2,3,4,7,8,9)  | LTE-TDD  | 8.54 | ± 9.6 % |
| 10491 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL<br>Subframe=2,3,4,7,8,9)    | LTE-TDD  | 7.74 | ± 9.6 % |

|       |     |                                                                      |         |      |         |
|-------|-----|----------------------------------------------------------------------|---------|------|---------|
| 10492 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.41 | ± 9.6 % |
| 10493 | AAE | LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.55 | ± 9.6 % |
| 10494 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.74 | ± 9.6 % |
| 10495 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.37 | ± 9.6 % |
| 10496 | AAF | LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10497 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 7.67 | ± 9.6 % |
| 10498 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.40 | ± 9.6 % |
| 10499 | AAA | LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9) | LTE-TDD | 8.68 | ± 9.6 % |
| 10500 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.67 | ± 9.6 % |
| 10501 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.44 | ± 9.6 % |
| 10502 | AAB | LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.52 | ± 9.6 % |
| 10503 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)     | LTE-TDD | 7.72 | ± 9.6 % |
| 10504 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.31 | ± 9.6 % |
| 10505 | AAE | LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)   | LTE-TDD | 8.54 | ± 9.6 % |
| 10506 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10507 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.36 | ± 9.6 % |
| 10508 | AAE | LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.55 | ± 9.6 % |
| 10509 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.99 | ± 9.6 % |
| 10510 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.49 | ± 9.6 % |
| 10511 | AAE | LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.51 | ± 9.6 % |
| 10512 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)    | LTE-TDD | 7.74 | ± 9.6 % |
| 10513 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.42 | ± 9.6 % |
| 10514 | AAF | LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)  | LTE-TDD | 8.45 | ± 9.6 % |
| 10515 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)            | WLAN    | 1.58 | ± 9.6 % |
| 10516 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)          | WLAN    | 1.57 | ± 9.6 % |
| 10517 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)           | WLAN    | 1.58 | ± 9.6 % |
| 10518 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)            | WLAN    | 8.23 | ± 9.6 % |
| 10519 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)           | WLAN    | 8.39 | ± 9.6 % |
| 10520 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)           | WLAN    | 8.12 | ± 9.6 % |
| 10521 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)           | WLAN    | 7.97 | ± 9.6 % |
| 10522 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)           | WLAN    | 8.45 | ± 9.6 % |
| 10523 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)           | WLAN    | 8.08 | ± 9.6 % |
| 10524 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)           | WLAN    | 8.27 | ± 9.6 % |
| 10525 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10526 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)                    | WLAN    | 8.42 | ± 9.6 % |
| 10527 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)                    | WLAN    | 8.21 | ± 9.6 % |
| 10528 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10529 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)                    | WLAN    | 8.36 | ± 9.6 % |
| 10531 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)                    | WLAN    | 8.43 | ± 9.6 % |
| 10532 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)                    | WLAN    | 8.29 | ± 9.6 % |
| 10533 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)                    | WLAN    | 8.38 | ± 9.6 % |
| 10534 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)                    | WLAN    | 8.45 | ± 9.6 % |

|       |     |                                                                 |      |      |         |
|-------|-----|-----------------------------------------------------------------|------|------|---------|
| 10535 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10536 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)               | WLAN | 8.32 | ± 9.6 % |
| 10537 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)               | WLAN | 8.44 | ± 9.6 % |
| 10538 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)               | WLAN | 8.54 | ± 9.6 % |
| 10540 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)               | WLAN | 8.39 | ± 9.6 % |
| 10541 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)               | WLAN | 8.46 | ± 9.6 % |
| 10542 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10543 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)               | WLAN | 8.65 | ± 9.6 % |
| 10544 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)               | WLAN | 8.47 | ± 9.6 % |
| 10545 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)               | WLAN | 8.55 | ± 9.6 % |
| 10546 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)               | WLAN | 8.35 | ± 9.6 % |
| 10547 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)               | WLAN | 8.49 | ± 9.6 % |
| 10548 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)               | WLAN | 8.37 | ± 9.6 % |
| 10550 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)               | WLAN | 8.38 | ± 9.6 % |
| 10551 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)               | WLAN | 8.50 | ± 9.6 % |
| 10552 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)               | WLAN | 8.42 | ± 9.6 % |
| 10553 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)               | WLAN | 8.45 | ± 9.6 % |
| 10554 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)              | WLAN | 8.48 | ± 9.6 % |
| 10555 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)              | WLAN | 8.47 | ± 9.6 % |
| 10556 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)              | WLAN | 8.50 | ± 9.6 % |
| 10557 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)              | WLAN | 8.52 | ± 9.6 % |
| 10558 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)              | WLAN | 8.61 | ± 9.6 % |
| 10560 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)              | WLAN | 8.73 | ± 9.6 % |
| 10561 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)              | WLAN | 8.56 | ± 9.6 % |
| 10562 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)              | WLAN | 8.69 | ± 9.6 % |
| 10563 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)              | WLAN | 8.77 | ± 9.6 % |
| 10564 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)  | WLAN | 8.25 | ± 9.6 % |
| 10565 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle) | WLAN | 8.45 | ± 9.6 % |
| 10566 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle) | WLAN | 8.13 | ± 9.6 % |
| 10567 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle) | WLAN | 8.00 | ± 9.6 % |
| 10568 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle) | WLAN | 8.37 | ± 9.6 % |
| 10569 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle) | WLAN | 8.10 | ± 9.6 % |
| 10570 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle) | WLAN | 8.30 | ± 9.6 % |
| 10571 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10572 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)       | WLAN | 1.99 | ± 9.6 % |
| 10573 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)     | WLAN | 1.98 | ± 9.6 % |
| 10574 | AAA | IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)      | WLAN | 1.98 | ± 9.6 % |
| 10575 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)  | WLAN | 8.59 | ± 9.6 % |
| 10576 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)  | WLAN | 8.60 | ± 9.6 % |
| 10577 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle) | WLAN | 8.70 | ± 9.6 % |
| 10578 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle) | WLAN | 8.49 | ± 9.6 % |
| 10579 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle) | WLAN | 8.36 | ± 9.6 % |
| 10580 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle) | WLAN | 8.76 | ± 9.6 % |
| 10581 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle) | WLAN | 8.35 | ± 9.6 % |
| 10582 | AAA | IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle) | WLAN | 8.67 | ± 9.6 % |
| 10583 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)       | WLAN | 8.59 | ± 9.6 % |
| 10584 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)       | WLAN | 8.60 | ± 9.6 % |
| 10585 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)      | WLAN | 8.70 | ± 9.6 % |
| 10586 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)      | WLAN | 8.49 | ± 9.6 % |
| 10587 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)      | WLAN | 8.36 | ± 9.6 % |

|       |     |                                                            |          |       |         |
|-------|-----|------------------------------------------------------------|----------|-------|---------|
| 10588 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle) | WLAN     | 8.76  | ± 9.6 % |
| 10589 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle) | WLAN     | 8.35  | ± 9.6 % |
| 10590 | AAB | IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle) | WLAN     | 8.67  | ± 9.6 % |
| 10591 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.63  | ± 9.6 % |
| 10592 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10593 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.64  | ± 9.6 % |
| 10594 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10595 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)      | WLAN     | 8.74  | ± 9.6 % |
| 10596 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.71  | ± 9.6 % |
| 10597 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.72  | ± 9.6 % |
| 10598 | AAB | IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.50  | ± 9.6 % |
| 10599 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)      | WLAN     | 8.79  | ± 9.6 % |
| 10600 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)      | WLAN     | 8.88  | ± 9.6 % |
| 10601 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10602 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)      | WLAN     | 8.94  | ± 9.6 % |
| 10603 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)      | WLAN     | 9.03  | ± 9.6 % |
| 10604 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)      | WLAN     | 8.76  | ± 9.6 % |
| 10605 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)      | WLAN     | 8.97  | ± 9.6 % |
| 10606 | AAB | IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)      | WLAN     | 8.82  | ± 9.6 % |
| 10607 | AAB | IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.64  | ± 9.6 % |
| 10608 | AAB | IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10609 | AAB | IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.57  | ± 9.6 % |
| 10610 | AAB | IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.78  | ± 9.6 % |
| 10611 | AAB | IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.70  | ± 9.6 % |
| 10612 | AAB | IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10613 | AAB | IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.94  | ± 9.6 % |
| 10614 | AAB | IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.59  | ± 9.6 % |
| 10615 | AAB | IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10616 | AAB | IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10617 | AAB | IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10618 | AAB | IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.58  | ± 9.6 % |
| 10619 | AAB | IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.86  | ± 9.6 % |
| 10620 | AAB | IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.87  | ± 9.6 % |
| 10621 | AAB | IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.77  | ± 9.6 % |
| 10622 | AAB | IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.68  | ± 9.6 % |
| 10623 | AAB | IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.82  | ± 9.6 % |
| 10624 | AAB | IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10625 | AAB | IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.96  | ± 9.6 % |
| 10626 | AAB | IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10627 | AAB | IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)          | WLAN     | 8.88  | ± 9.6 % |
| 10628 | AAB | IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)          | WLAN     | 8.71  | ± 9.6 % |
| 10629 | AAB | IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)          | WLAN     | 8.85  | ± 9.6 % |
| 10630 | AAB | IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)          | WLAN     | 8.72  | ± 9.6 % |
| 10631 | AAB | IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10632 | AAB | IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)          | WLAN     | 8.74  | ± 9.6 % |
| 10633 | AAB | IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)          | WLAN     | 8.83  | ± 9.6 % |
| 10634 | AAB | IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)          | WLAN     | 8.80  | ± 9.6 % |
| 10635 | AAB | IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)          | WLAN     | 8.81  | ± 9.6 % |
| 10636 | AAC | IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)         | WLAN     | 8.83  | ± 9.6 % |
| 10637 | AAC | IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)         | WLAN     | 8.79  | ± 9.6 % |
| 10638 | AAC | IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)         | WLAN     | 8.86  | ± 9.6 % |
| 10639 | AAC | IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)         | WLAN     | 8.85  | ± 9.6 % |
| 10640 | AAC | IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)         | WLAN     | 8.98  | ± 9.6 % |
| 10641 | AAC | IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10642 | AAC | IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)         | WLAN     | 9.06  | ± 9.6 % |
| 10643 | AAC | IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)         | WLAN     | 8.89  | ± 9.6 % |
| 10644 | AAC | IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)         | WLAN     | 9.05  | ± 9.6 % |
| 10645 | AAC | IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)         | WLAN     | 9.11  | ± 9.6 % |
| 10646 | AAF | LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)      | LTE-TDD  | 11.96 | ± 9.6 % |
| 10647 | AAF | LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)     | LTE-TDD  | 11.96 | ± 9.6 % |
| 10648 | AAA | CDMA2000 (1x Advanced)                                     | CDMA2000 | 3.45  | ± 9.6 % |
| 10652 | AAD | LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)             | LTE-TDD  | 6.91  | ± 9.6 % |
| 10653 | AAD | LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 7.42  | ± 9.6 % |
| 10654 | AAD | LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)            | LTE-TDD  | 6.96  | ± 9.6 % |

|       |     |                                                 |           |       |         |
|-------|-----|-------------------------------------------------|-----------|-------|---------|
| 10655 | AAE | LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%) | LTE-TDD   | 7.21  | ± 9.6 % |
| 10658 | AAA | Pulse Waveform (200Hz, 10%)                     | Test      | 10.00 | ± 9.6 % |
| 10659 | AAA | Pulse Waveform (200Hz, 20%)                     | Test      | 6.99  | ± 9.6 % |
| 10660 | AAA | Pulse Waveform (200Hz, 40%)                     | Test      | 3.98  | ± 9.6 % |
| 10661 | AAA | Pulse Waveform (200Hz, 60%)                     | Test      | 2.22  | ± 9.6 % |
| 10662 | AAA | Pulse Waveform (200Hz, 80%)                     | Test      | 0.97  | ± 9.6 % |
| 10670 | AAA | Bluetooth Low Energy                            | Bluetooth | 2.19  | ± 9.6 % |

<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.

## APPENDIX D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity  $\epsilon'$  can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where  $Y$  is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively,  $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$ ,  $\omega$  is the angular frequency, and  $j = \sqrt{-1}$ .

### 3 Composition / Information on ingredients

#### 3.2 Mixtures

**Description:** Aqueous solution with surfactants and inhibitors

**Declarable, or hazardous components:**

|                                                                        |                                                                                                                       |           |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------|
| CAS: 107-21-1<br>EINECS: 203-473-3<br>Reg.nr.: 01-2119456816-28-0000   | <b>Ethanedial</b><br>STOT RE 2, H373;<br>Acute Tox. 4, H302                                                           | >1.0-4.9% |
| CAS: 68608-26-4<br>EINECS: 271-781-5<br>Reg.nr.: 01-2119527859-22-0000 | <b>Sodium petroleum sulfonate</b><br>Eye Irrit. 2, H319                                                               | < 2.9%    |
| CAS: 107-41-5<br>EINECS: 203-489-0<br>Reg.nr.: 01-2119539582-35-0000   | <b>Hexylene Glycol / 2-Methyl-pentane-2,4-diol</b><br>Skin Irrit. 2, H315; Eye Irrit. 2, H319                         | < 2.9%    |
| CAS: 68920-66-1<br>NLP: 500-236-9<br>Reg.nr.: 01-2119489407-26-0000    | <b>Alkoxyated alcohol, &gt; C<sub>16</sub></b><br>Aquatic Chronic 2, H411;<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319 | < 2.0%    |

#### Additional information:

For the wording of the listed risk phrases refer to section 16.

Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.

The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

**Figure D-I**

Note: Liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

|                                           |                                                                                     |                              |                                                                                       |                                        |
|-------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|
| <b>FCC ID:</b> ZNFG850UM                  |  | <b>SAR EVALUATION REPORT</b> |  | <b>Approved by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 – 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                |                              |                                                                                       | <b>APPENDIX D:</b><br>Page 1 of 3      |

**Measurement Certificate / Material Test**

Item Name **Body Tissue Simulating Liquid (MBBL600-6000V6)**  
 Product No. SL AAM U16 BC (Batch: 181029-1)  
 Manufacturer SPEAG

**Measurement Method**

TSL dielectric parameters measured using calibrated DAK probe.

**Target Parameters**

Target parameters as defined in the KDB 865864 compliance standard.

**Test Condition**

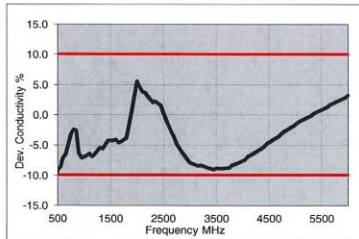
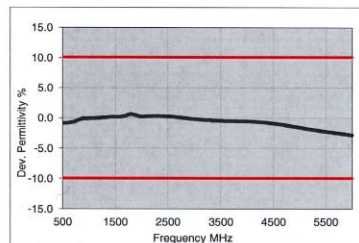
Ambient Condition 22°C ; 30% humidity  
 TSL Temperature 22°C  
 Test Date 30-Oct-18  
 Operator CL

**Additional Information**

TSL Density  
 TSL Heat-capacity

**Results**

| f [MHz] | Measured |      |       | Target |       | Diff.to Target [%] |         |
|---------|----------|------|-------|--------|-------|--------------------|---------|
|         | e'       | e''  | sigma | eps    | sigma | Δ-eps              | Δ-sigma |
| 800     | 55.1     | 21.3 | 0.95  | 55.3   | 0.97  | -0.4               | -2.1    |
| 825     | 55.1     | 20.8 | 0.96  | 55.2   | 0.98  | -0.3               | -2.0    |
| 835     | 55.1     | 20.6 | 0.96  | 55.1   | 0.99  | 0.0                | -2.5    |
| 850     | 55.1     | 20.4 | 0.96  | 55.2   | 0.99  | -0.1               | -3.0    |
| 900     | 55.0     | 19.7 | 0.98  | 55.0   | 1.05  | 0.0                | -6.7    |
| 1400    | 54.2     | 15.6 | 1.22  | 54.1   | 1.28  | 0.2                | -4.7    |
| 1450    | 54.1     | 15.4 | 1.24  | 54.0   | 1.30  | 0.2                | -4.6    |
| 1500    | 54.1     | 15.3 | 1.27  | 53.9   | 1.33  | 0.3                | -4.5    |
| 1550    | 54.0     | 15.1 | 1.30  | 53.9   | 1.36  | 0.2                | -4.4    |
| 1600    | 53.9     | 15.0 | 1.33  | 53.8   | 1.39  | 0.2                | -4.3    |
| 1625    | 53.9     | 14.9 | 1.35  | 53.8   | 1.41  | 0.3                | -4.3    |
| 1640    | 53.9     | 14.9 | 1.36  | 53.7   | 1.42  | 0.3                | -4.2    |
| 1650    | 53.8     | 14.9 | 1.36  | 53.7   | 1.43  | 0.2                | -4.9    |
| 1700    | 53.8     | 14.8 | 1.40  | 53.6   | 1.46  | 0.4                | -4.1    |
| 1750    | 53.7     | 14.7 | 1.43  | 53.4   | 1.49  | 0.5                | -4.0    |
| 1800    | 53.7     | 14.6 | 1.46  | 53.3   | 1.52  | 0.8                | -3.9    |
| 1810    | 53.7     | 14.6 | 1.47  | 53.3   | 1.52  | 0.8                | -3.3    |
| 1825    | 53.7     | 14.6 | 1.48  | 53.3   | 1.52  | 0.8                | -2.6    |
| 1850    | 53.6     | 14.5 | 1.50  | 53.3   | 1.52  | 0.6                | -1.3    |
| 1900    | 53.5     | 14.5 | 1.53  | 53.3   | 1.52  | 0.4                | 0.7     |
| 1950    | 53.5     | 14.5 | 1.57  | 53.3   | 1.52  | 0.4                | 3.3     |
| 2000    | 53.4     | 14.4 | 1.60  | 53.3   | 1.52  | 0.2                | 5.3     |
| 2050    | 53.4     | 14.4 | 1.64  | 53.2   | 1.57  | 0.3                | 4.5     |
| 2100    | 53.3     | 14.4 | 1.68  | 53.2   | 1.62  | 0.2                | 3.7     |
| 2150    | 53.3     | 14.4 | 1.72  | 53.1   | 1.66  | 0.4                | 3.6     |
| 2200    | 53.2     | 14.4 | 1.76  | 53.0   | 1.71  | 0.3                | 2.9     |
| 2250    | 53.1     | 14.4 | 1.81  | 53.0   | 1.76  | 0.2                | 2.8     |
| 2300    | 53.1     | 14.4 | 1.85  | 52.9   | 1.81  | 0.4                | 2.2     |
| 2350    | 53.0     | 14.5 | 1.89  | 52.8   | 1.85  | 0.3                | 2.2     |
| 2400    | 52.9     | 14.5 | 1.94  | 52.8   | 1.90  | 0.2                | 2.1     |
| 2450    | 52.9     | 14.5 | 1.98  | 52.7   | 1.95  | 0.4                | 1.5     |
| 2500    | 52.8     | 14.6 | 2.03  | 52.6   | 2.02  | 0.3                | 0.5     |
| 2550    | 52.7     | 14.6 | 2.07  | 52.6   | 2.09  | 0.2                | -1.0    |
| 2600    | 52.6     | 14.7 | 2.12  | 52.5   | 2.16  | 0.2                | -1.9    |



|      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|
| 3500 | 51.1 | 15.5 | 3.02 | 51.3 | 3.31 | -0.4 | -8.8 |
| 3700 | 50.8 | 15.7 | 3.24 | 51.1 | 3.55 | -0.5 | -8.8 |
| 5200 | 48.1 | 18.2 | 5.27 | 49.0 | 5.30 | -1.8 | -0.6 |
| 5250 | 48.0 | 18.3 | 5.34 | 49.0 | 5.36 | -1.9 | -0.4 |
| 5300 | 47.9 | 18.4 | 5.41 | 48.9 | 5.42 | -2.0 | -0.2 |
| 5500 | 47.5 | 18.6 | 5.70 | 48.6 | 5.65 | -2.2 | 0.8  |
| 5600 | 47.3 | 18.8 | 5.84 | 48.5 | 5.77 | -2.3 | 1.3  |
| 5700 | 47.1 | 18.9 | 5.99 | 48.3 | 5.88 | -2.5 | 1.8  |
| 5800 | 47.0 | 19.0 | 6.14 | 48.2 | 6.00 | -2.6 | 2.3  |

TSL Dielectric Parameters

1

**Figure D-1**  
**750 – 5800 MHz Body Tissue Equivalent Matter**

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 2 of 3      |

## Measurement Certificate / Material Test

Item Name Head Tissue Simulating Liquid (HBBL600-10000V6)  
Product No. SL AAH U16 BC (Batch: 181031-2)  
Manufacturer SPEAG

## Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

## Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

## Test Condition

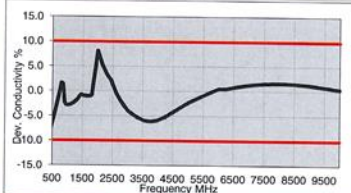
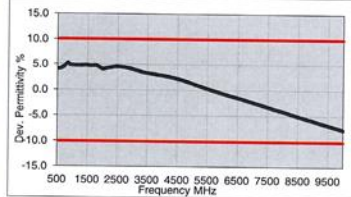
Ambient Condition 22°C ; 30% humidity  
TSL Temperature 22°C  
Test Date 31-Oct-18  
Operator CL

## Additional Information

TSL Density  
TSL Heat-capacity

## Results

| f [MHz] | Measured |      |       | Target |       | Diff.to Target [%] |         |
|---------|----------|------|-------|--------|-------|--------------------|---------|
|         | e'       | e''  | sigma | eps    | sigma | Δ-eps              | Δ-sigma |
| 800     | 43.8     | 20.5 | 0.91  | 41.7   | 0.90  | 5.1                | 1.4     |
| 825     | 43.8     | 20.1 | 0.92  | 41.6   | 0.91  | 5.3                | 1.5     |
| 835     | 43.8     | 19.9 | 0.93  | 41.5   | 0.91  | 5.4                | 2.0     |
| 850     | 43.7     | 19.7 | 0.93  | 41.5   | 0.92  | 5.3                | 1.5     |
| 900     | 43.5     | 18.9 | 0.95  | 41.5   | 0.97  | 4.8                | -2.1    |
| 1400    | 42.5     | 15.0 | 1.17  | 40.6   | 1.18  | 4.7                | -0.8    |
| 1450    | 42.5     | 14.8 | 1.19  | 40.5   | 1.20  | 4.9                | -0.8    |
| 1600    | 42.2     | 14.3 | 1.27  | 40.3   | 1.28  | 4.7                | -1.1    |
| 1625    | 42.2     | 14.2 | 1.29  | 40.3   | 1.30  | 4.8                | -0.7    |
| 1640    | 42.2     | 14.2 | 1.30  | 40.3   | 1.31  | 4.8                | -0.5    |
| 1650    | 42.1     | 14.2 | 1.30  | 40.2   | 1.31  | 4.6                | -1.0    |
| 1700    | 42.1     | 14.0 | 1.33  | 40.2   | 1.34  | 4.8                | -0.9    |
| 1750    | 42.0     | 13.9 | 1.36  | 40.1   | 1.37  | 4.8                | -0.8    |
| 1800    | 41.9     | 13.9 | 1.39  | 40.0   | 1.40  | 4.7                | -0.7    |
| 1810    | 41.9     | 13.8 | 1.40  | 40.0   | 1.40  | 4.7                | 0.0     |
| 1825    | 41.9     | 13.8 | 1.41  | 40.0   | 1.40  | 4.7                | 0.7     |
| 1850    | 41.8     | 13.8 | 1.42  | 40.0   | 1.40  | 4.5                | 1.4     |
| 1900    | 41.8     | 13.7 | 1.45  | 40.0   | 1.40  | 4.5                | 3.6     |
| 1950    | 41.7     | 13.7 | 1.48  | 40.0   | 1.40  | 4.3                | 5.7     |
| 2000    | 41.6     | 13.6 | 1.51  | 40.0   | 1.40  | 4.0                | 7.9     |
| 2050    | 41.6     | 13.6 | 1.55  | 39.9   | 1.44  | 4.2                | 7.3     |
| 2100    | 41.5     | 13.5 | 1.58  | 39.8   | 1.49  | 4.2                | 6.1     |
| 2150    | 41.4     | 13.5 | 1.62  | 39.7   | 1.53  | 4.2                | 5.7     |
| 2200    | 41.4     | 13.5 | 1.65  | 39.6   | 1.58  | 4.4                | 4.6     |
| 2250    | 41.3     | 13.5 | 1.69  | 39.6   | 1.62  | 4.4                | 4.2     |
| 2300    | 41.2     | 13.5 | 1.72  | 39.5   | 1.67  | 4.4                | 3.2     |
| 2350    | 41.1     | 13.5 | 1.76  | 39.4   | 1.71  | 4.4                | 2.9     |
| 2400    | 41.1     | 13.5 | 1.80  | 39.3   | 1.76  | 4.6                | 2.5     |
| 2450    | 41.0     | 13.5 | 1.84  | 39.2   | 1.80  | 4.6                | 2.2     |
| 2500    | 40.9     | 13.5 | 1.88  | 39.1   | 1.85  | 4.5                | 1.4     |
| 2550    | 40.8     | 13.5 | 1.92  | 39.1   | 1.91  | 4.4                | 0.6     |
| 2600    | 40.8     | 13.6 | 1.96  | 39.0   | 1.96  | 4.6                | -0.2    |
| 3500    | 39.2     | 14.1 | 2.74  | 37.9   | 2.91  | 3.3                | -5.8    |
| 3700    | 38.9     | 14.2 | 2.93  | 37.7   | 3.12  | 3.1                | -6.1    |



|       |      |      |       |      |       |      |      |
|-------|------|------|-------|------|-------|------|------|
| 5200  | 36.3 | 15.8 | 4.57  | 36.0 | 4.66  | 0.9  | -1.7 |
| 5250  | 36.2 | 15.9 | 4.63  | 35.9 | 4.71  | 0.8  | -1.6 |
| 5300  | 36.1 | 15.9 | 4.69  | 35.9 | 4.76  | 0.7  | -1.4 |
| 5500  | 35.8 | 16.1 | 4.92  | 35.6 | 4.96  | 0.3  | -0.9 |
| 5600  | 35.6 | 16.2 | 5.04  | 35.5 | 5.07  | 0.1  | -0.6 |
| 5700  | 35.4 | 16.2 | 5.15  | 35.4 | 5.17  | 0.0  | -0.3 |
| 5800  | 35.2 | 16.3 | 5.27  | 35.3 | 5.27  | -0.2 | 0.0  |
| 6000  | 34.9 | 16.5 | 5.50  | 35.1 | 5.48  | -0.6 | 0.5  |
| 6500  | 34.0 | 16.9 | 6.12  | 34.5 | 6.07  | -1.4 | 0.9  |
| 7000  | 33.1 | 17.3 | 6.74  | 33.9 | 6.65  | -2.3 | 1.3  |
| 7500  | 32.2 | 17.6 | 7.36  | 33.3 | 7.24  | -3.2 | 1.6  |
| 8000  | 31.4 | 17.9 | 7.97  | 32.7 | 7.84  | -4.1 | 1.7  |
| 8500  | 30.5 | 18.2 | 8.59  | 32.1 | 8.45  | -5.0 | 1.6  |
| 9000  | 29.7 | 18.4 | 9.20  | 31.5 | 9.08  | -5.9 | 1.3  |
| 9500  | 28.9 | 18.5 | 9.80  | 31.0 | 9.71  | -6.8 | 0.9  |
| 10000 | 28.1 | 18.7 | 10.40 | 30.4 | 10.36 | -7.6 | 0.4  |

Figure D-2  
750 – 5800 MHz Head Tissue Equivalent Matter

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX D:<br>Page 3 of 3      |

## APPENDIX E: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

**Table E-1**  
**SAR System Validation Summary – 1g**

| SAR System | Freq. (MHz) | Date      | Probe SN | Probe Cal Point |      | Cond. (σ) | Perm. (εr) | CW VALIDATION |                 |                | MOD. VALIDATION |             |      |
|------------|-------------|-----------|----------|-----------------|------|-----------|------------|---------------|-----------------|----------------|-----------------|-------------|------|
|            |             |           |          |                 |      |           |            | SENSITIVITY   | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE       | DUTY FACTOR | PAR  |
| E          | 750         | 2/6/2019  | 3589     | 750             | Head | 0.891     | 43.677     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| D          | 750         | 4/12/2019 | 3914     | 750             | Head | 0.903     | 42.785     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| E          | 835         | 2/6/2019  | 3589     | 835             | Head | 0.922     | 43.47      | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| D          | 835         | 4/12/2019 | 3914     | 835             | Head | 0.935     | 42.549     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| E          | 835         | 8/15/2019 | 7547     | 835             | Head | 0.927     | 41.61      | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| O          | 1750        | 8/7/2019  | 7538     | 1750            | Head | 1.37      | 40.428     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| H          | 1900        | 7/16/2019 | 7406     | 1900            | Head | 1.437     | 38.944     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| D          | 1900        | 5/20/2019 | 3914     | 1900            | Head | 1.454     | 40.608     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| E          | 2300        | 8/12/2019 | 7547     | 2300            | Head | 1.708     | 38.875     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| E          | 2450        | 8/8/2019  | 7547     | 2450            | Head | 1.802     | 37.944     | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| E          | 2600        | 8/8/2019  | 7547     | 2600            | Head | 1.925     | 37.709     | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| E          | 3500        | 6/13/2019 | 3589     | 3500            | Head | 2.781     | 39.174     | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| E          | 3700        | 6/13/2019 | 3589     | 3700            | Head | 2.976     | 38.844     | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| H          | 5250        | 6/10/2019 | 7406     | 5250            | Head | 4.59      | 36.819     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| H          | 5600        | 6/10/2019 | 7406     | 5600            | Head | 4.978     | 34.167     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| H          | 5750        | 6/10/2019 | 7406     | 5750            | Head | 5.15      | 33.901     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| G          | 750         | 7/23/2019 | 7409     | 750             | Body | 0.941     | 56.074     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| O          | 835         | 7/3/2019  | 7538     | 835             | Body | 0.972     | 55.349     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| H          | 835         | 7/11/2019 | 7406     | 835             | Body | 0.978     | 54.026     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| I          | 1750        | 5/21/2019 | 7357     | 1750            | Body | 1.442     | 55.384     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| G          | 1750        | 7/11/2019 | 7409     | 1750            | Body | 1.445     | 53.92      | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| J          | 1900        | 2/8/2019  | 7488     | 1900            | Body | 1.571     | 52.538     | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| K          | 2300        | 3/6/2019  | 7417     | 2300            | Body | 1.86      | 51.114     | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| K          | 2450        | 3/6/2019  | 7417     | 2450            | Body | 2.039     | 50.67      | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| I          | 2450        | 5/16/2019 | 7357     | 2450            | Body | 2.014     | 53.91      | PASS          | PASS            | PASS           | OFDM/TDD        | PASS        | PASS |
| K          | 2600        | 3/6/2019  | 7417     | 2600            | Body | 2.224     | 50.17      | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| I          | 2600        | 5/15/2019 | 7357     | 2600            | Body | 2.162     | 53.62      | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| M          | 3500        | 11/9/2018 | 3949     | 3500            | Body | 3.324     | 51.143     | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| M          | 3700        | 11/9/2018 | 3949     | 3700            | Body | 3.543     | 50.813     | PASS          | PASS            | PASS           | TDD             | PASS        | N/A  |
| L          | 5250        | 7/31/2019 | 7410     | 5250            | Body | 5.165     | 47.068     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5600        | 7/31/2019 | 7410     | 5600            | Body | 5.629     | 46.485     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5750        | 7/31/2019 | 7410     | 5750            | Body | 5.842     | 46.222     | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX E:<br>Page 1 of 2      |

**Table E-2**  
**SAR System Validation Summary – 10g**

| SAR System | Freq. (MHz) | Date      | Probe SN | Probe Cal Point |      | Cond. ( $\sigma$ ) | Perm. ( $\epsilon_r$ ) | CW VALIDATION |                 |                | MOD. VALIDATION |             |      |
|------------|-------------|-----------|----------|-----------------|------|--------------------|------------------------|---------------|-----------------|----------------|-----------------|-------------|------|
|            |             |           |          |                 |      |                    |                        | SENSITIVITY   | PROBE LINEARITY | PROBE ISOTROPY | MOD. TYPE       | DUTY FACTOR | PAR  |
| G          | 1750        | 7/11/2019 | 7409     | 1750            | Body | 1.445              | 53.92                  | PASS          | PASS            | PASS           | N/A             | N/A         | N/A  |
| J          | 1900        | 2/8/2019  | 7488     | 1900            | Body | 1.571              | 52.538                 | PASS          | PASS            | PASS           | GMSK            | PASS        | N/A  |
| L          | 5250        | 7/31/2019 | 7410     | 5250            | Body | 5.165              | 47.068                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5600        | 7/31/2019 | 7410     | 5600            | Body | 5.629              | 46.485                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |
| L          | 5750        | 7/31/2019 | 7410     | 5750            | Body | 5.842              | 46.222                 | PASS          | PASS            | PASS           | OFDM            | N/A         | PASS |

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  | SAR EVALUATION REPORT |  | Approved by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX E:<br>Page 2 of 2      |

## APPENDIX G POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) evaluation of the triggering distances for proximity-based sensors.

### G.1 Power Verification Procedure

The power verification was performed according to the following procedure:

1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
3. Steps 1 and 2 were repeated for all individual power reduction mechanisms and combinations thereof. For the combination cases, one mechanism was switched to a 'triggered' state at a time; powers were confirmed to be within tolerances after each additional mechanism was activated.

### G.2 Distance Verification Procedure

The distance verification procedure was performed according to the following procedure:

1. A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.
2. The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02 and FCC Guidance. Each applicable test position was evaluated. The distances were confirmed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
3. Steps 1 and 2 were repeated for low, mid, and high bands, as appropriate (see note below Table G-2 for more details).
4. Steps 1 through 3 were repeated for all distance-based power reduction mechanisms.

|                                    |                                                                                                                                   |                       |                                                                                                 |                                 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | SAR EVALUATION REPORT |  <b>LG</b> | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                                                                     |                       |                                                                                                 | APPENDIX G:<br>Page 1 of 3      |

### G.3 Main Antenna Verification Summary

**Table G-1**  
**Power Measurement Verification for Main Antenna**

| Mechanism(s) | Mode/Band       | Conducted Power (dBm) |                        |
|--------------|-----------------|-----------------------|------------------------|
| 1st          |                 | Un-triggered (Max)    | Mechanism #1 (Reduced) |
| Grip         | PCS CDMA        | 24.96                 | 22.34                  |
| Grip         | UMTS 1750       | 25.00                 | 22.47                  |
| Grip         | UMTS 1900       | 24.99                 | 22.42                  |
| Grip         | LTE FDD Band 66 | 25.00                 | 22.33                  |
| Grip         | LTE FDD Band 4  | 24.89                 | 22.41                  |
| Grip         | LTE FDD Band 25 | 24.98                 | 22.26                  |
| Grip         | LTE FDD Band 2  | 24.96                 | 22.39                  |

**Table G-2**  
**Distance Measurement Verification for Main Antenna**

| Mechanism(s) | Test Condition        | Band | Distance Measurements (mm) |             | Minimum Distance per Manufacturer (mm) |
|--------------|-----------------------|------|----------------------------|-------------|----------------------------------------|
|              |                       |      | Moving Toward              | Moving Away |                                        |
| Grip         | Phablet - Back Side   | Mid  | 3                          | 5           | 2                                      |
| Grip         | Phablet - Front Side  | Mid  | 1                          | 3           | 1                                      |
| Grip         | Phablet - Bottom Edge | Mid  | 4                          | 6           | 4                                      |

\*Note: Mid band refers to: CDMA BC1, UMTS B2/4, LTE B2/4/25/66

|                                           |                                                                                                                                   |                              |                                                                                                 |                                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  <b>LG</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 – 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                              |                              |                                                                                                 | <b>APPENDIX G:</b><br>Page 2 of 3      |

## G.4 WIFI Verification Summary

**Table G-3**  
**Power Measurement Verification WIFI – Antenna 1**

| Mechanism(s) | Mode/Band                | Conducted Power (dBm) |                        |
|--------------|--------------------------|-----------------------|------------------------|
| 1st          |                          | Un-triggered (Max)    | Mechanism #1 (Reduced) |
| Held-to-Ear  | 802.11b                  | 19.80                 | 17.37                  |
| Held-to-Ear  | 802.11g                  | 18.26                 | 16.23                  |
| Held-to-Ear  | 802.11n (2.4GHz)         | 17.17                 | 15.62                  |
| Held-to-Ear  | 802.11a                  | 19.57                 | 15.73                  |
| Held-to-Ear  | 802.11n (5GHz, 20MHz BW) | 19.47                 | 15.79                  |
| Held-to-Ear  | 802.11ac (20MHz BW)      | 19.62                 | 15.76                  |

\*Note: 802.11ac 2.4 GHz and MIMO WIFI modes were not evaluated due to equipment limitations.

**Table G-4**  
**Power Measurement Verification WIFI – Antenna 2**

| Mechanism(s) | Mode/Band                | Conducted Power (dBm) |                        |
|--------------|--------------------------|-----------------------|------------------------|
| 1st          |                          | Un-triggered (Max)    | Mechanism #1 (Reduced) |
| Held-to-Ear  | 802.11b                  | 19.82                 | 17.13                  |
| Held-to-Ear  | 802.11g                  | 19.28                 | 17.15                  |
| Held-to-Ear  | 802.11n (2.4GHz)         | 18.17                 | 17.12                  |
| Held-to-Ear  | 802.11a                  | 19.84                 | 15.75                  |
| Held-to-Ear  | 802.11n (5GHz, 20MHz BW) | 19.71                 | 15.79                  |
| Held-to-Ear  | 802.11ac (20MHz BW)      | 19.70                 | 15.63                  |

\*Note: 802.11ac 2.4 GHz and MIMO WIFI modes were not evaluated due to equipment limitations.

|                                    |                                                                                                                                   |                       |                                                                                       |                                 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 – 08/26/19 | DUT Type:<br>Portable Handset                                                                                                     |                       |                                                                                       | APPENDIX G:<br>Page 3 of 3      |

# APPENDIX H: DOWNLINK LTE CA RF CONDUCTED POWERS

## 1.1 LTE Downlink Only Carrier Aggregation Test Reduction Methodology

SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. Per April 2018 TCBC Workshop Notes, the following test reduction methodology was applied to determine the combinations required for conducted power measurements.

### LTE DLCA Test Reduction Methodology:

- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination (e.g. CA\_2A-2A-4A-12A, but B12 can only be configured as a SCC).
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 4x4 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.

Table 1 – Example of Exclusion Table for SISO Configurations

| Index | ACC     | Supported Channel Bandwidth (MHz) | Restriction | Completely Covered by Measurement Superset |
|-------|---------|-----------------------------------|-------------|--------------------------------------------|
| CC1   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC2   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC3   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC4   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC5   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC6   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC7   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC8   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC9   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC10  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC11  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC12  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC13  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC14  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC15  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC16  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC17  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC18  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC19  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC20  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC21  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC22  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC23  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC24  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC25  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC26  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC27  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC28  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC29  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC30  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC31  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC32  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC33  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC34  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC35  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC36  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC37  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC38  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC39  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC40  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC41  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC42  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC43  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC44  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC45  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC46  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC47  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC48  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC49  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC50  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC51  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC52  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC53  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC54  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC55  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC56  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC57  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC58  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC59  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC60  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC61  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC62  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC63  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC64  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC65  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC66  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC67  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC68  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC69  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC70  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC71  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC72  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC73  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC74  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC75  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC76  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC77  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC78  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC79  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC80  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC81  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC82  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC83  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC84  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC85  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC86  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC87  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC88  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC89  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC90  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC91  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC92  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC93  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC94  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC95  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC96  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC97  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC98  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC99  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC100 | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |

Table 2 – Example of Exclusion Table for 4x4 Downlink MIMO Configurations

| Index | ACC     | Supported Channel Bandwidth (MHz) | Restriction | Completely Covered by Measurement Superset |
|-------|---------|-----------------------------------|-------------|--------------------------------------------|
| CC1   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC2   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC3   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC4   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC5   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC6   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC7   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC8   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC9   | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC10  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC11  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC12  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC13  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC14  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC15  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC16  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC17  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC18  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC19  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC20  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC21  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC22  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC23  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC24  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC25  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC26  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC27  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC28  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC29  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC30  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC31  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC32  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC33  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC34  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC35  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC36  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC37  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC38  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC39  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC40  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC41  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC42  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC43  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC44  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC45  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC46  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC47  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC48  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC49  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC50  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC51  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC52  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC53  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC54  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC55  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC56  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC57  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC58  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC59  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC60  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC61  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC62  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC63  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC64  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC65  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC66  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC67  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC68  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC69  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC70  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC71  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC72  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC73  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC74  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC75  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC76  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC77  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC78  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC79  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC80  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC81  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC82  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC83  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC84  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC85  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC86  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC87  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC88  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC89  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC90  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC91  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC92  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC93  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC94  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC95  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC96  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC97  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC98  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC99  | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |
| CC100 | CA [2A] | 5, 10, 15, 20                     |             | Yes                                        |

Note: [CC] indicates component carrier with 4x4 DL MIMO antenna configuration

|                                    |                                                                                                           |                                                                                       |                                 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 - 08/26/19 | DUT Type:<br>Portable Handset                                                                             |                                                                                       | APPENDIX H:<br>Page 1 of 13     |

## 1.2 LTE Downlink Only Carrier Aggregation Test Selection and Setup

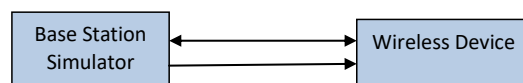
SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number component carriers (CCs) supported by the product implementation. For those configurations required by April 2018 TCBC Workshop Notes, conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, 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. 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.

This device supports LAA with downlink carrier aggregation only. It uses carrier aggregation in the downlink to combine LTE in the unlicensed spectrum (i.e. LTE Band 46) with LTE in the licensed band (served as PCC). All uplink communications and acknowledgements on the PCC remain identical to specifications when downlink carrier aggregation is inactive.

Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the maximum 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. All bands required for SAR testing per FCC KDB procedures were considered. Based on the measured maximum powers below, no additional SAR tests were required for DLCA SAR configurations.

General PCC and SCC configuration selection procedure

- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. 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 PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.



**Figure 1**  
**DL CA Power Measurement Setup**

|                                           |                                                                                                                                   |                              |                                                                                                 |                                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>PCTEST</b><br>ENGINEERING LABORATORY, INC. | <b>SAR EVALUATION REPORT</b> |  <b>LG</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 - 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                              |                              |                                                                                                 | <b>APPENDIX H:</b><br>Page 2 of 13     |

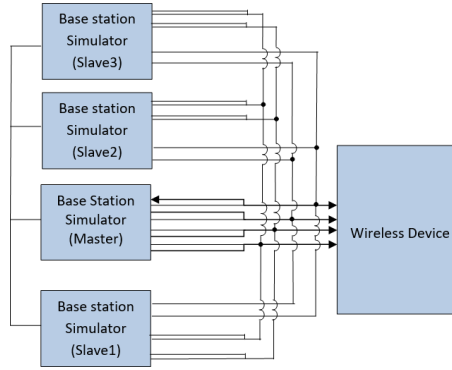


Figure 2  
DL CA with DL 4x4 MIMO Power Measurement Setup

## 1.3 Downlink Carrier Aggregation RF Conducted Powers

### 1.3.1 LTE Band 71 as PCC

Table 1  
Maximum Output Powers

| Combination       | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC  |           |                  |                      | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC 1 |      |        | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | Power                                 |                                   |
|-------------------|----------|--------------|--------------|------|-----------|------------------|----------------------|------------------|----------------------|-------|------|--------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                   |          |              |              | Mod. | PCC UL RB | PCC UL RB Offset | PCC (UL) Freq. [MHz] |                  |                      |       |      |        |          |              |                  |                      |          |              |                  |                      |          |              |                  |                      |          |              |                  |                      | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 2A-4A-71A      | LTE B71  | 20           | 133297       | QPSK | 1         | 99               | 68761                | 634.5            | LTE B2               | 20    | 900  | 1960   | LTE B4   | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 25.48                                 | 25.50                             |
| CA 4A-4A-71A      | LTE B71  | 20           | 133297       | QPSK | 1         | 99               | 68761                | 634.5            | LTE B4               | 20    | 2175 | 2132.5 | LTE B4   | 10           | 2350             | 2150                 | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | 25.47                                 | 25.50                             |
| CA 2A-2A-66A-71A  | LTE B71  | 20           | 133297       | QPSK | 1         | 99               | 68761                | 634.5            | LTE B2               | 20    | 900  | 1960   | LTE B2   | 20           | 700              | 1940                 | LTE B66  | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -                    | 25.49                                 | 25.50                             |
| CA 2A-66A-66A-71A | LTE B71  | 20           | 133297       | QPSK | 1         | 99               | 68761                | 634.5            | LTE B2               | 20    | 900  | 1960   | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | -        | -            | -                | -                    | -        | -            | -                | -                    | 25.49                                 | 25.50                             |
| CA 2A-66C-71A     | LTE B71  | 20           | 133297       | QPSK | 1         | 99               | 68761                | 634.5            | LTE B2               | 20    | 900  | 1960   | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 66984            | 2164.8               | -        | -            | -                | -                    | -        | -            | -                | -                    | 25.50                                 | 25.50                             |

### 1.3.2 LTE Band 12 as PCC

Table 2  
Maximum Output Powers

| Combination           | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC  |           |                  |                      | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC 1        |                  |                      | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC 2    |              |                  | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC 3                |          |              | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | Power            |                      |
|-----------------------|----------|--------------|--------------|------|-----------|------------------|----------------------|------------------|----------------------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------|--------------|------------------|----------------------|----------------------|----------|--------------|----------|--------------|------------------|----------------------|------------------|----------------------|
|                       |          |              |              | Mod. | PCC UL RB | PCC UL RB Offset | SCC (UL) Freq. [MHz] |                  |                      | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] |          |              |                  |                      | SCC Band | SCC BW [MHz] | SCC (DL) Channel |          |              |                  |                      | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] |          |              |                  |                      | SCC (DL) Channel | SCC (DL) Freq. [MHz] |
| CA 12A-25A            | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B25              | 20           | 8365             | 1962.5               | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.50                | 25.50            |                      |
| CA 12A-66A (1)        | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B66              | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.48                | 25.50            |                      |
| CA 12A-66A (2)        | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B66              | 20           | 66786            | 2145                 | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.48                | 25.50            |                      |
| CA 2A-12A (1)         | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.50                | 25.50            |                      |
| CA 4A-12A (1)         | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B4               | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.49                | 25.50            |                      |
| CA 4A-12A (2)         | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B4               | 20           | 2175             | 2132.5               | -        | -            | -                | -                    | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | 25.49                | 25.50            |                      |
| CA 4A-4A-12A          | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B4               | 20           | 2175             | 2132.5               | LTE B4   | 10           | 2350             | 2150                 | -        | -            | -                | -        | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.46            | 25.50                |
| CA 2A-12A-66C         | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 66984            | 2164.8   | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.50            | 25.50                |
| CA 2A-2A-4A-12A       | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940                 | LTE B4   | 20           | 2175             | 2132.5   | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.50            | 25.50                |
| CA 2A-4A-12A-30A      | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B30  | 10           | 3620             | 2355     | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.50            | 25.50                |
| CA 2A-4A-12B          | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B12              | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5   | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.47            | 25.50                |
| CA 2A-4A-7A-12A       | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B7   | 20           | 3100             | 2656     | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.25            | 25.50                |
| CA 4A-6A-12B          | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B4   | 20           | 2175             | 2132.5               | LTE B4   | 20           | 2655             | 2160     | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.49            | 25.50                |
| CA 12B-66A-66A        | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B12              | 5            | 5047             | 732.7                | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190     | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.40            | 25.50                |
| CA 2A-12A-30A-66A-66A | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B30  | 10           | 3620             | 2355                 | LTE B66  | 20           | 66786            | 2145     | LTE B66      | 20               | 67236                | 2190                 | -        | -            | -        | -            | -                | -                    | 25.49            | 25.50                |
| CA 2A-12A-30A-66A     | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B30  | 10           | 3620             | 2355                 | LTE B30  | 10           | 3620             | 2355     | LTE B66      | 20               | 66786                | 2145                 | -        | -            | -        | -            | -                | -                    | 25.23            | 25.50                |
| CA 2A-2A-12A-66A-66A  | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190     | -            | -                | -                    | -                    | -        | -            | -        | -            | -                | -                    | 25.50            | 25.50                |
| CA 2A-2A-12B-66A      | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B12              | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B2   | 20           | 700              | 1940     | LTE B66      | 20               | 66786                | 2145                 | -        | -            | -        | -            | -                | -                    | 25.11            | 25.50                |
| CA 2A-2A-7A-12A-66A   | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B2               | 20           | 900              | 1960                 | LTE B7   | 20           | 3100             | 2655                 | LTE B66  | 20           | 66786            | 2145     | LTE B66      | 20               | 66786                | 2145                 | -        | -            | -        | -            | -                | -                    | 25.14            | 25.50                |
| CA 2A-7A-12B-66A      | LTE B12  | 5            | 23095        | QPSK | 1         | 12               | 5095                 | 737.5            | LTE B12              | 5            | 5047             | 732.7                | LTE B2   | 20           | 900              | 1960                 | LTE B7   | 20           | 3100             | 2655     | LTE B66      | 20               | 66786                | 2145                 | -        | -            | -        | -            | -                | -                    | 25.10            | 25.50                |

|                                    |                               |                       |  |                                 |
|------------------------------------|-------------------------------|-----------------------|--|---------------------------------|
| FCC ID: ZNFG850UM                  |                               | SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 - 08/26/19 | DUT Type:<br>Portable Handset |                       |  | APPENDIX H:<br>Page 3 of 13     |

### 1.3.3 LTE Band 13 as PCC

**Table 3**  
**Maximum Output Powers**

| Combination   | PCB Band | PCC          |                      |      |            |                   | SSC 1            |                      |          |              | SSC 2            |                      |          |              | SSC 3            |                      |          |              | SSC 4            |                      |          |              | Power            |                      |                                     |                                   |
|---------------|----------|--------------|----------------------|------|------------|-------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|-------------------------------------|-----------------------------------|
|               |          | PCC BW [MHz] | PCC [UL] Freq. [MHz] | Mod. | PCC UL# BB | PCC UL# BB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SSC Band | SSC BW [MHz] | SSC [DL] Channel | SSC [DL] Freq. [MHz] | SSC Band | SSC BW [MHz] | SSC [DL] Channel | SSC [DL] Freq. [MHz] | SSC Band | SSC BW [MHz] | SSC [DL] Channel | SSC [DL] Freq. [MHz] | SSC Band | SSC BW [MHz] | SSC [DL] Channel | SSC [DL] Freq. [MHz] | UL Tx Power with SC CA Enabld [dBm] | LTE Single Carrier Tx Power [dBm] |
| CA 2A-4A-66A  | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-4A-66A  | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-4A-13A  | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 4A-4A-13A  | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 13A-4C-66A | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 13A-4A-66A | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 13A-4A-66C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               | 66786                | 2146     |              |                  |                      |          |              |                  |                      | 21.46                               | 21.50                             |
| CA 2A-13A-48C | LTE B13  | 10           | 2320                 | 782  | QPSK       | 1                 | 49               | 5260                 | 751      | LTE B46      | 20               | 50665                | 5357.5   | LTE B46      | 20               |                      |          |              |                  |                      |          |              |                  |                      |                                     |                                   |

### 1.3.4 LTE Band 14 as PCC

**Table 4**  
**Maximum Output Powers**

| Combination              | PCC Band | PCC BW [MHz] | PCC [UL] Ch | PCC [UL] Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC 1        |                  |                      |          | SCC 2        |                  |                      |          | SCC 3        |                  |                      |          | SCC 4        |                  |                      |          | Power        |                  |
|--------------------------|----------|--------------|-------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|
|                          |          |              |             |                      |      |           |                  |                  |                      |          | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel |
| CA_2A-14A-30A-66A-66A    | LTE E34  | 10           | 23130       | 793                  | QPSK | 1         | 0                | 5330             | 763                  | LTE E2   | 20           | 900              | 1960                 | LTE E30  | 10           | 9820             | 2355                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 25.44    | 25.47        |                  |
| CA_2A-14A-66A-66A-66A    | LTE E14  | 10           | 23130       | 793                  | QPSK | 1         | 0                | 5330             | 763                  | LTE E2   | 20           | 900              | 1960                 | LTE B66  | 20           | 66536            | 2320                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 25.47    | 25.47        |                  |
| CA_2A-2A-14A-30A-66A-66A | LTE E14  | 10           | 23130       | 793                  | QPSK | 1         | 0                | 5330             | 763                  | LTE E2   | 20           | 900              | 1960                 | LTE E30  | 10           | 9820             | 2355                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 25.44    | 25.47        |                  |
| CA_2A-2A-14A-66A-66A-66A | LTE E14  | 10           | 23130       | 793                  | QPSK | 1         | 0                | 5330             | 763                  | LTE E2   | 20           | 900              | 1960                 | LTE B66  | 20           | 66536            | 2320                 | LTE B66  | 20           | 66786            | 2145                 | LTE B66  | 20           | 67236            | 2190                 | 25.36    | 25.47        |                  |

### 1.3.5 LTE Band 5 as PCC

**Table 5**  
**Maximum Output Powers**

| Combination       | PCB Band | PCB BW [MHz] | PCC                  |       | PCC ULB RB | PCC ULB Offset | PCC [DL] Freq. [MHz] | SCB Band | SCC 1         |                      | SCC Band | SCC 2         |                      | SCC 3         |                      | SCC 4         |                             | Power                          |       |       |       |
|-------------------|----------|--------------|----------------------|-------|------------|----------------|----------------------|----------|---------------|----------------------|----------|---------------|----------------------|---------------|----------------------|---------------|-----------------------------|--------------------------------|-------|-------|-------|
|                   |          |              | PCC [UL] Freq. [MHz] | Mod.  |            |                |                      |          | PCC [DL] Chn. | SCC [DL] Freq. [MHz] |          | SCC [DL] Chn. | SCC [DL] Freq. [MHz] | SCC [DL] Chn. | SCC [DL] Freq. [MHz] | SCC [DL] Chn. | LT to Power-on Enable [dBm] | LTE Single Carrier Power [dBm] |       |       |       |
| CA-2A-2A          | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B25              | 20       | 8365          | 1962.5               | -             | -                    | -             | -                           | 27.45                          | 25.40 |       |       |
| CA-5A-1A          | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B41              | 20       | 40620         | 2893                 | -             | -                    | -             | -                           | 26.40                          | 25.40 |       |       |
| CA-5A-6A (1)      | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | -             | -                    | -             | -                           | 25.46                          | 25.46 |       |       |
| CA-5A-6A (2)      | LTE BB   | 3            | 20525                | 836.5 | QPSK       | 1              | 14                   | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | -             | -                    | -             | -                           | 20.40                          | 21.40 |       |       |
| CA-5A-7A          | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B7               | 20       | 3100          | 2655                 | -             | -                    | -             | -                           | 20.50                          | 20.50 |       |       |
| CA-2A-2A-6A       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 8365          | 1962.5               | 20            | 50665                | 5537.5        | -                           | -                              | 25.40 | 25.40 |       |
| CA-5A-6A-6A       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 66786                | 2145          | -                           | -                              | 24.45 | 24.45 |       |
| CA-5A-6C (1)      | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 24.45 | 24.45 |       |
| CA-5A-6C (2)      | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 24.45 | 24.45 |       |
| CA-5A-4A-6C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B48              | 20       | 50590         | 3025                 | -             | -                    | -             | -                           | 23.45                          | 23.45 |       |       |
| CA-5A-7A-7C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B7               | 20       | 3100          | 2655                 | 20            | 2895                 | 2630          | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-7C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B7               | 20       | 3100          | 2655                 | 20            | 2895                 | 2630          | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A          | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50665                | 5537.5        | -                           | -                              | 24.45 | 24.45 |       |
| CA-2A-2A-4A-5A    | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-2A-2A-6A-6A    | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-2A-4A-5A       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B4               | 20       | 2175          | 2132.5               | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-2A-4A-5A-3A    | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-2A-6A          | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B4               | 20       | 2175          | 2132.5               | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-2A-5A-6C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-4A-4A-6B       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B5               | 20       | 2453          | 874.3                | 20            | 2175                 | 2132.5        | 20                          | 2175                           | 23.45 | 23.45 |       |
| CA-5A-6C-6A       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6C (1)      | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6C (2)      | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-4A-6B       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B48              | 20       | 50590         | 3025                 | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6A    | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-7C       | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B7               | 20       | 3100          | 2655                 | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-2A-2A-5A-6A-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-2A-5A-6A-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-2A-5A-6A-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6A-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6A-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6A-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6B-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6B-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6B-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6C-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6C-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-2A-5A-6A-6C-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B2               | 20       | 900           | 1040                 | 20            | 1400                 | 1360          | 20                          | 66786                          | 2145  | 23.45 | 23.45 |
| CA-5A-6A-6A-6A-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6A-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6A-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6B-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6B-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6B-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6C-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6C-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6A-6C-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6A-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6A-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6A-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6B-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6B-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6B-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6C-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6C-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6B-6C-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6A-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6A-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6A-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B46              | 20       | 50665         | 5537.5               | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6B-6A | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6B-6B | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6B-6C | LTE BB   | 1            | 20525                | 836.5 | QPSK       | 1              | 0                    | 2525     | 881.5         | LTE B30              | 20       | 5265          | 891.5                | 20            | 50667                | 5537.7        | -                           | -                              | 23.45 | 23.45 |       |
| CA-5A-6A-6C-6C-6A | LTE BB   | 1            |                      |       |            |                |                      |          |               |                      |          |               |                      |               |                      |               |                             |                                |       |       |       |

|                                           |                                                                                                                                                     |                             |                                                                                                 |                                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>PCTEST</b><br><small>PROFESSOR CONSULTANT TEST, INC.</small> | SAR EVALUATION REPORT       |  <b>LG</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 - 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                                                | APPENDIX H:<br>Page 4 of 13 |                                                                                                 |                                        |

### 1.3.6 LTE Band 26 as PCC

Table 6  
Maximum Output Powers

| Combination    | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | PCC  |           |                  |                  |                      | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | Power                                 |                                   |
|----------------|----------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|
|                |          |              |              |                      | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 25A-26A     | LTE B26  | 15           | 26865        | 831.5                | QPSK | 1         | 74               | 8865             | 876.5                | LTE B25  | 20           | 8365             | 1962.5               | -        | -            | -                | -                    | 25.39                                 | 25.50                             |
| CA 26A-41A     | LTE B26  | 15           | 26865        | 831.5                | QPSK | 1         | 74               | 8865             | 876.5                | LTE B41  | 20           | 40620            | 2593                 | -        | -            | -                | -                    | 25.49                                 | 25.50                             |
| CA 25A-26A-26A | LTE B26  | 5            | 26715        | 816.5                | QPSK | 1         | 12               | 8715             | 861.5                | LTE B25  | 20           | 8365             | 1962.5               | LTE B25  | 20           | 8590             | 1985                 | 25.29                                 | 25.31                             |
| CA 26A-41C     | LTE B26  | 15           | 26865        | 831.5                | QPSK | 1         | 74               | 8865             | 876.5                | LTE B41  | 20           | 40620            | 2593                 | LTE B41  | 20           | 40422            | 2573.2               | 25.50                                 | 25.50                             |

### 1.3.7 LTE Band 66 as PCC

Table 7  
Maximum Output Powers

| PCC                   |          |              |              |                      |      |           |                  |                  |                      | SCC 1    |              |                  |                      | SCC 2        |                  |                      |          | SCC 3        |                  |                      |                                       | Power                             |       |
|-----------------------|----------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|
| Combination           | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |       |
| CA 12A-66A (1)        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B12  | 10           | 5095             | 737.5                | -            | -                | -                    | -        | -            | -                | -                    | 24.78                                 | 24.94                             |       |
| CA 12A-66A (2)        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B12  | 10           | 5095             | 737.5                | -            | -                | -                    | -        | -            | -                | -                    | 24.78                                 | 24.94                             |       |
| CA 2A-66A             | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | -            | -                | -                    | -        | -            | -                | -                    | 24.89                                 | 24.94                             |       |
| CA 13A-46A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B46  | 20           | 50665            | 5537.5               | LTE B13      | 10               | 5230                 | 751      | -            | -                | -                    | -                                     | 24.98                             | 24.94 |
| CA 46A-46A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B46  | 20           | 50665            | 5537.5               | LTE B46      | 20               | 47090                | 5180     | -            | -                | -                    | -                                     | 24.96                             | 24.94 |
| CA 46A-66A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 50665            | 5537.5               | -            | -                | -                    | -        | -            | -                | -                    | 24.88                                 | 24.94                             |       |
| CA 46A-66C            | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B46      | 20               | 50665                | 5537.5   | -            | -                | -                    | -                                     | 24.87                             | 24.94 |
| CA 5A-46A-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B5   | 10           | 2525             | 881.5                | LTE B46      | 20               | 50665                | 5537.5   | -            | -                | -                    | -                                     | 24.99                             | 24.94 |
| CA 5A-48A-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B5   | 10           | 2525             | 881.5                | LTE B48      | 20               | 50990                | 3625     | -            | -                | -                    | -                                     | 24.91                             | 24.94 |
| CA 66A-66C            | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66734            | 2139.8               | LTE B66      | 20               | 66536                | 2130     | -            | -                | -                    | -                                     | 24.98                             | 24.94 |
| CA 66C-66A            | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B66      | 20               | 66536                | 2130     | -            | -                | -                    | -                                     | 24.96                             | 24.94 |
| CA 66D                | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B66      | 20               | 66838                | 2150.2   | -            | -                | -                    | -                                     | 24.90                             | 24.94 |
| CA 7A-66A-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B7       | 20               | 3100                 | 2655     | -            | -                | -                    | -                                     | 24.95                             | 24.94 |
| CA 2A-12A-66C         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B2       | 20               | 900                  | 1960     | LTE B12      | 10               | 5095                 | 737.5                                 | 25.00                             | 24.94 |
| CA 2A-13A-66C         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B2       | 20               | 900                  | 1960     | LTE B13      | 10               | 5230                 | 751                                   | 24.99                             | 24.94 |
| CA 2A-20A-30A-66A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B29      | 10               | 9715                 | 722.5    | LTE B30      | 10               | 4920                 | 2395                                  | 24.95                             | 24.94 |
| CA 2A-2A-66A-71A      | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B2       | 20               | 700                  | 1940     | LTE B46      | 20               | 50665                | 5537.5                                | 24.90                             | 24.94 |
| CA 2A-66A-46A-66A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B46      | 20               | 50665                | 5537.5   | LTE B48      | 20               | 47090                | 5180                                  | 24.96                             | 24.94 |
| CA 2A-66A-66A-71A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B71      | 20               | 66761                | 634.5                                 | 24.98                             | 24.94 |
| CA 2A-66C-71A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B2       | 20               | 900                  | 1960     | LTE B71      | 20               | 66761                | 634.5                                 | 24.99                             | 24.94 |
| CA 2C-66A-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B2       | 20               | 700                  | 1940                                  | 24.96                             | 24.94 |
| CA 5A-46C-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B5   | 10           | 2525             | 881.5                | LTE B46      | 20               | 50665                | 5537.5   | LTE B48      | 20               | 50467                | 5517.7                                | 24.93                             | 24.94 |
| CA 5A-5A-66A-66A      | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B5       | 10               | 2525                 | 881.5    | LTE B5       | 10               | 2462                 | 871.5                                 | 24.96                             | 24.94 |
| CA 5A-5A-66B          | LTE B66  | 15           | 132322       | 1745                 | QPSK | 1         | 0                | 66786            | 2145                 | LTE B66  | 5            | 66693            | 2135.7               | LTE B5       | 10               | 2525                 | 881.5    | LTE B5       | 10               | 2425                 | 871.5                                 | 24.99                             | 24.89 |
| CA 5A-5A-66C          | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B5       | 10               | 2525                 | 881.5    | LTE B5       | 10               | 2462                 | 871.5                                 | 24.93                             | 24.94 |
| CA 7C-66A-66A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B7       | 20               | 3100                 | 2655     | LTE B7       | 20               | 2920                 | 2635.2                                | 24.98                             | 24.94 |
| CA 12B-66A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B12      | 5                | 5096                 | 737.5    | LTE B12      | 5                | 5047                 | 732.7                                 | 24.93                             | 24.94 |
| CA 13A-46C-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B13  | 10           | 5230             | 751                  | LTE B46      | 20               | 50665                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7                                | 24.89                             | 24.94 |
| CA 13A-48A-66B        | LTE B66  | 15           | 132322       | 1745                 | QPSK | 1         | 0                | 66786            | 2145                 | LTE B66  | 5            | 66693            | 2135.7               | LTE B13      | 10               | 5230                 | 751      | LTE B46      | 20               | 50990                | 3625                                  | 24.90                             | 24.89 |
| CA 13A-48A-66C        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B13      | 10               | 5230                 | 751      | LTE B48      | 20               | 50990                | 3625                                  | 24.98                             | 24.94 |
| CA 2A-30A-30A-66A-66A | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B29      | 10               | 9715                 | 722.5    | LTE B30      | 10               | 4920                 | 2395                                  | 24.99                             | 24.94 |
| CA 46A-66A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B46      | 20               | 50665                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7                                | 24.88                             | 24.94 |
| CA 48A-48A-66A-66A    | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B48      | 20               | 50990                | 3625     | LTE B48      | 20               | 50467                | 5517.7                                | 24.90                             | 24.94 |
| CA 48A-48A-66C        | LTE B66  | 15           | 132322       | 1745                 | QPSK | 1         | 0                | 66786            | 2145                 | LTE B66  | 5            | 66693            | 2135.7               | LTE B48      | 20               | 50990                | 3625     | LTE B48      | 20               | 50467                | 5517.7                                | 24.97                             | 24.89 |
| CA 48A-48A-66C        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B48      | 20               | 50990                | 3625     | LTE B48      | 20               | 50467                | 5517.7                                | 24.98                             | 24.94 |
| CA 48C-66A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B48      | 20               | 50990                | 3625     | LTE B48      | 20               | 50467                | 5517.7                                | 24.90                             | 24.94 |
| CA 2A-12A-30A-66A-66A | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B12      | 10               | 50990                | 3625                                  | 24.99                             | 24.94 |
| CA 2A-13A-46A-66A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B13      | 10               | 5230                 | 751                                   | 24.90                             | 24.94 |
| CA 2A-13A-48C-66A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B13      | 10               | 5230                 | 751      | LTE B48      | 20               | 50990                | 3625                                  | 24.98                             | 24.94 |
| CA 2A-13A-66A-66B     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 5            | 66604            | 2136.8               | LTE B66      | 15               | 66511                | 2117.5   | LTE B2       | 20               | 900                  | 1960                                  | 25.00                             | 24.94 |
| CA 2A-13A-66B-66A     | LTE B66  | 15           | 132322       | 1745                 | QPSK | 1         | 0                | 66786            | 2145                 | LTE B66  | 5            | 66693            | 2135.7               | LTE B66      | 20               | 66536                | 2130     | LTE B2       | 20               | 900                  | 1960                                  | 24.94                             | 24.89 |
| CA 2A-14A-30A-66A-66A | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B14      | 10               | 5330                 | 763                                   | 24.94                             | 24.94 |
| CA 2A-14A-66A-66A-66A | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B12      | 10               | 50990                | 3625                                  | 24.99                             | 24.94 |
| CA 2A-2A-12A-30A-66A  | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B2       | 20               | 700                  | 1940     | LTE B12      | 10               | 50990                | 3625                                  | 24.95                             | 24.94 |
| CA 2A-2A-12B-66A      | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B2       | 20               | 700                  | 1940     | LTE B12      | 10               | 5095                 | 737.5                                 | 24.99                             | 24.94 |
| CA 2A-2A-13A-66A-66A  | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B12      | 10               | 5095                 | 737.5                                 | 24.99                             | 24.94 |
| CA 2A-2A-14A-30A-66A  | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B2       | 20               | 700                  | 1940     | LTE B14      | 10               | 5330                 | 763                                   | 24.97                             | 24.94 |
| CA 2A-2A-14A-66A-66A  | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B12      | 10               | 5095                 | 737.5                                 | 24.98                             | 24.94 |
| CA 2A-2A-5A-30A-66A   | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B5       | 10               | 2525                 | 881.5    | LTE B5       | 10               | 2425                 | 881.5                                 | 24.99                             | 24.94 |
| CA 2A-2A-5A-66A-66A   | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B2       | 20               | 900                  | 1960     | LTE B2       | 20               | 700                  | 1940                                  | 24.98                             | 24.94 |
| CA 2A-2A-5A-66B       | LTE B66  | 15           | 132322       | 1745                 | QPSK | 1         | 0                | 66786            | 2145                 | LTE B66  | 5            | 66693            | 2135.7               | LTE B2       | 20               | 700                  | 1940     | LTE B2       | 20               | 700                  | 1940                                  | 24.98                             | 24.89 |
| CA 2A-2A-5A-66C       | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66838            | 2150.2               | LTE B2       | 20               | 900                  | 1960     | LTE B2       | 20               | 700                  | 1940                                  | 24.99                             | 24.94 |
| CA 2A-7A-12A-66A      | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B2   | 20           | 900              | 1960                 | LTE B2       | 20               | 700                  | 1940     | LTE B7       | 20               | 3100                 | 2655                                  | 24.96                             | 24.94 |
| CA 2A-46A-46A         | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B46      | 20               | 50665                | 5537.5   | LTE B46      | 20               | 50467                | 5517.7                                | 24.90                             | 24.94 |
| CA 5B-30A-66A-66A     | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B66  | 20           | 66536            | 2130                 | LTE B5       | 10               | 2525                 | 881.5    | LTE B5       | 10               | 2463                 | 874.3                                 | 24.99                             | 24.94 |
| CA 13A-46A-66A        | LTE B66  | 20           | 132572       | 1770                 | QPSK | 1         | 0                | 67036            | 2170                 | LTE B13  | 10           | 5230             | 751                  | LTE B46      | 20               | 50665                |          |              |                  |                      |                                       |                                   |       |

## 1.3.8 LTE Band 25 as PCC

Table 8  
Maximum Output Powers

| Combination    | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC  |           |                  |                  | PCC (DL) Freq. [MHz] | SCC Band | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | SCC 3    |              |                  |                      | Power                                |                                   |
|----------------|----------|--------------|--------------|------|-----------|------------------|------------------|----------------------|----------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|--------------------------------------|-----------------------------------|
|                |          |              |              | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel |                      |          | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with 8 CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA 12A-25A     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B12  | 10           | 5095             | 737.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | 24.72                                | 24.77                             |
| CA 25A-26A     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B26  | 15           | 8865             | 876.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | 24.74                                | 24.77                             |
| CA 25A-41A     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B41  | 20           | 40620            | 2593                 | -        | -            | -                | -                    | -        | -            | -                | -                    | 24.72                                | 24.77                             |
| CA 25A-46A     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B46  | 20           | 50665            | 5537.5               | -        | -            | -                | -                    | -        | -            | -                | -                    | 24.80                                | 24.77                             |
| CA 25A-25A     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | 24.73                                | 24.77                             |
| CA 25A-25A-26A | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B25  | 20           | 8865             | 1985                 | LTE B26  | 5            | 8865             | 876.5                | -        | -            | -                | -                    | 24.88                                | 24.77                             |
| CA 25A-41C     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B41  | 20           | 40620            | 2593                 | LTE B41  | 20           | 40422            | 2573.2               | -        | -            | -                | -                    | 24.80                                | 24.77                             |
| CA 25A-46C     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B46  | 20           | 50665            | 5537.5               | LTE B46  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | 24.85                                | 24.77                             |
| CA 25A-41D     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B41  | 20           | 40422            | 2573.2               | LTE B41  | 20           | 40620            | 2593                 | LTE B41  | 20           | 40818            | 2612.8               | 24.79                                | 24.77                             |
| CA 25A-48D     | LTE B25  | 20           | 26140        | 1860 | QPSK      | 1                | 0                | 8140                 | 1940     | LTE B48  | 20           | 50965            | 5537.5               | LTE B48  | 20           | 50467            | 5517.7               | LTE B48  | 20           | 50863            | 5597.3               | 24.77                                | 24.77                             |

## 1.3.9 LTE Band 30 as PCC

Table 9  
Maximum Output Powers

| Combination           | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC  |           |                  |                  | PCC (DL) Freq [MHz] | SCC Band | SCC 1    |              | SCC 2            |                     | SCC 3    |              | SCC 4            |                     | LTE Tx Power with 8 CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |          |              |                  |                     |       |      |       |       |
|-----------------------|----------|--------------|--------------|------|-----------|------------------|------------------|---------------------|----------|----------|--------------|------------------|---------------------|----------|--------------|------------------|---------------------|--------------------------------------|-----------------------------------|----------|--------------|------------------|---------------------|-------|------|-------|-------|
|                       |          |              |              | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel |                     |          | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] |                                      |                                   | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq [MHz] |       |      |       |       |
| CA 2A-25A-30A-66A     | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B29  | 10           | 9715             | 722.5               | LTE B66                              | 20                                | 66786    | 2145         | -                | 24.97               | 25.07 |      |       |       |
| CA 2A-25A-29A-30A     | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B29  | 10           | 9715             | 722.5               | LTE B66                              | 20                                | 66786    | 2145         | -                | 24.93               | 25.07 |      |       |       |
| CA 2A-4A-12A-30A      | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B4   | 20           | 2175             | 2132.5              | LTE B12                              | 10                                | 5095     | 737.5        | -                | 25.07               | 25.07 |      |       |       |
| CA 2A-4A-25A-30A      | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B4   | 20           | 2175             | 2132.5              | LTE B29                              | 10                                | 9715     | 722.5        | -                | 24.99               | 25.07 |      |       |       |
| CA 2A-4A-5A-30A       | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B4   | 20           | 2175             | 2132.5              | LTE B5                               | 10                                | 2525     | 881.5        | -                | 25.01               | 25.07 |      |       |       |
| CA 2A-25A-66A-66A     | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B29  | 10           | 9715             | 722.5               | LTE B66  | 20           | 66786            | 2145                | LTE B66                              | 20                                | 67236    | 2190         | -                | 24.98               | 25.07 |      |       |       |
| CA 2A-12A-30A-66A-66A | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B12  | 10           | 5095             | 737.5               | LTE B66                              | 20                                | 66786    | 2145         | LTE B66          | 20                  | 67236 | 2190 | 25.13 | 25.07 |
| CA 2A-1A-30A-66A-66A  | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B1A  | 10           | 5130             | 763                 | LTE B66                              | 20                                | 66786    | 2145         | LTE B66          | 20                  | 67236 | 2190 | 25.11 | 25.07 |
| CA 2A-1A-12A-30A-66A  | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B12  | 10           | 700              | 1940                | LTE B12                              | 10                                | 5095     | 737.5        | LTE B66          | 20                  | 66786 | 2145 | 25.05 | 25.07 |
| CA 2A-2A-1A-30A-66A   | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B1A  | 10           | 5130             | 763                 | LTE B66                              | 20                                | 66786    | 2145         | 25.11            | 25.07               | 25.07 |      |       |       |
| CA 2A-5A-30A-66A      | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B5   | 10           | 2525             | 881.5               | LTE B66                              | 20                                | 66786    | 2145         | LTE B66          | 20                  | 67236 | 2190 | 24.99 | 25.07 |
| CA 2A-1A-30A-66A      | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B2   | 20           | 900              | 1960                | LTE B5   | 10           | 2525             | 881.5               | LTE B5                               | 5                                 | 2463     | 874.3        | LTE B66          | 20                  | 66786 | 2145 | 25.04 | 25.07 |
| CA 3B-30A-66A-66A     | LTE B30  | 5            | 27710        | 2310 | QPSK      | 1                | 12               | 9820                | 2355     | LTE B5   | 10           | 2525             | 881.5               | LTE B5   | 5            | 2463             | 874.3               | LTE B66                              | 20                                | 66786    | 2145         | LTE B66          | 20                  | 67236 | 2190 | 24.97 | 25.07 |

## 1.3.10 LTE Band 7 as PCC

Table 10  
Maximum Output Powers

| Combination | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (DL) Freq. [MHz] | PCC  |                  |           |                  | SCC Band | SCC 1    |              |                  |                      | SCC 2    |              |                  |                      | SCC 3    |              |                  |                      | SCC 4    |              |                  |                      | SCC Band | SCC 5    |              |                  |                      | SCC 6    |              |                  |                      | LTE Tx Power with 8 CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|-------------|----------|--------------|--------------|----------------------|------|------------------|-----------|------------------|----------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|--------------------------------------|-----------------------------------|
|             |          |              |              |                      | Mod. | PCC UL RB Offset | PCC UL RB | PCC (DL) Channel |          | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] |          | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] |                                      |                                   |
| CA 3A-7A    | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5   | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 1A-1A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 1B       | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B7   | 5            | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 5130             | 5132.5               | LTE B5A  | 10           | 2525             | 881.5                | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B7   | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -            | -                | -                    | -        | -        | -            | -                | -                    | -        | 24.88        | 24.93            |                      |                                      |                                   |
| CA 3A-7A-7A | LTE B7   | 20           | 28850        | 2530                 | QPSK | 1                | 0         | 28850            | 2530     | LTE B5A  | 20           | 50467            | 5517.7               | -        | -            | -                | -                    | -        | -            | -                | -                    |          |              |                  |                      |          |          |              |                  |                      |          |              |                  |                      |                                      |                                   |

### 1.3.12 LTE Band 41 PC3 as PCC

Table 12  
Maximum Output Powers

| Combination    | PCC      |              |              |                      |      |           |                  |                  |                      |          | SCC 1        |                  |                      |          | SCC 2        |                  |                      |          | SCC 3        |                  |                      |          | SCC 4        |                  |                      |                                       | Power                             |       |
|----------------|----------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|---------------------------------------|-----------------------------------|-------|
|                | PCC Band | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |       |
| CA_41A-41A (1) | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |          |              |                  |                      |          |              |                  |                      |                                       | 25.11                             | 25.08 |
| CA_41A-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 39948            | 2525.8               | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |          |              |                  |                      |                                       | 25.03                             | 25.08 |
| CA_41C-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |          |              |                  |                      |                                       | 25.00                             | 25.08 |
| CA_41A-41D     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 40146            | 2545.6               | LTE B41  | 20           | 39948            | 2525.8               | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |                                       | 25.17                             | 25.08 |
| CA_41D-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 41084            | 2640.4               | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |                                       | 25.16                             | 25.08 |
| CA_41C-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 39948            | 2525.8               | LTE B41  | 20           | 39750            | 2506                 |          |              |                  |                      |                                       | 25.10                             | 25.08 |
| CA_41E         | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 41084            | 2640.4               | LTE B41  | 20           | 40908            | 2620.6               |          |              |                  |                      |                                       | 25.11                             | 25.08 |
| CA_41C-41D     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 40146            | 2545.6               | LTE B41  | 20           | 39948            | 2525.8               | LTE B41  | 20           | 39750            | 2506                 |                                       | 25.08                             | 25.08 |
| CA_41D-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41262            | 2660.2               | LTE B41  | 20           | 41084            | 2640.4               | LTE B41  | 20           | 39948            | 2525.8               | LTE B41  | 20           | 39750            | 2506                 |                                       | 25.13                             | 25.08 |

### 1.3.13 LTE Band 41 PC2 as PCC

Table 13  
Maximum Output Powers

|                | PCC         |              |              |                      |      |           |                  |                  |                      |             | SCC 1        |                  |                      |             | SCC 2        |                  |                      |             | SCC 3        |                  |                      |             | SCC 4        |                  |                      |                                    | Power                             |       |
|----------------|-------------|--------------|--------------|----------------------|------|-----------|------------------|------------------|----------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|------------------------------------|-----------------------------------|-------|
| Combination    | PCC Band    | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC (DL) Channel | PCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC (DL) Channel | SCC (DL) Freq. [MHz] | LTE Tx Power with CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |       |
| CA_41A-41A (1) | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 39750            | 2506                 | -           | -            | -                | -                    | -           | -            | -                | -                    | -           | -            | -                | -                    | -                                  | 27.60                             | 27.66 |
| CA_41A-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 41262            | 2660.2               | LTE B41 PC2 | 20           | 41480            | 2680                 | -           | -            | -                | -                    | -           | -            | -                | -                    | -                                  | 27.60                             | 27.66 |
| CA_41C-41A     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40791            | 2610.1               | LTE B41 PC2 | 20           | 39750            | 2506                 | -           | -            | -                | -                    | -           | -            | -                | -                    | -                                  | 27.61                             | 27.66 |
| CA_41A-41D     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 41084            | 2640.4               | LTE B41 PC2 | 20           | 41262            | 2660.2               | LTE B41 PC2 | 20           | 41480            | 2680                 | -           | -            | -                | -                    | -                                  | 27.62                             | 27.66 |
| CA_41D-41A     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40449            | 2575.9               | LTE B41 PC2 | 20           | 40791            | 2610.1               | LTE B41 PC2 | 20           | 41480            | 2680                 | -           | -            | -                | -                    | -                                  | 27.64                             | 27.66 |
| CA_41C-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40449            | 2575.9               | LTE B41 PC2 | 20           | 41262            | 2660.2               | LTE B41 PC2 | 20           | 41480            | 2680                 | -           | -            | -                | -                    | -                                  | 27.61                             | 27.66 |
| CA_41E         | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40449            | 2575.9               | LTE B41 PC2 | 20           | 40791            | 2610.1               | LTE B41 PC2 | 20           | 40989            | 2629.9               | -           | -            | -                | -                    | -                                  | 27.69                             | 27.66 |
| CA_41C-41D     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40449            | 2575.9               | LTE B41 PC2 | 20           | 41084            | 2640.4               | LTE B41 PC2 | 20           | 41262            | 2660.2               | LTE B41 PC2 | 20           | 41480            | 2680                 | 27.58                              | 27.66                             |       |
| CA_41D-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1         | 36               | 40620            | 2593                 | LTE B41 PC2 | 20           | 40449            | 2575.9               | LTE B41 PC2 | 20           | 40791            | 2610.1               | LTE B41 PC2 | 20           | 41292            | 2660.2               | LTE B41 PC2 | 20           | 41480            | 2680                 | 27.55                              | 27.66                             |       |

|                                    |                                                                                     |                       |                                                                                       |                                 |
|------------------------------------|-------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  | SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 - 08/26/19 | DUT Type:<br>Portable Handset                                                       |                       |                                                                                       | APPENDIX H:<br>Page 7 of 13     |

## 1.4 DL CA with DL 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described in Section 1.2 were applied.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

### 1.4.1 LTE 4x4 MIMO DL Standalone Powers

Table 14  
Maximum Output Powers

| LTE Band | Bandwidth [MHz] | Channel | Frequency [MHz] | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx. Power [dBm] | Single Antenna Tx. Power [dBm] | Target Power [dBm] |
|----------|-----------------|---------|-----------------|------------|---------|-----------|-----------------------------|--------------------------------|--------------------|
| 66       | 20              | 132572  | 1770            | QPSK       | 1       | 0         | 24.98                       | 24.94                          | 24.5               |
| 25       | 20              | 26140   | 1860            | QPSK       | 1       | 0         | 24.75                       | 24.77                          | 24.5               |
| 7        | 20              | 20850   | 2510            | QPSK       | 1       | 0         | 23.67                       | 23.70                          | 23.2               |
| 41       | 20              | 41490   | 2680            | QPSK       | 1       | 0         | 25.03                       | 25.08                          | 24.7               |
| 41 PC2   | 15              | 40620   | 2593            | QPSK       | 1       | 36        | 27.63                       | 27.66                          | 27.2               |

### 1.4.2 LTE Band 71 as PCC

Table 15  
Maximum Output Powers

| Combination             | PCC Band | PCC          |              |                      |      |           |                  |              |                      |                 |          | SCC 1        |              |                      |                 | SCC 2    |              |              |                      | SCC 3           |          |              |              | Power                |                 |                                       |                                   |
|-------------------------|----------|--------------|--------------|----------------------|------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|
|                         |          | PCC BW [MHz] | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DL CA Enabled [dBm] | LTE Single Carrier Tx Power (dBm) |
| CA [2A]-[4A]-71A        | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | 25.49                                 | 25.50                             |
| CA [2A]-[66A]-71A       | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B66  | 20           | 66786        | 2145                 | 4x4             | -        | -            | -            | -                    | -               | 25.49                                 | 25.50                             |
| CA [2A]-[4A]-71A        | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | -        | -            | -            | -                    | -               | 25.50                                 | 25.50                             |
| CA [4A]-[4A]-71A        | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 4x4             | LTE B4   | 10           | 2350         | 2150                 | 4x4             | -        | -            | -            | -                    | -               | 25.49                                 | 25.50                             |
| CA [2A]-[2A]-[66A]-71A  | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             | LTE B66  | 20           | 66786        | 2145                 | 4x4             | 25.50                                 | 25.50                             |
| CA [2A]-[66A]-[66A]-71A | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B66  | 20           | 66786        | 2145                 | 4x4             | LTE B66  | 20           | 67236        | 2190                 | 4x4             | 25.49                                 | 25.50                             |
| CA [2A]-[66C]-71A       | LTE B71  | 20           | 133297       | 680.5                | QPSK | 1         | 99               | 68761        | 634.5                | 2x2             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B66  | 20           | 66786        | 2145                 | 4x4             | LTE B66  | 20           | 66984        | 2164.8               | 4x4             | 25.50                                 | 25.50                             |

|                                    |                                                                                                           |                                                                                       |                                 |
|------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  SAR EVALUATION REPORT |  | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 - 08/26/19 | DUT Type:<br>Portable Handset                                                                             |                                                                                       | APPENDIX H:<br>Page 8 of 13     |

### 1.4.3 LTE Band 12 as PCC

**Table 16**  
**Maximum Output Powers**

| Combination       | PCB Band | PCC          |                      |               |             |                    |                      |                 |          |              |              | SCC 1                |                 |          |              |              |                      |                 |          |              |              | SCC 2                |                 |          |              |              |                      |                 |          |              |              | SCC 3                |                 |                               |                                   |  |  |  |  |  |  | SCC 4 |  |  |  |  |  |  |  |  |  | Power |  |
|-------------------|----------|--------------|----------------------|---------------|-------------|--------------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|-------------------------------|-----------------------------------|--|--|--|--|--|--|-------|--|--|--|--|--|--|--|--|--|-------|--|
|                   |          | PCB BW [MHz] | PCC [UL] Freq. [MHz] | PCC [UL] Mod. | PCC [UL] RB | PCC [UL] RB Offset | PCC [UL] Freq. [MHz] | DA Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DA Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DA Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DA Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DA Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DA Ant. Config. | LTE Tx Power with DC CA (dBm) | LTE Single Carrier Tx Power (dBm) |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [12A]-[2A] (1) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B2       | 20                   | 900             | 1960     | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | -                                 |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (2)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (3)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (4)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B6B      | 20                   | 66786           | 2145     | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (5)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B6B      | 20                   | 66786           | 2145     | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (6)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B2       | 20                   | 900             | 1960     | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (7)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B2       | 20                   | 900             | 1960     | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (8)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (9)  | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (10) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (11) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (12) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (13) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (14) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (15) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (16) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (17) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (18) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (19) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (20) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (21) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (22) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (23) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (24) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (25) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (26) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (27) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (28) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (29) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (30) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (31) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (32) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (33) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (34) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (35) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (36) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (37) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (38) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (39) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (40) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (41) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (42) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (43) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (44) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (45) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (46) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       | 20                   | 2175            | 2132.5   | 464          | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.30                         | 25.30                             |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |
| CA [1A]-[2A] (47) | LTE B12  | 5            | 23095                | 707.5         | QPSK        | 1                  | 12                   | 5095            | 737.5    | 242          | LTE B4       |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |                               |                                   |  |  |  |  |  |  |       |  |  |  |  |  |  |  |  |  |       |  |

#### 1.4.4 LTE Band 13 as PCC

**Table 17**  
**Maximum Output Powers**

| Combination  | PCC Band | PCC BW [MHz] | PCC [UL] Freq. [MHz] | Mod. | PCC       |                  |              |                      | SCC 1           |          |              |              | SCC 2                |                 |          |              | SCC Band | SCC 3        |                      |                 |          | SCC 4        |              |                      |                 | Power    |              |              |                      |                 |                                       |
|--------------|----------|--------------|----------------------|------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|----------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|
|              |          |              |                      |      | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] |          | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DC CA Enabled (dBm) |
| CA_2A-3A_16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 242             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 751                  | 242             | LTE B2   | 20           | 800          | 1560                 | 444             | LTE B8   | 20           | 6678     | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | LTE B6          | 20       | 6678         | 2145         | 242                  | 25.48           | 25.50                                 |
| CA_2A-3A-16A | LTE B13  | 10           | 2132.0               | QPSK | 1         | 49               | 5230         | 7                    |                 |          |              |              |                      |                 |          |              |          |              |                      |                 |          |              |              |                      |                 |          |              |              |                      |                 |                                       |

### 1.4.5 LTE Band 5 as PCC

**Table 18**  
**Maximum Output Powers**

| Combination   |        | PCC Band | PCC BW [MHz] | PCC [UL] [MHz] | PCC [DL] [MHz] | Mod. | PCC    |           |                  |                | SCC 1    |                |                |                | SCC 2          |                |                |                | SCC 3          |                |                |                | SCC 4          |                |                |       | LTC Power with DC CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
|---------------|--------|----------|--------------|----------------|----------------|------|--------|-----------|------------------|----------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|------------------------------------|-----------------------------------|
|               |        |          |              |                |                |      | PCC RB | PCC LA RB | PCC LA RB Offset | PCC [DL] [MHz] | SCC Band | SCC [DL] [MHz] | SCC [UL] [MHz] | SCC Band [MHz] | SCC [DL] [MHz] | SCC [UL] [MHz] | SCC Band [MHz] | SCC [DL] [MHz] | SCC [UL] [MHz] | SCC Band [MHz] | SCC [DL] [MHz] | SCC [UL] [MHz] | SCC Band [MHz] | SCC [DL] [MHz] | SCC [UL] [MHz] |       |                                    |                                   |
| CA 26-14A-5A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 242            | LTE B4         | 20             | 2175           | 2132.5         | 242            | LTE B4         | 20             | 2175           | 2132.5         | 242            | 25.45 | 25.45                              |                                   |
| CA 26-14A-5A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B4         | 20             | 2175           | 2132.5         | 262            | LTE B4         | 20             | 2175           | 2132.5         | 262            | 25.47 | 25.46                              |                                   |
| CA 26-14A-30A | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B30        | 10             | 1820           | 2355           | 262            | LTE B30        | 10             | 1820           | 2355           | 262            | 25.46 | 25.40                              |                                   |
| CA 26-14A-30A | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B30        | 10             | 2175           | 2132.5         | 464            | LTE B30        | 10             | 2175           | 2132.5         | 464            | 25.47 | 25.46                              |                                   |
| CA 26-14A-30A | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B4   | 20             | 2175           | 2132.5         | 464            | LTE B30        | 10             | 1820           | 2355           | 262            | LTE B30        | 10             | 1820           | 2355           | 262            | 25.44 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B7   | 20             | 3100           | 2655           | 464            | LTE B7         | 20             | 2650           | 2620           | 262            | LTE B7         | 20             | 2650           | 2620           | 262            | 25.49 | 25.46                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B7   | 20             | 3100           | 2655           | 464            | LTE B7         | 20             | 2850           | 2630           | 464            | LTE B7         | 20             | 2850           | 2630           | 464            | 25.48 | 25.46                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B7   | 20             | 3100           | 2655           | 464            | LTE B7         | 20             | 2650           | 2620           | 464            | LTE B7         | 20             | 2650           | 2620           | 464            | 25.49 | 25.47                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B2         | 20             | 700            | 1940           | 464            | LTE B4         | 20             | 2175           | 2132.5         | 464            | 25.48 | 25.47                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B2         | 20             | 700            | 1940           | 464            | LTE B30        | 10             | 1820           | 2355           | 464            | 25.48 | 25.46                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B2         | 20             | 2175           | 2132.5         | 464            | LTE B4         | 20             | 2175           | 2132.5         | 464            | 25.47 | 25.46                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B2         | 20             | 900            | 1960           | 464            | LTE B4         | 20             | 2175           | 2132.5         | 464            | 25.48 | 25.46                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B30        | 10             | 1820           | 2355           | 262            | LTE B30        | 10             | 1820           | 2355           | 262            | 25.43 | 25.40                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B2   | 20             | 900            | 1960           | 464            | LTE B30        | 10             | 2175           | 2132.5         | 464            | LTE B30        | 10             | 2175           | 2132.5         | 464            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B4   | 20             | 2175           | 2132.5         | 464            | LTE B30        | 10             | 1820           | 2355           | 262            | LTE B30        | 10             | 1820           | 2355           | 262            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B30  | 10             | 1820           | 2355           | 464            | LTE B30        | 10             | 1820           | 2355           | 464            | LTE B30        | 10             | 1820           | 2355           | 464            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B30        | 10             | 1820           | 2355           | 464            | LTE B30        | 10             | 1820           | 2355           | 464            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-17A-7A  | LTE B5 | 10       | 20235        | 886.5          | OPSK           | 1    | 0      | 2325      | 886.5            | 242            | LTE B5   | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | LTE B5         | 5              | 2453           | 874.3          | 242            | 25.46 | 25.45                              |                                   |
| CA 26-        |        |          |              |                |                |      |        |           |                  |                |          |                |                |                |                |                |                |                |                |                |                |                |                |                |                |       |                                    |                                   |

|                                           |                                                                                                                                                              |                       |                                                                                                 |                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>PCTEST</b><br><small>PROFESIONAL COMMUNICATIONS TESTING, INC.</small> | SAR EVALUATION REPORT |  <b>LG</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 - 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                                                         |                       |                                                                                                 | <b>APPENDIX H:</b><br>Page 9 of 13     |

### 1.4.6 LTE Band 66 as PCC

**Table 19**  
**Maximum Output Powers**

| Combination   | PCB Brand | PCB Rev | PCB Len [mm] | PCB Wd [mm] | PCB Hgt [mm] | PCC   |       |        |       | SCC1  |         |       |       | SCC2  |       |         |       | SCC3  |       |       |         | SCC4  |       |       |       | SCC5  |       |       |       | Power     |           |
|---------------|-----------|---------|--------------|-------------|--------------|-------|-------|--------|-------|-------|---------|-------|-------|-------|-------|---------|-------|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-----------|
|               |           |         |              |             |              | PCU A | PCU B | PCU C  | PCU D | SCC1A | SCC1B   | SCC1C | SCC1D | SCC2A | SCC2B | SCC2C   | SCC2D | SCC3A | SCC3B | SCC3C | SCC3D   | SCC4A | SCC4B | SCC4C | SCC4D | SCC5A | SCC5B | SCC5C | SCC5D | UL 1500 W | UL 1500 W |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA(1) | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  | 20      | 25275        | 1770        | 0.75         | 1     | 0     | 0.0706 | 22.70 | 262   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 1.7E-02 | 20    | 900   | 1.960 | 464   | 25.28 | 25.30 |       |       |           |           |
| CA 12A-SBA    | 1.1E-066  |         |              |             |              |       |       |        |       |       |         |       |       |       |       |         |       |       |       |       |         |       |       |       |       |       |       |       |       |           |           |

### 1.4.7 LTE Band 25 as PCC

**Table 20**  
**Maximum Output Powers**

| Combination        | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC         |      |           |                  |              |                      | SCC 1           |          |              |              |                      |                 | SCC 2    |              |              |                      |                 |          | SCC 3        |              |                      |                 |                                       |                                   | Power |  |
|--------------------|----------|--------------|--------------|-------------|------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|-------|--|
|                    |          |              |              | Freq. [MHz] | Mod. | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |       |  |
| CA [25A]-[25A] (1) | LTE B25  | 20           | 26140        | 1860        | QPSK | 1         | 0                | 8140         | 1940                 | 4x4             | LTE B25  | 20           | 8590         | 1985                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -                                     | 24.69                             | 24.77 |  |
| CA [25A]-46A       | LTE B25  | 20           | 26140        | 1860        | QPSK | 1         | 0                | 8140         | 1940                 | 4x4             | LTE B46  | 20           | 50665        | 5537.5               | 2x2             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | -                                     | 24.77                             | 24.77 |  |
| CA [25A]-46C       | LTE B25  | 20           | 26140        | 1860        | QPSK | 1         | 0                | 8140         | 1940                 | 4x4             | LTE B46  | 20           | 50665        | 5537.5               | 2x2             | LTE B46  | 20           | 50467        | 5517.7               | 2x2             | -        | -            | -            | -                    | -               | -                                     | 24.74                             | 24.77 |  |
| CA [25A]-46D       | LTE B25  | 20           | 26140        | 1860        | QPSK | 1         | 0                | 8140         | 1940                 | 4x4             | LTE B46  | 20           | 50665        | 5537.5               | 2x2             | LTE B46  | 20           | 50467        | 5517.7               | 2x2             | LTE B46  | 20           | 50863        | 5557.3               | 2x2             | 24.77                                 | 24.77                             |       |  |

|                                           |                                                                                                                                                     |                       |                                                                                                 |                                        |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>PCTEST</b><br><small>TECHNOLOGICAL CORPORATION, INC.</small> | SAR EVALUATION REPORT |  <b>LG</b> | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 - 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                                                |                       |                                                                                                 | APPENDIX H:<br>Page 10 of 13           |

### 1.4.8 LTE Band 30 as PCC

**Table 21**  
**Maximum Output Powers**

[illegible]

### 1.4.9 LTE Band 7 as PCC

**Table 22**  
**Maximum Output Powers**

|                 |          |              |              |                      |      |           |                  |              |                      |                 |          |              |              |                      |                 |          |              |              |                      | Power           |          |              |              |                             |                                   |                      |
|-----------------|----------|--------------|--------------|----------------------|------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|-----------------------------|-----------------------------------|----------------------|
| Combination     | PCB Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [DL] Freq. [MHz] | Mod. | PCC UL Rx | PCC UL Rx Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC 1        |              |                      | SCC 2           |          |              | SCC 3        |                      |                 | SCC 4    |              |              | LTE Tx Power (with DC Fwdn) | LTE Single Carrier Tx Power (dBm) |                      |
|                 |          |              |              |                      |      |           |                  |              |                      |                 |          | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. |                             |                                   | SCC [DL] Freq. [MHz] |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B6a  | 20           | 50665        | 5537.5               | 2x2             |          |              |              |                      |                 |          |              |              | 21.69                       | 21.70                             |                      |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.70                             | 21.70                |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B2   | 20           | 900          | 1960                 | 2x2             | LTE B8a  | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.68                             | 21.70                |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 700          | 1940                 | 4x4             |          |              |              |                             | 21.70                             | 21.70                |
| CA [2A-40A] (1) | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B2   | 20           | 900          | 1960                 | 4x4             | LTE B2   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.70                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             |          |              |              |                             | 21.69                             | 21.70                |
| CA [4A] (1)     | LTE B7   | 20           | 20850        | 2510                 | QPSK | 1         | 0                | 2850         | 2630                 | 4x4             | LTE B4   | 20           | 2175         | 2132.5               | 2x2             | LTE B4   | 20           | 2175</       |                      |                 |          |              |              |                             |                                   |                      |

|                                           |                                                                                                                                                                                                        |                                        |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| FCC ID: ZNFG850UM                         |  <b>SAR EVALUATION REPORT</b>  | <b>Reviewed by:</b><br>Quality Manager |
| <b>Test Dates:</b><br>07/24/19 - 08/26/19 | <b>DUT Type:</b><br>Portable Handset                                                                                                                                                                   | APPENDIX H:<br>Page 11 of 13           |

## 1.4.10 LTE Band 41 PC3 as PCC

Table 23  
Maximum Output Powers

| Combination    | PCC Band | PCC          |              |                      |      |            |                  |              |                      |                 |          | SCC 1        |              |                      |                 | SCC 2    |              |              |                      | SCC 3           |          |              |              | Power                |                 |                                       |                                   |
|----------------|----------|--------------|--------------|----------------------|------|------------|------------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|
|                |          | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41A-41A (1) | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 2x2             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 24.85                                 | 25.08                             |
| CA_41A-41A (1) | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 2x2             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 24.86                                 | 25.08                             |
| CA_41A-41A (1) | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 24.87                                 | 25.08                             |
| CA_41A-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 2x2             | LTE B41  | 20           | 39948        | 2525.8               | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | -        | -            | -            | -                    | -               | 24.90                                 | 25.08                             |
| CA_41C-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292        | 2660.2               | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 2x2             | -        | -            | -            | -                    | -               | 24.87                                 | 25.08                             |
| CA_41A-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 39948        | 2525.8               | 2x2             | LTE B41  | 20           | 39750        | 2506                 | 2x2             | -        | -            | -            | -                    | -               | 24.85                                 | 25.08                             |
| CA_41C-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 2x2             | LTE B41  | 20           | 41292        | 2660.2               | 2x2             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | -        | -            | -            | -                    | -               | 24.95                                 | 25.08                             |
| CA_41A-41D     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 40146        | 2545.6               | 4x4             | LTE B41  | 20           | 39948        | 2525.8               | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | 24.72                                 | 25.08                             |
| CA_41D-41A     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292        | 2660.2               | 4x4             | LTE B41  | 20           | 41094        | 2640.4               | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | 24.78                                 | 25.08                             |
| CA_41C-41C     | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292        | 2660.2               | 4x4             | LTE B41  | 20           | 39948        | 2525.8               | 4x4             | LTE B41  | 20           | 39750        | 2506                 | 4x4             | 24.77                                 | 25.08                             |
| CA_41E         | LTE B41  | 20           | 41490        | 2680                 | QPSK | 1          | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292        | 2660.2               | 4x4             | LTE B41  | 20           | 41094        | 2640.4               | 4x4             | LTE B41  | 20           | 40896        | 2620.6               | 4x4             | 24.76                                 | 25.08                             |

## 1.4.11 LTE Band 41 PC2 as PCC

Table 24  
Maximum Output Powers

|                | PCC         |              |              |                      |      |            |                   |              |                      |                 | SCC 1       |              |              |                      | SCC 2           |             |              |              | SCC 3                |                 |             |              | Power        |                      |                 |                                       |                                   |
|----------------|-------------|--------------|--------------|----------------------|------|------------|-------------------|--------------|----------------------|-----------------|-------------|--------------|--------------|----------------------|-----------------|-------------|--------------|--------------|----------------------|-----------------|-------------|--------------|--------------|----------------------|-----------------|---------------------------------------|-----------------------------------|
| Combination    | PCC Band    | PCC BW [MHz] | PCC (UL) Ch. | PCC (UL) Freq. [MHz] | Mod. | PCC UL# RB | PCC UL# RB Offset | PCC (DL) Ch. | PCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC (DL) Ch. | SCC (DL) Freq. [MHz] | DL Ant. Config. | LTE Tx Power with DL CA Enabled (dBm) | LTE Single Carrier Tx Power (dBm) |
| CA_41A-41A (1) | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 39750        | 2506                 | 2x2             | -           | -            | -            | -                    | -               | -           | -            | -            | -                    | -               | 27.42                                 | 27.66                             |
| CA_41A-41A (1) | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 2x2             | LTE B41 PC2 | 20           | 39750        | 2506                 | 4x4             | -           | -            | -            | -                    | -               | -           | -            | -            | -                    | -               | 27.56                                 | 27.66                             |
| CA_41A-41A (1) | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 39750        | 2506                 | 4x4             | -           | -            | -            | -                    | -               | -           | -            | -            | -                    | -               | 27.67                                 | 27.66                             |
| CA_41A-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 2x2             | LTE B41 PC2 | 20           | 41292        | 2660.2               | 4x4             | LTE B41 PC2 | 20           | 41490        | 2680                 | 4x4             | -           | -            | -            | -                    | -               | 27.63                                 | 27.66                             |
| CA_41C-41A     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 40791        | 2610.1               | 4x4             | LTE B41 PC2 | 20           | 39750        | 2506                 | 2x2             | -           | -            | -            | -                    | -               | 27.65                                 | 27.66                             |
| CA_41A-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 41292        | 2660.2               | 2x2             | LTE B41 PC2 | 20           | 41490        | 2680                 | 2x2             | -           | -            | -            | -                    | -               | 27.68                                 | 27.66                             |
| CA_41C-41A     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 2x2             | LTE B41 PC2 | 20           | 40791        | 2610.1               | 2x2             | LTE B41 PC2 | 20           | 39750        | 2506                 | 4x4             | -           | -            | -            | -                    | -               | 27.65                                 | 27.66                             |
| CA_41A-41D     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 41094        | 2640.4               | 4x4             | LTE B41 PC2 | 20           | 41292        | 2660.2               | 4x4             | LTE B41 PC2 | 20           | 41490        | 2680                 | 4x4             | 27.70                                 | 27.66                             |
| CA_41D-41A     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 40489        | 2575.9               | 4x4             | LTE B41 PC2 | 20           | 40791        | 2610.1               | 4x4             | LTE B41 PC2 | 20           | 41490        | 2680                 | 4x4             | 27.68                                 | 27.66                             |
| CA_41C-41C     | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 40449        | 2575.9               | 4x4             | LTE B41 PC2 | 20           | 41292        | 2660.2               | 4x4             | LTE B41 PC2 | 20           | 41490        | 2680                 | 4x4             | 27.67                                 | 27.66                             |
| CA_41E         | LTE B41 PC2 | 15           | 40620        | 2593                 | QPSK | 1          | 36                | 40620        | 2593                 | 4x4             | LTE B41 PC2 | 20           | 40449        | 2575.9               | 4x4             | LTE B41 PC2 | 20           | 40791        | 2610.1               | 4x4             | LTE B41 PC2 | 20           | 40889        | 2629.9               | 4x4             | 27.70                                 | 27.66                             |

FCC ID: ZNFG850UM



SAR EVALUATION REPORT



Reviewed by:  
Quality Manager

Test Dates:

07/24/19 - 08/26/19

DUT Type:

Portable Handset

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## 1.5 Downlink Carrier Aggregation with Uplink Carrier Aggregation enabled

This device supports uplink carrier aggregation (ULCA) with additional Carrier Aggregation configurations active in the downlink. Power measurements were performed with ULCA active and additional CA configurations active in the downlink for the configuration per Fall 2017 TCB Workshop Notes.

Per FCC Guidance, additional SAR measurements for these configurations were not required since their maximum output power was not more than 0.25 dB higher than the maximum output power for with only ULCA active.

### 1.5.1 DL Carrier Aggregation RF Conducted Powers

Table 25  
Maximum Output Powers

|             |          | PCC          |              |                      |            |           |                  |                  |                      |          |              | SCC 1               |                         |            |           | SCC 2            |          |              |                  | SCC 3                |          |              |                  | Power                |                                                        |                     |
|-------------|----------|--------------|--------------|----------------------|------------|-----------|------------------|------------------|----------------------|----------|--------------|---------------------|-------------------------|------------|-----------|------------------|----------|--------------|------------------|----------------------|----------|--------------|------------------|----------------------|--------------------------------------------------------|---------------------|
| Combination | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Modulation | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [UL/DL] Channel | SCC [UL/DL] Freq. [MHz] | Modulation | SCC UL RB | SCC UL RB Offset | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | ULCA Tx Power with add'l CA config. Active on DL (dBm) | ULCA Tx Power (dBm) |
| CA 41D      | LTE B41  | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41292               | 2660.2                  | QPSK       | 1         | 99               | LTE B41  | 20           | 41094            | 2640.4               | -        | -            | -                | -                    | 25.18                                                  | 25.05               |
| CA 41E      | LTE B41  | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490            | 2680                 | LTE B41  | 20           | 41292               | 2660.2                  | QPSK       | 1         | 99               | LTE B41  | 20           | 41094            | 2640.4               | LTE B41  | 20           | 40896            | 2620.6               | 25.18                                                  | 25.05               |

|             |             | PCC          |              |                      |            |           |                  |                  |                      |             |              | SCC 1               |                         |            |           | SCC 2            |             |              |                  | SCC 3                |             |              |                  | Power                |                                                        |                     |
|-------------|-------------|--------------|--------------|----------------------|------------|-----------|------------------|------------------|----------------------|-------------|--------------|---------------------|-------------------------|------------|-----------|------------------|-------------|--------------|------------------|----------------------|-------------|--------------|------------------|----------------------|--------------------------------------------------------|---------------------|
| Combination | PCC Band    | PCC BW [MHz] | PCC [UL] Ch. | PCC [UL] Freq. [MHz] | Modulation | PCC UL RB | PCC UL RB Offset | PCC [DL] Channel | PCC [DL] Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC [UL/DL] Channel | SCC [UL/DL] Freq. [MHz] | Modulation | SCC UL RB | SCC UL RB Offset | SCC Band    | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | SCC Band    | SCC BW [MHz] | SCC [DL] Channel | SCC [DL] Freq. [MHz] | ULCA Tx Power with add'l CA config. Active on DL (dBm) | ULCA Tx Power (dBm) |
| CA 41D      | LTE B41 PC2 | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490            | 2680                 | LTE B41 PC2 | 20           | 41292               | 2660.2                  | QPSK       | 1         | 99               | LTE B41 PC2 | 20           | 41094            | 2640.4               | -           | -            | -                | -                    | 27.18                                                  | 27.30               |
| CA 41E      | LTE B41 PC2 | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490            | 2680                 | LTE B41 PC2 | 20           | 41292               | 2660.2                  | QPSK       | 1         | 99               | LTE B41 PC2 | 20           | 41094            | 2640.4               | LTE B41 PC2 | 20           | 40896            | 2620.6               | 27.18                                                  | 27.30               |

### 1.5.2 DL Carrier Aggregation with DL 4x4 MIMO RF Conducted Powers

Note: 4x4 DL MIMO is only operating in the downlink. Uplink transmission is limited to a single output stream for each component carrier of ULCA.

Table 26  
Maximum Output Powers

| Combination | PCC      |              |              |                      |            |           |                  |              |                      |                 | SCC 1    |              |                 |                         |            |           |                  |                 | SCC 2    |              |              |                      | SCC 3           |          |              |              | Power                |                 |                                                        |                     |
|-------------|----------|--------------|--------------|----------------------|------------|-----------|------------------|--------------|----------------------|-----------------|----------|--------------|-----------------|-------------------------|------------|-----------|------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|----------|--------------|--------------|----------------------|-----------------|--------------------------------------------------------|---------------------|
|             | PCC Band | PCC BW [MHz] | PCC [UL] Ch. | PCC [DL] Freq. [MHz] | Modulation | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [UL/DL] Ch. | SCC [UL/DL] Freq. [MHz] | Modulation | SCC UL RB | SCC UL RB Offset | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | ULCA Tx Power with add'l CA Config. Active on DL (dBm) | ULCA Tx Power (dBm) |
| CA 41C      | LTE B41  | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | -        | -            | -            | -                    | -               | -        | -            | -            | -                    | -               | 25.18                                                  | 25.05               |
| CA 41D      | LTE B41  | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | LTE B41  | 20           | 41094        | 2640.4               | 4x4             | -        | -            | -            | -                    | -               | 25.18                                                  | 25.05               |
| CA 41E      | LTE B41  | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41  | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | LTE B41  | 20           | 41094        | 2640.4               | 4x4             | LTE B41  | 20           | 40896        | 2620.6               | 4x4             | 25.20                                                  | 25.05               |

| Combination | PCC         |              |              |                      |            |           |                  |              |                      |                 | SCC 1       |              |                 |                         |            |           |                  |                 | SCC 2       |              |              |                      | SCC 3           |             |              |              | Power                |                 |                                                        |                     |
|-------------|-------------|--------------|--------------|----------------------|------------|-----------|------------------|--------------|----------------------|-----------------|-------------|--------------|-----------------|-------------------------|------------|-----------|------------------|-----------------|-------------|--------------|--------------|----------------------|-----------------|-------------|--------------|--------------|----------------------|-----------------|--------------------------------------------------------|---------------------|
|             | PCC Band    | PCC BW [MHz] | PCC [UL] Ch. | PCC [DL] Freq. [MHz] | Modulation | PCC UL RB | PCC UL RB Offset | PCC [DL] Ch. | PCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC [UL/DL] Ch. | SCC [UL/DL] Freq. [MHz] | Modulation | SCC UL RB | SCC UL RB Offset | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | SCC Band    | SCC BW [MHz] | SCC [DL] Ch. | SCC [DL] Freq. [MHz] | DL Ant. Config. | ULCA Tx Power with add'l CA Config. Active on DL (dBm) | ULCA Tx Power (dBm) |
| CA 41C      | LTE B41 PC2 | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41 PC2 | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | -           | -            | -            | -                    | -               | -           | -            | -            | -                    | -               | 27.15                                                  | 27.30               |
| CA 41D      | LTE B41 PC2 | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41 PC2 | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | LTE B41 PC2 | 20           | 41094        | 2640.4               | 4x4             | -           | -            | -            | -                    | -               | 27.18                                                  | 27.30               |
| CA 41E      | LTE B41 PC2 | 20           | 41490        | 2680                 | QPSK       | 1         | 0                | 41490        | 2680                 | 4x4             | LTE B41 PC2 | 20           | 41292           | 2660.2                  | QPSK       | 1         | 99               | 4x4             | LTE B41 PC2 | 20           | 41094        | 2640.4               | 4x4             | LTE B41 PC2 | 20           | 40896        | 2620.6               | 4x4             | 27.15                                                  | 27.30               |

|                                    |                                                                                                                            |                              |                                                                                          |                                 |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------|---------------------------------|
| FCC ID: ZNFG850UM                  |  PCTEST<br>Engineering Laboratory, Inc. | SAR EVALUATION REPORT        |  LG | Reviewed by:<br>Quality Manager |
| Test Dates:<br>07/24/19 - 08/26/19 | DUT Type:<br>Portable Handset                                                                                              | APPENDIX H:<br>Page 13 of 13 |                                                                                          |                                 |