

# FCC SAR Test Report

APPLICANT : Motorola Mobility LLC  
EQUIPMENT : Mobile Cellular Phone  
BRAND NAME : Motorola  
MODEL NAME : XT1955-5, XT1955DL, XT1955-6  
FCC ID : IHDT56XQ1  
STANDARD : FCC 47 CFR Part 2 (2.1093)  
ANSI/IEEE C95.1-1992  
IEEE 1528-2013

The product was received on Sep. 28, 2018 and testing was started from Nov. 15, 2018 and completed on Dec. 02, 2018. We, Sporton International (Kunshan) Inc, would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.



Approved by: Mark Qu / Manager



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## Revision History

| REPORT NO. | VERSION | DESCRIPTION             | ISSUED DATE   |
|------------|---------|-------------------------|---------------|
| FA892801   | Rev. 01 | Initial issue of report | Dec. 26, 2018 |
|            |         |                         |               |
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## 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT1955-5, XT1955DL, XT1955-6**, are as follows.

| Highest 1g SAR Summary |                |                  |                          |                             |                               |                                                    |
|------------------------|----------------|------------------|--------------------------|-----------------------------|-------------------------------|----------------------------------------------------|
| Equipment Class        | Frequency Band |                  | Head<br>(Separation 0mm) | Hotspot<br>(Separation 5mm) | Body-worn<br>(Separation 5mm) | Highest Simultaneous Transmission<br>1g SAR (W/kg) |
|                        |                |                  | 1g SAR (W/kg)            |                             |                               |                                                    |
| Licensed               | GSM            | GSM850           | 0.34                     | 1.32                        | 1.32                          | 1.59                                               |
|                        |                | GSM1900          | <0.10                    | 1.20                        | 1.20                          |                                                    |
|                        | WCDMA          | Band V           | 0.42                     | 1.30                        | 1.35                          |                                                    |
|                        |                | Band IV          | 0.17                     | 1.43                        | 1.43                          |                                                    |
|                        |                | Band II          | <0.10                    | 1.44                        | 1.44                          |                                                    |
|                        | CDMA2000       | BC10             | 0.30                     | 1.22                        | 1.24                          |                                                    |
|                        |                | BC0              | 0.40                     | 1.39                        | 1.43                          |                                                    |
|                        |                | BC1              | 0.10                     | 1.34                        | 1.14                          |                                                    |
|                        | LTE            | Band 12/Band 17  | 0.32                     | 1.10                        | 1.10                          |                                                    |
|                        |                | Band 13          | 0.33                     | 1.35                        | 1.35                          |                                                    |
|                        |                | Band 14          | 0.33                     | 1.39                        | 1.39                          |                                                    |
|                        |                | Band 26/Band 5   | 0.35                     | 1.26                        | 1.26                          |                                                    |
|                        |                | Band 71          | 0.15                     | 0.58                        | 0.58                          |                                                    |
|                        |                | Band 66/Band 4   | 0.14                     | 1.42                        | 1.44                          |                                                    |
|                        |                | Band 25/Band 2   | <0.10                    | 1.36                        | 1.41                          |                                                    |
|                        |                | Band 30          | 0.15                     | 1.39                        | 1.28                          |                                                    |
|                        |                | Band 7           | 0.28                     | 1.41                        | 1.30                          |                                                    |
|                        |                | Band 41/ Band 38 | 0.20                     | 1.40                        | 1.40                          |                                                    |
| DTS                    | WLAN           | 2.4GHz WLAN      | 0.86                     | 0.46                        | 0.46                          | 1.59                                               |
| NII                    |                | 5GHz WLAN        | 0.36                     | 1.17                        | 1.17                          | 1.51                                               |
| DSS                    | Bluetooth      | 2.4GHz Bluetooth | 0.10                     | <0.10                       | <0.10                         | 1.51                                               |



| Highest 10g SAR Summary                                                                                                                                                                                                                                                                                                                                                                                                             |                |                |                                                     |                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|-----------------------------------------------------|-----------------------------------------------------|
| Equipment Class                                                                                                                                                                                                                                                                                                                                                                                                                     | Frequency Band |                | Product Specific 10g SAR (W/kg)<br>(Separation 0mm) | Highest Simultaneous Transmission<br>10g SAR (W/kg) |
| Licensed                                                                                                                                                                                                                                                                                                                                                                                                                            | GSM            | GSM850         | 1.66                                                | 3.98                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | GSM1900        | 3.28                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | WCDMA          | Band V         | 2.37                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band IV        | 3.52                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band II        | 3.58                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | CDMA2000       | BC10           | 1.96                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | BC0            | 2.16                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | BC1            | 3.63                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | LTE            | Band 13        | 1.50                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 14        | 2.29                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 26/Band 5 | 1.64                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 66/Band 4 | 3.37                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 25/Band 2 | 3.56                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 30        | 3.24                                                |                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Band 7         | 3.03                                                |                                                     |
| Band 41/ Band 38                                                                                                                                                                                                                                                                                                                                                                                                                    |                | 3.46           |                                                     |                                                     |
| NII                                                                                                                                                                                                                                                                                                                                                                                                                                 | WLAN           | 5GHz WLAN      | 1.03                                                | 3.98                                                |
| Date of Testing:                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                | 2018/11/15 ~ 2018/12/2                              |                                                     |
| <b>Remark:</b> This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41 both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41. |                |                |                                                     |                                                     |

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

## 2. Administration Data

| Testing Laboratory |                                                                                                                                                     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International (Kunshan) Inc.                                                                                                                |
| Test Site Location | No. 1098, Pengxi North Road, Kunshan Economic Development Zone,<br>Jiangsu Province 215335, China<br>TEL : 86-512-57900158<br>FAX : 86-512-57900958 |

| Applicant    |                                                     |
|--------------|-----------------------------------------------------|
| Company Name | Motorola Mobility LLC                               |
| Address      | 222 W, Merchandise Mart Plaza, Chicago IL 60654 USA |

| Manufacturer |                                                     |
|--------------|-----------------------------------------------------|
| Company Name | Motorola Mobility LLC                               |
| Address      | 222 W, Merchandise Mart Plaza, Chicago IL 60654 USA |

## 3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01

## 4. Equipment Under Test (EUT) Information

### 4.1 General Information

| Product Feature & Specification                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment Name                                                                                                                                                                                                                                                                                                                                        | Mobile Cellular Phone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Brand Name                                                                                                                                                                                                                                                                                                                                            | Motorola                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Model Name                                                                                                                                                                                                                                                                                                                                            | XT1955-5, XT1955DL, XT1955-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| FCC ID                                                                                                                                                                                                                                                                                                                                                | IHDT56XQ1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| IMEI Code                                                                                                                                                                                                                                                                                                                                             | 359525090022743                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Wireless Technology and Frequency Range                                                                                                                                                                                                                                                                                                               | GSM850: 824.2 MHz ~ 848.8 MHz<br>GSM1900: 1850.2 MHz ~ 1909.8 MHz<br>WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz<br>WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz<br>WCDMA Band V: 826.4 MHz ~ 846.6 MHz<br>CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz<br>CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz<br>CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz<br>LTE Band 2: 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 4: 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>LTE Band 12: 699.7 MHz ~ 715.3 MHz<br>LTE Band 13: 779.5 MHz ~ 784.5 MHz<br>LTE Band 14: 790.5 MHz ~ 795.5 MHz<br>LTE Band 17: 706.5 MHz ~ 713.5 MHz<br>LTE Band 25: 1850.7 MHz ~ 1914.3 MHz<br>LTE Band 26: 814.7 MHz ~ 848.3 MHz<br>LTE Band 30: 2307.5 MHz ~ 2312.5 MHz<br>LTE Band 38: 2572.5 MHz ~ 2617.5 MHz<br>LTE Band 41: 2498.5 MHz ~ 2687.5 MHz<br>LTE Band 66: 1710.7 MHz ~ 1779.3 MHz<br>LTE Band 71: 665.5 MHz ~ 695.5 MHz<br>WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz<br>WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz<br>WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz<br>WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz<br>WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz<br>Bluetooth: 2402 MHz ~ 2480 MHz |
| Mode                                                                                                                                                                                                                                                                                                                                                  | GSM/GPRS/EGPRS<br>RMC/AMR 12.2Kbps<br>HSDPA<br>HSUPA<br>DC-HSDPA<br>HSPA+(16QAM uplink is not supported)<br>CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A)<br>LTE: QPSK, 16QAM, 64QAM<br>WLAN 2.4GHz 802.11b/g/n HT20/n HT40<br>WLAN 5GHz 802.11a/n HT20/HT40<br>Bluetooth BR/EDR/LE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| HW Version                                                                                                                                                                                                                                                                                                                                            | DVT 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| SW Version                                                                                                                                                                                                                                                                                                                                            | PPO29.60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| GSM / (E)GPRS Transfer mode                                                                                                                                                                                                                                                                                                                           | Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| EUT Stage                                                                                                                                                                                                                                                                                                                                             | Identical Prototype                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Remark:</b> <ol style="list-style-type: none"> <li>WLAN operation in 5600 MHz ~ 5650 MHz is notched.</li> <li>This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.</li> <li>This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.</li> </ol> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



4. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
5. This device does not support DTM operation and supports GRPS/EGRPS mode up to multi-slot class 12.
6. The device employs proximity sensors that detect the presence of the user's body at the front or back faces of the device. When front or back body worn condition is detected, GSM1900, WCDMA B2 / B4 / B5, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B41 / B66 and WLAN5.2/5.3/5.5/5.8GHz reduced power will be active. (P-sensor can't work at detecting presence of the user's body at the four edges of the device.)
7. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of GSM1900, WCDMA B2 / B4 / B5, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B38 / B41 / B66 and WLAN5.2/5.8GHz.
8. This device hotspot reduced power and P-sensor reduced power level are the same for WCDMA B5, LTE B30 and WLAN5.2/5.8GHz. And for other bands are different.
9. For P-sensor reduced power level is higher than hotspot reduced power, so for front/back P-sensor SAR can represent conservatively for front/back hotspot SAR.
10. P-sensor can detect handheld state, GSM1900, WCDMA B2 / B4, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B66 for front/back/bottom sides, and WLAN 5.2/5.3/5.5/5.8GHz for front/back sides of product specific 10g SAR condition reduced powers will be active.
11. This device has two WWAN transmitter antennas. WWAN antenna 1 is located at the right side of bottom edge of the device and WWAN antenna 2 is located at the left side of bottom edge of the device which can refer to antenna location chapter. WWAN antenna 1 frequency bands include GSM850/1900, WCDMA B2 / B4 / B5, CDMA2000 BC0 / BC1 / BC10, LTE B2 / B4 / B5 / B12 / B13 / B14 / B17 / B25 / B26 / B66 / B71, WWAN antenna 2 frequency bands include LTE B7 / B30 / B38 / B41.
12. This device supports HPUE for LTE band 41 with class 2 level, so HPUE SAR has been performed.
13. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the WCDMA, CDMA and LTE modes of WWAN antenna 1. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner are included in the operational description and supplemental data for additional information on section17.

## 4.2 Specification of Accessory

| Specification of Accessory |                  |                                                                        |            |                 |
|----------------------------|------------------|------------------------------------------------------------------------|------------|-----------------|
| AC Adapter 1               | Brand Name       | Motorola (Salom)                                                       | Model Name | SC-51           |
|                            | Power Rating     | I/P: 100-240 Vac, 600mA<br>O/P: 5Vdc,3000mA; 9Vdc,2000mA; 12Vdc,1500mA |            |                 |
| AC Adapter 2               | Brand Name       | Motorola (Chenyang)                                                    | Model Name | SC-51           |
|                            | Power Rating     | I/P: 100-240 Vac, 600mA<br>O/P: 5Vdc,3000mA; 9Vdc,2000mA; 12Vdc,1500mA |            |                 |
| Battery                    | Brand Name       | Motorola (ATL)                                                         | Model Name | JK50            |
|                            | Power Rating     | 3.8Vdc,5000mAh                                                         | Type       | Li-ion, Polymer |
| USB Cable                  | Brand Name       | Motorola (Saibao)                                                      | Model Name | 711310002491    |
|                            | Signal Line Type | 1.0 meter, shielded cable, without ferrite core                        |            |                 |

### 4.3 General LTE SAR Test and Reporting Considerations

| Summarized necessary items addressed in KDB 941225 D05 v02r05           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------|--------|--------|--------|----------|--|--|------------|---------------------------------------------------------|--|--|--|--|--|----------|---------|---------|-------|--------|--------|--------|------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|---------|-----|--|--|--|--|--|-----|
| FCC ID                                                                  | IHDT56XQ1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Equipment Name                                                          | Mobile Cellular Phone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Operating Frequency Range of each LTE transmission band                 | LTE Band 2: 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 4: 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 5: 824.7 MHz ~ 848.3 MHz<br>LTE Band 7: 2502.5 MHz ~ 2567.5 MHz<br>LTE Band 12: 699.7 MHz ~ 715.3 MHz<br>LTE Band 13: 779.5 MHz ~ 784.5 MHz<br>LTE Band 14: 790.5 MHz ~ 795.5 MHz<br>LTE Band 17: 706.5 MHz ~ 713.5 MHz<br>LTE Band 25: 1850.7 MHz ~ 1914.3 MHz<br>LTE Band 26: 814.7 MHz ~ 848.3 MHz<br>LTE Band 30: 2307.5 MHz ~ 2312.5 MHz<br>LTE Band 38: 2572.5 MHz ~ 2617.5 MHz<br>LTE Band 41: 2498.5 MHz ~ 2687.5 MHz<br>LTE Band 66: 1710.7 MHz ~1779.3 MHz<br>LTE Band 71: 665.5 MHz ~ 695.5 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Channel Bandwidth                                                       | LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz<br>LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz<br>LTE Band 13: 5MHz, 10MHz<br>LTE Band 14: 5MHz, 10MHz<br>LTE Band 17: 5MHz, 10MHz<br>LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz<br>LTE Band 30: 5MHz, 10MHz<br>LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 66: 1.4MHz, 3MHz,5MHz, 10MHz, 15MHz, 20MHz<br>LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Uplink Modulations Used                                                 | QPSK, 16QAM and 64QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| LTE Voice / Data requirements                                           | Voice and Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| LTE Release Version                                                     | R10, Cat4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| CA Support                                                              | Yes, Uplink and Downlink                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| LTE MPR permanently built-in by design                                  | <table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (<math>N_{RB}</math>)</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table> | Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3 |       |        |        |        |          |  |  | Modulation | Channel bandwidth / Transmission bandwidth ( $N_{RB}$ ) |  |  |  |  |  | MPR (dB) | 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 | 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 | 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 | 64 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 | 64 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 | 256 QAM | ≥ 1 |  |  |  |  |  | ≤ 5 |
| Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Modulation                                                              | Channel bandwidth / Transmission bandwidth ( $N_{RB}$ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                         |       |        |        |        | MPR (dB) |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                                                         | 1.4 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 3.0 MHz                                                                 | 5 MHz | 10 MHz | 15 MHz | 20 MHz |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| QPSK                                                                    | > 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | > 4                                                                     | > 8   | > 12   | > 16   | > 18   | ≤ 1      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| 16 QAM                                                                  | ≤ 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ≤ 4                                                                     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| 16 QAM                                                                  | > 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | > 4                                                                     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| 64 QAM                                                                  | ≤ 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ≤ 4                                                                     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 2      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| 64 QAM                                                                  | > 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | > 4                                                                     | > 8   | > 12   | > 16   | > 18   | ≤ 3      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| 256 QAM                                                                 | ≥ 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                         |       |        |        |        | ≤ 5      |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| LTE A-MPR                                                               | In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Spectrum plots for RB configuration                                     | A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Power reduction applied to satisfy SAR compliance                       | Yes<br>1. The device employs proximity sensors that detect the presence of the user's body at the front or back faces of the device. When front or back body worn condition is detected, GSM1900, WCDMA B2 / B4 / B5, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B41 / B66 and WLAN5.2/5.3/5.5/5.8GHz reduced power will be active. (P-sensor can't work at detecting presence of the user's body at the four edges of the device.)<br>2. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of GSM1900, WCDMA B2 / B4 / B5, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B38 / B41 / B66 and WLAN5.2/5.8GHz.<br>3. P-sensor can detect handheld state, GSM1900, WCDMA B2 / B4, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B66 for front/back/bottom sides, and WLAN 5.2/5.3/5.5/5.8GHz for front/back/right/top sides of product specific 10g SAR condition reduced powers will be active.                                                                                                                                        |                                                                         |       |        |        |        |          |  |  |            |                                                         |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |



|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LTE Carrier Aggregation Combinations           | Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.                                                                                                                                                                                                                                                                                                                                                                                              |
| LTE Carrier Aggregation Additional Information | <p>(1) This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B41 only for power class 3 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance.</p> <p>(2) This device supports maximum of 2 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.</p> |

| Transmission (H, M, L) channel numbers and frequencies in each LTE band |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|-------------------------------------------------------------------------|-------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|--|--|
| LTE Band 2                                                              |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |  |  |
|                                                                         | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |  |  |
| L                                                                       | 18607             | 1850.7      | 18615            | 1851.5      | 18625            | 1852.5      | 18650            | 1855        | 18675            | 1857.5      | 18700            | 1860        |  |  |
| M                                                                       | 18900             | 1880        | 18900            | 1880        | 18900            | 1880        | 18900            | 1880        | 18900            | 1880        | 18900            | 1880        |  |  |
| H                                                                       | 19193             | 1909.3      | 19185            | 1908.5      | 19175            | 1907.5      | 19150            | 1905        | 19125            | 1902.5      | 19100            | 1900        |  |  |
| LTE Band 4                                                              |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |  |  |
|                                                                         | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |  |  |
| L                                                                       | 19957             | 1710.7      | 19965            | 1711.5      | 19975            | 1712.5      | 20000            | 1715        | 20025            | 1717.5      | 20050            | 1720        |  |  |
| M                                                                       | 20175             | 1732.5      | 20175            | 1732.5      | 20175            | 1732.5      | 20175            | 1732.5      | 20175            | 1732.5      | 20175            | 1732.5      |  |  |
| H                                                                       | 20393             | 1754.3      | 20385            | 1753.5      | 20375            | 1752.5      | 20350            | 1750        | 20325            | 1747.5      | 20300            | 1745        |  |  |
| LTE Band 5                                                              |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             |                  |             |                  |             |  |  |
|                                                                         | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |  |  |
| L                                                                       | 20407             | 824.7       | 20415            | 825.5       | 20425            | 826.5       | 20450            | 829         |                  |             |                  |             |  |  |
| M                                                                       | 20525             | 836.5       | 20525            | 836.5       | 20525            | 836.5       | 20525            | 836.5       |                  |             |                  |             |  |  |
| H                                                                       | 20643             | 848.3       | 20635            | 847.5       | 20625            | 846.5       | 20600            | 844         |                  |             |                  |             |  |  |
| LTE Band 7                                                              |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 5 MHz   |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |                  |             |                  |             |  |  |
|                                                                         | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |  |  |
| L                                                                       | 20775             | 2502.5      | 20800            | 2505        | 20825            | 2507.5      | 20850            | 2510        |                  |             |                  |             |  |  |
| M                                                                       | 21100             | 2535        | 21100            | 2535        | 21100            | 2535        | 21100            | 2535        |                  |             |                  |             |  |  |
| H                                                                       | 21425             | 2567.5      | 21400            | 2565        | 21375            | 2562.5      | 21350            | 2560        |                  |             |                  |             |  |  |
| LTE Band 12                                                             |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             |                  |             |                  |             |  |  |
|                                                                         | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |  |  |
| L                                                                       | 23017             | 699.7       | 23025            | 700.5       | 23035            | 701.5       | 23060            | 704         |                  |             |                  |             |  |  |
| M                                                                       | 23095             | 707.5       | 23095            | 707.5       | 23095            | 707.5       | 23095            | 707.5       |                  |             |                  |             |  |  |
| H                                                                       | 23173             | 715.3       | 23165            | 714.5       | 23155            | 713.5       | 23130            | 711         |                  |             |                  |             |  |  |
| LTE Band 13                                                             |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 5 MHz   |             |                  |             | Bandwidth 10 MHz |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Channel #         |             | Freq.(MHz)       |             | Channel #        |             | Freq.(MHz)       |             |                  |             |                  |             |  |  |
| L                                                                       | 23205             |             | 779.5            |             | 23230            |             | 782              |             |                  |             |                  |             |  |  |
| M                                                                       | 23230             |             | 782              |             |                  |             |                  |             |                  |             |                  |             |  |  |
| H                                                                       | 23255             |             | 784.5            |             |                  |             |                  |             |                  |             |                  |             |  |  |
| LTE Band 14                                                             |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Bandwidth 5 MHz   |             |                  |             | Bandwidth 10 MHz |             |                  |             |                  |             |                  |             |  |  |
|                                                                         | Channel #         |             | Freq.(MHz)       |             | Channel #        |             | Freq. (MHz)      |             |                  |             |                  |             |  |  |
| L                                                                       | 23305             |             | 790.5            |             | 23330            |             | 793              |             |                  |             |                  |             |  |  |
| M                                                                       | 23330             |             | 793              |             |                  |             |                  |             |                  |             |                  |             |  |  |
| H                                                                       | 23355             |             | 795.5            |             |                  |             |                  |             |                  |             |                  |             |  |  |

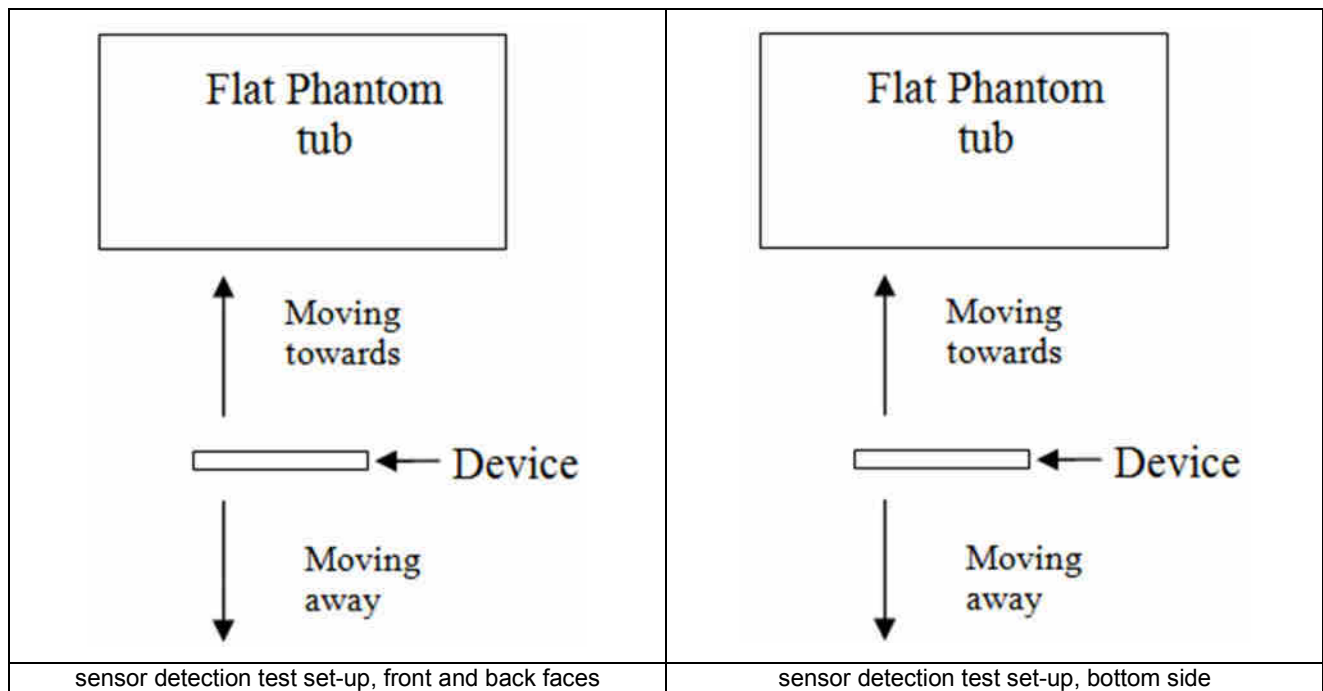


| LTE Band 17 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|-------------|-------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|------------------|-------------|
|             | Bandwidth 5 MHz   |             |                  |             |                  |             | Bandwidth 10 MHz |             |                  |             |                  |             |
|             | Channel #         |             | Freq.(MHz)       |             |                  |             | Channel #        |             | Freq. (MHz)      |             |                  |             |
| L           | 23755             |             | 706.5            |             |                  |             | 23780            |             | 709              |             |                  |             |
| M           | 23790             |             | 710              |             |                  |             | 23790            |             | 710              |             |                  |             |
| H           | 23825             |             | 713.5            |             |                  |             | 23800            |             | 711              |             |                  |             |
| LTE Band 25 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 26047             | 1850.7      | 26055            | 1851.5      | 26065            | 1852.5      | 26090            | 1855        | 26115            | 1857.5      | 26140            | 1860        |
| M           | 26340             | 1880        | 26340            | 1880        | 26340            | 1880        | 26340            | 1880        | 26340            | 1880        | 26340            | 1880        |
| H           | 26683             | 1914.3      | 26675            | 1913.5      | 26665            | 1912.5      | 26640            | 1910        | 26615            | 1907.5      | 26590            | 1905        |
| LTE Band 26 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             |                  |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 26697             | 814.7       | 26705            | 815.5       | 26715            | 816.5       | 26740            | 819         | 26765            | 821.5       | 26765            | 821.5       |
| M           | 26865             | 831.5       | 26865            | 831.5       | 26865            | 831.5       | 26865            | 831.5       | 26865            | 831.5       | 26865            | 831.5       |
| H           | 27033             | 848.3       | 27025            | 847.5       | 27015            | 846.5       | 26990            | 844         | 26965            | 841.5       | 26965            | 841.5       |
| LTE Band 30 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 5 MHz   |             |                  |             |                  |             | Bandwidth 10 MHz |             |                  |             |                  |             |
|             | Channel #         |             | Freq.(MHz)       |             |                  |             | Channel #        |             | Freq.(MHz)       |             |                  |             |
| L           | 27685             |             | 2307.5           |             |                  |             | 27710            |             | 2310             |             |                  |             |
| M           | 27710             |             | 2310             |             |                  |             |                  |             |                  |             |                  |             |
| H           | 27735             |             | 2312.5           |             |                  |             |                  |             |                  |             |                  |             |
| LTE Band 38 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 5 MHz   |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |                  |             |                  |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 37775             | 2572.5      | 37800            | 2575        | 37825            | 2577.5      | 37850            | 2580        | 37850            | 2580        | 37850            | 2580        |
| M           | 38000             | 2595        | 38000            | 2595        | 38000            | 2595        | 38000            | 2595        | 38000            | 2595        | 38000            | 2595        |
| H           | 38225             | 2617.5      | 38200            | 2615        | 38175            | 2612.5      | 38150            | 2610        | 38150            | 2610        | 38150            | 2610        |
| LTE Band 41 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 5 MHz   |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |                  |             |                  |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 39675             | 2498.5      | 39700            | 2501        | 39725            | 2503.5      | 39750            | 2506        | 39750            | 2506        | 39750            | 2506        |
| LM          | 40148             | 2545.8      | 40160            | 2547        | 40173            | 2548.3      | 40185            | 2549.5      | 40185            | 2549.5      | 40185            | 2549.5      |
| M           | 40620             | 2593        | 40620            | 2593        | 40620            | 2593        | 40620            | 2593        | 40620            | 2593        | 40620            | 2593        |
| HM          | 41093             | 2640.3      | 41080            | 2639        | 41068            | 2637.8      | 41055            | 2636.5      | 41055            | 2636.5      | 41055            | 2636.5      |
| H           | 41565             | 2687.5      | 41540            | 2685        | 41515            | 2682.5      | 41490            | 2680        | 41490            | 2680        | 41490            | 2680        |
| LTE Band 66 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 1.4 MHz |             | Bandwidth 3 MHz  |             | Bandwidth 5 MHz  |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 131979            | 1710.7      | 131987           | 1711.5      | 131997           | 1712.5      | 132022           | 1715        | 132047           | 1717.5      | 132072           | 1720        |
| M           | 132322            | 1745        | 132322           | 1745        | 132322           | 1745        | 132322           | 1745        | 132322           | 1745        | 132322           | 1745        |
| H           | 132665            | 1779.3      | 132657           | 1778.5      | 132647           | 1777.5      | 132622           | 1775        | 132597           | 1772.5      | 132572           | 1770        |
| LTE Band 71 |                   |             |                  |             |                  |             |                  |             |                  |             |                  |             |
|             | Bandwidth 5 MHz   |             | Bandwidth 10 MHz |             | Bandwidth 15 MHz |             | Bandwidth 20 MHz |             |                  |             |                  |             |
|             | Ch. #             | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) | Ch. #            | Freq. (MHz) |
| L           | 133147            | 665.5       | 133172           | 668         | 133197           | 670.5       | 133222           | 673         | 133222           | 673         | 133222           | 673         |
| M           | 133247            | 675.5       | 133272           | 678         | 133297           | 680.5       | 133322           | 683         | 133322           | 683         | 133322           | 683         |
| H           | 133447            | 695.5       | 133422           | 693         | 133397           | 690.5       | 133372           | 688         | 133372           | 688         | 133372           | 688         |

## **5. Proximity Sensor Triggering Test**

### **5.1 Proximity sensor triggering distances(Per KDB616217§6.2)**

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (WLAN 5MHz) and lowest (850MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensor placed coincident with antenna elements at the bottom end of the phone are utilized to determine when the device comes in proximity of the user's body at the front or back side surface of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. When the sensor is active, GSM1900, WCDMA B2 / B4 / B5, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B41 / B66 and WLAN5.2/5.3/5.5/5.8GHz reduced power will be active.
4. The sensors used to detect the proximity of the user's body at the front or back side surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s).
5. P-sensor can detect handheld state, GSM1900, WCDMA B2 / B4, CDMA2000 BC1, LTE B2 / B4 / B7 / B25 / B30 / B66 for front/back/bottom sides, and WLAN 5.2/5.3/5.5/5.8GHz for front/back sides of product specific 10g SAR condition reduced powers will be active.



**<P-Sensor On>**

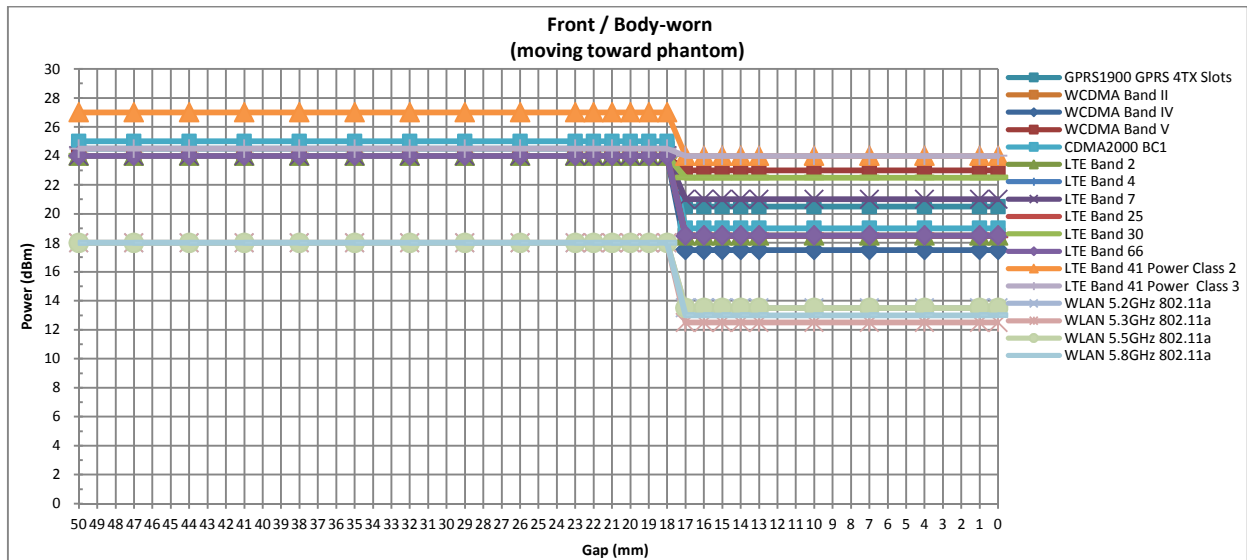
| Proximity Sensor Triggering Distance (mm) |                |             |                |             |
|-------------------------------------------|----------------|-------------|----------------|-------------|
| Position                                  | Front          |             | Back           |             |
|                                           | Moving towards | Moving away | Moving towards | Moving away |
| Minimum                                   | 17             | 24          | 18             | 25          |

| TX. Band                  | Proximity Sensor Triggering Power (dBm) |                          |                      |
|---------------------------|-----------------------------------------|--------------------------|----------------------|
|                           | Full                                    | Reduced                  | Power Reduction (dB) |
|                           | Max. Tune Up Limit (dBm)                | Max. Tune Up Limit (dBm) |                      |
| GSM1900 GPRS 4Tx slots    | 24.50                                   | 20.50                    | 4.00                 |
| WCDMA Band II             | 24.00                                   | 18.50                    | 5.50                 |
| WCDMA Band IV             | 24.00                                   | 17.50                    | 6.50                 |
| WCDMA Band V              | 24.00                                   | 23.00                    | 1.00                 |
| CDMA2000 BC1              | 25.00                                   | 19.00                    | 6.00                 |
| LTE Band 2                | 24.00                                   | 18.50                    | 5.50                 |
| LTE Band 4                | 24.00                                   | 18.50                    | 5.50                 |
| LTE Band 7                | 24.00                                   | 21.00                    | 3.00                 |
| LTE Band 25               | 24.00                                   | 18.50                    | 5.50                 |
| LTE Band 30               | 24.00                                   | 22.50                    | 1.50                 |
| LTE Band 66               | 24.00                                   | 18.50                    | 5.50                 |
| LTE Band 41 Power Class 2 | 27.00                                   | 24.00                    | 3.00                 |
| LTE Band 41 Power Class 3 | 24.50                                   | 24.00                    | 0.50                 |
| WLAN 5.2GHz 802.11a       | 18.00                                   | 13.50                    | 4.50                 |
| WLAN 5.3GHz 802.11a       | 18.00                                   | 12.50                    | 5.50                 |
| WLAN 5.5GHz 802.11a       | 18.00                                   | 13.50                    | 4.50                 |
| WLAN 5.8GHz 802.11a       | 18.00                                   | 13.00                    | 5.00                 |

### Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

#### Front / Body-worn (moving toward phantom)

| Distance                  | 50   | 47   | 44   | 41   | 38   | 35   | 32   | 29   | 26   | 23   | 22   | 21   | 20   | 19   | 18   | 17   | 16   | 15   | 14   | 13   | 10   | 7    | 4    | 1    | 0    |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots    | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WCDMA Band II             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| WCDMA Band IV             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |
| WCDMA Band V              | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| CDMA2000 BC1              | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| LTE Band 2                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 4                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 7                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 25               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 30               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| LTE Band 66               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 41 Power Class 2 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 41 Power Class 3 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WLAN 5.2GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.3GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| WLAN 5.5GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.8GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |

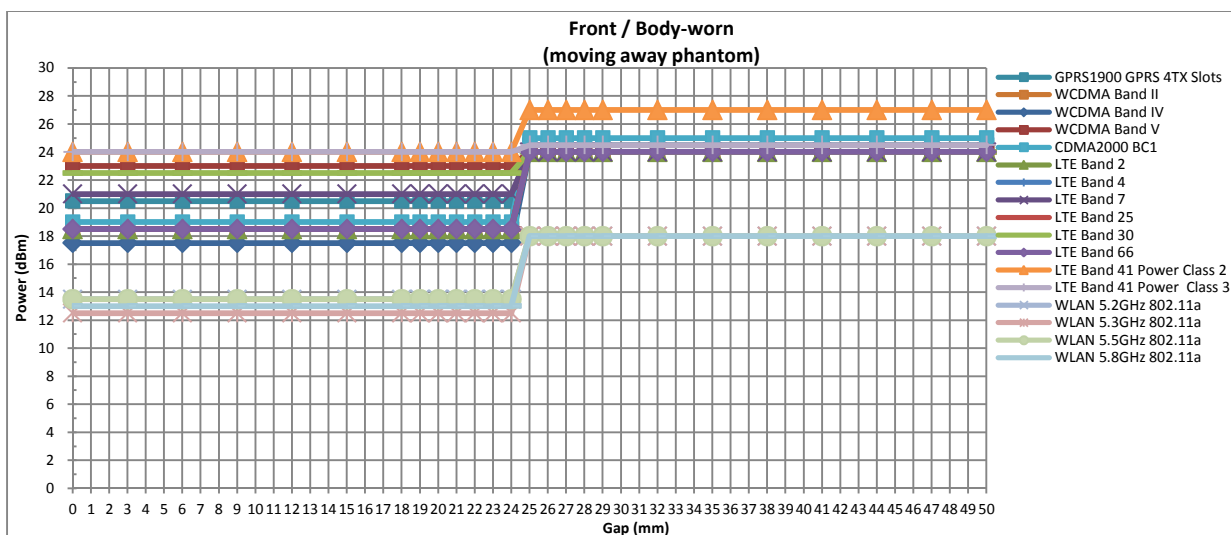




Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

Front / Body-worn (moving away phantom)

| Distance                  | 0    | 3    | 6    | 9    | 12   | 15   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 32   | 35   | 38   | 41   | 44   | 47   | 50   |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots    | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WCDMA Band II             | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band IV             | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band V              | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| CDMA2000 BC1              | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| LTE Band 2                | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 4                | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 7                | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 25               | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 30               | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 66               | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 41 Power Class 2 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| LTE Band 41 Power Class 3 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WLAN 5.2GHz 802.11a       | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.3GHz 802.11a       | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.5GHz 802.11a       | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.8GHz 802.11a       | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |

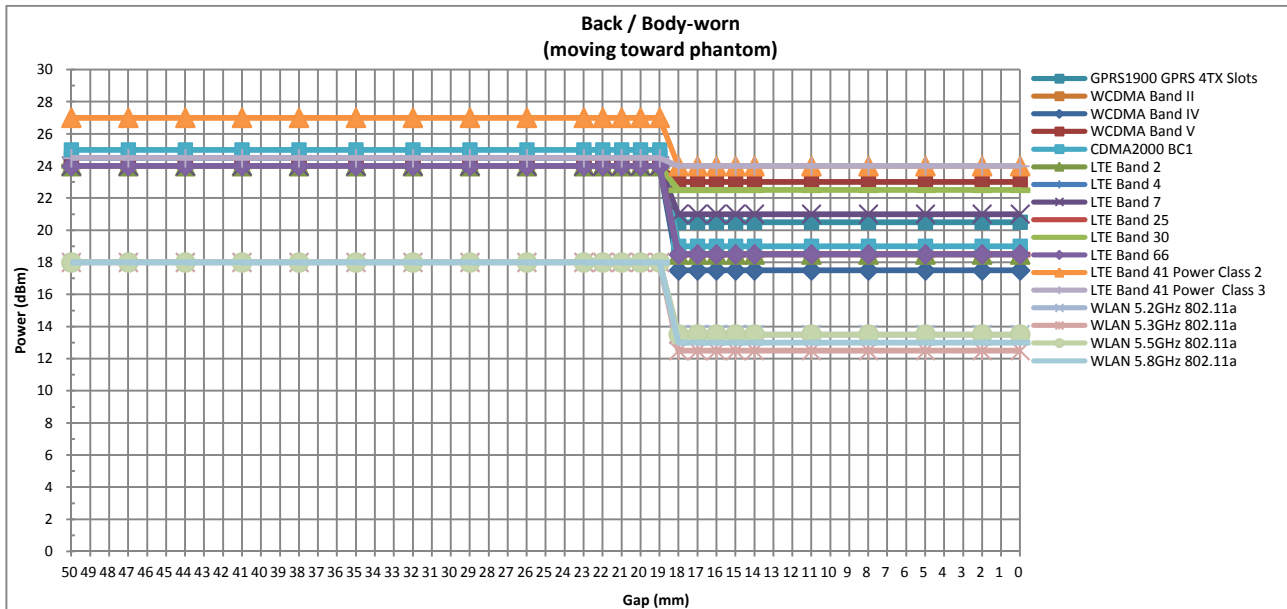




Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

Back / Body-worn (moving toward phantom)

| Distance                  | 50   | 47   | 44   | 41   | 38   | 35   | 32   | 29   | 26   | 23   | 22   | 21   | 20   | 19   | 18   | 17   | 16   | 15   | 14   | 11   | 8    | 5    | 2    | 0    |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots    | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WCDMA Band II             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| WCDMA Band IV             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 |
| WCDMA Band V              | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| CDMA2000 BC1              | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| LTE Band 2                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 4                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 7                | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 25               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 30               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| LTE Band 66               | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 |
| LTE Band 41 Power Class 2 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 41 Power Class 3 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WLAN 5.2GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.3GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| WLAN 5.5GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.8GHz 802.11a       | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |

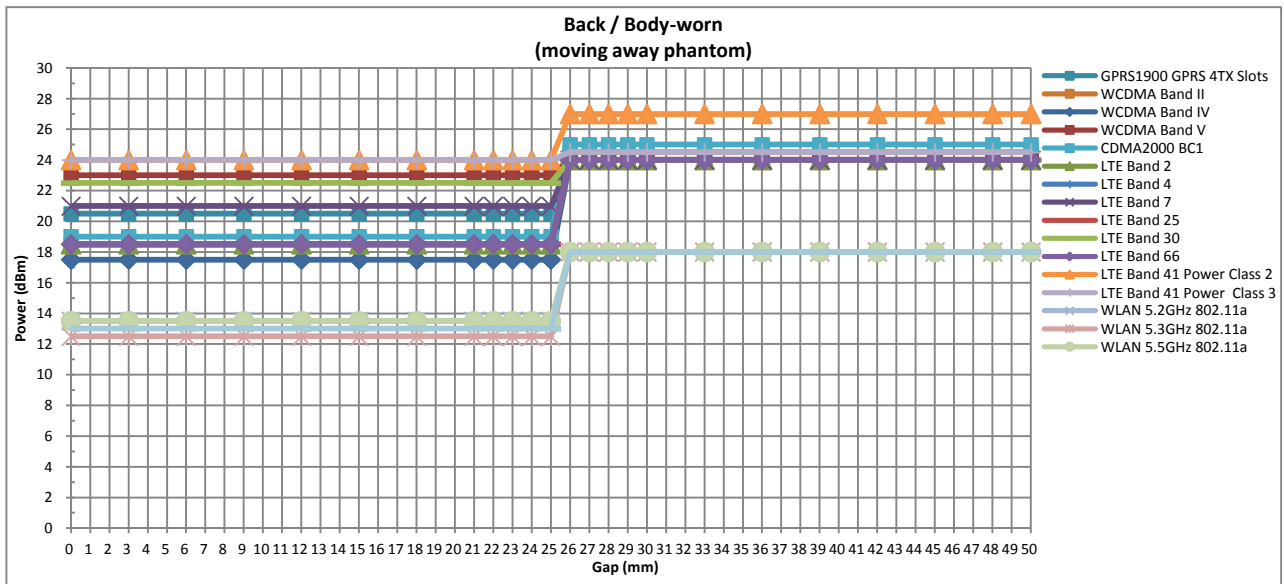




Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

Back / Body-worn (moving away phantom)

| Distance                  | 0    | 3    | 6    | 9    | 12   | 15   | 18   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 33   | 36   | 39   | 42   | 45   | 48   | 50   |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots    | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WCDMA Band II             | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band IV             | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band V              | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 23.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| CDMA2000 BC1              | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| LTE Band 2                | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 4                | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 7                | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 25               | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 30               | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 66               | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 18.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 41 Power Class 2 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| LTE Band 41 Power Class 3 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WLAN 5.2GHz 802.11a       | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.3GHz 802.11a       | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.5GHz 802.11a       | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.8GHz 802.11a       | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |



**<Handheld On>**

| Proximity Sensor Triggering Distance (mm) |                |             |                |                |                |                |
|-------------------------------------------|----------------|-------------|----------------|----------------|----------------|----------------|
| Position                                  | Front          |             | Back           |                | Bottom Side    |                |
|                                           | Moving towards | Moving away | Moving towards | Moving towards | Moving towards | Moving towards |
| Minimum                                   | 7              | 9           | 9              | 14             | 12             | 16             |

| TX. Band               | Proximity Sensor Triggering Power (dBm) |                          |                      |
|------------------------|-----------------------------------------|--------------------------|----------------------|
|                        | Full                                    | Reduced                  | Power Reduction (dB) |
|                        | Max. Tune Up Limit (dBm)                | Max. Tune Up Limit (dBm) |                      |
| GSM1900 GPRS 4Tx slots | 24.50                                   | 23.50                    | 1.00                 |
| WCDMA Band II          | 24.00                                   | 20.50                    | 3.50                 |
| WCDMA Band IV          | 24.00                                   | 19.50                    | 4.50                 |
| CDMA2000 BC1           | 25.00                                   | 22.00                    | 3.00                 |
| LTE Band 2             | 24.00                                   | 21.00                    | 3.00                 |
| LTE Band 4             | 24.00                                   | 20.50                    | 3.50                 |
| LTE Band 7             | 24.00                                   | 22.00                    | 2.00                 |
| LTE Band 25            | 24.00                                   | 21.00                    | 3.00                 |
| LTE Band 30            | 24.00                                   | 22.50                    | 1.50                 |
| LTE Band 66            | 24.00                                   | 20.50                    | 3.50                 |
| WLAN 5.2GHz 802.11a    | 18.00                                   | 13.50                    | 4.50                 |
| WLAN 5.3GHz 802.11a    | 18.00                                   | 12.50                    | 5.50                 |
| WLAN 5.5GHz 802.11a    | 18.00                                   | 13.50                    | 4.50                 |
| WLAN 5.8GHz 802.11a    | 18.00                                   | 13.00                    | 5.00                 |



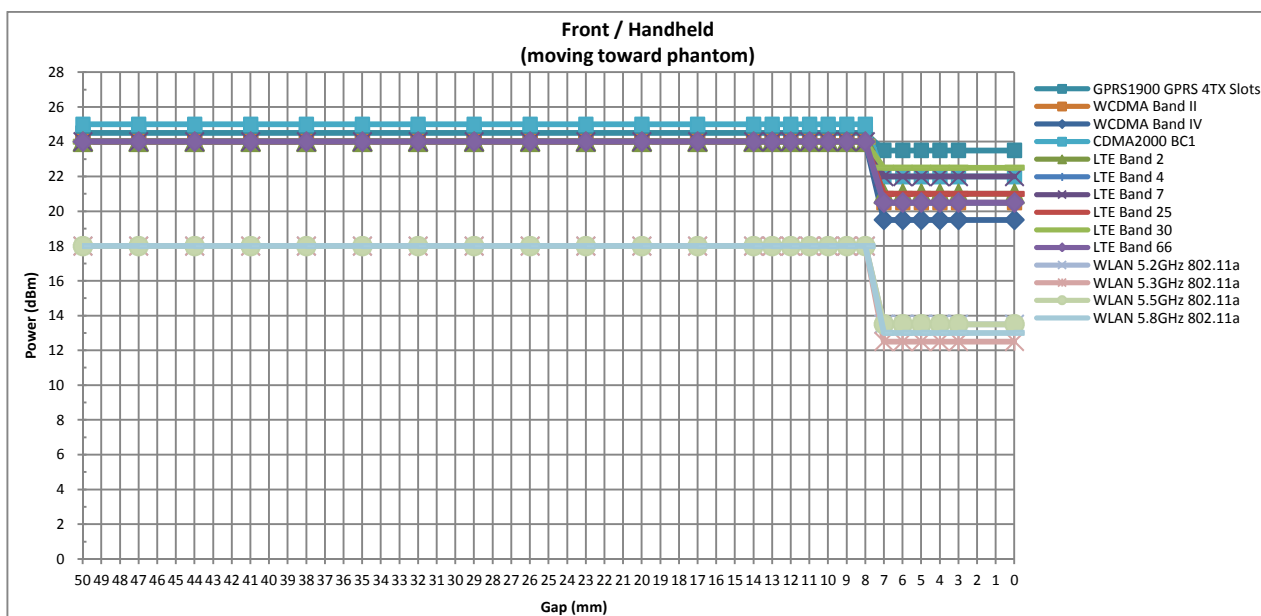
# FCC SAR Test Report

Report No. : FA892801

Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

Front / Handheld (moving toward phantom)

| Distance               | 50   | 47   | 44   | 41   | 38   | 35   | 32   | 29   | 26   | 23   | 20   | 17   | 14   | 13   | 12   | 11   | 10   | 9    | 8    | 7    | 6    | 5    | 4    | 3    | 0    |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 |
| WCDMA Band II          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WCDMA Band IV          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 |
| CDMA2000 BC1           | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 2             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 4             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| LTE Band 7             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 25            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 30            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| LTE Band 66            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WLAN 5.2GHz 802.11a    | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.3GHz 802.11a    | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| WLAN 5.5GHz 802.11a    | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.8GHz 802.11a    | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |

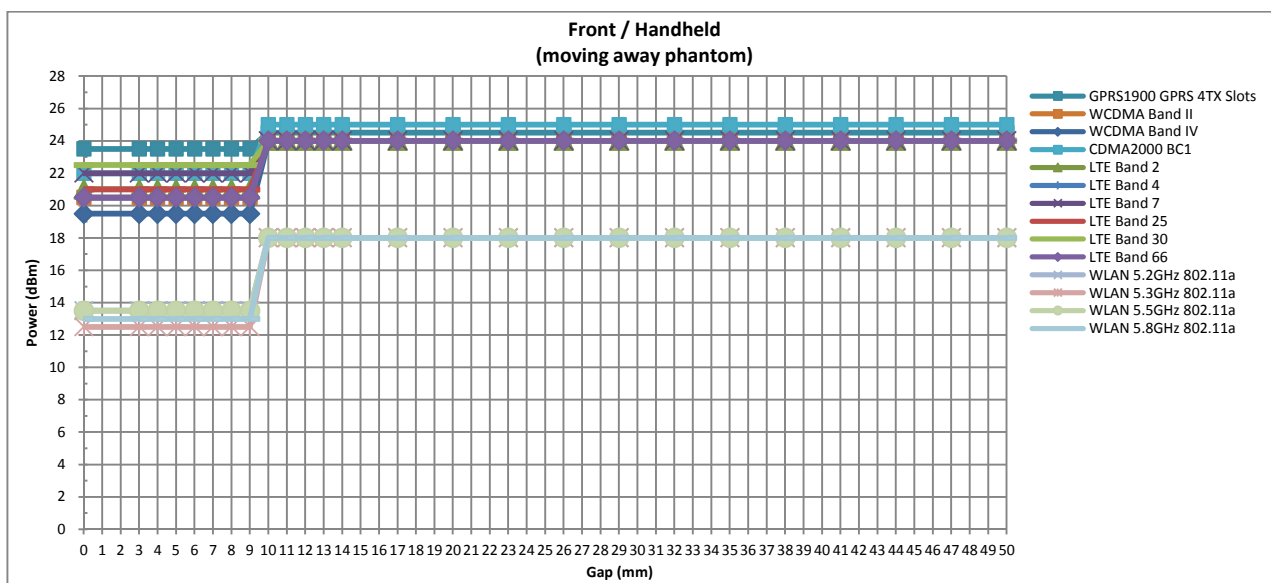




### Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

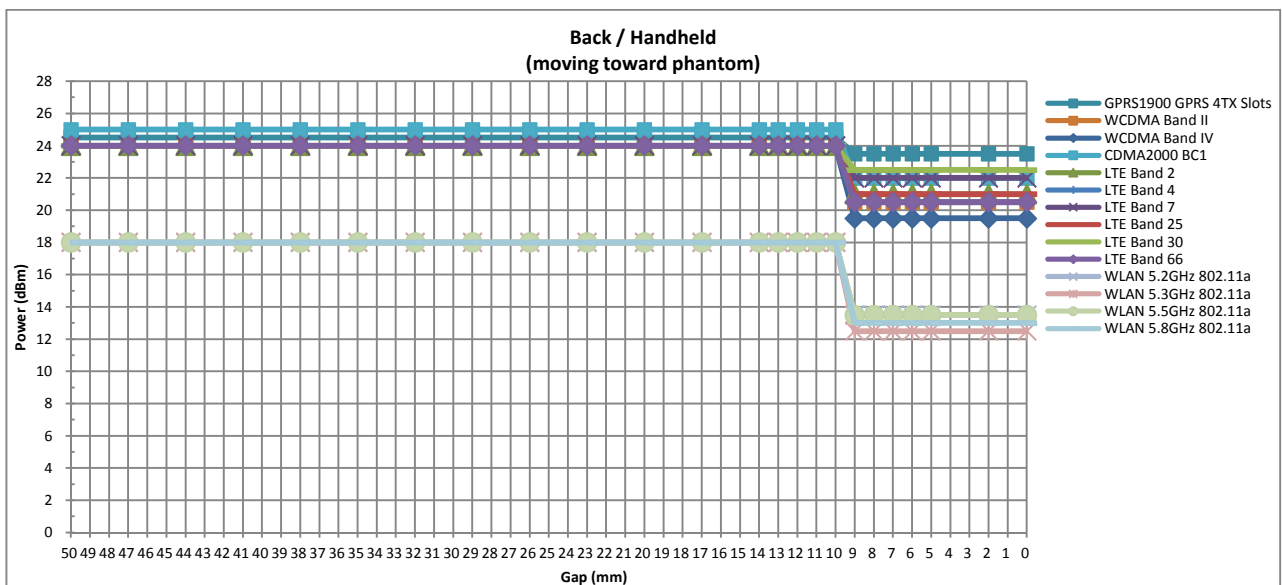
#### Front / Handheld (moving away phantom)

| Distance               | 0    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 17   | 20   | 23   | 26   | 29   | 32   | 35   | 38   | 41   | 44   | 47   | 50   |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WCDMA Band II          | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band IV          | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| CDMA2000 BC1           | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| LTE Band 2             | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 4             | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 7             | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 25            | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 30            | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 66            | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WLAN 5.2GHz 802.11a    | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.3GHz 802.11a    | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.5GHz 802.11a    | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.8GHz 802.11a    | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |





| Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Back / Handheld (moving toward phantom)                              |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Distance                                                             | 50   | 47   | 44   | 41   | 38   | 35   | 32   | 29   | 26   | 23   | 20   | 17   | 14   | 13   | 12   | 11   | 10   | 9    | 8    | 7    | 6    | 5    | 2    | 0    |
| GSM1900 GPRS 4Tx slots                                               | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 |
| WCDMA Band II                                                        | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WCDMA Band IV                                                        | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 |
| CDMA2000 BC1                                                         | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 2                                                           | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 4                                                           | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| LTE Band 7                                                           | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 25                                                          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 30                                                          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| LTE Band 66                                                          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WLAN 5.2GHz 802.11a                                                  | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.3GHz 802.11a                                                  | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 |
| WLAN 5.5GHz 802.11a                                                  | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 |
| WLAN 5.8GHz 802.11a                                                  | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |

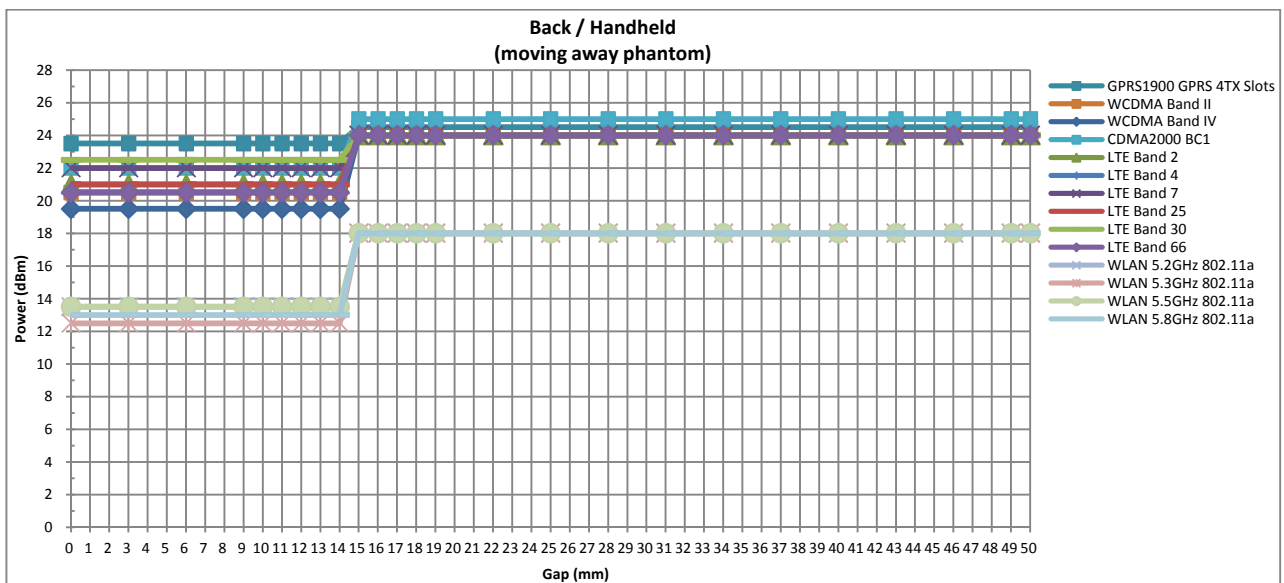




Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

Back / Handheld (moving away phantom)

| Distance               | 0    | 3    | 6    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 22   | 25   | 28   | 31   | 34   | 37   | 40   | 43   | 46   | 49   | 50   |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WCDMA Band II          | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band IV          | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| CDMA2000 BC1           | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| LTE Band 2             | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 4             | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 7             | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 25            | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 30            | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 66            | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WLAN 5.2GHz 802.11a    | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.3GHz 802.11a    | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.5GHz 802.11a    | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| WLAN 5.8GHz 802.11a    | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |





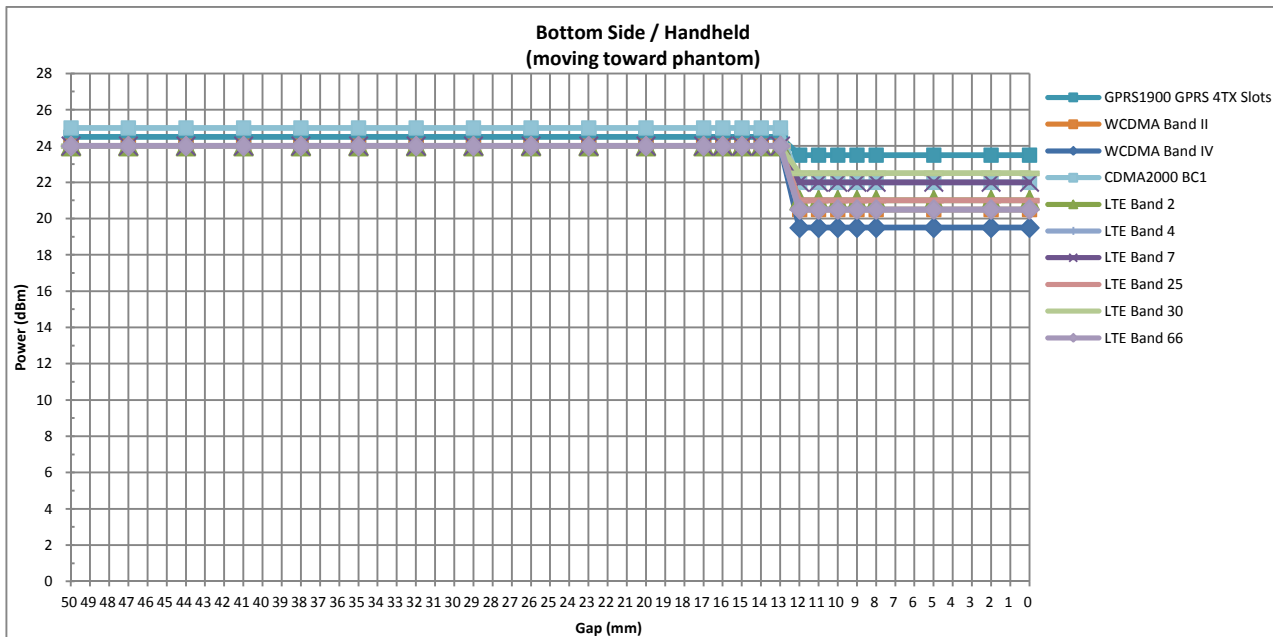
# FCC SAR Test Report

Report No. : FA892801

Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)

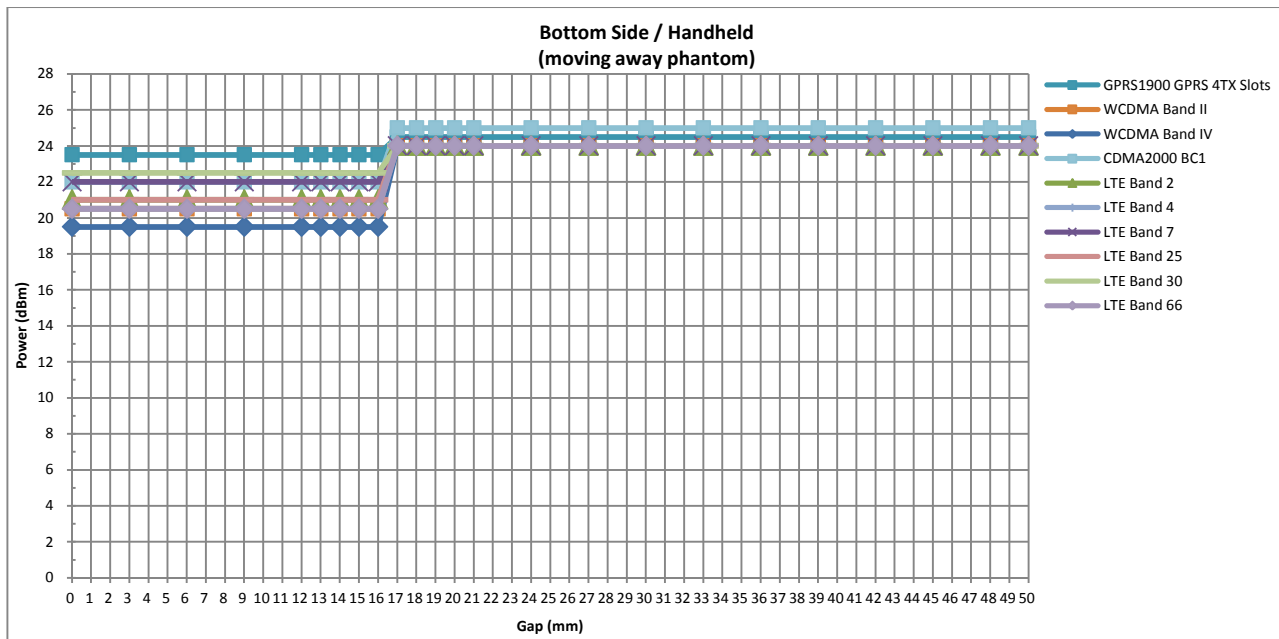
Bottom Side / Handheld (moving toward phantom)

| Distance               | 50   | 47   | 44   | 41   | 38   | 35   | 32   | 29   | 26   | 23   | 20   | 17   | 16   | 15   | 14   | 13   | 12   | 11   | 10   | 9    | 8    | 5    | 2    | 0    |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| GSM1900 GPRS 4Tx slots | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 |
| WCDMA Band II          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| WCDMA Band IV          | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 |
| CDMA2000 BC1           | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 2             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 4             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |
| LTE Band 7             | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 |
| LTE Band 25            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 |
| LTE Band 30            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| LTE Band 66            | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 |





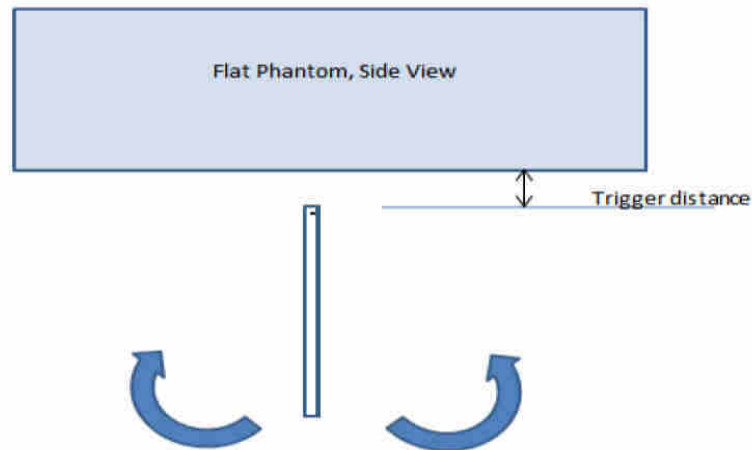
| Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Bottom Side / Handheld (moving away phantom)                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Distance                                                             | 0    | 3    | 6    | 9    | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 24   | 27   | 30   | 33   | 36   | 39   | 42   | 45   | 48   | 50   |
| GSM1900 GPRS 4Tx slots                                               | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 23.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| WCDMA Band II                                                        | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| WCDMA Band IV                                                        | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| CDMA2000 BC1                                                         | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| LTE Band 2                                                           | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 4                                                           | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 7                                                           | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 25                                                          | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 30                                                          | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| LTE Band 66                                                          | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 20.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |



## 5.2 Tilt angle influences to proximity sensor triggering(Per KDB616217 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with bottom side parallel to the base of the flat phantom for each band.

The EUT was rotated about bottom side for angles up to  $\pm 45^\circ$ . If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to  $\pm 45^\circ$ .



Proximity Sensor Coverage Assesment(Bottom Side)

Table: Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Bottom Side)

| Main ant Band(MHz) | Minimum trigger distance at which power reduction was maintained over ±45° | Power Reduction Status |      |      |      |     |    |    |     |     |     |     |  |
|--------------------|----------------------------------------------------------------------------|------------------------|------|------|------|-----|----|----|-----|-----|-----|-----|--|
|                    |                                                                            | -45°                   | -35° | -25° | -15° | -5° | 0° | 5° | 15° | 25° | 35° | 45° |  |
| GSM1900            | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| WCDMA Band II      | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| WCDMA Band IV      | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| CDMA2000 BC1       | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 2         | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 4         | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 7         | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 25        | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 30        | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 66        | 16mm                                                                       | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |

**Conclusion:** As is shown from the validation data, it can be ensured that the proximity sensor can be valid triggered for the DUT tilt coverage exposure condition.

## 6. RF Exposure Limits

### 6.1 Uncontrolled Environment

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

### 6.2 Controlled Environment

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

**Limits for Occupational/Controlled Exposure (W/kg)**

| Whole-Body | Partial-Body | Hands, Wrists, Feet and Ankles |
|------------|--------------|--------------------------------|
| 0.4        | 8.0          | 20.0                           |

**Limits for General Population/Uncontrolled Exposure (W/kg)**

| Whole-Body | Partial-Body | Hands, Wrists, Feet and Ankles |
|------------|--------------|--------------------------------|
| 0.08       | 1.6          | 4.0                            |

Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

## **7. Specific Absorption Rate (SAR)**

### **7.1 Introduction**

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

### **7.2 SAR Definition**

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

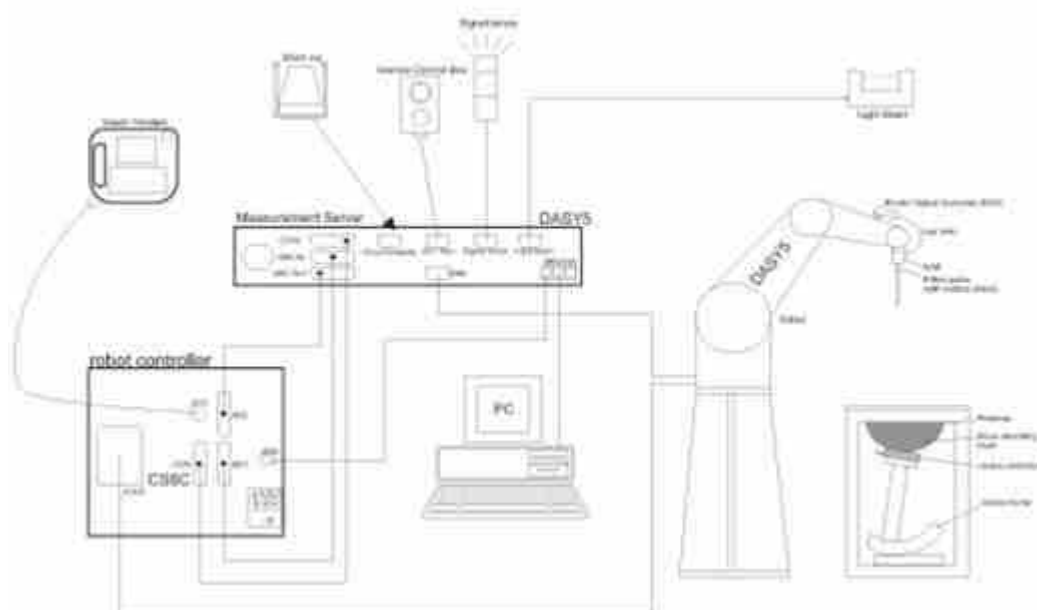
SAR is expressed in units of Watts per kilogram (W/kg)

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

## 8. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

## 8.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

### <ES3DV3 Probe>

|                      |                                                                                                                                                                                  |                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Construction</b>  | Symmetric design with triangular core<br>Interleaved sensors<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to organic solvents, e.g., DGBE) |  |
| <b>Frequency</b>     | 10 MHz – 4 GHz;<br>Linearity: $\pm 0.2$ dB (30 MHz – 4 GHz)                                                                                                                      |                                                                                    |
| <b>Directivity</b>   | $\pm 0.2$ dB in TSL (rotation around probe axis)<br>$\pm 0.3$ dB in TSL (rotation normal to probe axis)                                                                          |                                                                                    |
| <b>Dynamic Range</b> | 5 $\mu$ W/g – >100 mW/g;<br>Linearity: $\pm 0.2$ dB                                                                                                                              |                                                                                    |
| <b>Dimensions</b>    | Overall length: 337 mm (tip: 20 mm)<br>Tip diameter: 3.9 mm (body: 12 mm)<br>Distance from probe tip to dipole centers: 3.0 mm                                                   |                                                                                    |

### <EX3DV4 Probe>

|                      |                                                                                                                                                           |                                                                                     |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Construction</b>  | Symmetric design with triangular core<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to organic solvents, e.g., DGBE) |  |
| <b>Frequency</b>     | 10 MHz – >6 GHz<br>Linearity: $\pm 0.2$ dB (30 MHz – 6 GHz)                                                                                               |                                                                                     |
| <b>Directivity</b>   | $\pm 0.3$ dB in TSL (rotation around probe axis)<br>$\pm 0.5$ dB in TSL (rotation normal to probe axis)                                                   |                                                                                     |
| <b>Dynamic Range</b> | 10 $\mu$ W/g – >100 mW/g<br>Linearity: $\pm 0.2$ dB (noise: typically <1 $\mu$ W/g)                                                                       |                                                                                     |
| <b>Dimensions</b>    | Overall length: 337 mm (tip: 20 mm)<br>Tip diameter: 2.5 mm (body: 12 mm)<br>Typical distance from probe tip to dipole centers: 1 mm                      |                                                                                     |

## 8.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



**Photo of DAE**

### 8.3 Phantom

#### <SAM Twin Phantom>

|                          |                                                         |                                                                                    |
|--------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Shell Thickness</b>   | 2 ± 0.2 mm;<br>Center ear point: 6 ± 0.2 mm             |  |
| <b>Filling Volume</b>    | Approx. 25 liters                                       |                                                                                    |
| <b>Dimensions</b>        | Length: 1000 mm; Width: 500 mm; Height: adjustable feet |                                                                                    |
| <b>Measurement Areas</b> | Left Hand, Right Hand, Flat Phantom                     |                                                                                    |

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

#### <ELI Phantom>

|                        |                                                  |                                                                                     |
|------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Shell Thickness</b> | 2 ± 0.2 mm (sagging: <1%)                        |  |
| <b>Filling Volume</b>  | Approx. 30 liters                                |                                                                                     |
| <b>Dimensions</b>      | Major ellipse axis: 600 mm<br>Minor axis: 400 mm |                                                                                     |

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

## **8.4 Device Holder**

### **<Mounting Device for Hand-Held Transmitter>**

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

### **<Mounting Device for Laptops and other Body-Worn Transmitters>**

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



Mounting Device for Laptops

## **9. Measurement Procedures**

The measurement procedures are as follows:

### <Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

### <SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- (b) Place the EUT in the positions as Appendix D demonstrates.
- (c) Set scan area, grid size and other setting on the DASY software.
- (d) Measure SAR results for the highest power channel on each testing position.
- (e) Find out the largest SAR result on these testing positions of each band
- (f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

### **9.1 Spatial Peak SAR Evaluation**

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

## 9.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

## 9.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

|                                                                                                        | $\leq 3$ GHz                                                                                                                                                                                                                                                           | $> 3$ GHz                                              |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | $5 \pm 1$ mm                                                                                                                                                                                                                                                           | $\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm     |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location              | $30^\circ \pm 1^\circ$                                                                                                                                                                                                                                                 | $20^\circ \pm 1^\circ$                                 |
| Maximum area scan spatial resolution: $\Delta x_{Area}$ , $\Delta y_{Area}$                            | $\leq 2$ GHz: $\leq 15$ mm<br>$2 - 3$ GHz: $\leq 12$ mm                                                                                                                                                                                                                | $3 - 4$ GHz: $\leq 12$ mm<br>$4 - 6$ GHz: $\leq 10$ mm |
|                                                                                                        | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device. |                                                        |

## 9.4 Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

|                                                                                                                                                                                                                                                                                                             |                                           |                                                                                             | $\leq 3$ GHz                                         | $> 3$ GHz                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------|
| Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$                                                                                                                                                                                                                      |                                           |                                                                                             | $\leq 2$ GHz: $\leq 8$ mm<br>2 – 3 GHz: $\leq 5$ mm* | 3 – 4 GHz: $\leq 5$ mm*<br>4 – 6 GHz: $\leq 4$ mm*                            |
| Maximum zoom scan spatial resolution, normal to phantom surface                                                                                                                                                                                                                                             | uniform grid: $\Delta z_{\text{Zoom}}(n)$ |                                                                                             | $\leq 5$ mm                                          | 3 – 4 GHz: $\leq 4$ mm<br>4 – 5 GHz: $\leq 3$ mm<br>5 – 6 GHz: $\leq 2$ mm    |
|                                                                                                                                                                                                                                                                                                             | graded grid                               | $\Delta z_{\text{Zoom}}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface | $\leq 4$ mm                                          | 3 – 4 GHz: $\leq 3$ mm<br>4 – 5 GHz: $\leq 2.5$ mm<br>5 – 6 GHz: $\leq 2$ mm  |
|                                                                                                                                                                                                                                                                                                             |                                           | $\Delta z_{\text{Zoom}}(n>1)$ : between subsequent points                                   | $\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$         |                                                                               |
| Minimum zoom scan volume                                                                                                                                                                                                                                                                                    | x, y, z                                   |                                                                                             | $\geq 30$ mm                                         | 3 – 4 GHz: $\geq 28$ mm<br>4 – 5 GHz: $\geq 25$ mm<br>5 – 6 GHz: $\geq 22$ mm |
| Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.                                                                                                                                                           |                                           |                                                                                             |                                                      |                                                                               |
| * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is $\leq 1.4$ W/kg, $\leq 8$ mm, $\leq 7$ mm and $\leq 5$ mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz. |                                           |                                                                                             |                                                      |                                                                               |

## 9.5 Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

## 9.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASYS measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

## 10. Test Equipment List

| Manufacturer | Name of Equipment               | Type/Model    | Serial Number | Calibration |            |
|--------------|---------------------------------|---------------|---------------|-------------|------------|
|              |                                 |               |               | Last Cal.   | Due Date   |
| SPEAG        | 750MHz System Validation Kit    | D750V3        | 1065          | 2017/12/4   | 2018/12/3  |
| SPEAG        | 835MHz System Validation Kit    | D835V2        | 4d091         | 2017/12/5   | 2018/12/4  |
| SPEAG        | 1750MHz System Validation Kit   | D1750V2       | 1069          | 2017/12/5   | 2018/12/4  |
| SPEAG        | 1900MHz System Validation Kit   | D1900V2       | 5d118         | 2017/12/6   | 2018/12/5  |
| SPEAG        | 2300MHz System Validation Kit   | D2300V2       | 1055          | 2018/9/20   | 2019/9/19  |
| SPEAG        | 2450MHz System Validation Kit   | D2450V2       | 840           | 2017/12/7   | 2018/12/6  |
| SPEAG        | 2600MHz System Validation Kit   | D2600V2       | 1061          | 2017/12/7   | 2018/12/6  |
| SPEAG        | 5000MHz System Validation Kit   | D5GHzV2       | 1203          | 2017/12/14  | 2018/12/13 |
| SPEAG        | Data Acquisition Electronics    | DAE4          | 1210          | 2018/5/28   | 2019/5/27  |
| SPEAG        | Data Acquisition Electronics    | DAE4          | 1358          | 2018/4/19   | 2019/4/18  |
| SPEAG        | Data Acquisition Electronics    | DAE4          | 1305          | 2018/5/11   | 2019/5/10  |
| SPEAG        | Data Acquisition Electronics    | DAE4          | 1279          | 2018/10/22  | 2019/10/21 |
| SPEAG        | Dosimetric E-Field Probe        | EX3DV4        | 3954          | 2018/1/31   | 2019/1/30  |
| SPEAG        | Dosimetric E-Field Probe        | ES3DV3        | 3293          | 2018/10/25  | 2019/10/24 |
| SPEAG        | Dosimetric E-Field Probe        | EX3DV4        | 3843          | 2018/9/27   | 2019/9/26  |
| SPEAG        | Dosimetric E-Field Probe        | EX3DV4        | 3857          | 2018/5/31   | 2019/5/30  |
| SPEAG        | SAM Twin Phantom                | QD 000 P40 CB | TP-1503       | NCR         | NCR        |
| SPEAG        | SAM Twin Phantom                | QD 000 P40 CB | TP-1842       | NCR         | NCR        |
| SPEAG        | Phone Positioner                | N/A           | N/A           | NCR         | NCR        |
| Anritsu      | Radio communication analyzer    | MT8820C       | 6201563900    | 2018/1/26   | 2019/1/25  |
| Agilent      | Wireless Communication Test Set | E5515C        | MY52102706    | 2018/4/17   | 2019/4/16  |
| Agilent      | ENA Series Network Analyzer     | E5071C        | MY46111157    | 2018/4/17   | 2019/4/16  |
| SPEAG        | Dielectric Probe Kit            | DAK-3.5       | 1144          | 2018/1/9    | 2019/1/8   |
| Anritsu      | Vector Signal Generator         | MG3710A       | 6201682672    | 2018/2/6    | 2019/2/5   |
| R&S          | Power Meter                     | NRVD          | 102081        | 2018/8/20   | 2019/8/19  |
| R&S          | Power Sensor                    | NRV-Z5        | 100538        | 2018/8/20   | 2019/8/19  |
| R&S          | Power Sensor                    | NRV-Z5        | 100539        | 2018/8/20   | 2019/8/19  |
| Anritsu      | Power Meter                     | ML2495A       | 1419002       | 2018/5/14   | 2019/5/13  |
| R&S          | CBT BLUETOOTH TESTER            | CBT           | 101246        | 2018/1/26   | 2019/1/25  |
| EXA          | Spectrum Analyzer               | FSV7          | 101632        | 2018/1/26   | 2019/1/25  |
| Testo        | Thermometer                     | 608-H1        | 1241332126    | 2018/8/21   | 2019/8/20  |
| FLUKE        | DIGITAC THERMOMETER             | 51II          | 97240029      | 2018/8/21   | 2019/9/20  |
| ARRA         | Power Divider                   | A3200-2       | N/A           | Note        |            |
| MCL          | Attenuation1                    | BW-S10W5+     | N/A           | Note        |            |
| MCL          | Attenuation2                    | BW-S10W5+     | N/A           | Note        |            |
| MCL          | Attenuation3                    | BW-S10W5+     | N/A           | Note        |            |
| Agilent      | Dual Directional Coupler        | 778D          | 20500         | Note        |            |
| Agilent      | Dual Directional Coupler        | 11691D        | MY48151020    | Note        |            |
| BONN         | POWER AMPLIFIER                 | BLMA 0830-3   | 087193A       | Note        |            |
| BONN         | POWER AMPLIFIER                 | BLMA 2060-2   | 087193B       | Note        |            |

**Note:** Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check.

## 11. System Verification

### 11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.



Fig 11.1 Photo of Liquid Height for Head SAR



Fig 11.2 Photo of Liquid Height for Body SAR

## 11.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

| Frequency (MHz)  | Water (%) | Sugar (%) | Cellulose (%) | Salt (%) | Preventol (%) | DGBE (%) | Conductivity ( $\sigma$ ) | Permittivity ( $\epsilon_r$ ) |
|------------------|-----------|-----------|---------------|----------|---------------|----------|---------------------------|-------------------------------|
| For Head         |           |           |               |          |               |          |                           |                               |
| 750              | 41.1      | 57.0      | 0.2           | 1.4      | 0.2           | 0        | 0.89                      | 41.9                          |
| 835              | 40.3      | 57.9      | 0.2           | 1.4      | 0.2           | 0        | 0.90                      | 41.5                          |
| 1800, 1900, 2000 | 55.2      | 0         | 0             | 0.3      | 0             | 44.5     | 1.40                      | 40.0                          |
| 2450             | 55.0      | 0         | 0             | 0        | 0             | 45.0     | 1.80                      | 39.2                          |
| 2600             | 54.8      | 0         | 0             | 0.1      | 0             | 45.1     | 1.96                      | 39.0                          |
| For Body         |           |           |               |          |               |          |                           |                               |
| 750              | 51.7      | 47.2      | 0             | 0.9      | 0.1           | 0        | 0.96                      | 55.5                          |
| 835              | 50.8      | 48.2      | 0             | 0.9      | 0.1           | 0        | 0.97                      | 55.2                          |
| 1800, 1900, 2000 | 70.2      | 0         | 0             | 0.4      | 0             | 29.4     | 1.52                      | 53.3                          |
| 2450             | 68.6      | 0         | 0             | 0        | 0             | 31.4     | 1.95                      | 52.7                          |
| 2600             | 68.1      | 0         | 0             | 0.1      | 0             | 31.8     | 2.16                      | 52.5                          |

### Simulating Liquid for 5GHz, Manufactured by SPEAG

| Ingredients        | (% by weight) |
|--------------------|---------------|
| Water              | 64~78%        |
| Mineral oil        | 11~18%        |
| Emulsifiers        | 9~15%         |
| Additives and Salt | 2~3%          |

### <Tissue Dielectric Parameter Check Results>

| Frequency (MHz) | Tissue Type | Liquid Temp. (°C) | Conductivity ( $\sigma$ ) | Permittivity ( $\epsilon_r$ ) | Conductivity Target ( $\sigma$ ) | Permittivity Target ( $\epsilon_r$ ) | Delta ( $\sigma$ ) (%) | Delta ( $\epsilon_r$ ) (%) | Limit (%) | Date       |
|-----------------|-------------|-------------------|---------------------------|-------------------------------|----------------------------------|--------------------------------------|------------------------|----------------------------|-----------|------------|
| 750             | Head        | 22.8              | 0.903                     | 42.105                        | 0.89                             | 41.90                                | 1.46                   | 0.49                       | ±5        | 2018/11/15 |
| 835             | Head        | 22.7              | 0.908                     | 42.255                        | 0.90                             | 41.50                                | 0.89                   | 1.82                       | ±5        | 2018/11/18 |
| 1750            | Head        | 22.7              | 1.346                     | 40.243                        | 1.37                             | 40.10                                | -1.75                  | 0.36                       | ±5        | 2018/11/19 |
| 1900            | Head        | 22.6              | 1.373                     | 39.730                        | 1.40                             | 40.00                                | -1.93                  | -0.68                      | ±5        | 2018/11/20 |
| 2300            | Head        | 22.7              | 1.691                     | 39.267                        | 1.67                             | 39.50                                | 1.26                   | -0.59                      | ±5        | 2018/11/19 |
| 2450            | Head        | 22.6              | 1.864                     | 39.568                        | 1.80                             | 39.20                                | 3.56                   | 0.94                       | ±5        | 2018/11/29 |
| 2600            | Head        | 22.7              | 2.037                     | 38.062                        | 1.96                             | 39.00                                | 3.93                   | -2.41                      | ±5        | 2018/11/19 |
| 5250            | Head        | 22.7              | 4.678                     | 36.999                        | 4.71                             | 35.90                                | -0.68                  | 3.06                       | ±5        | 2018/12/1  |
| 5600            | Head        | 22.7              | 5.037                     | 36.493                        | 5.07                             | 35.50                                | -0.65                  | 2.80                       | ±5        | 2018/12/1  |
| 5750            | Head        | 22.7              | 5.200                     | 36.307                        | 5.22                             | 35.40                                | -0.38                  | 2.56                       | ±5        | 2018/12/1  |
| 750             | Body        | 22.8              | 0.987                     | 56.991                        | 0.96                             | 55.50                                | 2.81                   | 2.69                       | ±5        | 2018/11/16 |
| 835             | Body        | 22.7              | 0.995                     | 55.432                        | 0.97                             | 55.20                                | 2.58                   | 0.42                       | ±5        | 2018/11/17 |
| 1750            | Body        | 22.7              | 1.444                     | 54.472                        | 1.49                             | 53.40                                | -3.09                  | 2.01                       | ±5        | 2018/11/22 |
| 1900            | Body        | 22.6              | 1.534                     | 51.650                        | 1.52                             | 53.30                                | 0.92                   | -3.10                      | ±5        | 2018/11/21 |
| 2300            | Body        | 22.9              | 1.791                     | 54.740                        | 1.81                             | 52.90                                | -1.05                  | 3.48                       | ±5        | 2018/11/22 |
| 2450            | Body        | 22.6              | 1.959                     | 53.660                        | 1.95                             | 52.70                                | 0.46                   | 1.82                       | ±5        | 2018/11/28 |
| 2600            | Body        | 22.6              | 2.179                     | 51.029                        | 2.16                             | 52.50                                | 0.88                   | -2.80                      | ±5        | 2018/11/23 |
| 5250            | Body        | 22.8              | 5.519                     | 47.829                        | 5.36                             | 48.90                                | 2.97                   | -2.19                      | ±5        | 2018/12/2  |
| 5600            | Body        | 22.8              | 5.978                     | 47.240                        | 5.77                             | 48.50                                | 3.60                   | -2.60                      | ±5        | 2018/12/2  |
| 5750            | Body        | 22.8              | 6.188                     | 46.946                        | 5.94                             | 48.30                                | 4.18                   | -2.80                      | ±5        | 2018/12/2  |

### 11.3 System Performance Check Results

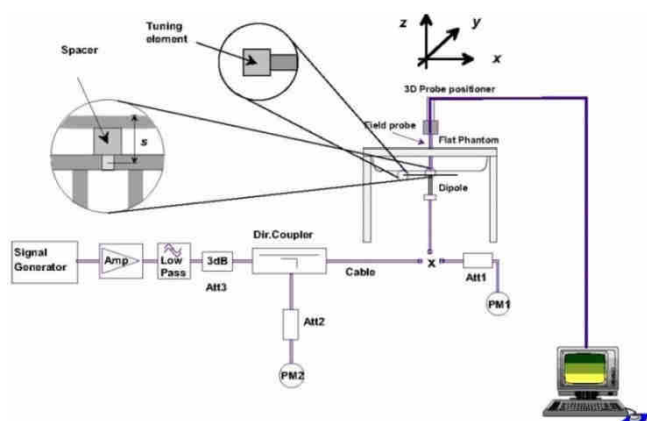
Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

#### <1g SAR>

| Date       | Frequency (MHz) | Tissue Type | Input Power (mW) | Dipole S/N | Probe S/N | DAE S/N | Measured 1g SAR (W/kg) | Targeted 1g SAR (W/kg) | Normalized 1g SAR (W/kg) | Deviation (%) |
|------------|-----------------|-------------|------------------|------------|-----------|---------|------------------------|------------------------|--------------------------|---------------|
| 2018/11/15 | 750             | Head        | 250              | 1065       | 3293      | 1358    | 2.17                   | 8.33                   | 8.68                     | 4.20          |
| 2018/11/18 | 835             | Head        | 250              | 4d091      | 3293      | 1358    | 2.29                   | 9.48                   | 9.16                     | -3.38         |
| 2018/11/19 | 1750            | Head        | 250              | 1069       | 3954      | 1210    | 9.79                   | 37.00                  | 39.16                    | 5.84          |
| 2018/11/20 | 1900            | Head        | 250              | 5d118      | 3954      | 1210    | 10.60                  | 39.70                  | 42.40                    | 6.80          |
| 2018/11/19 | 2300            | Head        | 250              | 1055       | 3954      | 1210    | 11.60                  | 48.70                  | 46.40                    | -4.72         |
| 2018/11/29 | 2450            | Head        | 250              | 840        | 3843      | 1305    | 12.10                  | 52.60                  | 48.40                    | -7.98         |
| 2018/11/19 | 2600            | Head        | 250              | 1061       | 3954      | 1210    | 14.20                  | 58.20                  | 56.80                    | -2.41         |
| 2018/12/1  | 5250            | Head        | 100              | 1203       | 3857      | 1279    | 8.19                   | 80.80                  | 81.90                    | 1.36          |
| 2018/12/1  | 5600            | Head        | 100              | 1203       | 3857      | 1279    | 8.02                   | 84.10                  | 80.20                    | -4.64         |
| 2018/12/1  | 5750            | Head        | 100              | 1203       | 3857      | 1279    | 8.20                   | 80.50                  | 82.00                    | 1.86          |
| 2018/11/16 | 750             | Body        | 250              | 1065       | 3954      | 1210    | 2.25                   | 8.72                   | 9.00                     | 3.21          |
| 2018/11/17 | 835             | Body        | 250              | 4d091      | 3954      | 1210    | 2.33                   | 9.72                   | 9.32                     | -4.12         |
| 2018/11/22 | 1750            | Body        | 250              | 1069       | 3954      | 1210    | 9.01                   | 38.00                  | 36.04                    | -5.16         |
| 2018/11/21 | 1900            | Body        | 250              | 5d118      | 3954      | 1210    | 9.60                   | 40.40                  | 38.40                    | -4.95         |
| 2018/11/22 | 2300            | Body        | 250              | 1055       | 3954      | 1210    | 11.90                  | 47.60                  | 47.60                    | 0.00          |
| 2018/11/28 | 2450            | Body        | 250              | 840        | 3843      | 1305    | 12.90                  | 51.90                  | 51.60                    | -0.58         |
| 2018/11/23 | 2600            | Body        | 250              | 1061       | 3954      | 1210    | 13.30                  | 56.40                  | 53.20                    | -5.67         |
| 2018/12/2  | 5250            | Body        | 100              | 1203       | 3857      | 1279    | 7.15                   | 77.50                  | 71.50                    | -7.74         |
| 2018/12/2  | 5600            | Body        | 100              | 1203       | 3857      | 1279    | 7.80                   | 79.30                  | 78.00                    | -1.64         |
| 2018/12/2  | 5750            | Body        | 100              | 1203       | 3857      | 1279    | 7.88                   | 76.80                  | 78.80                    | 2.60          |

**<10g SAR>**

| Date       | Frequency (MHz) | Tissue Type | Input Power (mW) | Dipole S/N | Probe S/N | DAE S/N | Measured 10g SAR (W/kg) | Targeted 10g SAR (W/kg) | Normalized 10g SAR (W/kg) | Deviation (%) |
|------------|-----------------|-------------|------------------|------------|-----------|---------|-------------------------|-------------------------|---------------------------|---------------|
| 2018/11/22 | 1750            | Body        | 250              | 1069       | 3954      | 1210    | 4.99                    | 20.30                   | 19.96                     | -1.67         |
| 2018/11/21 | 1900            | Body        | 250              | 5d118      | 3954      | 1210    | 5.20                    | 21.10                   | 20.80                     | -1.42         |
| 2018/11/22 | 2300            | Body        | 250              | 1055       | 3954      | 1210    | 6.00                    | 22.60                   | 24.00                     | 6.19          |
| 2018/11/23 | 2600            | Body        | 250              | 1061       | 3954      | 1210    | 6.06                    | 25.00                   | 24.24                     | -3.04         |
| 2018/12/2  | 5250            | Body        | 100              | 1203       | 3857      | 1279    | 1.99                    | 21.50                   | 19.90                     | -7.44         |
| 2018/12/2  | 5600            | Body        | 100              | 1203       | 3857      | 1279    | 2.15                    | 22.10                   | 21.50                     | -2.71         |



**Fig 11.3.1 System Performance Check Setup**

**Fig 11.3.2 Setup Photo**

## 12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width  $w_t$  of the handset at the level of the acoustic output (point A in Figure 12.2.1 and Figure 12.2.2), and the midpoint of the width  $w_b$  of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

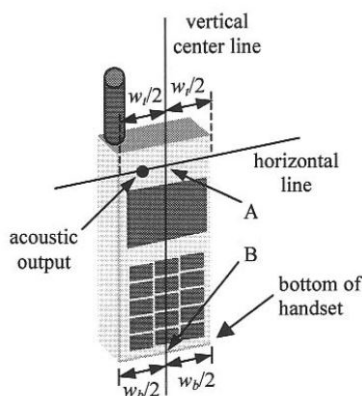


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

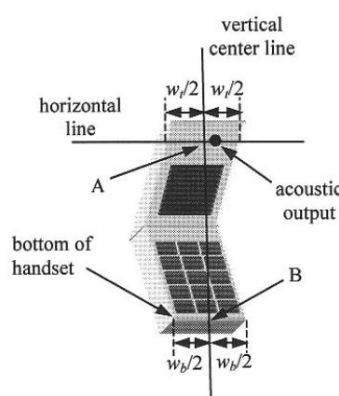


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

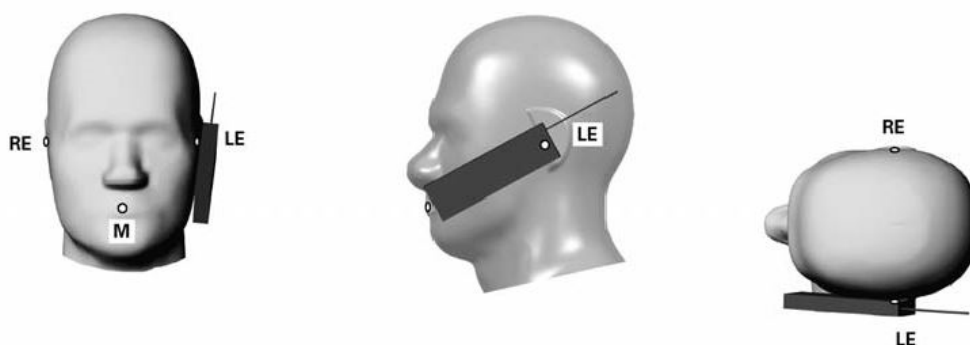
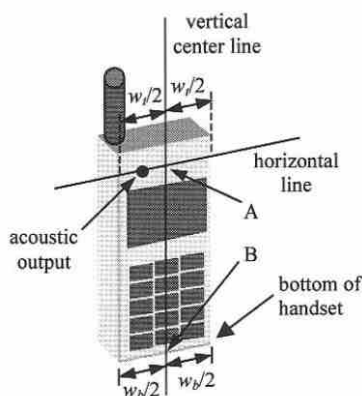


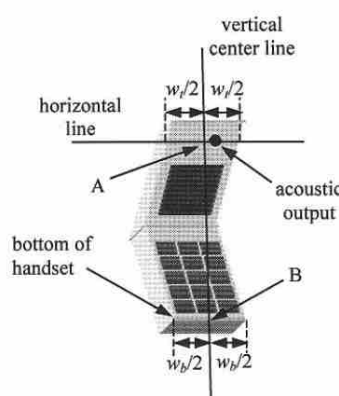
Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

## 12.2 Definition of the cheek position

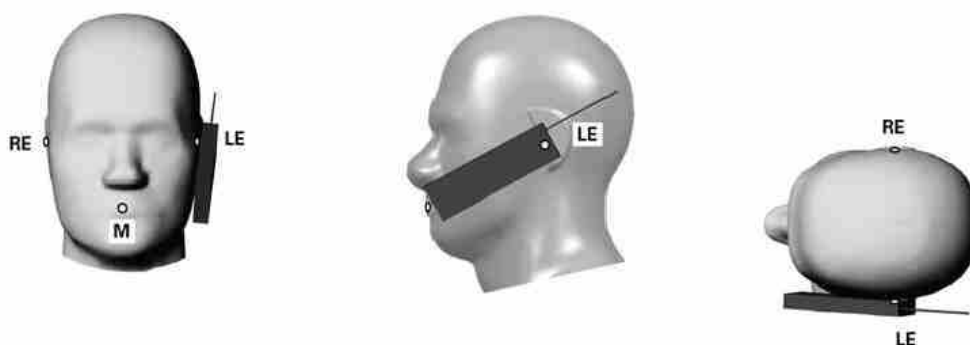
1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width  $w_t$  of the handset at the level of the acoustic output (point A in Figure 12.2.1 and Figure 12.2.2), and the midpoint of the width  $w_b$  of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.



**Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”**



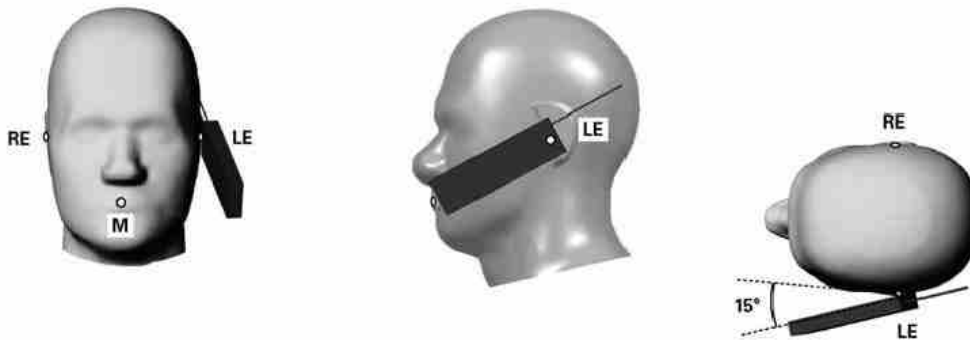
**Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”**



**Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.**

### **12.3 Definition of the tilt position**

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 12.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

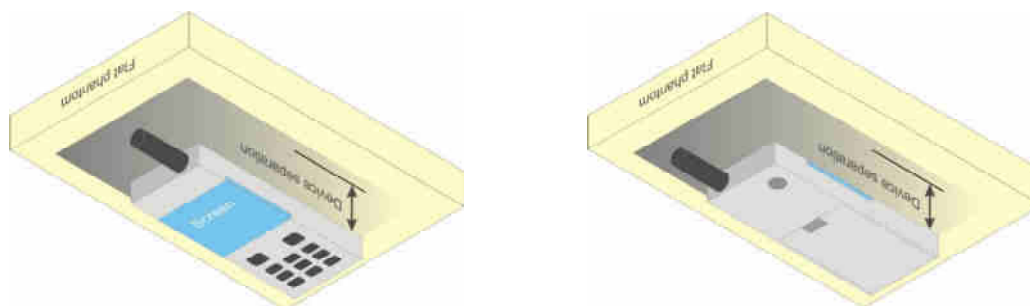


**Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.**

## 12.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 9.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is  $> 1.2 \text{ W/kg}$ , the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters) only the accessory that dictates the closest spacing to the body is tested.



**Fig 12.4 Body Worn Position**

### **12.5 Product Specific 10g SAR Exposure**

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

### **12.6 Wireless Router**

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ( $L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$ ) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

### 13. Conducted RF Output Power (Unit: dBm)

#### <GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS 4Tx slots for GSM850/GSM1900 are considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.
4. Power reduction which is triggered by hotspot mode/p-sensor on/handheld on are implemented in GSM1900 band, for SAR testing EUT was set in reduced power mode and GPRS 4 Tx slots due to its highest frame-average power.

#### <Full Power Mode>

| GSM850          | Burst Average Power (dBm) |       |       | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |       | Tune-up Limit (dBm) |
|-----------------|---------------------------|-------|-------|---------------------|---------------------------|-------|-------|---------------------|
| Tx Channel      | 128                       | 189   | 251   |                     | 128                       | 189   | 251   |                     |
| Frequency (MHz) | 824.2                     | 836.4 | 848.8 |                     | 824.2                     | 836.4 | 848.8 |                     |
| GSM 1 Tx slot   | 32.44                     | 32.34 | 32.44 | 33.50               | 23.44                     | 23.34 | 23.44 | 24.50               |
| GPRS 1 Tx slot  | 32.42                     | 32.32 | 32.42 | 33.50               | 23.42                     | 23.32 | 23.42 | 24.50               |
| GPRS 2 Tx slots | 29.58                     | 29.58 | 29.57 | 30.50               | 23.58                     | 23.58 | 23.57 | 24.50               |
| GPRS 3 Tx slots | 27.53                     | 27.48 | 27.52 | 28.75               | 23.27                     | 23.22 | 23.26 | 24.49               |
| GPRS 4 Tx slots | 26.12                     | 26.03 | 26.09 | 27.50               | 23.12                     | 23.03 | 23.09 | 24.50               |
| EDGE 1 Tx slot  | 26.24                     | 26.21 | 26.18 | 28.00               | 17.24                     | 17.21 | 17.18 | 19.00               |
| EDGE 2 Tx slots | 26.05                     | 26.02 | 26.02 | 28.00               | 20.05                     | 20.02 | 20.02 | 22.00               |
| EDGE 3 Tx slots | 24.42                     | 24.35 | 24.29 | 26.25               | 20.16                     | 20.09 | 20.03 | 21.99               |
| EDGE 4 Tx slots | 23.01                     | 23.10 | 23.09 | 25.00               | 20.01                     | 20.10 | 20.09 | 22.00               |

**Remark:** The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.

The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Frame-averaged power = Maximum burst averaged power (2 Tx Slots) - 6 dB

Frame-averaged power = Maximum burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Maximum burst averaged power (4 Tx Slots) - 3 dB

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up Limit (dBm) | Frame-Average Power (dBm) |       |        | Tune-up Limit (dBm) |
|-----------------|---------------------------|-------|--------|---------------------|---------------------------|-------|--------|---------------------|
| Tx Channel      | 512                       | 661   | 810    |                     | 512                       | 661   | 810    |                     |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                     | 1850.2                    | 1880  | 1909.8 |                     |
| GSM 1 Tx slot   | 29.50                     | 29.44 | 29.45  | 30.50               | 20.50                     | 20.44 | 20.45  | 21.50               |
| GPRS 1 Tx slot  | 29.48                     | 29.44 | 29.45  | 30.50               | 20.48                     | 20.44 | 20.45  | 21.50               |
| GPRS 2 Tx slots | 27.35                     | 27.19 | 27.15  | 27.50               | 21.35                     | 21.19 | 21.15  | 21.50               |
| GPRS 3 Tx slots | 25.44                     | 25.32 | 25.25  | 25.75               | 21.18                     | 21.06 | 20.99  | 21.49               |
| GPRS 4 Tx slots | 24.09                     | 23.89 | 23.85  | 24.50               | 21.09                     | 20.89 | 20.85  | 21.50               |
| EDGE 1 Tx slot  | 25.63                     | 25.48 | 25.44  | 26.00               | 16.63                     | 16.48 | 16.44  | 17.00               |
| EDGE 2 Tx slots | 25.54                     | 25.36 | 25.32  | 26.00               | 19.54                     | 19.36 | 19.32  | 20.00               |
| EDGE 3 Tx slots | 24.15                     | 23.95 | 23.87  | 24.25               | 19.89                     | 19.69 | 19.61  | 19.99               |
| EDGE 4 Tx slots | 22.74                     | 22.58 | 22.46  | 23.00               | 19.74                     | 19.58 | 19.46  | 20.00               |

**Remark:** The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.

The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Frame-averaged power = Maximum burst averaged power (2 Tx Slots) - 6 dB

Frame-averaged power = Maximum burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Maximum burst averaged power (4 Tx Slots) - 3 dB

**<Reduced Power Mode for P-Sensor On>**

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) | Frame-Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|---------------------------|-------|--------|---------------------------|---------------------------|-------|--------|---------------------------|
| Tx Channel      | 512                       | 661   | 810    |                           | 512                       | 661   | 810    |                           |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                           | 1850.2                    | 1880  | 1909.8 |                           |
| GSM 1 Tx slot   | 25.59                     | 25.48 | 25.37  | 26.50                     | 16.59                     | 16.48 | 16.37  | 17.50                     |
| GPRS 1 Tx slot  | 25.58                     | 25.46 | 25.36  | 26.50                     | 16.58                     | 16.46 | 16.36  | 17.50                     |
| GPRS 2 Tx slots | 23.19                     | 23.01 | 22.97  | 23.50                     | 17.19                     | 17.01 | 16.97  | 17.50                     |
| GPRS 3 Tx slots | 21.24                     | 21.05 | 21.02  | 21.75                     | 16.98                     | 16.79 | 16.76  | 17.49                     |
| GPRS 4 Tx slots | 19.88                     | 19.72 | 19.62  | 20.50                     | 16.88                     | 16.72 | 16.62  | 17.50                     |
| EDGE 1 Tx slot  | 21.95                     | 21.94 | 21.79  | 22.00                     | 12.95                     | 12.94 | 12.79  | 13.00                     |
| EDGE 2 Tx slots | 21.88                     | 21.81 | 21.62  | 22.00                     | 15.88                     | 15.81 | 15.62  | 16.00                     |
| EDGE 3 Tx slots | 19.91                     | 19.85 | 19.73  | 20.25                     | 15.65                     | 15.59 | 15.47  | 15.99                     |
| EDGE 4 Tx slots | 18.51                     | 18.45 | 18.31  | 19.00                     | 15.51                     | 15.45 | 15.31  | 16.00                     |

**Remark:** The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.

The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Frame-averaged power = Maximum burst averaged power (2 Tx Slots) - 6 dB

Frame-averaged power = Maximum burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Maximum burst averaged power (4 Tx Slots) - 3 dB

**<Reduced Power Mode for Hotspot On>**

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) | Frame-Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|---------------------------|-------|--------|---------------------------|---------------------------|-------|--------|---------------------------|
| Tx Channel      | 512                       | 661   | 810    |                           | 512                       | 661   | 810    |                           |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                           | 1850.2                    | 1880  | 1909.8 |                           |
| GSM 1 Tx slot   | 23.53                     | 23.43 | 23.29  | 24.50                     | 14.53                     | 14.43 | 14.29  | 15.50                     |
| GPRS 1 Tx slot  | 23.51                     | 23.40 | 23.27  | 24.50                     | 14.51                     | 14.40 | 14.27  | 15.50                     |
| GPRS 2 Tx slots | 21.08                     | 20.91 | 20.98  | 21.50                     | 15.08                     | 14.91 | 14.98  | 15.50                     |
| GPRS 3 Tx slots | 19.11                     | 19.04 | 18.98  | 19.75                     | 14.85                     | 14.78 | 14.72  | 15.49                     |
| GPRS 4 Tx slots | 17.86                     | 17.61 | 17.50  | 18.50                     | 14.86                     | 14.61 | 14.50  | 15.50                     |
| EDGE 1 Tx slot  | 19.98                     | 19.92 | 19.80  | 20.00                     | 10.98                     | 10.92 | 10.80  | 11.00                     |
| EDGE 2 Tx slots | 19.83                     | 19.71 | 19.63  | 20.00                     | 13.83                     | 13.71 | 13.63  | 14.00                     |
| EDGE 3 Tx slots | 18.04                     | 17.96 | 17.77  | 18.25                     | 13.78                     | 13.70 | 13.51  | 13.99                     |
| EDGE 4 Tx slots | 16.99                     | 16.98 | 16.90  | 17.00                     | 13.99                     | 13.98 | 13.90  | 14.00                     |

**Remark:** The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.

The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Frame-averaged power = Maximum burst averaged power (2 Tx Slots) - 6 dB

Frame-averaged power = Maximum burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Maximum burst averaged power (4 Tx Slots) - 3 dB

### <Reduced Power Mode for Handheld On>

| GSM1900         | Burst Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) | Frame-Average Power (dBm) |       |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|---------------------------|-------|--------|---------------------------|---------------------------|-------|--------|---------------------------|
| Tx Channel      | 512                       | 661   | 810    |                           | 512                       | 661   | 810    |                           |
| Frequency (MHz) | 1850.2                    | 1880  | 1909.8 |                           | 1850.2                    | 1880  | 1909.8 |                           |
| GSM 1 Tx slot   | 28.66                     | 28.47 | 28.45  | 29.50                     | 19.66                     | 19.47 | 19.45  | 20.50                     |
| GPRS 1 Tx slot  | 28.65                     | 28.46 | 28.43  | 29.50                     | 19.65                     | 19.46 | 19.43  | 20.50                     |
| GPRS 2 Tx slots | 26.23                     | 26.09 | 26.04  | 26.50                     | 20.23                     | 20.09 | 20.04  | 20.50                     |
| GPRS 3 Tx slots | 24.26                     | 24.23 | 24.13  | 24.75                     | 20.00                     | 19.97 | 19.87  | 20.49                     |
| GPRS 4 Tx slots | 22.88                     | 22.71 | 22.57  | 23.50                     | 19.88                     | 19.71 | 19.57  | 20.50                     |
| EDGE 1 Tx slot  | 24.95                     | 24.87 | 24.83  | 25.00                     | 15.95                     | 15.87 | 15.83  | 16.00                     |
| EDGE 2 Tx slots | 24.88                     | 24.73 | 24.65  | 25.00                     | 18.88                     | 18.73 | 18.65  | 19.00                     |
| EDGE 3 Tx slots | 22.94                     | 22.88 | 22.73  | 23.25                     | 18.68                     | 18.62 | 18.47  | 18.99                     |
| EDGE 4 Tx slots | 21.52                     | 21.43 | 21.35  | 22.00                     | 18.52                     | 18.43 | 18.35  | 19.00                     |

**Remark:** The frame-averaged power is linearly scaled the maximum burst averaged power over 8 time slots.

The calculated method are shown as below:

Frame-averaged power = Maximum burst averaged power (1 Tx Slot) - 9 dB

Frame-averaged power = Maximum burst averaged power (2 Tx Slots) - 6 dB

Frame-averaged power = Maximum burst averaged power (3 Tx Slots) - 4.26 dB

Frame-averaged power = Maximum burst averaged power (4 Tx Slots) - 3 dB

**<WCDMA Conducted Power>**

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

**HSDPA Setup Configuration:**

- a. The EUT was connected to Base Station referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each
  - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
  - iii. Set RMC 12.2Kbps + HSDPA mode.
  - iv. Set Cell Power = -86 dBm
  - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
  - vi. Select HSDPA Uplink Parameters
  - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
  - viii. Set Ack-Nack Repetition Factor to 3
  - ix. Set CQI Feedback Cycle (k) to 4 ms
  - x. Set CQI Repetition Factor to 2
  - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

| Sub-test | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_c/\beta_d$ | $\beta_{HS}$<br>(Note 1,<br>Note 2) | CM (dB)<br>(Note 3) | MPR (dB)<br>(Note 3) |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------------------------|---------------------|----------------------|
| 1        | 2/15              | 15/15             | 64                | 2/15              | 4/15                                | 0.0                 | 0.0                  |
| 2        | 12/15<br>(Note 4) | 15/15<br>(Note 4) | 64                | 12/15<br>(Note 4) | 24/15                               | 1.0                 | 0.0                  |
| 3        | 15/15             | 8/15              | 64                | 15/8              | 30/15                               | 1.5                 | 0.5                  |
| 4        | 15/15             | 4/15              | 64                | 15/4              | 30/15                               | 1.5                 | 0.5                  |

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

**Setup Configuration**

## HSUPA Setup Configuration:

- The EUT was connected to Base Station referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting \* :
  - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
  - Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
  - Set Cell Power = -86 dBm
  - Set Channel Type = 12.2k + HSPA
  - Set UE Target Power
  - Power Ctrl Mode= Alternating bits
  - Set and observe the E-TFCI
  - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- The transmitted maximum output power was recorded.

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

| Sub-test | $\beta_c$      | $\beta_d$      | $\beta_{sf}$ (SF) | $\beta_{sf}/\beta_d$ | $\beta_{HS}$ (Note 1) | $\beta_{bc}$ | $\beta_{ed}$ (Note 4) (Note 5)                 | $\beta_{ed}$ (SF) | $\beta_{ed}$ (Codes) | CM (dB) (Note 2) | MPR (dB) (Note 2) (Note 6) | AG Index (Note 5) | E-TFCI |
|----------|----------------|----------------|-------------------|----------------------|-----------------------|--------------|------------------------------------------------|-------------------|----------------------|------------------|----------------------------|-------------------|--------|
| 1        | 11/15 (Note 3) | 15/15 (Note 3) | 64                | 11/15 (Note 3)       | 22/15                 | 209/25       | 1309/225                                       | 4                 | 1                    | 1.0              | 0.0                        | 20                | 75     |
| 2        | 6/15           | 15/15          | 64                | 6/15                 | 12/15                 | 12/15        | 94/75                                          | 4                 | 1                    | 3.0              | 2.0                        | 12                | 67     |
| 3        | 15/15          | 9/15           | 64                | 15/9                 | 30/15                 | 30/15        | $\beta_{ed1}$ : 47/15<br>$\beta_{ed2}$ : 47/15 | 4                 | 2                    | 2.0              | 1.0                        | 15                | 92     |
| 4        | 2/15           | 15/15          | 64                | 2/15                 | 4/15                  | 2/15         | 56/75                                          | 4                 | 1                    | 3.0              | 2.0                        | 17                | 71     |
| 5        | 15/15          | 0              | -                 | -                    | 5/15                  | 5/15         | 47/15                                          | 4                 | 1                    | 1.0              | 0.0                        | 12                | 67     |

Note 1: For sub-test 1 to 4,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{HS} = 5/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

## Setup Configuration

## DC-HSDPA 3GPP release 8 Setup Configuration:

- The EUT was connected to Base Station referred to the Setup Configuration below
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting:
  - Set RMC 12.2Kbps + HSDPA mode.
  - Set Cell Power = -25 dBm
  - Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
  - Select HSDPA Uplink Parameters
  - Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
    - Subtest 1:  $\beta_c/\beta_d=2/15$
    - Subtest 2:  $\beta_c/\beta_d=12/15$
    - Subtest 3:  $\beta_c/\beta_d=15/8$
    - Subtest 4:  $\beta_c/\beta_d=15/4$
  - Set Delta ACK, Delta NACK and Delta CQI = 8
  - Set Ack-Nack Repetition Factor to 3
  - Set CQI Feedback Cycle (k) to 4 ms
  - Set CQI Repetition Factor to 2
  - Power Ctrl Mode = All Up bits
- The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

### C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

| Parameter                                                                                                                                              | Unit      | Value |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|
| Nominal Avg. Inf. Bit Rate                                                                                                                             | kbps      | 60    |
| Inter-TTI Distance                                                                                                                                     | TTI's     | 1     |
| Number of HARQ Processes                                                                                                                               | Processes | 6     |
| Information Bit Payload ( $N_{inf}$ )                                                                                                                  | Bits      | 120   |
| Number Code Blocks                                                                                                                                     | Blocks    | 1     |
| Binary Channel Bits Per TTI                                                                                                                            | Bits      | 960   |
| Total Available SML's in UE                                                                                                                            | SML's     | 19200 |
| Number of SML's per HARQ Proc.                                                                                                                         | SML's     | 3200  |
| Coding Rate                                                                                                                                            |           | 0.15  |
| Number of Physical Channel Codes                                                                                                                       | Codes     | 1     |
| Modulation                                                                                                                                             |           | QPSK  |
| Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.               |           |       |
| Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used. |           |       |

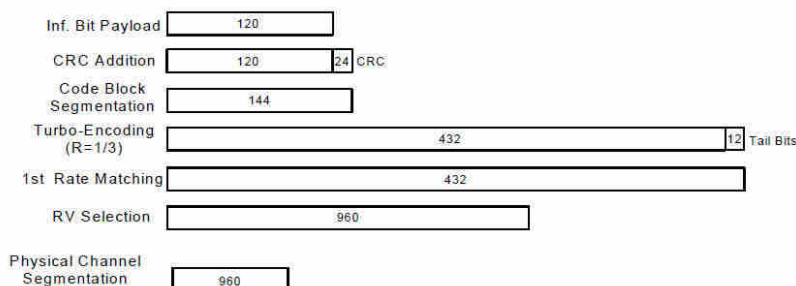


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

## Setup Configuration

**<WCDMA Conducted Power>**
**General Note:**

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is  $\leq \frac{1}{4}$  dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than  $\frac{1}{4}$  dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

**<Full Power Mode>**

| Band            |                    | WCDMA Band II |       |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |        |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band V |       |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|--------------------|---------------|-------|--------|---------------------------|---------------|--------|--------|---------------------------|--------------|-------|-------|---------------------------|
| Tx Channel      |                    | 9262          | 9400  | 9538   |                           | 1312          | 1413   | 1513   |                           | 4132         | 4182  | 4233  |                           |
| Rx Channel      |                    | 9662          | 9800  | 9938   |                           | 1537          | 1638   | 1738   |                           | 4357         | 4407  | 4458  |                           |
| Frequency (MHz) |                    | 1852.4        | 1880  | 1907.6 |                           | 1712.4        | 1732.6 | 1752.6 |                           | 826.4        | 836.4 | 846.6 |                           |
| 3GPP Rel 99     | AMR 12.2Kbps       | 23.02         | 22.92 | 22.82  | 24.00                     | 22.35         | 22.48  | 22.68  | 24.00                     | 23.20        | 23.06 | 23.24 | 24.00                     |
| 3GPP Rel 99     | RMC 12.2Kbps       | 23.03         | 22.94 | 22.83  | 24.00                     | 22.35         | 22.50  | 22.69  | 24.00                     | 23.21        | 23.08 | 23.26 | 24.00                     |
| 3GPP Rel 6      | HSDPA Subtest-1    | 22.96         | 22.78 | 22.60  | 23.50                     | 22.25         | 22.29  | 22.50  | 23.50                     | 22.99        | 22.92 | 23.07 | 23.50                     |
| 3GPP Rel 6      | HSDPA Subtest-2    | 22.98         | 22.78 | 22.60  | 23.50                     | 22.29         | 22.30  | 22.50  | 23.50                     | 23.01        | 22.91 | 23.07 | 23.50                     |
| 3GPP Rel 6      | HSDPA Subtest-3    | 22.95         | 22.79 | 22.60  | 23.50                     | 22.29         | 22.32  | 22.51  | 23.50                     | 22.91        | 22.81 | 23.08 | 23.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4    | 22.93         | 22.77 | 22.61  | 23.50                     | 22.29         | 22.31  | 22.51  | 23.50                     | 22.92        | 22.82 | 23.05 | 23.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 22.89         | 22.71 | 22.58  | 23.50                     | 22.15         | 22.24  | 22.48  | 23.50                     | 22.89        | 22.89 | 23.01 | 23.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 22.91         | 22.76 | 22.61  | 23.50                     | 22.26         | 22.26  | 22.41  | 23.50                     | 22.90        | 22.91 | 23.05 | 23.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 22.83         | 22.69 | 22.53  | 23.50                     | 22.28         | 22.31  | 22.50  | 23.50                     | 23.01        | 22.78 | 23.05 | 23.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 22.92         | 22.75 | 22.65  | 23.50                     | 22.26         | 22.25  | 22.48  | 23.50                     | 22.89        | 22.85 | 23.01 | 23.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1    | 21.96         | 21.84 | 21.62  | 23.50                     | 21.55         | 21.56  | 21.78  | 23.50                     | 21.89        | 21.79 | 22.08 | 23.50                     |
| 3GPP Rel 6      | HSUPA Subtest-2    | 19.93         | 19.78 | 19.62  | 21.50                     | 19.59         | 19.68  | 19.77  | 21.50                     | 19.89        | 19.84 | 20.07 | 21.50                     |
| 3GPP Rel 6      | HSUPA Subtest-3    | 20.95         | 20.80 | 20.64  | 22.50                     | 20.59         | 20.67  | 20.80  | 22.50                     | 20.93        | 20.78 | 21.06 | 22.50                     |
| 3GPP Rel 6      | HSUPA Subtest-4    | 19.93         | 19.75 | 19.65  | 21.50                     | 19.57         | 19.67  | 19.79  | 21.50                     | 19.94        | 19.80 | 20.09 | 21.50                     |
| 3GPP Rel 6      | HSUPA Subtest-5    | 22.00         | 21.80 | 21.60  | 23.50                     | 21.50         | 21.60  | 21.80  | 23.50                     | 22.00        | 21.80 | 22.10 | 23.50                     |



**<Reduced Power Mode for P-Sensor On>**

| Band            |                    | WCDMA Band II |       |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |        |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band V |       |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|--------------------|---------------|-------|--------|---------------------------|---------------|--------|--------|---------------------------|--------------|-------|-------|---------------------------|
| Tx Channel      |                    | 9262          | 9400  | 9538   |                           | 1312          | 1413   | 1513   |                           | 4132         | 4182  | 4233  |                           |
| Rx Channel      |                    | 9662          | 9800  | 9938   |                           | 1537          | 1638   | 1738   |                           | 4357         | 4407  | 4458  |                           |
| Frequency (MHz) |                    | 1852.4        | 1880  | 1907.6 |                           | 1712.4        | 1732.6 | 1752.6 |                           | 826.4        | 836.4 | 846.6 |                           |
| 3GPP Rel 99     | AMR 12.2Kbps       | 17.55         | 17.42 | 17.25  | 18.50                     | 15.78         | 15.87  | 16.02  | 17.50                     | 22.15        | 22.07 | 22.34 | 23.00                     |
| 3GPP Rel 99     | RMC 12.2Kbps       | 17.79         | 17.74 | 17.62  | 18.50                     | 15.79         | 15.88  | 16.15  | 17.50                     | 22.17        | 22.08 | 22.35 | 23.00                     |
| 3GPP Rel 6      | HSDPA Subtest-1    | 16.58         | 16.36 | 16.10  | 17.50                     | 14.71         | 14.79  | 14.86  | 16.00                     | 20.95        | 20.92 | 21.08 | 22.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2    | 16.51         | 16.34 | 16.09  | 17.50                     | 14.70         | 14.79  | 14.85  | 16.00                     | 20.96        | 20.98 | 21.06 | 22.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3    | 16.09         | 15.84 | 15.59  | 17.00                     | 14.22         | 14.31  | 14.35  | 15.50                     | 20.53        | 20.46 | 20.53 | 21.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4    | 16.08         | 15.83 | 15.62  | 17.00                     | 14.22         | 14.30  | 14.35  | 15.50                     | 20.50        | 20.41 | 20.55 | 21.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 16.51         | 16.28 | 16.13  | 17.50                     | 14.68         | 14.72  | 14.78  | 16.00                     | 20.89        | 20.88 | 21.05 | 22.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 16.53         | 16.29 | 16.21  | 17.50                     | 14.75         | 14.75  | 14.81  | 16.00                     | 20.91        | 20.81 | 21.03 | 22.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 16.04         | 15.85 | 15.63  | 17.00                     | 14.25         | 14.38  | 14.35  | 15.50                     | 20.48        | 20.35 | 20.52 | 21.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 16.09         | 15.81 | 15.63  | 17.00                     | 14.21         | 14.28  | 14.21  | 15.50                     | 20.38        | 20.45 | 20.48 | 21.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1    | 16.58         | 16.37 | 16.14  | 17.50                     | 15.12         | 14.95  | 15.13  | 16.00                     | 21.04        | 20.98 | 21.19 | 22.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2    | 14.61         | 14.39 | 14.13  | 15.50                     | 12.75         | 12.63  | 12.86  | 14.00                     | 19.03        | 18.95 | 18.97 | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3    | 15.58         | 15.39 | 15.15  | 16.50                     | 13.26         | 13.50  | 13.65  | 15.00                     | 20.06        | 19.99 | 20.07 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4    | 14.59         | 14.39 | 14.17  | 15.50                     | 12.71         | 12.72  | 12.88  | 14.00                     | 19.02        | 18.94 | 19.10 | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5    | 16.60         | 16.40 | 16.20  | 17.50                     | 14.80         | 14.70  | 14.90  | 16.00                     | 21.00        | 21.00 | 21.10 | 22.00                     |

**<Reduced Power Mode for Hotspot On>**

| Band            |                    | WCDMA Band II |       |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |        |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band V |       |       | Tune-up<br>Limit<br>(dBm) |
|-----------------|--------------------|---------------|-------|--------|---------------------------|---------------|--------|--------|---------------------------|--------------|-------|-------|---------------------------|
| Tx Channel      |                    | 9262          | 9400  | 9538   |                           | 1312          | 1413   | 1513   |                           | 4132         | 4182  | 4233  |                           |
| Rx Channel      |                    | 9662          | 9800  | 9938   |                           | 1537          | 1638   | 1738   |                           | 4357         | 4407  | 4458  |                           |
| Frequency (MHz) |                    | 1852.4        | 1880  | 1907.6 |                           | 1712.4        | 1732.6 | 1752.6 |                           | 826.4        | 836.4 | 846.6 |                           |
| 3GPP Rel 99     | AMR 12.2Kbps       | 15.81         | 15.76 | 15.51  | 16.50                     | 14.23         | 14.39  | 14.50  | 16.00                     | 22.15        | 22.07 | 22.34 | 23.00                     |
| 3GPP Rel 99     | RMC 12.2Kbps       | 15.82         | 15.78 | 15.52  | 16.50                     | 14.25         | 14.40  | 14.51  | 16.00                     | 22.17        | 22.08 | 22.35 | 23.00                     |
| 3GPP Rel 6      | HSDPA Subtest-1    | 14.59         | 14.37 | 14.17  | 15.50                     | 13.22         | 13.28  | 13.37  | 15.00                     | 20.95        | 20.92 | 21.08 | 22.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2    | 14.57         | 14.40 | 14.16  | 15.50                     | 13.22         | 13.27  | 13.36  | 15.00                     | 20.96        | 20.98 | 21.06 | 22.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3    | 14.06         | 13.87 | 13.66  | 15.00                     | 12.69         | 12.78  | 12.86  | 14.50                     | 20.53        | 20.46 | 20.53 | 21.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4    | 14.05         | 13.89 | 13.66  | 15.00                     | 12.71         | 12.73  | 12.85  | 14.50                     | 20.50        | 20.41 | 20.55 | 21.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 14.38         | 14.38 | 14.18  | 15.50                     | 13.21         | 13.25  | 13.25  | 15.00                     | 20.89        | 20.88 | 21.05 | 22.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 14.45         | 14.39 | 14.23  | 15.50                     | 13.29         | 13.29  | 13.18  | 15.00                     | 20.91        | 20.81 | 21.03 | 22.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 14.01         | 13.81 | 13.69  | 15.00                     | 12.81         | 12.81  | 12.89  | 14.50                     | 20.48        | 20.35 | 20.52 | 21.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 14.03         | 13.95 | 13.68  | 15.00                     | 12.73         | 12.65  | 12.79  | 14.50                     | 20.38        | 20.45 | 20.48 | 21.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1    | 13.68         | 13.59 | 13.60  | 15.50                     | 13.50         | 13.23  | 13.50  | 15.00                     | 21.04        | 20.98 | 21.19 | 22.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2    | 12.57         | 12.37 | 12.20  | 13.50                     | 12.85         | 12.61  | 12.54  | 13.00                     | 19.03        | 18.95 | 18.97 | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3    | 13.86         | 13.40 | 13.40  | 14.50                     | 13.25         | 13.64  | 13.74  | 14.00                     | 20.06        | 19.99 | 20.07 | 21.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4    | 12.56         | 12.39 | 12.15  | 13.50                     | 12.84         | 12.63  | 12.49  | 13.00                     | 19.02        | 18.94 | 19.10 | 20.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5    | 14.60         | 14.40 | 14.20  | 15.50                     | 13.80         | 13.70  | 13.60  | 15.00                     | 21.00        | 21.00 | 21.10 | 22.00                     |



**<Reduced Power Mode for Handheld On>**

| Band            |                    | WCDMA Band II |       |        | Tune-up<br>Limit<br>(dBm) | WCDMA Band IV |        |        | Tune-up<br>Limit<br>(dBm) |
|-----------------|--------------------|---------------|-------|--------|---------------------------|---------------|--------|--------|---------------------------|
| Tx Channel      |                    | 9262          | 9400  | 9538   |                           | 1312          | 1413   | 1513   |                           |
| Rx Channel      |                    | 9662          | 9800  | 9938   |                           | 1537          | 1638   | 1738   |                           |
| Frequency (MHz) |                    | 1852.4        | 1880  | 1907.6 |                           | 1712.4        | 1732.6 | 1752.6 |                           |
| 3GPP Rel 99     | AMR 12.2Kbps       | 20.26         | 20.21 | 19.90  | 20.50                     | 18.34         | 18.36  | 18.52  | 19.50                     |
| 3GPP Rel 99     | RMC 12.2Kbps       | 20.28         | 20.23 | 19.92  | 20.50                     | 18.35         | 18.38  | 18.54  | 19.50                     |
| 3GPP Rel 6      | HSDPA Subtest-1    | 19.04         | 18.90 | 18.62  | 20.00                     | 17.20         | 17.28  | 17.38  | 19.00                     |
| 3GPP Rel 6      | HSDPA Subtest-2    | 19.07         | 18.88 | 18.61  | 20.00                     | 17.20         | 17.29  | 17.41  | 19.00                     |
| 3GPP Rel 6      | HSDPA Subtest-3    | 18.55         | 18.39 | 18.11  | 19.50                     | 16.69         | 16.78  | 16.85  | 18.50                     |
| 3GPP Rel 6      | HSDPA Subtest-4    | 18.53         | 18.38 | 18.10  | 19.50                     | 16.69         | 16.77  | 16.87  | 18.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-1 | 19.01         | 18.92 | 18.61  | 20.00                     | 17.18         | 17.29  | 17.28  | 19.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-2 | 19.13         | 18.95 | 18.58  | 20.00                     | 17.15         | 17.25  | 17.35  | 19.00                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-3 | 18.62         | 18.51 | 18.15  | 19.50                     | 16.72         | 16.71  | 16.92  | 18.50                     |
| 3GPP Rel 8      | DC-HSDPA Subtest-4 | 18.58         | 18.48 | 18.23  | 19.50                     | 16.71         | 16.73  | 16.87  | 18.50                     |
| 3GPP Rel 6      | HSUPA Subtest-1    | 19.11         | 18.92 | 18.67  | 20.00                     | 17.19         | 17.16  | 17.37  | 19.00                     |
| 3GPP Rel 6      | HSUPA Subtest-2    | 17.09         | 16.87 | 16.65  | 18.00                     | 15.16         | 15.16  | 15.34  | 17.00                     |
| 3GPP Rel 6      | HSUPA Subtest-3    | 18.06         | 17.85 | 17.70  | 19.00                     | 16.20         | 16.14  | 16.35  | 18.00                     |
| 3GPP Rel 6      | HSUPA Subtest-4    | 17.12         | 16.89 | 16.70  | 18.00                     | 15.22         | 15.16  | 15.35  | 17.00                     |
| 3GPP Rel 6      | HSUPA Subtest-5    | 19.10         | 18.90 | 18.70  | 20.00                     | 17.20         | 17.20  | 17.40  | 19.00                     |

**<CDMA2000 Conducted Power>**
**General Note:**

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

**<Full Power Mode>**

| Band             | CDMA2000 BC0 |        |        | Tune-up<br>Limit<br>(dBm) | CDMA2000 BC1 |       |         | Tune-up<br>Limit<br>(dBm) | CDMA2000 BC10 |       |       | Tune-up<br>Limit<br>(dBm) |
|------------------|--------------|--------|--------|---------------------------|--------------|-------|---------|---------------------------|---------------|-------|-------|---------------------------|
| Tx Channel       | 1013         | 384    | 777    |                           | 25           | 600   | 1175    |                           | 476           | 580   | 684   |                           |
| Frequency (MHz)  | 824.7        | 836.52 | 848.31 |                           | 1851.25      | 1880  | 1908.75 |                           | 817.9         | 820.5 | 823.1 |                           |
| RC1 SO55         | 24.44        | 24.42  | 24.41  | 25.00                     | 24.33        | 24.11 | 24.11   | 25.00                     | 24.41         | 24.62 | 24.51 | 25.00                     |
| RC3 SO55         | 24.47        | 24.44  | 24.44  | 25.00                     | 24.36        | 24.13 | 24.12   | 25.00                     | 24.45         | 24.67 | 24.52 | 25.00                     |
| RC3 SO32 (F+SCH) | 24.56        | 24.43  | 24.50  | 25.00                     | 24.41        | 24.14 | 24.14   | 25.00                     | 24.47         | 24.65 | 24.54 | 25.00                     |
| RC3 SO32 (+SCH)  | 24.52        | 24.50  | 24.43  | 25.00                     | 24.40        | 24.16 | 24.15   | 25.00                     | 24.48         | 24.66 | 24.55 | 25.00                     |
| RTAP 153.6Kbps   | 24.48        | 24.44  | 24.42  | 25.00                     | 24.37        | 24.11 | 24.13   | 25.00                     | 24.46         | 24.65 | 24.53 | 25.00                     |
| RETAP 4096Bits   | 24.12        | 24.10  | 24.00  | 25.00                     | 24.03        | 23.79 | 23.78   | 25.00                     | 24.11         | 24.30 | 24.18 | 25.00                     |

**<Reduced Power Mode for P-Sensor On>**

| Band             | CDMA2000 BC1 |       |         | Tune-up<br>Limit<br>(dBm) |
|------------------|--------------|-------|---------|---------------------------|
| Tx Channel       | 25           | 600   | 1175    |                           |
| Frequency (MHz)  | 1851.25      | 1880  | 1908.75 |                           |
| RC1 SO55         | 18.69        | 18.53 | 18.51   | 19.00                     |
| RC3 SO55         | 18.72        | 18.53 | 18.54   | 19.00                     |
| RC3 SO32 (F+SCH) | 18.69        | 18.52 | 18.53   | 19.00                     |
| RC3 SO32 (+SCH)  | 18.56        | 18.54 | 18.53   | 19.00                     |
| RTAP 153.6Kbps   | 18.55        | 18.54 | 18.53   | 19.00                     |
| RETAP 4096Bits   | 18.55        | 18.53 | 18.52   | 19.00                     |

**<Reduced Power Mode for Hotspot On>**

| Band             | CDMA2000 BC1 |       |         | Tune-up Limit (dBm) |
|------------------|--------------|-------|---------|---------------------|
| Tx Channel       | 25           | 600   | 1175    |                     |
| Frequency (MHz)  | 1851.25      | 1880  | 1908.75 |                     |
| RC1 SO55         | 16.70        | 16.51 | 16.47   | 17.50               |
| RC3 SO55         | 16.68        | 16.49 | 16.48   | 17.50               |
| RC3 SO32 (F+SCH) | 16.68        | 16.51 | 16.48   | 17.50               |
| RC3 SO32 (+SCH)  | 16.71        | 16.50 | 16.46   | 17.50               |
| RTAP 153.6Kbps   | 16.69        | 16.51 | 16.47   | 17.50               |
| RETAP 4096Bits   | 16.67        | 16.48 | 16.49   | 17.50               |

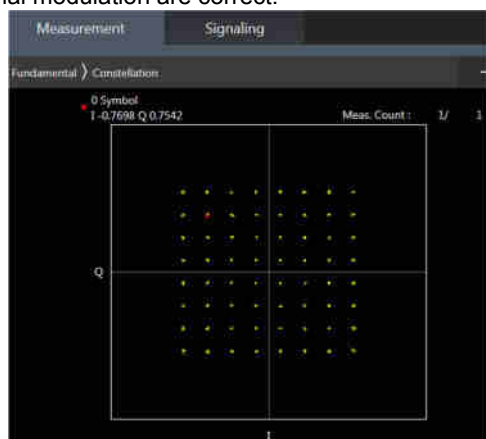
**<Reduced Power Mode for Handheld On>**

| Band             | CDMA2000 BC1 |       |         | Tune-up Limit (dBm) |
|------------------|--------------|-------|---------|---------------------|
| Tx Channel       | 25           | 600   | 1175    |                     |
| Frequency (MHz)  | 1851.25      | 1880  | 1908.75 |                     |
| RC1 SO55         | 21.71        | 21.52 | 21.50   | 22.00               |
| RC3 SO55         | 21.67        | 21.50 | 21.52   | 22.00               |
| RC3 SO32 (F+SCH) | 21.71        | 21.51 | 21.50   | 22.00               |
| RC3 SO32 (+SCH)  | 21.70        | 21.54 | 21.48   | 22.00               |
| RTAP 153.6Kbps   | 21.73        | 21.54 | 21.51   | 22.00               |
| RETAP 4096Bits   | 21.73        | 21.55 | 21.54   | 22.00               |

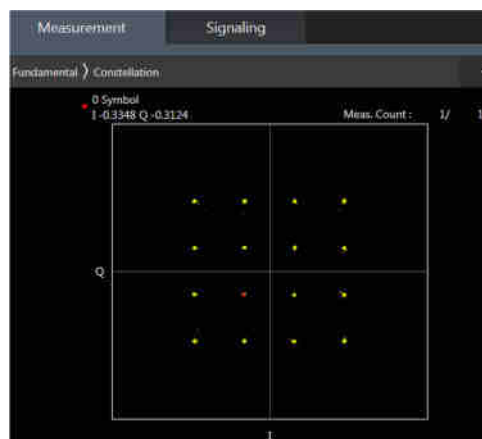
## <LTE Conducted Power>

### General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B17 / B2 / B5 / B38 / B4 SAR test was covered by B12 / B25 / B26 / B41 / B66; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. the maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion
  - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



**64QAM**



**16QAM**

### <Full Power Mode>

#### <LTE Band 2>

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 18700                    | 18900                       | 19100                     |                           |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1900                      |                           |             |
| 20              | QPSK       | 1       | 0         | 22.40                    | 22.46                       | 22.44                     | 24                        | 0           |
| 20              | QPSK       | 1       | 49        | 22.52                    | 22.43                       | 22.48                     |                           |             |
| 20              | QPSK       | 1       | 99        | 22.19                    | 22.07                       | 22.05                     |                           |             |
| 20              | QPSK       | 50      | 0         | 21.71                    | 21.82                       | 21.71                     | 23                        | 1           |
| 20              | QPSK       | 50      | 24        | 21.80                    | 21.79                       | 21.77                     |                           |             |
| 20              | QPSK       | 50      | 50        | 21.54                    | 21.63                       | 21.58                     |                           |             |
| 20              | QPSK       | 100     | 0         | 21.67                    | 21.73                       | 21.69                     |                           |             |
| 20              | 16QAM      | 1       | 0         | 21.99                    | 21.99                       | 22.05                     | 23                        | 1           |
| 20              | 16QAM      | 1       | 49        | 22.06                    | 22.14                       | 22.12                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 21.41                    | 21.60                       | 21.61                     |                           |             |
| 20              | 16QAM      | 50      | 0         | 20.75                    | 20.81                       | 20.75                     | 22                        | 2           |
| 20              | 16QAM      | 50      | 24        | 20.84                    | 20.79                       | 20.77                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 20.57                    | 20.59                       | 20.54                     |                           |             |
| 20              | 16QAM      | 100     | 0         | 20.57                    | 20.65                       | 20.62                     |                           |             |
| 20              | 64QAM      | 1       | 0         | 20.84                    | 20.83                       | 20.87                     | 22                        | 2           |
| 20              | 64QAM      | 1       | 49        | 20.83                    | 20.91                       | 20.99                     |                           |             |
| 20              | 64QAM      | 1       | 99        | 20.29                    | 20.44                       | 20.52                     |                           |             |
| 20              | 64QAM      | 50      | 0         | 19.71                    | 19.80                       | 19.74                     | 21                        | 3           |
| 20              | 64QAM      | 50      | 24        | 19.78                    | 19.76                       | 19.76                     |                           |             |
| 20              | 64QAM      | 50      | 50        | 19.56                    | 19.58                       | 19.54                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 19.58                    | 19.66                       | 19.61                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18675  | 18900 | 19125  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1902.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 22.51  | 22.40 | 22.44  | 24                        | 0           |
| 15              | QPSK  | 1  | 37 | 22.08  | 22.09 | 22.19  |                           |             |
| 15              | QPSK  | 1  | 74 | 22.36  | 22.41 | 22.45  |                           |             |
| 15              | QPSK  | 36 | 0  | 21.20  | 21.26 | 21.40  | 23                        | 1           |
| 15              | QPSK  | 36 | 20 | 21.18  | 21.19 | 21.39  |                           |             |
| 15              | QPSK  | 36 | 39 | 21.07  | 21.20 | 21.35  |                           |             |
| 15              | QPSK  | 75 | 0  | 21.17  | 21.21 | 21.38  | 23                        | 1           |
| 15              | 16QAM | 1  | 0  | 21.97  | 21.92 | 21.87  |                           |             |
| 15              | 16QAM | 1  | 37 | 21.39  | 21.62 | 21.63  |                           |             |
| 15              | 16QAM | 1  | 74 | 21.82  | 21.89 | 21.93  | 22                        | 2           |
| 15              | 16QAM | 36 | 0  | 20.26  | 20.26 | 20.41  |                           |             |
| 15              | 16QAM | 36 | 20 | 20.22  | 20.23 | 20.43  |                           |             |
| 15              | 16QAM | 36 | 39 | 20.13  | 20.20 | 20.33  | 22                        | 2           |
| 15              | 16QAM | 75 | 0  | 20.20  | 20.25 | 20.41  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.78  | 20.71 | 20.90  |                           |             |
| 15              | 64QAM | 1  | 37 | 20.85  | 20.83 | 20.95  | 22                        | 2           |
| 15              | 64QAM | 1  | 74 | 20.60  | 20.88 | 20.96  |                           |             |
| 15              | 64QAM | 36 | 0  | 19.20  | 19.25 | 19.43  |                           |             |
| 15              | 64QAM | 36 | 20 | 19.14  | 19.24 | 19.44  | 21                        | 3           |
| 15              | 64QAM | 36 | 39 | 19.10  | 19.19 | 19.37  |                           |             |
| 15              | 64QAM | 75 | 0  | 19.14  | 19.25 | 19.43  |                           |             |
| Channel         |       |    |    | 18650  | 18900 | 19150  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1905   |                           |             |
| 10              | QPSK  | 1  | 0  | 22.17  | 22.34 | 22.41  | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 22.26  | 22.20 | 22.10  |                           |             |
| 10              | QPSK  | 1  | 49 | 22.15  | 22.17 | 22.28  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.15  | 21.23 | 21.31  | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 21.11  | 21.18 | 21.22  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.16  | 21.27 | 21.33  |                           |             |
| 10              | QPSK  | 50 | 0  | 21.16  | 21.22 | 21.22  | 23                        | 1           |
| 10              | 16QAM | 1  | 0  | 21.69  | 21.69 | 21.84  |                           |             |
| 10              | 16QAM | 1  | 25 | 21.62  | 21.64 | 21.70  |                           |             |
| 10              | 16QAM | 1  | 49 | 21.68  | 21.69 | 21.80  | 22                        | 2           |
| 10              | 16QAM | 25 | 0  | 20.09  | 20.15 | 20.27  |                           |             |
| 10              | 16QAM | 25 | 12 | 20.08  | 20.15 | 20.21  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.05  | 20.20 | 20.27  | 22                        | 2           |
| 10              | 16QAM | 50 | 0  | 20.03  | 20.11 | 20.18  |                           |             |
| 10              | 64QAM | 1  | 0  | 20.86  | 20.91 | 21.06  |                           |             |
| 10              | 64QAM | 1  | 25 | 20.81  | 20.83 | 20.82  | 21                        | 3           |
| 10              | 64QAM | 1  | 49 | 20.77  | 20.94 | 21.10  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.52  | 19.61 | 19.76  |                           |             |
| 10              | 64QAM | 25 | 12 | 19.53  | 19.59 | 19.69  | 21                        | 3           |
| 10              | 64QAM | 25 | 25 | 19.51  | 19.64 | 19.75  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.41  | 19.54 | 19.62  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18625  | 18900 | 19175  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1907.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.43  | 22.51 | 22.48  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.13  | 22.19 | 22.05  |                           |             |
| 5               | QPSK  | 1  | 24 | 22.28  | 22.40 | 22.35  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.45  | 21.52 | 21.63  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.38  | 21.41 | 21.61  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.34  | 21.38 | 21.61  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.36  | 21.45 | 21.46  | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 21.61  | 21.70 | 21.67  |                           |             |
| 5               | 16QAM | 1  | 12 | 21.33  | 21.54 | 21.62  |                           |             |
| 5               | 16QAM | 1  | 24 | 21.48  | 21.65 | 21.54  | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 20.50  | 20.56 | 20.58  |                           |             |
| 5               | 16QAM | 12 | 7  | 20.43  | 20.52 | 20.53  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.44  | 20.52 | 20.49  | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.31  | 20.36 | 20.55  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.71  | 20.87 | 21.29  |                           |             |
| 5               | 64QAM | 1  | 12 | 20.76  | 20.90 | 21.27  | 22                        | 2           |
| 5               | 64QAM | 1  | 24 | 20.60  | 20.83 | 21.20  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.56  | 19.72 | 19.77  |                           |             |
| 5               | 64QAM | 12 | 7  | 19.58  | 19.68 | 19.69  | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 19.60  | 19.66 | 19.68  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.57  | 19.68 | 19.68  |                           |             |
| Channel         |       |    |    | 18615  | 18900 | 19185  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1908.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 22.05  | 22.40 | 22.47  | 24                        | 0           |
| 3               | QPSK  | 1  | 8  | 22.19  | 22.37 | 22.44  |                           |             |
| 3               | QPSK  | 1  | 14 | 22.42  | 22.27 | 22.38  |                           |             |
| 3               | QPSK  | 8  | 0  | 21.36  | 21.38 | 21.47  | 23                        | 1           |
| 3               | QPSK  | 8  | 4  | 21.35  | 21.37 | 21.53  |                           |             |
| 3               | QPSK  | 8  | 7  | 21.31  | 21.32 | 21.46  |                           |             |
| 3               | QPSK  | 15 | 0  | 21.34  | 21.38 | 21.52  | 23                        | 1           |
| 3               | 16QAM | 1  | 0  | 21.24  | 21.48 | 21.59  |                           |             |
| 3               | 16QAM | 1  | 8  | 21.28  | 21.41 | 21.54  |                           |             |
| 3               | 16QAM | 1  | 14 | 21.17  | 21.26 | 21.45  | 22                        | 2           |
| 3               | 16QAM | 8  | 0  | 20.38  | 20.58 | 20.73  |                           |             |
| 3               | 16QAM | 8  | 4  | 20.39  | 20.50 | 20.66  |                           |             |
| 3               | 16QAM | 8  | 7  | 20.37  | 20.56 | 20.72  | 22                        | 2           |
| 3               | 16QAM | 15 | 0  | 20.21  | 20.34 | 20.48  |                           |             |
| 3               | 64QAM | 1  | 0  | 20.61  | 20.71 | 20.82  |                           |             |
| 3               | 64QAM | 1  | 8  | 20.62  | 20.67 | 20.74  | 21                        | 3           |
| 3               | 64QAM | 1  | 14 | 20.54  | 20.57 | 20.81  |                           |             |
| 3               | 64QAM | 8  | 0  | 19.48  | 19.51 | 19.58  |                           |             |
| 3               | 64QAM | 8  | 4  | 19.48  | 19.48 | 19.65  | 21                        | 3           |
| 3               | 64QAM | 8  | 7  | 19.41  | 19.44 | 19.62  |                           |             |
| 3               | 64QAM | 15 | 0  | 19.39  | 19.56 | 19.72  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 18607  | 18900 | 19193  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1909.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 22.05  | 22.15 | 22.13  | 24                        | 0           |
| 1.4             | QPSK  | 1 | 3 | 22.01  | 22.24 | 22.22  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 22.24  | 22.08 | 22.17  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 22.13  | 22.33 | 22.39  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 22.28  | 22.40 | 22.42  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 22.15  | 22.30 | 22.36  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 21.27  | 21.37 | 21.45  | 23                        | 1           |
| 1.4             | 16QAM | 1 | 0 | 21.74  | 21.42 | 21.48  | 23                        | 1           |
| 1.4             | 16QAM | 1 | 3 | 21.84  | 21.41 | 21.50  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 21.78  | 21.34 | 21.45  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 21.42  | 21.52 | 21.70  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 21.51  | 21.61 | 21.77  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 21.38  | 21.52 | 21.69  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 20.21  | 20.32 | 20.43  | 22                        | 2           |
| 1.4             | 64QAM | 1 | 0 | 20.82  | 20.64 | 20.75  | 22                        | 2           |
| 1.4             | 64QAM | 1 | 3 | 21.01  | 20.74 | 20.84  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 20.89  | 20.59 | 20.76  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 20.59  | 20.67 | 20.77  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.53  | 20.72 | 20.85  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 20.54  | 20.56 | 20.73  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.38  | 19.54 | 19.73  | 21                        | 3           |



**<LTE Band 4>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20050                 | 20175                    | 20300                  |                     |          |
| Frequency (MHz) |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.35                 | 22.12                    | 22.05                  |                     |          |
| 20              | QPSK       | 1       | 49        | 22.28                 | 22.25                    | 22.53                  | 24                  | 0        |
| 20              | QPSK       | 1       | 99        | 22.10                 | 22.02                    | 22.01                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.51                 | 21.58                    | 21.61                  |                     |          |
| 20              | QPSK       | 50      | 24        | 21.62                 | 21.66                    | 21.79                  | 23                  | 1        |
| 20              | QPSK       | 50      | 50        | 21.46                 | 21.53                    | 21.61                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.46                 | 21.74                    | 21.65                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.58                 | 21.65                    | 21.61                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.94                 | 21.88                    | 22.07                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.63                 | 21.56                    | 21.76                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.52                 | 20.56                    | 20.57                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.61                 | 20.69                    | 20.74                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.44                 | 20.52                    | 20.57                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.58                 | 20.53                    | 20.61                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 0         | 20.81                 | 20.84                    | 20.88                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.88                 | 20.92                    | 21.13                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.93                 | 20.78                    | 21.08                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 0         | 19.95                 | 19.93                    | 20.00                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.02                 | 20.07                    | 20.14                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.83                 | 19.94                    | 19.98                  | 21                  | 3        |
| 20              | 64QAM      | 100     | 0         | 20.00                 | 19.96                    | 19.98                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20025  | 20175  | 20325  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1717.5 | 1732.5 | 1747.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 22.49  | 22.29  | 22.19  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 22.28  | 22.05  | 22.01  |                     |          |
| 15              | QPSK  | 1  | 74 | 22.18  | 22.09  | 22.15  |                     |          |
| 15              | QPSK  | 36 | 0  | 21.36  | 21.25  | 21.15  | 23                  | 1        |
| 15              | QPSK  | 36 | 20 | 21.36  | 21.15  | 21.14  |                     |          |
| 15              | QPSK  | 36 | 39 | 21.18  | 21.11  | 21.18  |                     |          |
| 15              | QPSK  | 75 | 0  | 21.30  | 21.14  | 21.09  | 23                  | 1        |
| 15              | 16QAM | 1  | 0  | 21.66  | 21.71  | 21.52  |                     |          |
| 15              | 16QAM | 1  | 37 | 21.43  | 21.11  | 21.34  |                     |          |
| 15              | 16QAM | 1  | 74 | 21.66  | 21.36  | 21.66  | 22                  | 2        |
| 15              | 16QAM | 36 | 0  | 20.36  | 20.25  | 20.17  |                     |          |
| 15              | 16QAM | 36 | 20 | 20.38  | 20.16  | 20.16  |                     |          |
| 15              | 16QAM | 36 | 39 | 20.27  | 20.09  | 20.19  | 22                  | 2        |
| 15              | 16QAM | 75 | 0  | 20.32  | 20.24  | 20.13  |                     |          |
| 15              | 64QAM | 1  | 0  | 20.87  | 20.82  | 20.70  |                     |          |
| 15              | 64QAM | 1  | 37 | 20.98  | 20.69  | 20.86  | 22                  | 2        |
| 15              | 64QAM | 1  | 74 | 20.71  | 20.52  | 20.82  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.61  | 19.55  | 19.50  |                     |          |
| 15              | 64QAM | 36 | 20 | 19.62  | 19.43  | 19.51  | 21                  | 3        |
| 15              | 64QAM | 36 | 39 | 19.54  | 19.35  | 19.50  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.61  | 19.52  | 19.45  |                     |          |
| Channel         |       |    |    | 20000  | 20175  | 20350  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1715   | 1732.5 | 1750   |                     |          |
| 10              | QPSK  | 1  | 0  | 22.71  | 22.49  | 22.44  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 22.15  | 22.21  | 22.20  |                     |          |
| 10              | QPSK  | 1  | 49 | 22.57  | 22.35  | 22.60  |                     |          |
| 10              | QPSK  | 25 | 0  | 21.33  | 21.20  | 21.25  | 23                  | 1        |
| 10              | QPSK  | 25 | 12 | 21.28  | 21.24  | 21.18  |                     |          |
| 10              | QPSK  | 25 | 25 | 21.30  | 21.32  | 21.25  |                     |          |
| 10              | QPSK  | 50 | 0  | 21.31  | 21.24  | 21.22  | 23                  | 1        |
| 10              | 16QAM | 1  | 0  | 21.80  | 21.83  | 21.74  |                     |          |
| 10              | 16QAM | 1  | 25 | 21.49  | 21.38  | 21.54  |                     |          |
| 10              | 16QAM | 1  | 49 | 21.91  | 21.78  | 21.95  | 22                  | 2        |
| 10              | 16QAM | 25 | 0  | 20.29  | 20.13  | 20.19  |                     |          |
| 10              | 16QAM | 25 | 12 | 20.21  | 20.14  | 20.11  |                     |          |
| 10              | 16QAM | 25 | 25 | 20.30  | 20.23  | 20.13  | 22                  | 2        |
| 10              | 16QAM | 50 | 0  | 20.31  | 20.25  | 20.16  |                     |          |
| 10              | 64QAM | 1  | 0  | 21.17  | 21.16  | 21.14  |                     |          |
| 10              | 64QAM | 1  | 25 | 20.72  | 20.76  | 20.91  | 22                  | 2        |
| 10              | 64QAM | 1  | 49 | 21.26  | 21.17  | 21.40  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.80  | 19.71  | 19.77  |                     |          |
| 10              | 64QAM | 25 | 12 | 19.75  | 19.70  | 19.72  | 21                  | 3        |
| 10              | 64QAM | 25 | 25 | 19.83  | 19.81  | 19.79  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.80  | 19.75  | 19.69  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 19975  | 20175  | 20375  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1712.5 | 1732.5 | 1752.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 22.62  | 22.46  | 22.45  | 24                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.46  | 22.36  | 22.11  |                     |          |
| 5               | QPSK  | 1  | 24 | 22.47  | 22.34  | 22.37  |                     |          |
| 5               | QPSK  | 12 | 0  | 21.44  | 21.37  | 21.45  | 23                  | 1        |
| 5               | QPSK  | 12 | 7  | 21.44  | 21.35  | 21.33  |                     |          |
| 5               | QPSK  | 12 | 13 | 21.44  | 21.30  | 21.32  |                     |          |
| 5               | QPSK  | 25 | 0  | 21.48  | 21.42  | 21.35  | 23                  | 1        |
| 5               | 16QAM | 1  | 0  | 21.91  | 21.79  | 21.63  |                     |          |
| 5               | 16QAM | 1  | 12 | 21.57  | 21.47  | 21.37  |                     |          |
| 5               | 16QAM | 1  | 24 | 21.69  | 21.61  | 21.49  | 22                  | 2        |
| 5               | 16QAM | 12 | 0  | 20.53  | 20.47  | 20.50  |                     |          |
| 5               | 16QAM | 12 | 7  | 20.52  | 20.47  | 20.39  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.52  | 20.37  | 20.45  | 22                  | 2        |
| 5               | 16QAM | 25 | 0  | 20.50  | 20.39  | 20.27  |                     |          |
| 5               | 64QAM | 1  | 0  | 21.03  | 20.89  | 20.87  | 22                  | 2        |
| 5               | 64QAM | 1  | 12 | 20.76  | 20.63  | 20.71  |                     |          |
| 5               | 64QAM | 1  | 24 | 20.82  | 20.75  | 20.77  |                     |          |
| 5               | 64QAM | 12 | 0  | 19.77  | 19.76  | 19.80  | 21                  | 3        |
| 5               | 64QAM | 12 | 7  | 19.75  | 19.77  | 19.69  |                     |          |
| 5               | 64QAM | 12 | 13 | 19.80  | 19.64  | 19.74  |                     |          |
| 5               | 64QAM | 25 | 0  | 19.75  | 19.74  | 19.69  | 21                  | 3        |
| 5               | 64QAM | 25 | 0  | 19.75  | 19.74  | 19.69  |                     |          |
| Channel         |       |    |    | 19965  | 20175  | 20385  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1711.5 | 1732.5 | 1753.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 22.54  | 22.31  | 22.29  | 24                  | 0        |
| 3               | QPSK  | 1  | 8  | 22.48  | 22.37  | 22.30  |                     |          |
| 3               | QPSK  | 1  | 14 | 22.44  | 22.33  | 22.30  |                     |          |
| 3               | QPSK  | 8  | 0  | 21.53  | 21.42  | 21.36  | 23                  | 1        |
| 3               | QPSK  | 8  | 4  | 21.45  | 21.38  | 21.29  |                     |          |
| 3               | QPSK  | 8  | 7  | 21.44  | 21.33  | 21.31  |                     |          |
| 3               | QPSK  | 15 | 0  | 21.39  | 21.37  | 21.31  | 23                  | 1        |
| 3               | 16QAM | 1  | 0  | 21.69  | 21.79  | 21.50  |                     |          |
| 3               | 16QAM | 1  | 8  | 21.68  | 21.81  | 21.42  |                     |          |
| 3               | 16QAM | 1  | 14 | 21.68  | 21.69  | 21.34  | 22                  | 2        |
| 3               | 16QAM | 8  | 0  | 20.52  | 20.56  | 20.52  |                     |          |
| 3               | 16QAM | 8  | 4  | 20.49  | 20.47  | 20.47  |                     |          |
| 3               | 16QAM | 8  | 7  | 20.50  | 20.39  | 20.56  | 22                  | 2        |
| 3               | 16QAM | 15 | 0  | 20.42  | 20.40  | 20.32  |                     |          |
| 3               | 64QAM | 1  | 0  | 21.23  | 20.72  | 20.73  |                     |          |
| 3               | 64QAM | 1  | 8  | 21.10  | 20.76  | 20.73  | 22                  | 2        |
| 3               | 64QAM | 1  | 14 | 20.93  | 20.76  | 20.68  |                     |          |
| 3               | 64QAM | 8  | 0  | 19.80  | 19.69  | 19.67  |                     |          |
| 3               | 64QAM | 8  | 4  | 19.75  | 19.71  | 19.64  | 21                  | 3        |
| 3               | 64QAM | 8  | 7  | 19.70  | 19.60  | 19.63  |                     |          |
| 3               | 64QAM | 15 | 0  | 19.66  | 19.74  | 19.63  |                     |          |

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FCC ID : IHDT56XQ1

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Issued Date : Dec. 26, 2018

Form version. : 180516



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 19957  | 20175  | 20393  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1710.7 | 1732.5 | 1754.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 22.58  | 22.29  | 22.03  | 24                        | 0           |
| 1.4             | QPSK  | 1 | 3 | 22.49  | 22.39  | 22.21  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 22.55  | 22.29  | 22.10  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 22.62  | 22.31  | 22.27  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 22.54  | 22.38  | 22.43  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 22.56  | 22.28  | 22.34  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 21.42  | 21.30  | 21.28  | 23                        | 1           |
| 1.4             | 16QAM | 1 | 0 | 21.69  | 21.70  | 21.40  | 23                        | 1           |
| 1.4             | 16QAM | 1 | 3 | 21.70  | 21.82  | 21.45  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 21.67  | 21.68  | 21.31  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 21.43  | 21.44  | 21.46  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 21.48  | 21.45  | 21.60  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 21.43  | 21.37  | 21.43  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 20.59  | 20.31  | 20.35  | 22                        | 2           |
| 1.4             | 64QAM | 1 | 0 | 20.84  | 20.66  | 20.63  | 22                        | 2           |
| 1.4             | 64QAM | 1 | 3 | 20.87  | 20.70  | 20.72  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 20.85  | 20.65  | 20.60  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 20.75  | 20.76  | 20.76  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.76  | 20.77  | 20.81  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 20.76  | 20.67  | 20.78  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.75  | 19.60  | 19.71  | 21                        | 3           |



**<LTE Band 5>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20450                 | 20525                    | 20600                  |                     |          |
| Frequency (MHz) |            |         |           | 829                   | 836.5                    | 844                    |                     |          |
| 10              | QPSK       | 1       | 0         | 22.98                 | 22.70                    | 22.75                  |                     |          |
| 10              | QPSK       | 1       | 25        | 22.72                 | 22.62                    | 22.55                  | 24                  | 0        |
| 10              | QPSK       | 1       | 49        | 22.89                 | 22.94                    | 22.92                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.90                 | 21.83                    | 21.89                  |                     |          |
| 10              | QPSK       | 25      | 12        | 21.99                 | 21.88                    | 21.76                  | 23                  | 1        |
| 10              | QPSK       | 25      | 25        | 21.97                 | 21.86                    | 21.81                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.95                 | 21.86                    | 21.91                  |                     |          |
| 10              | 16QAM      | 1       | 0         | 22.24                 | 22.21                    | 22.21                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 25        | 21.99                 | 22.23                    | 22.00                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.25                 | 22.38                    | 22.28                  |                     |          |
| 10              | 16QAM      | 25      | 0         | 20.84                 | 20.82                    | 20.91                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 12        | 20.98                 | 20.88                    | 20.88                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.94                 | 20.85                    | 20.80                  |                     |          |
| 10              | 16QAM      | 50      | 0         | 21.01                 | 20.85                    | 20.84                  | 22                  | 2        |
| 10              | 64QAM      | 1       | 0         | 21.06                 | 21.00                    | 20.95                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 20.85                 | 20.92                    | 20.79                  |                     |          |
| 10              | 64QAM      | 1       | 49        | 21.17                 | 21.18                    | 21.08                  | 21                  | 3        |
| 10              | 64QAM      | 25      | 0         | 19.74                 | 19.71                    | 19.83                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 19.81                 | 19.77                    | 19.76                  |                     |          |
| 10              | 64QAM      | 25      | 25        | 19.83                 | 19.81                    | 19.72                  | 21                  | 3        |
| 10              | 64QAM      | 50      | 0         | 19.82                 | 19.70                    | 19.84                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20425 | 20525 | 20625 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------|----------|
| Frequency (MHz) |       |    |    | 826.5 | 836.5 | 846.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 22.95 | 22.90 | 22.71 | 24                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.99 | 22.71 | 22.66 |                     |          |
| 5               | QPSK  | 1  | 24 | 22.88 | 22.83 | 22.69 |                     |          |
| 5               | QPSK  | 12 | 0  | 21.93 | 21.87 | 21.74 | 23                  | 1        |
| 5               | QPSK  | 12 | 7  | 21.86 | 21.81 | 21.70 |                     |          |
| 5               | QPSK  | 12 | 13 | 21.89 | 21.77 | 21.63 |                     |          |
| 5               | QPSK  | 25 | 0  | 21.94 | 21.82 | 21.72 | 23                  | 1        |
| 5               | 16QAM | 1  | 0  | 22.26 | 22.11 | 21.93 |                     |          |
| 5               | 16QAM | 1  | 12 | 22.10 | 21.90 | 21.89 |                     |          |
| 5               | 16QAM | 1  | 24 | 22.16 | 22.05 | 21.94 | 22                  | 2        |
| 5               | 16QAM | 12 | 0  | 20.95 | 20.91 | 20.81 |                     |          |
| 5               | 16QAM | 12 | 7  | 20.92 | 20.85 | 20.74 |                     |          |
| 5               | 16QAM | 12 | 13 | 20.92 | 20.84 | 20.78 | 22                  | 2        |
| 5               | 16QAM | 25 | 0  | 20.91 | 20.77 | 20.69 |                     |          |
| 5               | 64QAM | 1  | 0  | 21.07 | 20.90 | 20.67 |                     |          |
| 5               | 64QAM | 1  | 12 | 20.93 | 20.79 | 20.72 | 22                  | 2        |
| 5               | 64QAM | 1  | 24 | 20.99 | 20.86 | 20.68 |                     |          |
| 5               | 64QAM | 12 | 0  | 19.96 | 19.83 | 19.71 |                     |          |
| 5               | 64QAM | 12 | 7  | 19.92 | 19.79 | 19.66 | 21                  | 3        |
| 5               | 64QAM | 12 | 13 | 19.92 | 19.78 | 19.60 |                     |          |
| 5               | 64QAM | 25 | 0  | 19.92 | 19.76 | 19.70 |                     |          |
| Channel         |       |    |    | 20415 | 20525 | 20635 | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 825.5 | 836.5 | 847.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 22.91 | 22.79 | 22.63 | 24                  | 0        |
| 3               | QPSK  | 1  | 8  | 22.85 | 22.78 | 22.65 |                     |          |
| 3               | QPSK  | 1  | 14 | 22.81 | 22.72 | 22.58 |                     |          |
| 3               | QPSK  | 8  | 0  | 21.92 | 21.78 | 21.64 | 23                  | 1        |
| 3               | QPSK  | 8  | 4  | 21.89 | 21.76 | 21.66 |                     |          |
| 3               | QPSK  | 8  | 7  | 21.93 | 21.71 | 21.65 |                     |          |
| 3               | QPSK  | 15 | 0  | 21.87 | 21.78 | 21.64 | 23                  | 1        |
| 3               | 16QAM | 1  | 0  | 22.45 | 22.07 | 21.94 |                     |          |
| 3               | 16QAM | 1  | 8  | 22.47 | 21.98 | 21.96 |                     |          |
| 3               | 16QAM | 1  | 14 | 22.44 | 21.91 | 21.95 | 22                  | 2        |
| 3               | 16QAM | 8  | 0  | 20.95 | 20.92 | 20.76 |                     |          |
| 3               | 16QAM | 8  | 4  | 20.95 | 20.90 | 20.80 |                     |          |
| 3               | 16QAM | 8  | 7  | 20.88 | 20.86 | 20.71 | 22                  | 2        |
| 3               | 16QAM | 15 | 0  | 20.90 | 20.82 | 20.65 |                     |          |
| 3               | 64QAM | 1  | 0  | 21.04 | 20.85 | 20.72 |                     |          |
| 3               | 64QAM | 1  | 8  | 21.03 | 20.84 | 20.72 | 22                  | 2        |
| 3               | 64QAM | 1  | 14 | 21.02 | 20.73 | 20.67 |                     |          |
| 3               | 64QAM | 8  | 0  | 20.02 | 19.72 | 19.57 |                     |          |
| 3               | 64QAM | 8  | 4  | 19.93 | 19.74 | 19.58 | 21                  | 3        |
| 3               | 64QAM | 8  | 7  | 19.97 | 19.68 | 19.58 |                     |          |
| 3               | 64QAM | 15 | 0  | 19.90 | 19.75 | 19.60 |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 20407 | 20525 | 20643 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|-------|-------|-------|---------------------|----------|
| Frequency (MHz) |       |   |   | 824.7 | 836.5 | 848.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 23.08 | 22.66 | 22.54 | 24                  | 0        |
| 1.4             | QPSK  | 1 | 3 | 23.22 | 22.64 | 22.61 |                     |          |
| 1.4             | QPSK  | 1 | 5 | 23.13 | 22.62 | 22.54 |                     |          |
| 1.4             | QPSK  | 3 | 0 | 23.01 | 22.71 | 22.56 |                     |          |
| 1.4             | QPSK  | 3 | 1 | 23.12 | 22.78 | 22.63 |                     |          |
| 1.4             | QPSK  | 3 | 3 | 23.12 | 22.76 | 22.57 |                     |          |
| 1.4             | QPSK  | 6 | 0 | 22.14 | 21.74 | 21.61 | 23                  | 1        |
| 1.4             | 16QAM | 1 | 0 | 21.72 | 21.97 | 21.95 | 23                  | 1        |
| 1.4             | 16QAM | 1 | 3 | 21.76 | 21.98 | 22.02 |                     |          |
| 1.4             | 16QAM | 1 | 5 | 21.64 | 21.93 | 21.94 |                     |          |
| 1.4             | 16QAM | 3 | 0 | 22.00 | 21.88 | 21.66 |                     |          |
| 1.4             | 16QAM | 3 | 1 | 22.20 | 21.93 | 21.74 |                     |          |
| 1.4             | 16QAM | 3 | 3 | 22.08 | 21.83 | 21.64 |                     |          |
| 1.4             | 16QAM | 6 | 0 | 21.16 | 20.77 | 20.66 | 22                  | 2        |
| 1.4             | 64QAM | 1 | 0 | 21.22 | 20.80 | 20.68 | 22                  | 2        |
| 1.4             | 64QAM | 1 | 3 | 21.31 | 20.86 | 20.66 |                     |          |
| 1.4             | 64QAM | 1 | 5 | 21.22 | 20.73 | 20.66 |                     |          |
| 1.4             | 64QAM | 3 | 0 | 21.11 | 20.76 | 20.57 |                     |          |
| 1.4             | 64QAM | 3 | 1 | 21.18 | 20.84 | 20.60 |                     |          |
| 1.4             | 64QAM | 3 | 3 | 21.16 | 20.72 | 20.60 |                     |          |
| 1.4             | 64QAM | 6 | 0 | 20.10 | 19.75 | 19.51 | 21                  | 3        |



**<LTE Band 7>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20850                 | 21100                    | 21350                  |                     |          |
| Frequency (MHz) |            |         |           | 2510                  | 2535                     | 2560                   |                     |          |
| 20              | QPSK       | 1       | 0         | 23.30                 | 23.21                    | 23.26                  |                     |          |
| 20              | QPSK       | 1       | 49        | 23.62                 | 23.54                    | 23.67                  | 24                  | 0        |
| 20              | QPSK       | 1       | 99        | 23.52                 | 23.34                    | 23.44                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.37                 | 22.17                    | 22.30                  |                     |          |
| 20              | QPSK       | 50      | 24        | 22.37                 | 22.27                    | 22.40                  | 23                  | 1        |
| 20              | QPSK       | 50      | 50        | 22.34                 | 22.22                    | 22.34                  |                     |          |
| 20              | QPSK       | 100     | 0         | 22.28                 | 22.25                    | 22.30                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 22.49                 | 22.41                    | 22.44                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 22.59                 | 22.52                    | 22.73                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.54                 | 22.35                    | 22.55                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.88                 | 20.70                    | 20.72                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.89                 | 20.80                    | 20.86                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.78                 | 20.76                    | 20.79                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.89                 | 20.72                    | 20.79                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 0         | 21.27                 | 21.13                    | 21.15                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 21.07                 | 21.16                    | 21.16                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 21.31                 | 21.11                    | 21.30                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 0         | 19.77                 | 19.58                    | 19.61                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.77                 | 19.68                    | 19.75                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.72                 | 19.65                    | 19.67                  | 21                  | 3        |
| 20              | 64QAM      | 100     | 0         | 19.79                 | 19.62                    | 19.68                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20825  | 21100 | 21375  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2507.5 | 2535  | 2562.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 23.31  | 23.32 | 23.48  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 23.40  | 23.32 | 23.51  |                     |          |
| 15              | QPSK  | 1  | 74 | 23.52  | 23.50 | 23.59  |                     |          |
| 15              | QPSK  | 36 | 0  | 22.45  | 22.49 | 22.56  | 23                  | 1        |
| 15              | QPSK  | 36 | 20 | 22.53  | 22.41 | 22.62  |                     |          |
| 15              | QPSK  | 36 | 39 | 22.45  | 22.50 | 22.65  |                     |          |
| 15              | QPSK  | 75 | 0  | 22.47  | 22.44 | 22.64  | 23                  | 1        |
| 15              | 16QAM | 1  | 0  | 22.74  | 22.68 | 22.92  |                     |          |
| 15              | 16QAM | 1  | 37 | 22.61  | 22.52 | 22.70  |                     |          |
| 15              | 16QAM | 1  | 74 | 22.79  | 22.75 | 22.88  | 22                  | 2        |
| 15              | 16QAM | 36 | 0  | 21.42  | 21.49 | 21.54  |                     |          |
| 15              | 16QAM | 36 | 20 | 21.52  | 21.42 | 21.62  |                     |          |
| 15              | 16QAM | 36 | 39 | 21.45  | 21.41 | 21.65  | 22                  | 2        |
| 15              | 16QAM | 75 | 0  | 21.47  | 21.46 | 21.62  |                     |          |
| 15              | 64QAM | 1  | 0  | 21.10  | 21.04 | 21.29  |                     |          |
| 15              | 64QAM | 1  | 37 | 21.13  | 20.99 | 21.37  | 22                  | 2        |
| 15              | 64QAM | 1  | 74 | 21.14  | 21.12 | 21.29  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.92  | 19.92 | 20.09  |                     |          |
| 15              | 64QAM | 36 | 20 | 20.00  | 19.92 | 20.12  | 21                  | 3        |
| 15              | 64QAM | 36 | 39 | 19.96  | 19.92 | 20.14  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.98  | 19.93 | 20.14  |                     |          |
| Channel         |       |    |    | 20800  | 21100 | 21400  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2505   | 2535  | 2565   |                     |          |
| 10              | QPSK  | 1  | 0  | 23.55  | 23.56 | 23.50  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 23.35  | 23.35 | 23.57  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.61  | 23.53 | 23.45  |                     |          |
| 10              | QPSK  | 25 | 0  | 22.47  | 22.32 | 22.53  | 23                  | 1        |
| 10              | QPSK  | 25 | 12 | 22.31  | 22.25 | 22.54  |                     |          |
| 10              | QPSK  | 25 | 25 | 22.36  | 22.26 | 22.54  |                     |          |
| 10              | QPSK  | 50 | 0  | 22.29  | 22.26 | 22.53  | 23                  | 1        |
| 10              | 16QAM | 1  | 0  | 22.83  | 22.81 | 22.80  |                     |          |
| 10              | 16QAM | 1  | 25 | 22.54  | 22.46 | 22.80  |                     |          |
| 10              | 16QAM | 1  | 49 | 22.81  | 22.69 | 22.91  | 22                  | 2        |
| 10              | 16QAM | 25 | 0  | 21.42  | 21.26 | 21.49  |                     |          |
| 10              | 16QAM | 25 | 12 | 21.31  | 21.26 | 21.53  |                     |          |
| 10              | 16QAM | 25 | 25 | 21.31  | 21.25 | 21.47  | 22                  | 2        |
| 10              | 16QAM | 50 | 0  | 21.34  | 21.33 | 21.54  |                     |          |
| 10              | 64QAM | 1  | 0  | 21.19  | 21.21 | 21.40  |                     |          |
| 10              | 64QAM | 1  | 25 | 20.88  | 20.91 | 21.20  | 22                  | 2        |
| 10              | 64QAM | 1  | 49 | 21.19  | 21.08 | 21.30  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.94  | 19.81 | 20.00  |                     |          |
| 10              | 64QAM | 25 | 12 | 19.80  | 19.78 | 20.03  | 21                  | 3        |
| 10              | 64QAM | 25 | 25 | 19.90  | 19.77 | 20.03  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.82  | 19.76 | 20.03  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20775  | 21100 | 21425  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2502.5 | 2535  | 2567.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.31  | 23.27 | 23.55  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.38  | 23.28 | 23.48  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.31  | 23.28 | 23.52  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.40  | 22.28 | 22.58  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 22.42  | 22.27 | 22.51  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.40  | 22.25 | 22.52  |                           |             |
| 5               | QPSK  | 25 | 0  | 22.43  | 22.31 | 22.53  | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.66  | 22.62 | 22.91  |                           |             |
| 5               | 16QAM | 1  | 12 | 22.57  | 22.49 | 22.74  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.62  | 22.55 | 22.84  | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 21.40  | 21.32 | 21.59  |                           |             |
| 5               | 16QAM | 12 | 7  | 21.43  | 21.29 | 21.58  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.42  | 21.31 | 21.52  | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 21.36  | 21.30 | 21.52  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.06  | 20.98 | 21.28  |                           |             |
| 5               | 64QAM | 1  | 12 | 21.01  | 20.91 | 21.14  | 22                        | 2           |
| 5               | 64QAM | 1  | 24 | 20.98  | 20.90 | 21.16  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.91  | 19.78 | 20.07  |                           |             |
| 5               | 64QAM | 12 | 7  | 19.92  | 19.79 | 20.01  | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 19.91  | 19.81 | 20.01  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.86  | 19.82 | 20.04  |                           |             |



**<LTE Band 12>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 23060                 | 23095                    | 23130                  |                     |          |
| Frequency (MHz) |            |         |           | 704                   | 707.5                    | 711                    |                     |          |
| 10              | QPSK       | 1       | 0         | 22.74                 | 22.45                    | 22.55                  | 24                  | 0        |
| 10              | QPSK       | 1       | 25        | 22.62                 | 22.64                    | 22.59                  |                     |          |
| 10              | QPSK       | 1       | 49        | 22.80                 | 22.88                    | 22.87                  |                     |          |
| 10              | QPSK       | 25      | 0         | 21.90                 | 21.82                    | 21.82                  | 23                  | 1        |
| 10              | QPSK       | 25      | 12        | 21.90                 | 21.92                    | 21.91                  |                     |          |
| 10              | QPSK       | 25      | 25        | 21.85                 | 21.82                    | 21.82                  |                     |          |
| 10              | QPSK       | 50      | 0         | 21.84                 | 21.75                    | 21.86                  | 23                  | 1        |
| 10              | 16QAM      | 1       | 0         | 22.20                 | 22.27                    | 22.19                  |                     |          |
| 10              | 16QAM      | 1       | 25        | 22.08                 | 22.03                    | 22.11                  |                     |          |
| 10              | 16QAM      | 1       | 49        | 22.17                 | 22.28                    | 22.19                  | 22                  | 2        |
| 10              | 16QAM      | 25      | 0         | 20.88                 | 20.75                    | 20.78                  |                     |          |
| 10              | 16QAM      | 25      | 12        | 20.81                 | 20.83                    | 20.87                  |                     |          |
| 10              | 16QAM      | 25      | 25        | 20.80                 | 20.80                    | 20.82                  | 22                  | 2        |
| 10              | 16QAM      | 50      | 0         | 20.89                 | 20.76                    | 20.88                  |                     |          |
| 10              | 64QAM      | 1       | 0         | 21.32                 | 21.28                    | 21.27                  |                     |          |
| 10              | 64QAM      | 1       | 25        | 21.18                 | 21.13                    | 21.17                  | 22                  | 2        |
| 10              | 64QAM      | 1       | 49        | 21.32                 | 21.38                    | 21.31                  |                     |          |
| 10              | 64QAM      | 25      | 0         | 20.11                 | 19.97                    | 20.05                  |                     |          |
| 10              | 64QAM      | 25      | 12        | 20.08                 | 20.03                    | 20.07                  | 21                  | 3        |
| 10              | 64QAM      | 25      | 25        | 20.05                 | 20.07                    | 20.01                  |                     |          |
| 10              | 64QAM      | 50      | 0         | 20.06                 | 19.92                    | 20.02                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 23035 | 23095 | 23155 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 701.5 | 707.5 | 713.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.76 | 22.72 | 22.69 | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.66 | 22.67 | 22.60 |                           |             |
| 5               | QPSK  | 1  | 24 | 22.75 | 22.76 | 22.68 |                           |             |
| 5               | QPSK  | 12 | 0  | 21.69 | 21.70 | 21.64 | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.69 | 21.66 | 21.61 |                           |             |
| 5               | QPSK  | 12 | 13 | 21.69 | 21.69 | 21.67 |                           |             |
| 5               | QPSK  | 25 | 0  | 21.71 | 21.73 | 21.68 | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 21.98 | 22.01 | 21.96 |                           |             |
| 5               | 16QAM | 1  | 12 | 21.77 | 21.80 | 21.73 |                           |             |
| 5               | 16QAM | 1  | 24 | 21.97 | 22.03 | 21.96 | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 20.74 | 20.77 | 20.71 |                           |             |
| 5               | 16QAM | 12 | 7  | 20.80 | 20.75 | 20.68 |                           |             |
| 5               | 16QAM | 12 | 13 | 20.78 | 20.78 | 20.76 | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.71 | 20.70 | 20.65 |                           |             |
| 5               | 64QAM | 1  | 0  | 21.03 | 21.03 | 20.98 |                           |             |
| 5               | 64QAM | 1  | 12 | 21.00 | 20.91 | 20.87 | 21                        | 3           |
| 5               | 64QAM | 1  | 24 | 21.01 | 21.09 | 20.95 |                           |             |
| 5               | 64QAM | 12 | 0  | 19.93 | 19.87 | 19.87 |                           |             |
| 5               | 64QAM | 12 | 7  | 19.94 | 19.90 | 19.87 | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 19.96 | 19.99 | 19.95 |                           |             |
| 5               | 64QAM | 25 | 0  | 19.96 | 19.91 | 19.86 |                           |             |
| Channel         |       |    |    | 23025 | 23095 | 23165 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 700.5 | 707.5 | 714.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 22.64 | 22.61 | 22.55 | 24                        | 0           |
| 3               | QPSK  | 1  | 8  | 22.80 | 22.74 | 22.67 |                           |             |
| 3               | QPSK  | 1  | 14 | 22.65 | 22.68 | 22.61 |                           |             |
| 3               | QPSK  | 8  | 0  | 21.62 | 21.72 | 21.61 | 23                        | 1           |
| 3               | QPSK  | 8  | 4  | 21.75 | 21.70 | 21.71 |                           |             |
| 3               | QPSK  | 8  | 7  | 21.63 | 21.74 | 21.64 |                           |             |
| 3               | QPSK  | 15 | 0  | 21.72 | 21.68 | 21.69 | 23                        | 1           |
| 3               | 16QAM | 1  | 0  | 21.95 | 21.93 | 21.91 |                           |             |
| 3               | 16QAM | 1  | 8  | 22.11 | 22.07 | 22.12 |                           |             |
| 3               | 16QAM | 1  | 14 | 22.10 | 22.11 | 22.14 | 22                        | 2           |
| 3               | 16QAM | 8  | 0  | 20.69 | 20.82 | 20.72 |                           |             |
| 3               | 16QAM | 8  | 4  | 20.79 | 20.80 | 20.82 |                           |             |
| 3               | 16QAM | 8  | 7  | 20.70 | 20.85 | 20.76 | 22                        | 2           |
| 3               | 16QAM | 15 | 0  | 20.76 | 20.69 | 20.74 |                           |             |
| 3               | 64QAM | 1  | 0  | 20.72 | 20.67 | 20.72 |                           |             |
| 3               | 64QAM | 1  | 8  | 20.87 | 20.76 | 20.79 | 21                        | 3           |
| 3               | 64QAM | 1  | 14 | 20.82 | 20.75 | 20.75 |                           |             |
| 3               | 64QAM | 8  | 0  | 19.47 | 19.67 | 19.67 |                           |             |
| 3               | 64QAM | 8  | 4  | 19.54 | 19.66 | 19.76 | 21                        | 3           |
| 3               | 64QAM | 8  | 7  | 19.44 | 19.65 | 19.76 |                           |             |
| 3               | 64QAM | 15 | 0  | 19.50 | 19.65 | 19.79 |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 23017 | 23095 | 23173 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|-------|-------|-------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 699.7 | 707.5 | 715.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 22.88 | 22.66 | 22.65 | 24                        | 0           |
| 1.4             | QPSK  | 1 | 3 | 22.80 | 22.65 | 22.70 |                           |             |
| 1.4             | QPSK  | 1 | 5 | 22.82 | 22.65 | 22.61 |                           |             |
| 1.4             | QPSK  | 3 | 0 | 22.86 | 22.67 | 22.58 |                           |             |
| 1.4             | QPSK  | 3 | 1 | 22.78 | 22.66 | 22.66 |                           |             |
| 1.4             | QPSK  | 3 | 3 | 22.77 | 22.67 | 22.58 |                           |             |
| 1.4             | QPSK  | 6 | 0 | 21.79 | 21.62 | 21.62 | 23                        | 1           |
| 1.4             | 16QAM | 1 | 0 | 22.19 | 22.07 | 22.10 | 23                        | 1           |
| 1.4             | 16QAM | 1 | 3 | 22.13 | 22.07 | 22.08 |                           |             |
| 1.4             | 16QAM | 1 | 5 | 22.05 | 22.13 | 22.07 |                           |             |
| 1.4             | 16QAM | 3 | 0 | 21.93 | 21.79 | 21.68 |                           |             |
| 1.4             | 16QAM | 3 | 1 | 22.00 | 21.74 | 21.73 |                           |             |
| 1.4             | 16QAM | 3 | 3 | 21.88 | 21.73 | 21.62 |                           |             |
| 1.4             | 16QAM | 6 | 0 | 20.82 | 20.69 | 20.68 | 22                        | 2           |
| 1.4             | 64QAM | 1 | 0 | 20.73 | 20.78 | 20.74 | 22                        | 2           |
| 1.4             | 64QAM | 1 | 3 | 20.73 | 20.79 | 20.82 |                           |             |
| 1.4             | 64QAM | 1 | 5 | 20.71 | 20.65 | 20.76 |                           |             |
| 1.4             | 64QAM | 3 | 0 | 20.70 | 20.72 | 20.76 |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.78 | 20.75 | 20.79 |                           |             |
| 1.4             | 64QAM | 3 | 3 | 20.66 | 20.69 | 20.72 |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.62 | 19.64 | 19.72 | 21                        | 3           |

**<LTE Band 13>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 23230                       | -                         | 24                        | 0           |
| Frequency (MHz) |            |         |           |                          | 782                         |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 22.43                       |                           |                           |             |
| 10              | QPSK       | 1       | 25        |                          | 22.36                       |                           | 23                        | 1           |
| 10              | QPSK       | 1       | 49        |                          | 22.73                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 22.13                       |                           |                           |             |
| 10              | QPSK       | 25      | 12        |                          | 21.98                       |                           | 23                        | 1           |
| 10              | QPSK       | 25      | 25        |                          | 22.03                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 22.06                       |                           |                           |             |
| 10              | 16QAM      | 1       | 0         |                          | 22.31                       |                           | 23                        | 1           |
| 10              | 16QAM      | 1       | 25        |                          | 22.19                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 22.42                       |                           |                           |             |
| 10              | 16QAM      | 25      | 0         |                          | 21.07                       |                           | 22                        | 2           |
| 10              | 16QAM      | 25      | 12        |                          | 20.93                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 21.02                       |                           |                           |             |
| 10              | 16QAM      | 50      | 0         |                          | 21.09                       |                           | 22                        | 2           |
| 10              | 64QAM      | 1       | 0         |                          | 20.68                       |                           |                           |             |
| 10              | 64QAM      | 1       | 25        |                          | 20.65                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 20.88                       |                           | 22                        | 2           |
| 10              | 64QAM      | 25      | 0         |                          | 19.61                       |                           |                           |             |
| 10              | 64QAM      | 25      | 12        |                          | 19.49                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 19.57                       |                           | 21                        | 3           |
| 10              | 64QAM      | 50      | 0         |                          | 19.52                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 23205 | 23230 | 23255 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 779.5 | 782   | 784.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.64 | 22.63 | 22.52 | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.70 | 22.48 | 22.44 |                           |             |
| 5               | QPSK  | 1  | 24 | 22.70 | 22.54 | 22.47 |                           |             |
| 5               | QPSK  | 12 | 0  | 21.81 | 21.59 | 21.45 | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.85 | 21.54 | 21.52 |                           |             |
| 5               | QPSK  | 12 | 13 | 21.78 | 21.55 | 21.37 |                           |             |
| 5               | QPSK  | 25 | 0  | 21.83 | 21.55 | 21.42 | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.05 | 21.89 | 21.76 |                           |             |
| 5               | 16QAM | 1  | 12 | 21.90 | 21.67 | 21.60 |                           |             |
| 5               | 16QAM | 1  | 24 | 22.04 | 21.82 | 21.75 | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 20.79 | 20.65 | 20.46 |                           |             |
| 5               | 16QAM | 12 | 7  | 20.83 | 20.55 | 20.52 |                           |             |
| 5               | 16QAM | 12 | 13 | 20.82 | 20.59 | 20.40 | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.68 | 20.55 | 20.34 |                           |             |
| 5               | 64QAM | 1  | 0  | 20.98 | 20.95 | 20.89 |                           |             |
| 5               | 64QAM | 1  | 12 | 21.00 | 20.84 | 20.82 | 21                        | 3           |
| 5               | 64QAM | 1  | 24 | 21.07 | 20.85 | 20.86 |                           |             |
| 5               | 64QAM | 12 | 0  | 19.93 | 19.81 | 19.77 |                           |             |
| 5               | 64QAM | 12 | 7  | 19.97 | 19.76 | 19.80 | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 19.96 | 19.76 | 19.69 |                           |             |
| 5               | 64QAM | 25 | 0  | 19.94 | 19.76 | 19.67 |                           |             |



**<LTE Band 14>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 23330                       | -                         | 24                        | 0           |
| Frequency (MHz) |            |         |           |                          | 793                         |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 22.94                       |                           |                           |             |
| 10              | QPSK       | 1       | 25        |                          | 22.50                       |                           | 23                        | 1           |
| 10              | QPSK       | 1       | 49        |                          | 22.66                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 21.75                       |                           |                           |             |
| 10              | QPSK       | 25      | 12        |                          | 21.70                       |                           | 23                        | 1           |
| 10              | QPSK       | 25      | 25        |                          | 21.73                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 21.67                       |                           |                           |             |
| 10              | 16QAM      | 1       | 0         |                          | 22.09                       |                           | 23                        | 1           |
| 10              | 16QAM      | 1       | 25        |                          | 21.83                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 21.99                       |                           |                           |             |
| 10              | 16QAM      | 25      | 0         |                          | 20.76                       |                           | 22                        | 2           |
| 10              | 16QAM      | 25      | 12        |                          | 20.68                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 20.63                       |                           |                           |             |
| 10              | 16QAM      | 50      | 0         |                          | 20.73                       |                           | 22                        | 2           |
| 10              | 64QAM      | 1       | 0         |                          | 20.98                       |                           |                           |             |
| 10              | 64QAM      | 1       | 25        |                          | 20.81                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 20.93                       |                           | 21                        | 3           |
| 10              | 64QAM      | 25      | 0         |                          | 19.76                       |                           |                           |             |
| 10              | 64QAM      | 25      | 12        |                          | 19.67                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 19.71                       |                           |                           |             |
| 10              | 64QAM      | 50      | 0         |                          | 19.68                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 23305 | 23330 | 23355 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------|----------|
| Frequency (MHz) |       |    |    | 790.5 | 793   | 795.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 22.82 | 22.86 | 22.80 | 24                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.78 | 22.73 | 22.77 |                     |          |
| 5               | QPSK  | 1  | 24 | 22.75 | 22.76 | 22.73 |                     |          |
| 5               | QPSK  | 12 | 0  | 21.81 | 21.76 | 21.77 | 23                  | 1        |
| 5               | QPSK  | 12 | 7  | 21.81 | 21.77 | 21.63 |                     |          |
| 5               | QPSK  | 12 | 13 | 21.75 | 21.72 | 21.70 |                     |          |
| 5               | QPSK  | 25 | 0  | 21.85 | 21.76 | 21.80 | 23                  | 1        |
| 5               | 16QAM | 1  | 0  | 22.10 | 22.17 | 22.04 |                     |          |
| 5               | 16QAM | 1  | 12 | 21.98 | 21.93 | 21.98 |                     |          |
| 5               | 16QAM | 1  | 24 | 22.06 | 22.09 | 22.04 | 22                  | 2        |
| 5               | 16QAM | 12 | 0  | 20.83 | 20.76 | 20.80 |                     |          |
| 5               | 16QAM | 12 | 7  | 20.89 | 20.77 | 20.71 |                     |          |
| 5               | 16QAM | 12 | 13 | 20.85 | 20.79 | 20.79 | 22                  | 2        |
| 5               | 16QAM | 25 | 0  | 20.76 | 20.74 | 20.71 |                     |          |
| 5               | 64QAM | 1  | 0  | 20.90 | 20.97 | 20.90 |                     |          |
| 5               | 64QAM | 1  | 12 | 20.83 | 20.77 | 20.76 | 21                  | 3        |
| 5               | 64QAM | 1  | 24 | 20.89 | 20.93 | 20.95 |                     |          |
| 5               | 64QAM | 12 | 0  | 19.75 | 19.69 | 19.79 |                     |          |
| 5               | 64QAM | 12 | 7  | 19.82 | 19.74 | 19.73 | 21                  | 3        |
| 5               | 64QAM | 12 | 13 | 19.78 | 19.73 | 19.82 |                     |          |
| 5               | 64QAM | 25 | 0  | 19.81 | 19.74 | 19.79 |                     |          |

**<LTE Band 17>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 23780                    | 23790                       | 23800                     |                           |             |
| Frequency (MHz) |            |         |           | 709                      | 710                         | 711                       |                           |             |
| 10              | QPSK       | 1       | 0         | 22.72                    | 22.39                       | 22.44                     | 24                        | 0           |
| 10              | QPSK       | 1       | 25        | 22.41                    | 22.46                       | 22.48                     |                           |             |
| 10              | QPSK       | 1       | 49        | 22.68                    | 22.70                       | 22.69                     |                           |             |
| 10              | QPSK       | 25      | 0         | 21.86                    | 21.82                       | 21.74                     | 23                        | 1           |
| 10              | QPSK       | 25      | 12        | 21.75                    | 21.78                       | 21.84                     |                           |             |
| 10              | QPSK       | 25      | 25        | 21.85                    | 21.74                       | 21.79                     |                           |             |
| 10              | QPSK       | 50      | 0         | 21.71                    | 21.79                       | 21.87                     |                           |             |
| 10              | 16QAM      | 1       | 0         | 22.25                    | 22.17                       | 22.28                     | 23                        | 1           |
| 10              | 16QAM      | 1       | 25        | 21.92                    | 21.99                       | 22.07                     |                           |             |
| 10              | 16QAM      | 1       | 49        | 22.16                    | 22.20                       | 22.19                     |                           |             |
| 10              | 16QAM      | 25      | 0         | 20.81                    | 20.77                       | 20.71                     | 22                        | 2           |
| 10              | 16QAM      | 25      | 12        | 20.73                    | 20.77                       | 20.82                     |                           |             |
| 10              | 16QAM      | 25      | 25        | 20.85                    | 20.73                       | 20.76                     |                           |             |
| 10              | 16QAM      | 50      | 0         | 20.76                    | 20.80                       | 20.86                     |                           |             |
| 10              | 64QAM      | 1       | 0         | 21.29                    | 21.21                       | 21.30                     | 22                        | 2           |
| 10              | 64QAM      | 1       | 25        | 21.00                    | 21.03                       | 21.09                     |                           |             |
| 10              | 64QAM      | 1       | 49        | 21.32                    | 21.26                       | 21.29                     |                           |             |
| 10              | 64QAM      | 25      | 0         | 20.04                    | 20.02                       | 20.00                     | 21                        | 3           |
| 10              | 64QAM      | 25      | 12        | 20.00                    | 20.03                       | 20.10                     |                           |             |
| 10              | 64QAM      | 25      | 25        | 20.08                    | 20.01                       | 20.03                     |                           |             |
| 10              | 64QAM      | 50      | 0         | 19.95                    | 19.97                       | 20.05                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 23755 | 23790 | 23825 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------|----------|
| Frequency (MHz) |       |    |    | 706.5 | 710   | 713.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 22.66 | 22.78 | 22.64 | 24                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.68 | 22.71 | 22.60 |                     |          |
| 5               | QPSK  | 1  | 24 | 22.89 | 22.78 | 22.67 |                     |          |
| 5               | QPSK  | 12 | 0  | 21.73 | 21.71 | 21.73 | 23                  | 1        |
| 5               | QPSK  | 12 | 7  | 21.74 | 21.75 | 21.68 |                     |          |
| 5               | QPSK  | 12 | 13 | 21.68 | 21.79 | 21.65 |                     |          |
| 5               | QPSK  | 25 | 0  | 21.76 | 21.76 | 21.74 | 23                  | 1        |
| 5               | 16QAM | 1  | 0  | 21.99 | 22.08 | 21.94 |                     |          |
| 5               | 16QAM | 1  | 12 | 21.90 | 21.85 | 21.76 |                     |          |
| 5               | 16QAM | 1  | 24 | 22.16 | 22.07 | 21.96 | 22                  | 2        |
| 5               | 16QAM | 12 | 0  | 20.83 | 20.78 | 20.87 |                     |          |
| 5               | 16QAM | 12 | 7  | 20.86 | 20.82 | 20.76 |                     |          |
| 5               | 16QAM | 12 | 13 | 20.78 | 20.86 | 20.72 | 22                  | 2        |
| 5               | 16QAM | 25 | 0  | 20.76 | 20.73 | 20.74 |                     |          |
| 5               | 64QAM | 1  | 0  | 21.21 | 21.34 | 21.28 |                     |          |
| 5               | 64QAM | 1  | 12 | 21.21 | 21.25 | 21.23 | 22                  | 2        |
| 5               | 64QAM | 1  | 24 | 21.38 | 21.35 | 21.30 |                     |          |
| 5               | 64QAM | 12 | 0  | 20.16 | 20.22 | 20.34 |                     |          |
| 5               | 64QAM | 12 | 7  | 20.19 | 20.25 | 20.28 | 21                  | 3        |
| 5               | 64QAM | 12 | 13 | 20.14 | 20.30 | 20.24 |                     |          |
| 5               | 64QAM | 25 | 0  | 20.22 | 20.22 | 20.33 |                     |          |

**<LTE Band 25>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 26140                    | 26340                       | 26590                     |                           |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1905                      |                           |             |
| 20              | QPSK       | 1       | 0         | 22.57                    | 22.52                       | 22.51                     | 24                        | 0           |
| 20              | QPSK       | 1       | 49        | 22.71                    | 22.64                       | 22.48                     |                           |             |
| 20              | QPSK       | 1       | 99        | 22.24                    | 22.25                       | 22.22                     |                           |             |
| 20              | QPSK       | 50      | 0         | 21.71                    | 21.69                       | 21.67                     | 23                        | 1           |
| 20              | QPSK       | 50      | 24        | 21.82                    | 21.82                       | 21.71                     |                           |             |
| 20              | QPSK       | 50      | 50        | 21.64                    | 21.70                       | 21.67                     |                           |             |
| 20              | QPSK       | 100     | 0         | 21.81                    | 21.79                       | 21.80                     |                           |             |
| 20              | 16QAM      | 1       | 0         | 21.94                    | 21.93                       | 21.87                     | 23                        | 1           |
| 20              | 16QAM      | 1       | 49        | 21.93                    | 22.10                       | 22.05                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 21.42                    | 21.58                       | 21.46                     |                           |             |
| 20              | 16QAM      | 50      | 0         | 20.74                    | 20.68                       | 20.69                     | 22                        | 2           |
| 20              | 16QAM      | 50      | 24        | 20.86                    | 20.79                       | 20.78                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 20.68                    | 20.75                       | 20.72                     |                           |             |
| 20              | 16QAM      | 100     | 0         | 20.69                    | 20.70                       | 20.63                     |                           |             |
| 20              | 64QAM      | 1       | 0         | 20.69                    | 20.76                       | 20.70                     | 22                        | 2           |
| 20              | 64QAM      | 1       | 49        | 20.83                    | 20.85                       | 20.82                     |                           |             |
| 20              | 64QAM      | 1       | 99        | 20.34                    | 20.40                       | 20.23                     |                           |             |
| 20              | 64QAM      | 50      | 0         | 19.60                    | 19.57                       | 19.59                     | 21                        | 3           |
| 20              | 64QAM      | 50      | 24        | 19.69                    | 19.68                       | 19.58                     |                           |             |
| 20              | 64QAM      | 50      | 50        | 19.55                    | 19.59                       | 19.57                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 19.60                    | 19.61                       | 19.54                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26115  | 26340 | 26615  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1907.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 22.88  | 22.68 | 22.57  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 22.78  | 22.54 | 22.37  |                     |          |
| 15              | QPSK  | 1  | 74 | 22.82  | 22.68 | 22.63  |                     |          |
| 15              | QPSK  | 36 | 0  | 21.87  | 21.65 | 21.59  | 23                  | 1        |
| 15              | QPSK  | 36 | 20 | 21.98  | 21.68 | 21.61  |                     |          |
| 15              | QPSK  | 36 | 39 | 21.94  | 21.64 | 21.72  |                     |          |
| 15              | QPSK  | 75 | 0  | 21.99  | 21.72 | 21.72  | 23                  | 1        |
| 15              | 16QAM | 1  | 0  | 22.41  | 22.15 | 22.18  |                     |          |
| 15              | 16QAM | 1  | 37 | 22.07  | 21.93 | 21.93  |                     |          |
| 15              | 16QAM | 1  | 74 | 22.32  | 22.33 | 22.11  | 22                  | 2        |
| 15              | 16QAM | 36 | 0  | 20.93  | 20.69 | 20.66  |                     |          |
| 15              | 16QAM | 36 | 20 | 20.98  | 20.70 | 20.67  |                     |          |
| 15              | 16QAM | 36 | 39 | 20.96  | 20.70 | 20.74  | 22                  | 2        |
| 15              | 16QAM | 75 | 0  | 20.99  | 20.75 | 20.72  |                     |          |
| 15              | 64QAM | 1  | 0  | 20.76  | 20.49 | 20.51  |                     |          |
| 15              | 64QAM | 1  | 37 | 21.00  | 20.67 | 20.79  | 21                  | 3        |
| 15              | 64QAM | 1  | 74 | 20.66  | 20.59 | 20.36  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.44  | 19.20 | 19.12  |                     |          |
| 15              | 64QAM | 36 | 20 | 19.48  | 19.19 | 19.14  | 21                  | 3        |
| 15              | 64QAM | 36 | 39 | 19.48  | 19.19 | 19.24  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.45  | 19.26 | 19.23  |                     |          |
| Channel         |       |    |    | 26090  | 26340 | 26640  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1910   |                     |          |
| 10              | QPSK  | 1  | 0  | 22.84  | 22.85 | 22.80  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 22.78  | 22.33 | 22.34  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.06  | 22.60 | 22.87  |                     |          |
| 10              | QPSK  | 25 | 0  | 22.02  | 21.63 | 21.63  | 23                  | 1        |
| 10              | QPSK  | 25 | 12 | 22.00  | 21.59 | 21.67  |                     |          |
| 10              | QPSK  | 25 | 25 | 22.01  | 21.64 | 21.73  |                     |          |
| 10              | QPSK  | 50 | 0  | 22.01  | 21.61 | 21.71  | 23                  | 1        |
| 10              | 16QAM | 1  | 0  | 22.50  | 22.13 | 22.19  |                     |          |
| 10              | 16QAM | 1  | 25 | 22.32  | 21.91 | 22.07  |                     |          |
| 10              | 16QAM | 1  | 49 | 22.44  | 22.12 | 22.12  | 22                  | 2        |
| 10              | 16QAM | 25 | 0  | 20.96  | 20.57 | 20.63  |                     |          |
| 10              | 16QAM | 25 | 12 | 20.94  | 20.55 | 20.63  |                     |          |
| 10              | 16QAM | 25 | 25 | 20.90  | 20.57 | 20.60  | 22                  | 2        |
| 10              | 16QAM | 50 | 0  | 20.94  | 20.53 | 20.60  |                     |          |
| 10              | 64QAM | 1  | 0  | 20.93  | 20.45 | 20.52  |                     |          |
| 10              | 64QAM | 1  | 25 | 20.65  | 20.27 | 20.33  | 21                  | 3        |
| 10              | 64QAM | 1  | 49 | 20.85  | 20.48 | 20.40  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.52  | 19.13 | 19.17  |                     |          |
| 10              | 64QAM | 25 | 12 | 19.49  | 19.09 | 19.14  | 21                  | 3        |
| 10              | 64QAM | 25 | 25 | 19.50  | 19.15 | 19.22  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.47  | 19.08 | 19.13  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26065  | 26340 | 26665  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1912.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.50  | 22.72 | 22.75  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.79  | 22.40 | 22.43  |                           |             |
| 5               | QPSK  | 1  | 24 | 22.92  | 22.52 | 22.60  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.06  | 21.65 | 21.68  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.98  | 21.58 | 21.64  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.98  | 21.54 | 21.60  |                           |             |
| 5               | QPSK  | 25 | 0  | 22.00  | 21.58 | 21.66  | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.32  | 22.04 | 21.91  |                           |             |
| 5               | 16QAM | 1  | 12 | 21.96  | 21.80 | 21.73  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.14  | 21.74 | 22.00  | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 21.12  | 20.74 | 20.79  |                           |             |
| 5               | 16QAM | 12 | 7  | 21.06  | 20.63 | 20.78  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.08  | 20.65 | 20.75  | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.93  | 20.54 | 20.60  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.91  | 20.92 | 20.95  |                           |             |
| 5               | 64QAM | 1  | 12 | 20.92  | 20.87 | 20.90  | 22                        | 2           |
| 5               | 64QAM | 1  | 24 | 20.80  | 20.69 | 20.80  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.77  | 19.70 | 19.82  |                           |             |
| 5               | 64QAM | 12 | 7  | 19.77  | 19.70 | 19.81  | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 19.70  | 19.68 | 19.79  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.75  | 19.65 | 19.82  |                           |             |
| Channel         |       |    |    | 26055  | 26340 | 26675  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1913.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 22.79  | 22.61 | 22.63  | 24                        | 0           |
| 3               | QPSK  | 1  | 8  | 22.82  | 22.51 | 22.60  |                           |             |
| 3               | QPSK  | 1  | 14 | 22.99  | 22.45 | 22.50  |                           |             |
| 3               | QPSK  | 8  | 0  | 22.07  | 21.61 | 21.66  | 23                        | 1           |
| 3               | QPSK  | 8  | 4  | 22.03  | 21.54 | 21.65  |                           |             |
| 3               | QPSK  | 8  | 7  | 21.99  | 21.50 | 21.59  |                           |             |
| 3               | QPSK  | 15 | 0  | 22.05  | 21.56 | 21.68  | 23                        | 1           |
| 3               | 16QAM | 1  | 0  | 22.30  | 21.74 | 21.81  |                           |             |
| 3               | 16QAM | 1  | 8  | 22.12  | 21.61 | 21.98  |                           |             |
| 3               | 16QAM | 1  | 14 | 22.39  | 21.49 | 22.03  | 22                        | 2           |
| 3               | 16QAM | 8  | 0  | 21.18  | 20.76 | 20.85  |                           |             |
| 3               | 16QAM | 8  | 4  | 21.17  | 20.70 | 20.85  |                           |             |
| 3               | 16QAM | 8  | 7  | 21.14  | 20.73 | 20.85  | 22                        | 2           |
| 3               | 16QAM | 15 | 0  | 20.99  | 20.52 | 20.60  |                           |             |
| 3               | 64QAM | 1  | 0  | 20.95  | 20.74 | 20.80  |                           |             |
| 3               | 64QAM | 1  | 8  | 20.90  | 20.72 | 20.89  | 22                        | 2           |
| 3               | 64QAM | 1  | 14 | 20.80  | 20.66 | 20.84  |                           |             |
| 3               | 64QAM | 8  | 0  | 19.82  | 19.57 | 19.60  |                           |             |
| 3               | 64QAM | 8  | 4  | 19.81  | 19.49 | 19.72  | 21                        | 3           |
| 3               | 64QAM | 8  | 7  | 19.79  | 19.48 | 19.67  |                           |             |
| 3               | 64QAM | 15 | 0  | 19.82  | 19.55 | 19.76  |                           |             |



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Report No. : FA892801

| Channel         |       |   |   | 26047  | 26340 | 26683  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1914.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 22.51  | 22.17 | 22.29  | 24                  | 0        |
| 1.4             | QPSK  | 1 | 3 | 22.63  | 22.17 | 22.33  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 22.58  | 22.07 | 22.31  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 22.77  | 22.27 | 22.32  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 22.78  | 22.30 | 22.39  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 22.76  | 22.21 | 22.32  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 21.76  | 21.28 | 21.48  | 23                  | 1        |
| 1.4             | 16QAM | 1 | 0 | 21.75  | 21.34 | 21.69  | 23                  | 1        |
| 1.4             | 16QAM | 1 | 3 | 21.80  | 21.28 | 21.76  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 21.70  | 21.24 | 21.77  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 21.91  | 21.42 | 21.57  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 21.91  | 21.53 | 21.65  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 21.83  | 21.43 | 21.55  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 20.60  | 20.30 | 20.36  | 22                  | 2        |
| 1.4             | 64QAM | 1 | 0 | 20.39  | 20.35 | 20.40  | 22                  | 2        |
| 1.4             | 64QAM | 1 | 3 | 20.30  | 20.46 | 20.45  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 20.46  | 20.40 | 20.49  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 20.67  | 20.42 | 20.58  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 20.67  | 20.45 | 20.70  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 20.60  | 20.31 | 20.59  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 19.54  | 19.31 | 19.49  | 21                  | 3        |



**<LTE Band 26>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 26765                 | 26865                    | 26965                  |                     |          |
| Frequency (MHz) |            |         |           | 821.5                 | 831.5                    | 841.5                  |                     |          |
| 15              | QPSK       | 1       | 0         | 22.99                 | 23.13                    | 22.98                  |                     |          |
| 15              | QPSK       | 1       | 37        | 22.51                 | 22.58                    | 22.37                  | 24                  | 0        |
| 15              | QPSK       | 1       | 74        | 22.89                 | 22.96                    | 22.82                  |                     |          |
| 15              | QPSK       | 36      | 0         | 22.29                 | 22.11                    | 22.09                  |                     |          |
| 15              | QPSK       | 36      | 20        | 21.95                 | 22.02                    | 21.84                  | 23                  | 1        |
| 15              | QPSK       | 36      | 39        | 21.83                 | 21.76                    | 21.72                  |                     |          |
| 15              | QPSK       | 75      | 0         | 22.03                 | 22.05                    | 21.95                  |                     |          |
| 15              | 16QAM      | 1       | 0         | 22.66                 | 22.50                    | 22.42                  | 23                  | 1        |
| 15              | 16QAM      | 1       | 37        | 22.23                 | 22.26                    | 22.11                  |                     |          |
| 15              | 16QAM      | 1       | 74        | 22.38                 | 22.64                    | 22.52                  |                     |          |
| 15              | 16QAM      | 36      | 0         | 21.40                 | 21.16                    | 21.10                  | 22                  | 2        |
| 15              | 16QAM      | 36      | 20        | 20.99                 | 21.03                    | 20.86                  |                     |          |
| 15              | 16QAM      | 36      | 39        | 20.83                 | 20.82                    | 20.72                  |                     |          |
| 15              | 16QAM      | 75      | 0         | 21.04                 | 21.06                    | 21.00                  | 22                  | 2        |
| 15              | 64QAM      | 1       | 0         | 21.57                 | 21.41                    | 21.31                  |                     |          |
| 15              | 64QAM      | 1       | 37        | 21.06                 | 21.14                    | 21.03                  |                     |          |
| 15              | 64QAM      | 1       | 74        | 21.41                 | 21.48                    | 21.39                  | 21                  | 3        |
| 15              | 64QAM      | 36      | 0         | 20.39                 | 20.14                    | 20.11                  |                     |          |
| 15              | 64QAM      | 36      | 20        | 20.02                 | 20.02                    | 19.86                  |                     |          |
| 15              | 64QAM      | 36      | 39        | 19.74                 | 19.80                    | 19.61                  | 21                  | 3        |
| 15              | 64QAM      | 75      | 0         | 20.04                 | 20.06                    | 20.01                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26740 | 26865 | 26990 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 819   | 831.5 | 844   |                           |             |
| 10              | QPSK  | 1  | 0  | 23.10 | 23.10 | 22.78 | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 22.78 | 22.80 | 22.40 |                           |             |
| 10              | QPSK  | 1  | 49 | 23.12 | 22.87 | 22.85 |                           |             |
| 10              | QPSK  | 25 | 0  | 22.12 | 22.20 | 21.89 | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 22.15 | 22.07 | 21.81 |                           |             |
| 10              | QPSK  | 25 | 25 | 22.19 | 22.06 | 21.79 |                           |             |
| 10              | QPSK  | 50 | 0  | 22.13 | 22.11 | 21.82 | 23                        | 1           |
| 10              | 16QAM | 1  | 0  | 22.24 | 22.31 | 22.28 |                           |             |
| 10              | 16QAM | 1  | 25 | 22.24 | 22.17 | 21.91 |                           |             |
| 10              | 16QAM | 1  | 49 | 22.33 | 22.21 | 22.12 | 22                        | 2           |
| 10              | 16QAM | 25 | 0  | 21.10 | 21.13 | 20.86 |                           |             |
| 10              | 16QAM | 25 | 12 | 21.10 | 21.07 | 20.79 |                           |             |
| 10              | 16QAM | 25 | 25 | 21.21 | 21.04 | 20.73 | 22                        | 2           |
| 10              | 16QAM | 50 | 0  | 21.14 | 21.08 | 20.82 |                           |             |
| 10              | 64QAM | 1  | 0  | 21.58 | 21.76 | 21.66 |                           |             |
| 10              | 64QAM | 1  | 25 | 21.66 | 21.49 | 21.30 | 22                        | 2           |
| 10              | 64QAM | 1  | 49 | 21.70 | 21.75 | 21.47 |                           |             |
| 10              | 64QAM | 25 | 0  | 20.56 | 20.52 | 20.36 |                           |             |
| 10              | 64QAM | 25 | 12 | 20.61 | 20.46 | 20.29 | 21                        | 3           |
| 10              | 64QAM | 25 | 25 | 20.65 | 20.43 | 20.26 |                           |             |
| 10              | 64QAM | 50 | 0  | 20.57 | 20.47 | 20.32 |                           |             |
| Channel         |       |    |    | 26715 | 26865 | 27015 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 816.5 | 831.5 | 846.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.79 | 22.73 | 22.43 | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.63 | 22.67 | 22.31 |                           |             |
| 5               | QPSK  | 1  | 24 | 22.73 | 22.60 | 22.36 |                           |             |
| 5               | QPSK  | 12 | 0  | 22.12 | 22.02 | 21.68 | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 22.13 | 22.02 | 21.68 |                           |             |
| 5               | QPSK  | 12 | 13 | 22.03 | 22.01 | 21.63 |                           |             |
| 5               | QPSK  | 25 | 0  | 22.03 | 22.05 | 21.69 | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.32 | 22.31 | 21.94 |                           |             |
| 5               | 16QAM | 1  | 12 | 22.14 | 22.13 | 21.80 |                           |             |
| 5               | 16QAM | 1  | 24 | 22.27 | 22.14 | 21.89 | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 21.12 | 21.04 | 20.75 |                           |             |
| 5               | 16QAM | 12 | 7  | 21.19 | 21.06 | 20.72 |                           |             |
| 5               | 16QAM | 12 | 13 | 21.07 | 20.99 | 20.71 | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.97 | 21.03 | 20.67 |                           |             |
| 5               | 64QAM | 1  | 0  | 21.60 | 21.56 | 21.30 |                           |             |
| 5               | 64QAM | 1  | 12 | 21.49 | 21.42 | 21.17 | 22                        | 2           |
| 5               | 64QAM | 1  | 24 | 21.60 | 21.48 | 21.26 |                           |             |
| 5               | 64QAM | 12 | 0  | 20.55 | 20.43 | 20.18 |                           |             |
| 5               | 64QAM | 12 | 7  | 20.58 | 20.45 | 20.15 | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 20.47 | 20.38 | 20.20 |                           |             |
| 5               | 64QAM | 25 | 0  | 20.46 | 20.43 | 20.19 |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26705 | 26865 | 27025 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|-------|-------|-------|---------------------|----------|
| Frequency (MHz) |       |    |    | 815.5 | 831.5 | 847.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 22.70 | 22.72 | 22.29 | 24                  | 0        |
| 3               | QPSK  | 1  | 8  | 22.80 | 22.66 | 22.34 |                     |          |
| 3               | QPSK  | 1  | 14 | 22.63 | 22.58 | 22.28 |                     |          |
| 3               | QPSK  | 8  | 0  | 22.08 | 22.02 | 21.66 | 23                  | 1        |
| 3               | QPSK  | 8  | 4  | 22.13 | 22.05 | 21.70 |                     |          |
| 3               | QPSK  | 8  | 7  | 22.09 | 22.00 | 21.66 |                     |          |
| 3               | QPSK  | 15 | 0  | 22.10 | 22.04 | 21.69 | 23                  | 1        |
| 3               | 16QAM | 1  | 0  | 22.24 | 22.37 | 21.83 |                     |          |
| 3               | 16QAM | 1  | 8  | 22.15 | 22.30 | 21.89 |                     |          |
| 3               | 16QAM | 1  | 14 | 22.17 | 22.15 | 21.88 | 22                  | 2        |
| 3               | 16QAM | 8  | 0  | 21.15 | 21.03 | 20.75 |                     |          |
| 3               | 16QAM | 8  | 4  | 21.19 | 21.08 | 20.73 |                     |          |
| 3               | 16QAM | 8  | 7  | 21.14 | 21.03 | 20.73 | 22                  | 2        |
| 3               | 16QAM | 15 | 0  | 21.12 | 21.04 | 20.67 |                     |          |
| 3               | 64QAM | 1  | 0  | 21.57 | 21.54 | 21.16 |                     |          |
| 3               | 64QAM | 1  | 8  | 21.62 | 21.53 | 21.18 | 22                  | 2        |
| 3               | 64QAM | 1  | 14 | 21.52 | 21.45 | 21.17 |                     |          |
| 3               | 64QAM | 8  | 0  | 20.57 | 20.46 | 20.14 |                     |          |
| 3               | 64QAM | 8  | 4  | 20.61 | 20.45 | 20.15 | 21                  | 3        |
| 3               | 64QAM | 8  | 7  | 20.58 | 20.39 | 20.15 |                     |          |
| 3               | 64QAM | 15 | 0  | 20.55 | 20.42 | 20.15 |                     |          |
| Channel         |       |    |    | 26697 | 26865 | 27033 | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 814.7 | 831.5 | 848.3 |                     |          |
| 1.4             | QPSK  | 1  | 0  | 22.71 | 22.63 | 22.24 | 24                  | 0        |
| 1.4             | QPSK  | 1  | 3  | 22.76 | 22.66 | 22.29 |                     |          |
| 1.4             | QPSK  | 1  | 5  | 22.73 | 22.59 | 22.24 |                     |          |
| 1.4             | QPSK  | 3  | 0  | 22.70 | 22.63 | 22.28 | 24                  | 0        |
| 1.4             | QPSK  | 3  | 1  | 22.75 | 22.65 | 22.28 |                     |          |
| 1.4             | QPSK  | 3  | 3  | 22.74 | 22.67 | 22.28 |                     |          |
| 1.4             | QPSK  | 6  | 0  | 22.06 | 22.02 | 21.69 | 23                  | 1        |
| 1.4             | 16QAM | 1  | 0  | 22.27 | 22.20 | 21.81 | 23                  | 1        |
| 1.4             | 16QAM | 1  | 3  | 22.15 | 22.24 | 21.85 |                     |          |
| 1.4             | 16QAM | 1  | 5  | 22.26 | 22.15 | 21.78 |                     |          |
| 1.4             | 16QAM | 3  | 0  | 22.07 | 22.00 | 21.69 | 23                  | 1        |
| 1.4             | 16QAM | 3  | 1  | 22.11 | 22.04 | 21.76 |                     |          |
| 1.4             | 16QAM | 3  | 3  | 22.05 | 21.99 | 21.74 |                     |          |
| 1.4             | 16QAM | 6  | 0  | 21.19 | 21.04 | 20.66 | 22                  | 2        |
| 1.4             | 64QAM | 1  | 0  | 21.62 | 21.45 | 21.17 | 22                  | 2        |
| 1.4             | 64QAM | 1  | 3  | 21.67 | 21.50 | 21.26 |                     |          |
| 1.4             | 64QAM | 1  | 5  | 21.61 | 21.42 | 21.15 |                     |          |
| 1.4             | 64QAM | 3  | 0  | 21.49 | 21.42 | 21.16 | 22                  | 2        |
| 1.4             | 64QAM | 3  | 1  | 21.54 | 21.47 | 21.19 |                     |          |
| 1.4             | 64QAM | 3  | 3  | 21.53 | 21.38 | 21.13 |                     |          |
| 1.4             | 64QAM | 6  | 0  | 20.56 | 20.40 | 20.06 | 21                  | 3        |



**<LTE Band 30>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 27710                       | -                         | 24                        | 0           |
| Frequency (MHz) |            |         |           |                          | 2310                        |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 23.03                       |                           |                           |             |
| 10              | QPSK       | 1       | 25        |                          | 22.94                       |                           | 23                        | 1           |
| 10              | QPSK       | 1       | 49        |                          | 23.29                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 21.79                       |                           |                           |             |
| 10              | QPSK       | 25      | 12        |                          | 21.85                       |                           |                           |             |
| 10              | QPSK       | 25      | 25        |                          | 21.83                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 21.75                       |                           | 23                        | 1           |
| 10              | 16QAM      | 1       | 0         |                          | 22.78                       |                           |                           |             |
| 10              | 16QAM      | 1       | 25        |                          | 22.59                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 22.78                       |                           | 22                        | 2           |
| 10              | 16QAM      | 25      | 0         |                          | 20.80                       |                           |                           |             |
| 10              | 16QAM      | 25      | 12        |                          | 20.85                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 20.88                       |                           |                           |             |
| 10              | 16QAM      | 50      | 0         |                          | 20.79                       |                           |                           |             |
| 10              | 64QAM      | 1       | 0         |                          | 21.85                       |                           | 22                        | 2           |
| 10              | 64QAM      | 1       | 25        |                          | 21.54                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 21.85                       |                           |                           |             |
| 10              | 64QAM      | 25      | 0         |                          | 19.99                       |                           | 21                        | 3           |
| 10              | 64QAM      | 25      | 12        |                          | 20.06                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 20.07                       |                           |                           |             |
| 10              | 64QAM      | 50      | 0         |                          | 19.97                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 27685  | 27710 | 27735  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2307.5 | 2310  | 2312.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 23.14  | 23.04 | 23.08  | 24                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.94  | 23.09 | 23.11  |                     |          |
| 5               | QPSK  | 1  | 24 | 22.97  | 23.15 | 23.24  |                     |          |
| 5               | QPSK  | 12 | 0  | 22.24  | 22.10 | 22.24  | 23                  | 1        |
| 5               | QPSK  | 12 | 7  | 22.08  | 22.13 | 22.16  |                     |          |
| 5               | QPSK  | 12 | 13 | 22.03  | 22.12 | 22.20  |                     |          |
| 5               | QPSK  | 25 | 0  | 22.08  | 22.44 | 22.57  |                     |          |
| 5               | 16QAM | 1  | 0  | 22.41  | 22.42 | 22.37  | 23                  | 1        |
| 5               | 16QAM | 1  | 12 | 22.23  | 22.38 | 22.41  |                     |          |
| 5               | 16QAM | 1  | 24 | 22.24  | 22.25 | 22.32  |                     |          |
| 5               | 16QAM | 12 | 0  | 21.28  | 21.17 | 21.26  | 22                  | 2        |
| 5               | 16QAM | 12 | 7  | 21.11  | 21.20 | 21.19  |                     |          |
| 5               | 16QAM | 12 | 13 | 21.11  | 21.10 | 21.21  |                     |          |
| 5               | 16QAM | 25 | 0  | 21.10  | 21.30 | 21.40  |                     |          |
| 5               | 64QAM | 1  | 0  | 21.78  | 21.67 | 21.66  | 22                  | 2        |
| 5               | 64QAM | 1  | 12 | 21.63  | 21.68 | 21.65  |                     |          |
| 5               | 64QAM | 1  | 24 | 21.61  | 21.65 | 21.63  |                     |          |
| 5               | 64QAM | 12 | 0  | 20.73  | 20.58 | 20.64  | 21                  | 3        |
| 5               | 64QAM | 12 | 7  | 20.61  | 20.62 | 20.58  |                     |          |
| 5               | 64QAM | 12 | 13 | 20.58  | 20.57 | 20.65  |                     |          |
| 5               | 64QAM | 25 | 0  | 20.64  | 20.61 | 20.60  |                     |          |

**<LTE Band 66>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 132072                | 132322                   | 132572                 |                     |          |
| Frequency (MHz) |            |         |           | 1720                  | 1745                     | 1770                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.88                 | 22.50                    | 23.05                  |                     |          |
| 20              | QPSK       | 1       | 49        | 22.80                 | 22.73                    | 23.06                  | 24                  | 0        |
| 20              | QPSK       | 1       | 99        | 22.93                 | 23.06                    | 23.10                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.62                 | 21.70                    | 21.85                  |                     |          |
| 20              | QPSK       | 50      | 24        | 21.67                 | 21.76                    | 22.02                  | 23                  | 1        |
| 20              | QPSK       | 50      | 50        | 21.58                 | 21.54                    | 21.87                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.56                 | 21.67                    | 21.95                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.69                 | 21.79                    | 21.88                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.92                 | 22.11                    | 22.41                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.18                 | 22.34                    | 22.55                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.59                 | 20.66                    | 20.93                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.63                 | 20.74                    | 20.97                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.57                 | 20.74                    | 20.84                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.61                 | 20.66                    | 20.91                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 0         | 20.78                 | 21.26                    | 20.96                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.65                 | 21.63                    | 21.15                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 21.26                 | 21.96                    | 21.55                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 0         | 19.79                 | 19.85                    | 20.05                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.82                 | 19.90                    | 20.15                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.76                 | 19.88                    | 20.06                  | 21                  | 3        |
| 20              | 64QAM      | 100     | 0         | 19.83                 | 19.83                    | 20.10                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 132047 | 132322 | 132597 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1717.5 | 1745   | 1772.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 22.73  | 22.96  | 22.96  | 24                        | 0           |
| 15              | QPSK  | 1  | 37 | 22.87  | 22.92  | 22.48  |                           |             |
| 15              | QPSK  | 1  | 74 | 22.98  | 22.84  | 22.63  |                           |             |
| 15              | QPSK  | 36 | 0  | 22.03  | 21.70  | 21.61  | 23                        | 1           |
| 15              | QPSK  | 36 | 20 | 21.88  | 21.67  | 21.61  |                           |             |
| 15              | QPSK  | 36 | 39 | 21.73  | 21.61  | 21.48  |                           |             |
| 15              | QPSK  | 75 | 0  | 21.83  | 21.71  | 21.62  | 23                        | 1           |
| 15              | 16QAM | 1  | 0  | 22.55  | 22.27  | 22.25  |                           |             |
| 15              | 16QAM | 1  | 37 | 22.08  | 21.88  | 21.88  |                           |             |
| 15              | 16QAM | 1  | 74 | 22.30  | 22.32  | 22.17  | 22                        | 2           |
| 15              | 16QAM | 36 | 0  | 21.07  | 20.71  | 20.67  |                           |             |
| 15              | 16QAM | 36 | 20 | 20.94  | 20.71  | 20.63  |                           |             |
| 15              | 16QAM | 36 | 39 | 20.77  | 20.63  | 20.57  | 22                        | 2           |
| 15              | 16QAM | 75 | 0  | 20.88  | 20.73  | 20.63  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.88  | 21.15  | 20.78  |                           |             |
| 15              | 64QAM | 1  | 37 | 20.83  | 21.01  | 21.27  | 22                        | 2           |
| 15              | 64QAM | 1  | 74 | 20.83  | 21.16  | 20.80  |                           |             |
| 15              | 64QAM | 36 | 0  | 20.05  | 19.70  | 19.65  |                           |             |
| 15              | 64QAM | 36 | 20 | 19.91  | 19.71  | 19.63  | 21                        | 3           |
| 15              | 64QAM | 36 | 39 | 19.73  | 19.63  | 19.54  |                           |             |
| 15              | 64QAM | 75 | 0  | 19.88  | 19.74  | 19.60  |                           |             |
| Channel         |       |    |    | 132022 | 132322 | 132622 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1715   | 1745   | 1775   |                           |             |
| 10              | QPSK  | 1  | 0  | 23.10  | 23.10  | 23.12  | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 22.88  | 22.80  | 22.50  |                           |             |
| 10              | QPSK  | 1  | 49 | 23.28  | 22.95  | 22.98  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.86  | 21.86  | 21.62  | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 22.03  | 21.95  | 21.82  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.95  | 22.02  | 21.82  |                           |             |
| 10              | QPSK  | 50 | 0  | 22.05  | 21.94  | 21.82  | 23                        | 1           |
| 10              | 16QAM | 1  | 0  | 21.69  | 21.61  | 21.50  |                           |             |
| 10              | 16QAM | 1  | 25 | 22.07  | 22.19  | 22.26  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.38  | 22.27  | 22.17  | 22                        | 2           |
| 10              | 16QAM | 25 | 0  | 20.95  | 20.87  | 20.69  |                           |             |
| 10              | 16QAM | 25 | 12 | 21.07  | 20.90  | 20.81  |                           |             |
| 10              | 16QAM | 25 | 25 | 21.06  | 20.94  | 20.76  | 22                        | 2           |
| 10              | 16QAM | 50 | 0  | 21.02  | 20.88  | 20.74  |                           |             |
| 10              | 64QAM | 1  | 0  | 21.00  | 21.27  | 21.18  |                           |             |
| 10              | 64QAM | 1  | 25 | 21.52  | 21.09  | 20.86  | 22                        | 2           |
| 10              | 64QAM | 1  | 49 | 21.53  | 21.62  | 21.40  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.89  | 19.92  | 19.70  |                           |             |
| 10              | 64QAM | 25 | 12 | 19.98  | 19.98  | 19.83  | 21                        | 3           |
| 10              | 64QAM | 25 | 25 | 19.97  | 20.05  | 19.86  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.98  | 19.89  | 19.76  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 131997 | 132322 | 132647 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1712.5 | 1745   | 1777.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.10  | 22.93  | 22.82  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.92  | 22.79  | 22.81  |                           |             |
| 5               | QPSK  | 1  | 24 | 22.91  | 22.91  | 22.77  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.07  | 21.93  | 21.73  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 22.00  | 21.90  | 21.77  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.00  | 21.87  | 21.70  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.96  | 21.93  | 21.80  | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.29  | 22.31  | 22.28  |                           |             |
| 5               | 16QAM | 1  | 12 | 22.31  | 22.10  | 22.19  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.24  | 22.19  | 22.25  | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 21.10  | 20.99  | 20.74  |                           |             |
| 5               | 16QAM | 12 | 7  | 21.03  | 20.97  | 20.79  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.02  | 20.91  | 20.74  | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 21.06  | 20.88  | 20.82  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.53  | 21.16  | 21.45  | 22                        | 2           |
| 5               | 64QAM | 1  | 12 | 21.36  | 20.96  | 21.38  |                           |             |
| 5               | 64QAM | 1  | 24 | 21.37  | 21.03  | 21.51  |                           |             |
| 5               | 64QAM | 12 | 0  | 20.11  | 19.97  | 19.76  | 21                        | 3           |
| 5               | 64QAM | 12 | 7  | 20.01  | 19.97  | 19.77  |                           |             |
| 5               | 64QAM | 12 | 13 | 20.00  | 19.90  | 19.74  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.99  | 19.94  | 19.76  | 21                        | 3           |
| Channel         |       |    |    | 131987 | 132322 | 132657 |                           |             |
| Frequency (MHz) |       |    |    | 1711.5 | 1745   | 1778.5 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| 3               | QPSK  | 1  | 0  | 23.00  | 22.84  | 22.71  |                           |             |
| 3               | QPSK  | 1  | 8  | 23.05  | 22.90  | 22.69  | 24                        | 0           |
| 3               | QPSK  | 1  | 14 | 22.89  | 22.79  | 22.68  |                           |             |
| 3               | QPSK  | 8  | 0  | 22.06  | 21.93  | 21.71  | 23                        | 1           |
| 3               | QPSK  | 8  | 4  | 22.02  | 21.91  | 21.73  |                           |             |
| 3               | QPSK  | 8  | 7  | 21.97  | 21.84  | 21.65  |                           |             |
| 3               | QPSK  | 15 | 0  | 22.00  | 21.87  | 21.73  | 23                        | 1           |
| 3               | 16QAM | 1  | 0  | 22.28  | 22.19  | 22.27  |                           |             |
| 3               | 16QAM | 1  | 8  | 22.31  | 22.21  | 22.31  |                           |             |
| 3               | 16QAM | 1  | 14 | 22.25  | 22.02  | 22.13  | 22                        | 2           |
| 3               | 16QAM | 8  | 0  | 21.04  | 21.05  | 20.78  |                           |             |
| 3               | 16QAM | 8  | 4  | 21.09  | 21.00  | 20.71  |                           |             |
| 3               | 16QAM | 8  | 7  | 20.94  | 20.98  | 20.73  | 22                        | 2           |
| 3               | 16QAM | 15 | 0  | 21.08  | 20.92  | 20.79  |                           |             |
| 3               | 64QAM | 1  | 0  | 21.19  | 20.99  | 21.26  |                           |             |
| 3               | 64QAM | 1  | 8  | 21.30  | 21.03  | 21.31  | 21                        | 3           |
| 3               | 64QAM | 1  | 14 | 21.18  | 20.91  | 21.24  |                           |             |
| 3               | 64QAM | 8  | 0  | 20.01  | 19.90  | 19.74  |                           |             |
| 3               | 64QAM | 8  | 4  | 20.06  | 19.91  | 19.70  | 21                        | 3           |
| 3               | 64QAM | 8  | 7  | 19.97  | 19.87  | 19.67  |                           |             |
| 3               | 64QAM | 15 | 0  | 20.05  | 19.90  | 19.71  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 131979 | 132322 | 132665 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1710.7 | 1745   | 1779.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 22.86  | 22.83  | 22.71  | 24                  | 0        |
| 1.4             | QPSK  | 1 | 3 | 22.91  | 22.88  | 23.04  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 22.84  | 22.77  | 22.91  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 22.86  | 22.85  | 22.74  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 22.94  | 22.94  | 22.77  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 22.92  | 22.82  | 22.77  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 21.90  | 21.86  | 21.75  | 23                  | 1        |
| 1.4             | 16QAM | 1 | 0 | 22.23  | 22.13  | 21.95  | 23                  | 1        |
| 1.4             | 16QAM | 1 | 3 | 22.28  | 22.15  | 22.04  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 22.21  | 22.07  | 21.97  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 22.01  | 22.01  | 21.69  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 21.99  | 22.08  | 21.78  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 22.00  | 21.96  | 21.67  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 21.01  | 20.86  | 20.64  | 22                  | 2        |
| 1.4             | 64QAM | 1 | 0 | 21.08  | 21.04  | 20.95  | 22                  | 2        |
| 1.4             | 64QAM | 1 | 3 | 21.11  | 21.04  | 20.96  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 21.01  | 20.97  | 20.91  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 20.96  | 21.00  | 20.88  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 21.03  | 21.00  | 20.89  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 20.94  | 20.88  | 20.86  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 20.02  | 19.90  | 19.75  | 21                  | 3        |



**<LTE Band 71>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 133222                | 133322                   | 133372                 |                     |          |
| Frequency (MHz) |            |         |           | 673                   | 683                      | 688                    |                     |          |
| 20              | QPSK       | 1       | 0         | 22.98                 | 23.10                    | 22.82                  |                     |          |
| 20              | QPSK       | 1       | 49        | 22.96                 | 23.01                    | 22.80                  | 24                  | 0        |
| 20              | QPSK       | 1       | 99        | 23.01                 | 22.95                    | 22.69                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.54                 | 21.69                    | 21.49                  |                     |          |
| 20              | QPSK       | 50      | 24        | 21.61                 | 21.68                    | 21.50                  | 23                  | 1        |
| 20              | QPSK       | 50      | 50        | 21.57                 | 21.60                    | 21.44                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.58                 | 21.65                    | 21.47                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.14                 | 21.15                    | 21.12                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.10                 | 21.23                    | 21.12                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.19                 | 21.20                    | 21.01                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.34                 | 20.39                    | 20.35                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.43                 | 20.40                    | 20.37                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.38                 | 20.34                    | 20.29                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.42                 | 20.36                    | 20.35                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 0         | 20.84                 | 20.75                    | 20.78                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.73                 | 20.86                    | 20.79                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.88                 | 20.82                    | 20.66                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 0         | 20.24                 | 20.21                    | 20.11                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.13                 | 20.32                    | 20.12                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 20.28                 | 20.28                    | 19.99                  | 21                  | 3        |
| 20              | 64QAM      | 100     | 0         | 20.12                 | 20.20                    | 20.23                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 133197 | 133297 | 133397 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 670.5  | 680.5  | 690.5  |                           |             |
| 15              | QPSK  | 1  | 0  | 23.55  | 23.59  | 23.49  | 24                        | 0           |
| 15              | QPSK  | 1  | 37 | 23.45  | 23.47  | 23.49  |                           |             |
| 15              | QPSK  | 1  | 74 | 23.45  | 23.49  | 23.25  |                           |             |
| 15              | QPSK  | 36 | 0  | 22.48  | 22.49  | 22.45  | 23                        | 1           |
| 15              | QPSK  | 36 | 20 | 22.53  | 22.54  | 22.57  |                           |             |
| 15              | QPSK  | 36 | 39 | 22.49  | 22.52  | 22.55  |                           |             |
| 15              | QPSK  | 75 | 0  | 22.49  | 22.52  | 22.43  | 23                        | 1           |
| 15              | 16QAM | 1  | 0  | 22.82  | 22.84  | 22.78  |                           |             |
| 15              | 16QAM | 1  | 37 | 22.74  | 22.81  | 22.84  |                           |             |
| 15              | 16QAM | 1  | 74 | 22.75  | 22.85  | 22.43  | 22                        | 2           |
| 15              | 16QAM | 36 | 0  | 21.58  | 21.59  | 21.52  |                           |             |
| 15              | 16QAM | 36 | 20 | 21.61  | 21.62  | 21.64  |                           |             |
| 15              | 16QAM | 36 | 39 | 21.58  | 21.60  | 21.62  | 22                        | 2           |
| 15              | 16QAM | 75 | 0  | 21.57  | 21.58  | 21.49  |                           |             |
| 15              | 64QAM | 1  | 0  | 21.46  | 21.51  | 21.43  |                           |             |
| 15              | 64QAM | 1  | 37 | 21.39  | 21.49  | 21.45  | 22                        | 2           |
| 15              | 64QAM | 1  | 74 | 21.41  | 21.48  | 21.14  |                           |             |
| 15              | 64QAM | 36 | 0  | 20.35  | 20.37  | 20.30  |                           |             |
| 15              | 64QAM | 36 | 20 | 20.36  | 20.39  | 20.43  | 21                        | 3           |
| 15              | 64QAM | 36 | 39 | 20.33  | 20.35  | 20.40  |                           |             |
| 15              | 64QAM | 75 | 0  | 20.28  | 20.30  | 20.23  |                           |             |
| Channel         |       |    |    | 133172 | 133272 | 133422 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 668    | 678    | 693    |                           |             |
| 10              | QPSK  | 1  | 0  | 23.46  | 23.50  | 23.48  | 24                        | 0           |
| 10              | QPSK  | 1  | 25 | 23.50  | 23.58  | 23.58  |                           |             |
| 10              | QPSK  | 1  | 49 | 23.16  | 23.47  | 23.29  |                           |             |
| 10              | QPSK  | 25 | 0  | 22.49  | 22.48  | 22.53  | 23                        | 1           |
| 10              | QPSK  | 25 | 12 | 22.48  | 22.50  | 22.55  |                           |             |
| 10              | QPSK  | 25 | 25 | 22.44  | 22.49  | 22.48  |                           |             |
| 10              | QPSK  | 50 | 0  | 22.45  | 22.48  | 22.52  | 23                        | 1           |
| 10              | 16QAM | 1  | 0  | 22.75  | 22.82  | 22.82  |                           |             |
| 10              | 16QAM | 1  | 25 | 22.87  | 22.93  | 22.88  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.74  | 22.82  | 22.34  | 22                        | 2           |
| 10              | 16QAM | 25 | 0  | 21.59  | 21.62  | 21.63  |                           |             |
| 10              | 16QAM | 25 | 12 | 21.60  | 21.65  | 21.68  |                           |             |
| 10              | 16QAM | 25 | 25 | 21.57  | 21.60  | 21.64  | 22                        | 2           |
| 10              | 16QAM | 50 | 0  | 21.55  | 21.60  | 21.60  |                           |             |
| 10              | 64QAM | 1  | 0  | 21.39  | 21.44  | 21.43  |                           |             |
| 10              | 64QAM | 1  | 25 | 21.45  | 21.51  | 21.49  | 22                        | 2           |
| 10              | 64QAM | 1  | 49 | 21.37  | 21.44  | 21.05  |                           |             |
| 10              | 64QAM | 25 | 0  | 20.28  | 20.32  | 20.35  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.32  | 20.35  | 20.38  | 21                        | 3           |
| 10              | 64QAM | 25 | 25 | 20.29  | 20.33  | 20.35  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.28  | 20.28  | 20.34  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 133147 | 133247 | 133447 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 665.5  | 675.5  | 695.5  |                           |             |
| 5               | QPSK  | 1  | 0  | 23.37  | 23.40  | 23.38  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.34  | 23.48  | 23.39  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.34  | 23.40  | 23.15  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.78  | 22.81  | 22.72  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 22.79  | 22.83  | 22.64  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.79  | 22.82  | 22.59  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.77  | 21.77  | 21.62  | 23                        | 1           |
| 5               | 16QAM | 1  | 0  | 22.70  | 22.72  | 22.66  |                           |             |
| 5               | 16QAM | 1  | 12 | 22.75  | 22.81  | 22.66  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.68  | 22.77  | 22.22  | 22                        | 2           |
| 5               | 16QAM | 12 | 0  | 21.86  | 21.88  | 21.74  |                           |             |
| 5               | 16QAM | 12 | 7  | 21.89  | 21.90  | 21.77  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.88  | 21.90  | 21.73  | 22                        | 2           |
| 5               | 16QAM | 25 | 0  | 20.91  | 20.95  | 20.80  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.99  | 21.98  | 21.98  |                           |             |
| 5               | 64QAM | 1  | 12 | 21.90  | 21.89  | 21.97  | 21                        | 3           |
| 5               | 64QAM | 1  | 24 | 21.92  | 21.90  | 21.64  |                           |             |
| 5               | 64QAM | 12 | 0  | 20.69  | 20.72  | 20.67  |                           |             |
| 5               | 64QAM | 12 | 7  | 20.73  | 20.74  | 20.63  | 21                        | 3           |
| 5               | 64QAM | 12 | 13 | 20.74  | 20.73  | 20.54  |                           |             |
| 5               | 64QAM | 25 | 0  | 20.22  | 20.23  | 20.21  |                           |             |

### <Reduced Power Mode for P-Sensor On>

#### <LTE Band 2>

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 18700                    | 18900                       | 19100                     |                           |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1900                      |                           |             |
| 20              | QPSK       | 1       | 0         | 17.50                    | 17.26                       | 17.89                     |                           |             |
| 20              | QPSK       | 1       | 49        | 17.59                    | 17.38                       | 17.53                     | 18.5                      | 0           |
| 20              | QPSK       | 1       | 99        | 17.00                    | 17.02                       | 17.17                     |                           |             |
| 20              | QPSK       | 50      | 0         | 17.58                    | 17.56                       | 17.71                     |                           |             |
| 20              | QPSK       | 50      | 24        | 17.71                    | 17.57                       | 17.71                     | 18.5                      | 0           |
| 20              | QPSK       | 50      | 50        | 17.39                    | 17.36                       | 17.54                     |                           |             |
| 20              | QPSK       | 100     | 0         | 17.62                    | 17.54                       | 17.75                     |                           |             |
| 20              | 16QAM      | 1       | 0         | 17.60                    | 17.77                       | 18.00                     | 18.5                      | 0           |
| 20              | 16QAM      | 1       | 49        | 17.70                    | 18.11                       | 18.00                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 17.37                    | 17.54                       | 17.36                     |                           |             |
| 20              | 16QAM      | 50      | 0         | 17.64                    | 17.59                       | 17.74                     | 18.5                      | 0           |
| 20              | 16QAM      | 50      | 24        | 17.78                    | 17.60                       | 17.74                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 17.46                    | 17.38                       | 17.54                     |                           |             |
| 20              | 16QAM      | 100     | 0         | 17.52                    | 17.45                       | 17.68                     | 18.5                      | 0           |
| 20              | 64QAM      | 1       | 0         | 17.28                    | 17.45                       | 17.95                     |                           |             |
| 20              | 64QAM      | 1       | 49        | 17.66                    | 17.52                       | 18.16                     |                           |             |
| 20              | 64QAM      | 1       | 99        | 17.60                    | 17.24                       | 17.34                     | 18.5                      | 0           |
| 20              | 64QAM      | 50      | 0         | 17.64                    | 17.58                       | 17.70                     |                           |             |
| 20              | 64QAM      | 50      | 24        | 17.68                    | 17.58                       | 17.77                     |                           |             |
| 20              | 64QAM      | 50      | 50        | 17.44                    | 17.36                       | 17.60                     | 18.5                      | 0           |
| 20              | 64QAM      | 100     | 0         | 17.41                    | 17.47                       | 17.70                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18675  | 18900 | 19125  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1902.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 17.28  | 17.26 | 17.24  | 18.5                      | 0           |
| 15              | QPSK  | 1  | 37 | 17.48  | 17.33 | 17.73  |                           |             |
| 15              | QPSK  | 1  | 74 | 17.74  | 17.57 | 17.72  |                           |             |
| 15              | QPSK  | 36 | 0  | 17.67  | 17.61 | 17.82  | 18.5                      | 0           |
| 15              | QPSK  | 36 | 20 | 17.70  | 17.53 | 17.77  |                           |             |
| 15              | QPSK  | 36 | 39 | 17.61  | 17.54 | 17.75  |                           |             |
| 15              | QPSK  | 75 | 0  | 17.54  | 17.52 | 17.70  | 18.5                      | 0           |
| 15              | 16QAM | 1  | 0  | 17.89  | 17.90 | 17.89  |                           |             |
| 15              | 16QAM | 1  | 37 | 18.08  | 17.64 | 17.95  |                           |             |
| 15              | 16QAM | 1  | 74 | 17.80  | 17.70 | 17.75  | 18.5                      | 0           |
| 15              | 16QAM | 36 | 0  | 17.65  | 17.56 | 17.65  |                           |             |
| 15              | 16QAM | 36 | 20 | 17.52  | 17.48 | 17.73  |                           |             |
| 15              | 16QAM | 36 | 39 | 17.53  | 17.46 | 17.68  | 18.5                      | 0           |
| 15              | 16QAM | 75 | 0  | 17.65  | 17.59 | 17.76  |                           |             |
| 15              | 64QAM | 1  | 0  | 18.17  | 17.76 | 17.78  |                           |             |
| 15              | 64QAM | 1  | 37 | 17.50  | 17.45 | 17.34  | 18.5                      | 0           |
| 15              | 64QAM | 1  | 74 | 17.57  | 17.59 | 17.63  |                           |             |
| 15              | 64QAM | 36 | 0  | 17.60  | 17.50 | 17.72  |                           |             |
| 15              | 64QAM | 36 | 20 | 17.64  | 17.50 | 17.71  | 18.5                      | 0           |
| 15              | 64QAM | 36 | 39 | 17.54  | 17.47 | 17.60  |                           |             |
| 15              | 64QAM | 75 | 0  | 17.63  | 17.58 | 17.75  |                           |             |
| Channel         |       |    |    | 18650  | 18900 | 19150  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1905   |                           |             |
| 10              | QPSK  | 1  | 0  | 17.50  | 17.56 | 17.38  | 18.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 17.51  | 17.97 | 17.78  |                           |             |
| 10              | QPSK  | 1  | 49 | 17.80  | 17.84 | 17.68  |                           |             |
| 10              | QPSK  | 25 | 0  | 17.63  | 17.70 | 17.74  | 18.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 17.59  | 17.68 | 17.65  |                           |             |
| 10              | QPSK  | 25 | 25 | 17.67  | 17.70 | 17.75  |                           |             |
| 10              | QPSK  | 50 | 0  | 17.53  | 17.72 | 17.68  | 18.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 17.86  | 18.19 | 18.07  |                           |             |
| 10              | 16QAM | 1  | 25 | 17.87  | 18.13 | 18.01  |                           |             |
| 10              | 16QAM | 1  | 49 | 17.80  | 17.98 | 17.81  | 18.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 17.66  | 17.72 | 17.75  |                           |             |
| 10              | 16QAM | 25 | 12 | 17.59  | 17.69 | 17.65  |                           |             |
| 10              | 16QAM | 25 | 25 | 17.65  | 17.69 | 17.66  | 18.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 17.55  | 17.65 | 17.60  |                           |             |
| 10              | 64QAM | 1  | 0  | 17.62  | 17.92 | 17.98  |                           |             |
| 10              | 64QAM | 1  | 25 | 17.42  | 17.87 | 18.15  | 18.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 17.96  | 17.94 | 17.83  |                           |             |
| 10              | 64QAM | 25 | 0  | 17.55  | 17.72 | 17.78  |                           |             |
| 10              | 64QAM | 25 | 12 | 17.61  | 17.71 | 17.69  | 18.5                      | 0           |
| 10              | 64QAM | 25 | 25 | 17.60  | 17.79 | 17.70  |                           |             |
| 10              | 64QAM | 50 | 0  | 17.56  | 17.77 | 17.61  |                           |             |

Sporton International (Kunshan) Inc.

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# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18625  | 18900 | 19175  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1907.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 17.40  | 17.59 | 17.80  | 18.5                | 0        |
| 5               | QPSK  | 1  | 12 | 17.68  | 17.85 | 17.71  |                     |          |
| 5               | QPSK  | 1  | 24 | 17.58  | 17.88 | 17.70  |                     |          |
| 5               | QPSK  | 12 | 0  | 17.74  | 17.84 | 17.83  | 18.5                | 0        |
| 5               | QPSK  | 12 | 7  | 17.63  | 17.73 | 17.75  |                     |          |
| 5               | QPSK  | 12 | 13 | 17.61  | 17.71 | 17.72  |                     |          |
| 5               | QPSK  | 25 | 0  | 17.71  | 17.73 | 17.77  |                     |          |
| 5               | 16QAM | 1  | 0  | 18.07  | 18.03 | 17.99  | 18.5                | 0        |
| 5               | 16QAM | 1  | 12 | 17.96  | 17.85 | 17.76  |                     |          |
| 5               | 16QAM | 1  | 24 | 18.22  | 18.27 | 17.83  |                     |          |
| 5               | 16QAM | 12 | 0  | 17.69  | 17.83 | 17.89  | 18.5                | 0        |
| 5               | 16QAM | 12 | 7  | 17.68  | 17.82 | 17.85  |                     |          |
| 5               | 16QAM | 12 | 13 | 17.68  | 17.79 | 17.80  |                     |          |
| 5               | 16QAM | 25 | 0  | 17.72  | 17.84 | 17.86  |                     |          |
| 5               | 64QAM | 1  | 0  | 17.90  | 18.03 | 17.99  | 18.5                | 0        |
| 5               | 64QAM | 1  | 12 | 17.75  | 17.78 | 18.04  |                     |          |
| 5               | 64QAM | 1  | 24 | 17.83  | 17.94 | 17.95  |                     |          |
| 5               | 64QAM | 12 | 0  | 17.79  | 17.78 | 17.84  | 18.5                | 0        |
| 5               | 64QAM | 12 | 7  | 17.68  | 17.76 | 17.77  |                     |          |
| 5               | 64QAM | 12 | 13 | 17.61  | 17.74 | 17.74  |                     |          |
| 5               | 64QAM | 25 | 0  | 17.76  | 17.80 | 17.85  |                     |          |
| Channel         |       |    |    | 18615  | 18900 | 19185  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1908.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 17.27  | 17.34 | 17.37  | 18.5                | 0        |
| 3               | QPSK  | 1  | 8  | 17.93  | 17.66 | 17.65  |                     |          |
| 3               | QPSK  | 1  | 14 | 17.84  | 17.67 | 17.62  |                     |          |
| 3               | QPSK  | 8  | 0  | 17.69  | 17.78 | 17.79  | 18.5                | 0        |
| 3               | QPSK  | 8  | 4  | 17.75  | 17.77 | 17.77  |                     |          |
| 3               | QPSK  | 8  | 7  | 17.66  | 17.68 | 17.75  |                     |          |
| 3               | QPSK  | 15 | 0  | 17.67  | 17.73 | 17.71  |                     |          |
| 3               | 16QAM | 1  | 0  | 17.97  | 17.97 | 17.96  | 18.5                | 0        |
| 3               | 16QAM | 1  | 8  | 17.95  | 17.94 | 17.96  |                     |          |
| 3               | 16QAM | 1  | 14 | 17.92  | 17.93 | 17.88  |                     |          |
| 3               | 16QAM | 8  | 0  | 17.65  | 17.74 | 17.79  | 18.5                | 0        |
| 3               | 16QAM | 8  | 4  | 17.82  | 17.71 | 17.85  |                     |          |
| 3               | 16QAM | 8  | 7  | 17.63  | 17.70 | 17.82  |                     |          |
| 3               | 16QAM | 15 | 0  | 17.70  | 17.80 | 17.74  |                     |          |
| 3               | 64QAM | 1  | 0  | 17.67  | 17.94 | 17.73  | 18.5                | 0        |
| 3               | 64QAM | 1  | 8  | 17.83  | 17.91 | 17.91  |                     |          |
| 3               | 64QAM | 1  | 14 | 17.73  | 17.81 | 17.73  |                     |          |
| 3               | 64QAM | 8  | 0  | 17.78  | 17.77 | 17.77  | 18.5                | 0        |
| 3               | 64QAM | 8  | 4  | 17.82  | 17.74 | 17.74  |                     |          |
| 3               | 64QAM | 8  | 7  | 17.75  | 17.63 | 17.72  |                     |          |
| 3               | 64QAM | 15 | 0  | 17.65  | 17.74 | 17.70  |                     |          |

Sporton International (Kunshan) Inc.

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Form version. : 180516



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 18607  | 18900 | 19193  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1909.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 17.35  | 17.50 | 17.65  | 18.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 17.71  | 17.74 | 17.80  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 17.70  | 17.65 | 17.74  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 17.66  | 17.71 | 17.69  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 17.59  | 17.73 | 17.73  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 17.63  | 17.66 | 17.70  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 17.64  | 17.69 | 17.75  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 18.10  | 18.04 | 17.96  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 18.02  | 18.07 | 18.02  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 18.05  | 18.00 | 18.01  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 17.61  | 17.64 | 17.69  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 17.64  | 17.74 | 17.82  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 17.56  | 17.65 | 17.73  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 17.80  | 17.80 | 17.75  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 17.75  | 17.94 | 17.65  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 17.58  | 17.76 | 17.70  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 17.78  | 17.77 | 17.65  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 17.69  | 17.80 | 17.77  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 17.71  | 17.82 | 17.77  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 17.71  | 17.80 | 17.81  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 17.63  | 17.63 | 17.72  | 18.5                | 0        |



**<LTE Band 4>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20050                 | 20175                    | 20300                  | 18.5                | 0        |
| Frequency (MHz) |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |          |
| 20              | QPSK       | 1       | 0         | 16.66                 | 16.97                    | 17.18                  |                     |          |
| 20              | QPSK       | 1       | 49        | 17.04                 | 16.94                    | 16.91                  | 18.5                | 0        |
| 20              | QPSK       | 1       | 99        | 16.66                 | 16.99                    | 16.67                  |                     |          |
| 20              | QPSK       | 50      | 0         | 16.89                 | 16.90                    | 16.92                  |                     |          |
| 20              | QPSK       | 50      | 24        | 16.93                 | 16.90                    | 16.90                  | 18.5                | 0        |
| 20              | QPSK       | 50      | 50        | 16.79                 | 16.82                    | 16.72                  |                     |          |
| 20              | QPSK       | 100     | 0         | 16.85                 | 17.03                    | 16.75                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 16.73                 | 16.89                    | 16.74                  | 18.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 16.80                 | 16.96                    | 17.06                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 16.89                 | 16.60                    | 16.81                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 16.99                 | 16.89                    | 16.86                  | 18.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 17.06                 | 16.99                    | 16.86                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 16.73                 | 16.86                    | 16.68                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 16.91                 | 16.90                    | 16.74                  | 18.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 16.90                 | 16.72                    | 16.81                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 17.10                 | 16.63                    | 16.53                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 16.95                 | 16.89                    | 16.68                  | 18.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 16.85                 | 16.95                    | 16.92                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 16.99                 | 17.04                    | 16.92                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 16.83                 | 16.77                    | 16.69                  | 18.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 16.92                 | 16.80                    | 16.73                  |                     |          |



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Report No. : FA892801

| Channel         |       |    |    | 20025  | 20175  | 20325  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1717.5 | 1732.5 | 1747.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 17.30  | 17.39  | 17.30  | 18.5                      | 0           |
| 15              | QPSK  | 1  | 37 | 16.83  | 16.98  | 16.78  |                           |             |
| 15              | QPSK  | 1  | 74 | 16.64  | 17.16  | 16.60  |                           |             |
| 15              | QPSK  | 36 | 0  | 17.03  | 16.98  | 16.86  | 18.5                      | 0           |
| 15              | QPSK  | 36 | 20 | 17.04  | 17.05  | 16.90  |                           |             |
| 15              | QPSK  | 36 | 39 | 16.82  | 16.87  | 16.81  |                           |             |
| 15              | QPSK  | 75 | 0  | 16.91  | 16.92  | 16.83  | 18.5                      | 0           |
| 15              | 16QAM | 1  | 0  | 17.38  | 17.60  | 17.60  |                           |             |
| 15              | 16QAM | 1  | 37 | 16.88  | 17.23  | 17.46  |                           |             |
| 15              | 16QAM | 1  | 74 | 17.50  | 16.51  | 17.41  | 18.5                      | 0           |
| 15              | 16QAM | 36 | 0  | 17.02  | 17.02  | 16.88  |                           |             |
| 15              | 16QAM | 36 | 20 | 16.99  | 16.98  | 16.96  |                           |             |
| 15              | 16QAM | 36 | 39 | 16.92  | 16.82  | 16.88  | 18.5                      | 0           |
| 15              | 16QAM | 75 | 0  | 16.90  | 16.94  | 16.88  |                           |             |
| 15              | 64QAM | 1  | 0  | 17.07  | 17.06  | 17.41  |                           |             |
| 15              | 64QAM | 1  | 37 | 17.04  | 17.10  | 17.30  | 18.5                      | 0           |
| 15              | 64QAM | 1  | 74 | 16.82  | 16.87  | 17.05  |                           |             |
| 15              | 64QAM | 36 | 0  | 16.94  | 17.02  | 16.86  |                           |             |
| 15              | 64QAM | 36 | 20 | 16.94  | 16.98  | 16.98  | 18.5                      | 0           |
| 15              | 64QAM | 36 | 39 | 16.86  | 16.82  | 16.78  |                           |             |
| 15              | 64QAM | 75 | 0  | 16.86  | 16.91  | 16.78  |                           |             |
| Channel         |       |    |    | 20000  | 20175  | 20350  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1715   | 1732.5 | 1750   |                           |             |
| 10              | QPSK  | 1  | 0  | 16.75  | 16.90  | 16.76  | 18.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 17.02  | 17.13  | 17.03  |                           |             |
| 10              | QPSK  | 1  | 49 | 17.57  | 17.07  | 17.41  |                           |             |
| 10              | QPSK  | 25 | 0  | 17.12  | 17.18  | 17.06  | 18.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 17.16  | 17.27  | 17.13  |                           |             |
| 10              | QPSK  | 25 | 25 | 17.21  | 17.17  | 17.21  |                           |             |
| 10              | QPSK  | 50 | 0  | 17.12  | 17.20  | 17.06  | 18.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 17.97  | 17.46  | 17.55  |                           |             |
| 10              | 16QAM | 1  | 25 | 17.69  | 17.22  | 17.65  |                           |             |
| 10              | 16QAM | 1  | 49 | 17.89  | 17.50  | 17.70  | 18.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 17.02  | 17.06  | 17.08  |                           |             |
| 10              | 16QAM | 25 | 12 | 17.02  | 17.08  | 17.02  |                           |             |
| 10              | 16QAM | 25 | 25 | 17.25  | 17.21  | 17.10  | 18.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 17.13  | 17.15  | 17.09  |                           |             |
| 10              | 64QAM | 1  | 0  | 17.35  | 17.38  | 17.47  |                           |             |
| 10              | 64QAM | 1  | 25 | 17.17  | 17.64  | 17.41  | 18.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 17.36  | 16.73  | 17.67  |                           |             |
| 10              | 64QAM | 25 | 0  | 17.17  | 17.16  | 17.07  |                           |             |
| 10              | 64QAM | 25 | 12 | 17.23  | 17.12  | 17.08  | 18.5                      | 0           |
| 10              | 64QAM | 25 | 25 | 17.24  | 17.27  | 17.22  |                           |             |
| 10              | 64QAM | 50 | 0  | 17.09  | 17.13  | 17.05  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 19975  | 20175  | 20375  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1712.5 | 1732.5 | 1752.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 16.61  | 16.61  | 16.98  | 18.5                | 0        |
| 5               | QPSK  | 1  | 12 | 16.99  | 17.11  | 17.13  |                     |          |
| 5               | QPSK  | 1  | 24 | 17.02  | 17.13  | 16.95  |                     |          |
| 5               | QPSK  | 12 | 0  | 17.19  | 17.13  | 17.12  | 18.5                | 0        |
| 5               | QPSK  | 12 | 7  | 17.09  | 17.09  | 17.00  |                     |          |
| 5               | QPSK  | 12 | 13 | 17.06  | 17.09  | 17.03  |                     |          |
| 5               | QPSK  | 25 | 0  | 17.09  | 17.21  | 17.09  | 18.5                | 0        |
| 5               | 16QAM | 1  | 0  | 17.31  | 17.46  | 17.71  |                     |          |
| 5               | 16QAM | 1  | 12 | 17.22  | 17.40  | 16.90  |                     |          |
| 5               | 16QAM | 1  | 24 | 17.49  | 17.58  | 16.96  | 18.5                | 0        |
| 5               | 16QAM | 12 | 0  | 17.16  | 17.24  | 17.21  |                     |          |
| 5               | 16QAM | 12 | 7  | 17.09  | 17.16  | 17.17  |                     |          |
| 5               | 16QAM | 12 | 13 | 17.11  | 17.06  | 17.09  | 18.5                | 0        |
| 5               | 16QAM | 25 | 0  | 17.03  | 17.23  | 17.07  |                     |          |
| 5               | 64QAM | 1  | 0  | 17.43  | 17.70  | 17.34  | 18.5                | 0        |
| 5               | 64QAM | 1  | 12 | 16.94  | 17.09  | 17.08  |                     |          |
| 5               | 64QAM | 1  | 24 | 17.23  | 17.27  | 16.96  |                     |          |
| 5               | 64QAM | 12 | 0  | 17.32  | 17.17  | 17.13  | 18.5                | 0        |
| 5               | 64QAM | 12 | 7  | 17.15  | 17.06  | 17.08  |                     |          |
| 5               | 64QAM | 12 | 13 | 17.15  | 17.07  | 16.98  |                     |          |
| 5               | 64QAM | 25 | 0  | 17.26  | 17.17  | 17.00  | 18.5                | 0        |
| Channel         |       |    |    | 19965  | 20175  | 20385  |                     |          |
| Frequency (MHz) |       |    |    | 1711.5 | 1732.5 | 1753.5 | Tune-up limit (dBm) | MPR (dB) |
| 3               | QPSK  | 1  | 0  | 16.53  | 16.89  | 16.90  |                     |          |
| 3               | QPSK  | 1  | 8  | 16.95  | 17.22  | 16.93  | 18.5                | 0        |
| 3               | QPSK  | 1  | 14 | 16.98  | 16.96  | 16.99  |                     |          |
| 3               | QPSK  | 8  | 0  | 17.13  | 17.15  | 17.10  | 18.5                | 0        |
| 3               | QPSK  | 8  | 4  | 17.10  | 17.10  | 17.01  |                     |          |
| 3               | QPSK  | 8  | 7  | 17.00  | 17.07  | 17.03  |                     |          |
| 3               | QPSK  | 15 | 0  | 17.04  | 17.07  | 17.06  | 18.5                | 0        |
| 3               | 16QAM | 1  | 0  | 17.24  | 17.41  | 17.35  |                     |          |
| 3               | 16QAM | 1  | 8  | 17.17  | 17.46  | 17.29  |                     |          |
| 3               | 16QAM | 1  | 14 | 17.41  | 17.33  | 17.30  | 18.5                | 0        |
| 3               | 16QAM | 8  | 0  | 17.26  | 17.23  | 17.04  |                     |          |
| 3               | 16QAM | 8  | 4  | 17.11  | 17.10  | 16.94  |                     |          |
| 3               | 16QAM | 8  | 7  | 17.02  | 17.01  | 17.09  | 18.5                | 0        |
| 3               | 16QAM | 15 | 0  | 17.01  | 17.06  | 17.05  |                     |          |
| 3               | 64QAM | 1  | 0  | 16.86  | 17.24  | 16.97  |                     |          |
| 3               | 64QAM | 1  | 8  | 16.79  | 17.14  | 16.89  | 18.5                | 0        |
| 3               | 64QAM | 1  | 14 | 16.98  | 16.87  | 16.80  |                     |          |
| 3               | 64QAM | 8  | 0  | 17.24  | 17.24  | 17.08  |                     |          |
| 3               | 64QAM | 8  | 4  | 16.99  | 17.18  | 17.17  | 18.5                | 0        |
| 3               | 64QAM | 8  | 7  | 17.09  | 17.15  | 17.10  |                     |          |
| 3               | 64QAM | 15 | 0  | 16.93  | 17.16  | 17.10  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 19957  | 20175  | 20393  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1710.7 | 1732.5 | 1754.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 17.10  | 17.47  | 17.36  | 18.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 17.11  | 17.09  | 17.05  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 17.14  | 16.96  | 16.90  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 17.07  | 17.09  | 16.97  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 17.11  | 17.11  | 17.03  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 17.14  | 17.09  | 16.99  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 17.07  | 17.05  | 16.99  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 17.44  | 17.68  | 17.55  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 17.53  | 17.79  | 16.99  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 17.29  | 17.18  | 17.14  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 17.12  | 17.13  | 17.12  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 17.18  | 17.08  | 17.17  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 17.07  | 17.12  | 17.13  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 17.11  | 17.11  | 17.07  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 17.15  | 17.43  | 17.39  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 17.73  | 17.70  | 17.40  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 17.38  | 17.29  | 17.33  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 17.29  | 17.13  | 17.11  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 17.31  | 17.33  | 17.18  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 17.44  | 17.22  | 17.03  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 17.15  | 17.08  | 17.17  | 18.5                | 0        |



**<LTE Band 7>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20850                 | 21100                    | 21350                  |                     |          |
| Frequency (MHz) |            |         |           | 2510                  | 2535                     | 2560                   |                     |          |
| 20              | QPSK       | 1       | 0         | 20.17                 | 20.22                    | 20.15                  |                     |          |
| 20              | QPSK       | 1       | 49        | 20.11                 | 20.18                    | 20.26                  | 21                  | 0        |
| 20              | QPSK       | 1       | 99        | 19.91                 | 20.00                    | 20.01                  |                     |          |
| 20              | QPSK       | 50      | 0         | 20.17                 | 20.05                    | 20.02                  |                     |          |
| 20              | QPSK       | 50      | 24        | 20.23                 | 20.07                    | 20.25                  | 21                  | 0        |
| 20              | QPSK       | 50      | 50        | 20.16                 | 20.03                    | 20.08                  |                     |          |
| 20              | QPSK       | 100     | 0         | 20.17                 | 20.08                    | 20.20                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 20.18                 | 20.09                    | 19.95                  | 21                  | 0        |
| 20              | 16QAM      | 1       | 49        | 20.23                 | 20.17                    | 20.43                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 20.28                 | 20.03                    | 20.08                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.20                 | 20.01                    | 19.99                  | 21                  | 0        |
| 20              | 16QAM      | 50      | 24        | 20.23                 | 20.12                    | 20.12                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.16                 | 20.02                    | 19.96                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.12                 | 20.05                    | 19.98                  | 21                  | 0        |
| 20              | 64QAM      | 1       | 0         | 19.99                 | 20.04                    | 20.02                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.33                 | 20.05                    | 20.12                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.30                 | 20.09                    | 20.25                  | 21                  | 0        |
| 20              | 64QAM      | 50      | 0         | 20.12                 | 20.04                    | 19.98                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.21                 | 20.17                    | 20.02                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 20.12                 | 20.13                    | 20.11                  | 21                  | 0        |
| 20              | 64QAM      | 100     | 0         | 20.18                 | 20.02                    | 20.06                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20825  | 21100 | 21375  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2507.5 | 2535  | 2562.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 20.18  | 20.22 | 20.15  | 21                        | 0           |
| 15              | QPSK  | 1  | 37 | 20.26  | 20.07 | 20.02  |                           |             |
| 15              | QPSK  | 1  | 74 | 20.00  | 19.86 | 19.91  |                           |             |
| 15              | QPSK  | 36 | 0  | 20.16  | 20.08 | 20.13  | 21                        | 0           |
| 15              | QPSK  | 36 | 20 | 20.18  | 20.10 | 20.06  |                           |             |
| 15              | QPSK  | 36 | 39 | 20.18  | 20.08 | 20.07  |                           |             |
| 15              | QPSK  | 75 | 0  | 20.26  | 20.02 | 20.08  | 21                        | 0           |
| 15              | 16QAM | 1  | 0  | 20.44  | 20.27 | 20.42  |                           |             |
| 15              | 16QAM | 1  | 37 | 20.41  | 20.28 | 20.45  |                           |             |
| 15              | 16QAM | 1  | 74 | 20.37  | 20.30 | 20.36  | 21                        | 0           |
| 15              | 16QAM | 36 | 0  | 20.14  | 20.05 | 20.16  |                           |             |
| 15              | 16QAM | 36 | 20 | 20.17  | 20.12 | 20.16  |                           |             |
| 15              | 16QAM | 36 | 39 | 20.18  | 20.06 | 19.97  | 21                        | 0           |
| 15              | 16QAM | 75 | 0  | 20.30  | 20.13 | 20.01  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.15  | 19.89 | 19.87  |                           |             |
| 15              | 64QAM | 1  | 37 | 20.40  | 20.11 | 20.16  | 21                        | 0           |
| 15              | 64QAM | 1  | 74 | 19.93  | 19.91 | 20.26  |                           |             |
| 15              | 64QAM | 36 | 0  | 20.17  | 20.05 | 20.11  |                           |             |
| 15              | 64QAM | 36 | 20 | 20.18  | 20.12 | 20.20  | 21                        | 0           |
| 15              | 64QAM | 36 | 39 | 20.19  | 20.07 | 20.08  |                           |             |
| 15              | 64QAM | 75 | 0  | 20.28  | 20.13 | 20.10  |                           |             |
| Channel         |       |    |    | 20800  | 21100 | 21400  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2505   | 2535  | 2565   |                           |             |
| 10              | QPSK  | 1  | 0  | 20.37  | 20.46 | 20.23  | 21                        | 0           |
| 10              | QPSK  | 1  | 25 | 20.03  | 19.94 | 19.91  |                           |             |
| 10              | QPSK  | 1  | 49 | 20.15  | 20.09 | 19.98  |                           |             |
| 10              | QPSK  | 25 | 0  | 19.95  | 19.94 | 19.92  | 21                        | 0           |
| 10              | QPSK  | 25 | 12 | 20.05  | 19.87 | 19.90  |                           |             |
| 10              | QPSK  | 25 | 25 | 20.03  | 19.83 | 19.87  |                           |             |
| 10              | QPSK  | 50 | 0  | 19.99  | 20.04 | 19.99  | 21                        | 0           |
| 10              | 16QAM | 1  | 0  | 20.49  | 20.47 | 20.40  |                           |             |
| 10              | 16QAM | 1  | 25 | 20.47  | 20.39 | 20.18  |                           |             |
| 10              | 16QAM | 1  | 49 | 20.46  | 20.39 | 20.40  | 21                        | 0           |
| 10              | 16QAM | 25 | 0  | 19.93  | 19.89 | 19.80  |                           |             |
| 10              | 16QAM | 25 | 12 | 19.95  | 19.92 | 19.88  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.01  | 19.82 | 19.75  | 21                        | 0           |
| 10              | 16QAM | 50 | 0  | 19.99  | 19.94 | 19.91  |                           |             |
| 10              | 64QAM | 1  | 0  | 20.29  | 20.40 | 20.46  |                           |             |
| 10              | 64QAM | 1  | 25 | 20.41  | 20.34 | 19.98  | 21                        | 0           |
| 10              | 64QAM | 1  | 49 | 20.07  | 20.26 | 20.43  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.95  | 19.92 | 19.97  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.04  | 19.87 | 19.96  | 21                        | 0           |
| 10              | 64QAM | 25 | 25 | 20.03  | 19.88 | 19.93  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.00  | 19.98 | 19.93  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20775  | 21100 | 21425  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2502.5 | 2535  | 2567.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 20.40  | 20.34 | 20.40  | 21                  | 0        |
| 5               | QPSK  | 1  | 12 | 20.06  | 19.84 | 19.73  |                     |          |
| 5               | QPSK  | 1  | 24 | 20.13  | 19.85 | 19.90  |                     |          |
| 5               | QPSK  | 12 | 0  | 20.09  | 19.99 | 20.03  | 21                  | 0        |
| 5               | QPSK  | 12 | 7  | 20.12  | 19.89 | 19.95  |                     |          |
| 5               | QPSK  | 12 | 13 | 20.02  | 19.93 | 19.88  |                     |          |
| 5               | QPSK  | 25 | 0  | 20.13  | 19.93 | 19.97  | 21                  | 0        |
| 5               | 16QAM | 1  | 0  | 20.17  | 19.80 | 20.02  |                     |          |
| 5               | 16QAM | 1  | 12 | 19.91  | 19.79 | 19.87  |                     |          |
| 5               | 16QAM | 1  | 24 | 20.07  | 19.84 | 19.87  | 21                  | 0        |
| 5               | 16QAM | 12 | 0  | 20.15  | 20.03 | 20.09  |                     |          |
| 5               | 16QAM | 12 | 7  | 20.18  | 20.05 | 19.96  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.09  | 19.96 | 19.89  | 21                  | 0        |
| 5               | 16QAM | 25 | 0  | 20.05  | 19.92 | 19.79  |                     |          |
| 5               | 64QAM | 1  | 0  | 20.22  | 20.01 | 20.11  |                     |          |
| 5               | 64QAM | 1  | 12 | 20.26  | 20.06 | 20.06  | 21                  | 0        |
| 5               | 64QAM | 1  | 24 | 20.20  | 20.04 | 19.95  |                     |          |
| 5               | 64QAM | 12 | 0  | 20.09  | 19.99 | 20.06  |                     |          |
| 5               | 64QAM | 12 | 7  | 20.14  | 20.00 | 19.98  | 21                  | 0        |
| 5               | 64QAM | 12 | 13 | 20.02  | 19.91 | 20.02  |                     |          |
| 5               | 64QAM | 25 | 0  | 20.03  | 19.89 | 19.89  |                     |          |

**<LTE Band 25>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 26140                 | 26340                    | 26590                  |                     |          |
| Frequency (MHz) |            |         |           | 1860                  | 1880                     | 1905                   |                     |          |
| 20              | QPSK       | 1       | 0         | 17.77                 | 17.81                    | 17.50                  |                     |          |
| 20              | QPSK       | 1       | 49        | 18.00                 | 17.82                    | 17.75                  | 18.5                | 0        |
| 20              | QPSK       | 1       | 99        | 17.42                 | 17.41                    | 17.40                  |                     |          |
| 20              | QPSK       | 50      | 0         | 17.86                 | 17.81                    | 17.87                  |                     |          |
| 20              | QPSK       | 50      | 24        | 17.97                 | 17.83                    | 17.94                  | 18.5                | 0        |
| 20              | QPSK       | 50      | 50        | 17.93                 | 17.83                    | 17.96                  |                     |          |
| 20              | QPSK       | 100     | 0         | 17.82                 | 17.77                    | 17.76                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 17.99                 | 18.22                    | 17.71                  | 18.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 17.98                 | 18.00                    | 18.02                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 17.27                 | 17.58                    | 17.76                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 17.86                 | 17.83                    | 17.95                  | 18.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 18.01                 | 17.92                    | 17.90                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 17.77                 | 17.88                    | 17.78                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 17.84                 | 17.79                    | 17.86                  | 18.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 17.88                 | 17.82                    | 17.68                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 18.00                 | 17.78                    | 17.78                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 17.44                 | 17.46                    | 17.68                  | 18.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 17.88                 | 17.84                    | 17.96                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 17.97                 | 17.92                    | 17.89                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 17.83                 | 17.77                    | 17.89                  | 18.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 17.83                 | 17.81                    | 17.87                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26115  | 26340 | 26615  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1907.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 17.88  | 17.76 | 17.92  | 18.5                | 0        |
| 15              | QPSK  | 1  | 37 | 17.84  | 17.74 | 17.90  |                     |          |
| 15              | QPSK  | 1  | 74 | 17.78  | 17.75 | 17.99  |                     |          |
| 15              | QPSK  | 36 | 0  | 18.03  | 17.96 | 18.01  | 18.5                | 0        |
| 15              | QPSK  | 36 | 20 | 17.98  | 18.00 | 18.04  |                     |          |
| 15              | QPSK  | 36 | 39 | 18.15  | 17.80 | 18.11  |                     |          |
| 15              | QPSK  | 75 | 0  | 17.95  | 17.87 | 17.98  | 18.5                | 0        |
| 15              | 16QAM | 1  | 0  | 18.36  | 18.25 | 18.36  |                     |          |
| 15              | 16QAM | 1  | 37 | 18.32  | 18.25 | 18.29  |                     |          |
| 15              | 16QAM | 1  | 74 | 18.13  | 18.25 | 17.56  | 18.5                | 0        |
| 15              | 16QAM | 36 | 0  | 17.94  | 17.88 | 18.05  |                     |          |
| 15              | 16QAM | 36 | 20 | 18.11  | 18.03 | 17.98  |                     |          |
| 15              | 16QAM | 36 | 39 | 17.97  | 17.96 | 18.08  | 18.5                | 0        |
| 15              | 16QAM | 75 | 0  | 18.04  | 17.96 | 18.07  |                     |          |
| 15              | 64QAM | 1  | 0  | 17.94  | 18.30 | 17.92  |                     |          |
| 15              | 64QAM | 1  | 37 | 17.91  | 18.32 | 18.32  | 18.5                | 0        |
| 15              | 64QAM | 1  | 74 | 17.56  | 18.20 | 17.95  |                     |          |
| 15              | 64QAM | 36 | 0  | 17.93  | 17.90 | 18.00  |                     |          |
| 15              | 64QAM | 36 | 20 | 17.97  | 17.89 | 18.00  | 18.5                | 0        |
| 15              | 64QAM | 36 | 39 | 17.98  | 17.87 | 18.00  |                     |          |
| 15              | 64QAM | 75 | 0  | 18.09  | 18.03 | 18.16  |                     |          |
| Channel         |       |    |    | 26090  | 26340 | 26640  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1910   |                     |          |
| 10              | QPSK  | 1  | 0  | 18.05  | 18.14 | 18.06  | 18.5                | 0        |
| 10              | QPSK  | 1  | 25 | 17.99  | 18.02 | 17.94  |                     |          |
| 10              | QPSK  | 1  | 49 | 18.34  | 18.04 | 17.80  |                     |          |
| 10              | QPSK  | 25 | 0  | 18.09  | 17.89 | 17.96  | 18.5                | 0        |
| 10              | QPSK  | 25 | 12 | 18.07  | 17.89 | 17.99  |                     |          |
| 10              | QPSK  | 25 | 25 | 18.15  | 17.91 | 18.05  |                     |          |
| 10              | QPSK  | 50 | 0  | 18.03  | 17.83 | 17.93  | 18.5                | 0        |
| 10              | 16QAM | 1  | 0  | 18.18  | 18.07 | 18.04  |                     |          |
| 10              | 16QAM | 1  | 25 | 18.07  | 17.98 | 17.85  |                     |          |
| 10              | 16QAM | 1  | 49 | 18.31  | 17.92 | 17.86  | 18.5                | 0        |
| 10              | 16QAM | 25 | 0  | 18.09  | 17.92 | 17.92  |                     |          |
| 10              | 16QAM | 25 | 12 | 18.07  | 17.96 | 17.94  |                     |          |
| 10              | 16QAM | 25 | 25 | 18.06  | 17.80 | 17.98  | 18.5                | 0        |
| 10              | 16QAM | 50 | 0  | 18.03  | 17.82 | 17.94  |                     |          |
| 10              | 64QAM | 1  | 0  | 18.23  | 18.07 | 18.12  |                     |          |
| 10              | 64QAM | 1  | 25 | 18.36  | 18.00 | 18.05  | 18.5                | 0        |
| 10              | 64QAM | 1  | 49 | 18.34  | 18.16 | 17.80  |                     |          |
| 10              | 64QAM | 25 | 0  | 18.10  | 17.90 | 17.90  |                     |          |
| 10              | 64QAM | 25 | 12 | 18.00  | 17.88 | 17.92  | 18.5                | 0        |
| 10              | 64QAM | 25 | 25 | 18.06  | 17.86 | 17.95  |                     |          |
| 10              | 64QAM | 50 | 0  | 18.01  | 17.82 | 17.98  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26065  | 26340 | 26665  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1912.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 18.10  | 18.21 | 18.02  | 18.5                | 0        |
| 5               | QPSK  | 1  | 12 | 18.04  | 17.85 | 18.03  |                     |          |
| 5               | QPSK  | 1  | 24 | 18.01  | 17.74 | 17.79  |                     |          |
| 5               | QPSK  | 12 | 0  | 18.08  | 17.95 | 17.97  | 18.5                | 0        |
| 5               | QPSK  | 12 | 7  | 18.06  | 17.85 | 17.95  |                     |          |
| 5               | QPSK  | 12 | 13 | 18.02  | 17.80 | 17.91  |                     |          |
| 5               | QPSK  | 25 | 0  | 18.05  | 17.97 | 18.00  | 18.5                | 0        |
| 5               | 16QAM | 1  | 0  | 18.35  | 18.47 | 18.40  |                     |          |
| 5               | 16QAM | 1  | 12 | 18.16  | 18.30 | 18.44  |                     |          |
| 5               | 16QAM | 1  | 24 | 18.45  | 18.35 | 17.72  | 18.5                | 0        |
| 5               | 16QAM | 12 | 0  | 18.09  | 18.02 | 18.11  |                     |          |
| 5               | 16QAM | 12 | 7  | 18.07  | 17.89 | 18.07  |                     |          |
| 5               | 16QAM | 12 | 13 | 18.03  | 17.82 | 17.98  | 18.5                | 0        |
| 5               | 16QAM | 25 | 0  | 17.99  | 17.87 | 18.01  |                     |          |
| 5               | 64QAM | 1  | 0  | 18.03  | 18.08 | 18.25  |                     |          |
| 5               | 64QAM | 1  | 12 | 17.94  | 17.87 | 18.30  | 18.5                | 0        |
| 5               | 64QAM | 1  | 24 | 18.14  | 17.94 | 17.32  |                     |          |
| 5               | 64QAM | 12 | 0  | 18.02  | 17.95 | 18.07  |                     |          |
| 5               | 64QAM | 12 | 7  | 18.00  | 17.89 | 18.01  | 18.5                | 0        |
| 5               | 64QAM | 12 | 13 | 18.00  | 17.78 | 18.02  |                     |          |
| 5               | 64QAM | 25 | 0  | 18.08  | 17.84 | 18.02  |                     |          |
| Channel         |       |    |    | 26055  | 26340 | 26675  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1913.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 18.01  | 17.97 | 18.06  | 18.5                | 0        |
| 3               | QPSK  | 1  | 8  | 18.07  | 17.89 | 17.98  |                     |          |
| 3               | QPSK  | 1  | 14 | 17.95  | 17.96 | 17.89  |                     |          |
| 3               | QPSK  | 8  | 0  | 18.07  | 17.99 | 17.98  | 18.5                | 0        |
| 3               | QPSK  | 8  | 4  | 18.03  | 17.96 | 18.01  |                     |          |
| 3               | QPSK  | 8  | 7  | 18.05  | 17.99 | 17.99  |                     |          |
| 3               | QPSK  | 15 | 0  | 18.00  | 17.91 | 17.91  | 18.5                | 0        |
| 3               | 16QAM | 1  | 0  | 18.41  | 18.15 | 18.38  |                     |          |
| 3               | 16QAM | 1  | 8  | 18.19  | 18.25 | 18.20  |                     |          |
| 3               | 16QAM | 1  | 14 | 18.07  | 18.11 | 18.13  | 18.5                | 0        |
| 3               | 16QAM | 8  | 0  | 18.09  | 17.95 | 18.00  |                     |          |
| 3               | 16QAM | 8  | 4  | 18.17  | 18.06 | 18.08  |                     |          |
| 3               | 16QAM | 8  | 7  | 18.06  | 18.02 | 18.04  | 18.5                | 0        |
| 3               | 16QAM | 15 | 0  | 18.05  | 17.85 | 17.94  |                     |          |
| 3               | 64QAM | 1  | 0  | 18.01  | 18.18 | 18.40  |                     |          |
| 3               | 64QAM | 1  | 8  | 17.98  | 18.16 | 18.45  | 18.5                | 0        |
| 3               | 64QAM | 1  | 14 | 18.37  | 18.10 | 18.19  |                     |          |
| 3               | 64QAM | 8  | 0  | 18.07  | 17.98 | 18.04  |                     |          |
| 3               | 64QAM | 8  | 4  | 18.14  | 17.88 | 17.99  | 18.5                | 0        |
| 3               | 64QAM | 8  | 7  | 17.99  | 17.85 | 18.21  |                     |          |
| 3               | 64QAM | 15 | 0  | 17.99  | 17.92 | 17.98  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 26047  | 26340 | 26683  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1914.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 17.71  | 17.96 | 18.10  | 18.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 18.07  | 17.92 | 18.19  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 17.97  | 17.82 | 17.99  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 18.14  | 17.95 | 18.04  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 18.16  | 17.95 | 18.06  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 18.05  | 17.88 | 18.05  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 17.98  | 17.93 | 18.07  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 18.21  | 17.94 | 17.91  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 17.87  | 17.90 | 17.89  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 17.86  | 17.91 | 17.95  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 18.07  | 17.84 | 17.97  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 18.09  | 17.86 | 18.02  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 18.00  | 17.77 | 17.97  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 18.03  | 17.96 | 17.91  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 18.08  | 18.15 | 18.23  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 18.15  | 18.11 | 18.18  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 18.05  | 17.99 | 18.15  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 17.92  | 17.98 | 17.90  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 18.05  | 17.92 | 17.88  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 17.91  | 18.02 | 17.92  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 18.05  | 17.94 | 17.83  | 18.5                | 0        |

**<LTE Band 30>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 27710                       | -                         |                           |             |
| Frequency (MHz) |            |         |           |                          | 2310                        |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 21.70                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 1       | 25        |                          | 21.41                       |                           |                           |             |
| 10              | QPSK       | 1       | 49        |                          | 21.75                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 21.60                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 25      | 12        |                          | 21.64                       |                           |                           |             |
| 10              | QPSK       | 25      | 25        |                          | 21.60                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 21.64                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 1       | 0         |                          | 21.91                       |                           |                           |             |
| 10              | 16QAM      | 1       | 25        |                          | 21.92                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 21.91                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 25      | 0         |                          | 20.89                       |                           |                           |             |
| 10              | 16QAM      | 25      | 12        |                          | 20.81                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 20.83                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 50      | 0         |                          | 20.76                       |                           |                           |             |
| 10              | 64QAM      | 1       | 0         |                          | 21.57                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 1       | 25        |                          | 21.84                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 21.76                       |                           |                           |             |
| 10              | 64QAM      | 25      | 0         |                          | 20.79                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 25      | 12        |                          | 20.76                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 20.70                       |                           |                           |             |
| 10              | 64QAM      | 50      | 0         |                          | 20.68                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 27685  | 27710 | 27735  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2307.5 | 2310  | 2312.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 21.70  | 21.56 | 21.56  | 22.5                | 0        |
| 5               | QPSK  | 1  | 12 | 21.28  | 21.25 | 21.29  |                     |          |
| 5               | QPSK  | 1  | 24 | 21.71  | 21.55 | 21.62  |                     |          |
| 5               | QPSK  | 12 | 0  | 21.68  | 21.77 | 21.74  | 22.5                | 0        |
| 5               | QPSK  | 12 | 7  | 21.65  | 21.63 | 21.65  |                     |          |
| 5               | QPSK  | 12 | 13 | 21.66  | 21.66 | 21.66  |                     |          |
| 5               | QPSK  | 25 | 0  | 21.58  | 21.63 | 21.77  | 22.5                | 0        |
| 5               | 16QAM | 1  | 0  | 21.79  | 21.66 | 21.87  |                     |          |
| 5               | 16QAM | 1  | 12 | 21.64  | 21.54 | 21.74  |                     |          |
| 5               | 16QAM | 1  | 24 | 21.54  | 21.77 | 21.80  | 22.5                | 0        |
| 5               | 16QAM | 12 | 0  | 20.86  | 20.94 | 20.86  |                     |          |
| 5               | 16QAM | 12 | 7  | 20.96  | 20.84 | 20.78  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.84  | 20.86 | 20.80  | 22.5                | 0        |
| 5               | 16QAM | 25 | 0  | 20.72  | 20.78 | 20.93  |                     |          |
| 5               | 64QAM | 1  | 0  | 21.81  | 21.91 | 21.83  |                     |          |
| 5               | 64QAM | 1  | 12 | 21.72  | 21.68 | 21.61  | 22.5                | 0        |
| 5               | 64QAM | 1  | 24 | 21.78  | 21.70 | 21.50  |                     |          |
| 5               | 64QAM | 12 | 0  | 20.79  | 20.89 | 20.89  |                     |          |
| 5               | 64QAM | 12 | 7  | 20.80  | 20.77 | 20.79  | 22.5                | 0        |
| 5               | 64QAM | 12 | 13 | 20.78  | 20.92 | 20.91  |                     |          |
| 5               | 64QAM | 25 | 0  | 20.70  | 20.76 | 20.89  |                     |          |



**<LTE Band 66>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 132072                | 132322                   | 132572                 |                     |          |
| Frequency (MHz) |            |         |           | 1720                  | 1745                     | 1770                   |                     |          |
| 20              | QPSK       | 1       | 0         | 17.65                 | 17.51                    | 17.29                  |                     |          |
| 20              | QPSK       | 1       | 49        | 17.40                 | 17.44                    | 17.65                  | 18.5                | 0        |
| 20              | QPSK       | 1       | 99        | 17.56                 | 17.82                    | 17.90                  |                     |          |
| 20              | QPSK       | 50      | 0         | 17.37                 | 17.28                    | 17.39                  |                     |          |
| 20              | QPSK       | 50      | 24        | 17.52                 | 17.54                    | 17.56                  | 18.5                | 0        |
| 20              | QPSK       | 50      | 50        | 17.42                 | 17.35                    | 17.53                  |                     |          |
| 20              | QPSK       | 100     | 0         | 17.47                 | 17.40                    | 17.51                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 17.96                 | 17.24                    | 17.78                  | 18.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 17.93                 | 17.64                    | 17.70                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 18.03                 | 18.01                    | 17.32                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 17.40                 | 17.35                    | 17.29                  | 18.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 17.48                 | 17.42                    | 17.59                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 17.40                 | 17.32                    | 17.57                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 17.41                 | 17.40                    | 17.49                  | 18.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 17.11                 | 17.11                    | 17.77                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 17.48                 | 16.98                    | 17.40                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 17.81                 | 17.73                    | 17.53                  | 18.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 17.34                 | 17.30                    | 17.32                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 17.40                 | 17.46                    | 17.51                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 17.39                 | 17.34                    | 17.43                  | 18.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 17.38                 | 17.45                    | 17.56                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 132047 | 132322 | 132597 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1717.5 | 1745   | 1772.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 17.51  | 17.55  | 17.53  | 18.5                      | 0           |
| 15              | QPSK  | 1  | 37 | 17.24  | 17.64  | 17.86  |                           |             |
| 15              | QPSK  | 1  | 74 | 17.25  | 17.44  | 17.67  |                           |             |
| 15              | QPSK  | 36 | 0  | 17.57  | 17.40  | 17.59  | 18.5                      | 0           |
| 15              | QPSK  | 36 | 20 | 17.46  | 17.50  | 17.49  |                           |             |
| 15              | QPSK  | 36 | 39 | 17.44  | 17.39  | 17.49  |                           |             |
| 15              | QPSK  | 75 | 0  | 17.32  | 17.42  | 17.51  | 18.5                      | 0           |
| 15              | 16QAM | 1  | 0  | 17.62  | 18.10  | 18.17  |                           |             |
| 15              | 16QAM | 1  | 37 | 17.48  | 17.26  | 17.99  |                           |             |
| 15              | 16QAM | 1  | 74 | 17.72  | 17.67  | 17.94  | 18.5                      | 0           |
| 15              | 16QAM | 36 | 0  | 17.55  | 17.43  | 17.63  |                           |             |
| 15              | 16QAM | 36 | 20 | 17.53  | 17.52  | 17.55  |                           |             |
| 15              | 16QAM | 36 | 39 | 17.42  | 17.34  | 17.57  | 18.5                      | 0           |
| 15              | 16QAM | 75 | 0  | 17.43  | 17.44  | 17.47  |                           |             |
| 15              | 64QAM | 1  | 0  | 17.58  | 17.65  | 18.23  |                           |             |
| 15              | 64QAM | 1  | 37 | 18.14  | 17.91  | 18.31  | 18.5                      | 0           |
| 15              | 64QAM | 1  | 74 | 17.40  | 17.98  | 18.26  |                           |             |
| 15              | 64QAM | 36 | 0  | 17.66  | 17.39  | 17.57  |                           |             |
| 15              | 64QAM | 36 | 20 | 17.56  | 17.48  | 17.49  | 18.5                      | 0           |
| 15              | 64QAM | 36 | 39 | 17.41  | 17.34  | 17.39  |                           |             |
| 15              | 64QAM | 75 | 0  | 17.43  | 17.42  | 17.46  |                           |             |
| Channel         |       |    |    | 132022 | 132322 | 132622 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1715   | 1745   | 1775   |                           |             |
| 10              | QPSK  | 1  | 0  | 17.86  | 17.39  | 17.50  | 18.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 17.37  | 17.60  | 17.45  |                           |             |
| 10              | QPSK  | 1  | 49 | 17.56  | 18.03  | 17.88  |                           |             |
| 10              | QPSK  | 25 | 0  | 17.58  | 17.47  | 17.47  | 18.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 17.63  | 17.69  | 17.79  |                           |             |
| 10              | QPSK  | 25 | 25 | 17.67  | 17.61  | 17.65  |                           |             |
| 10              | QPSK  | 50 | 0  | 17.57  | 17.58  | 17.64  | 18.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 17.23  | 17.10  | 17.14  |                           |             |
| 10              | 16QAM | 1  | 25 | 18.18  | 18.13  | 18.21  |                           |             |
| 10              | 16QAM | 1  | 49 | 18.03  | 17.95  | 18.33  | 18.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 17.58  | 17.64  | 17.54  |                           |             |
| 10              | 16QAM | 25 | 12 | 17.66  | 17.62  | 17.64  |                           |             |
| 10              | 16QAM | 25 | 25 | 17.66  | 17.45  | 17.70  | 18.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 17.58  | 17.54  | 17.66  |                           |             |
| 10              | 64QAM | 1  | 0  | 17.76  | 17.12  | 17.91  |                           |             |
| 10              | 64QAM | 1  | 25 | 18.15  | 17.78  | 18.32  | 18.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 17.55  | 17.70  | 18.20  |                           |             |
| 10              | 64QAM | 25 | 0  | 17.38  | 17.56  | 17.57  |                           |             |
| 10              | 64QAM | 25 | 12 | 17.54  | 17.60  | 17.73  | 18.5                      | 0           |
| 10              | 64QAM | 25 | 25 | 17.60  | 17.63  | 17.65  |                           |             |
| 10              | 64QAM | 50 | 0  | 17.57  | 17.54  | 17.61  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 131997 | 132322 | 132647 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1712.5 | 1745   | 1777.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 17.62  | 17.53  | 17.73  | 18.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 17.39  | 17.54  | 17.59  |                           |             |
| 5               | QPSK  | 1  | 24 | 17.52  | 17.57  | 17.63  |                           |             |
| 5               | QPSK  | 12 | 0  | 17.72  | 17.63  | 17.80  | 18.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 17.57  | 17.58  | 17.65  |                           |             |
| 5               | QPSK  | 12 | 13 | 17.57  | 17.57  | 17.50  |                           |             |
| 5               | QPSK  | 25 | 0  | 17.57  | 17.61  | 17.71  | 18.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 17.94  | 18.00  | 17.78  |                           |             |
| 5               | 16QAM | 1  | 12 | 17.94  | 17.38  | 17.60  |                           |             |
| 5               | 16QAM | 1  | 24 | 17.67  | 17.60  | 17.84  | 18.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 17.79  | 17.61  | 17.60  |                           |             |
| 5               | 16QAM | 12 | 7  | 17.56  | 17.73  | 17.64  |                           |             |
| 5               | 16QAM | 12 | 13 | 17.59  | 17.68  | 17.53  | 18.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 17.56  | 17.59  | 17.51  |                           |             |
| 5               | 64QAM | 1  | 0  | 17.66  | 17.67  | 17.93  |                           |             |
| 5               | 64QAM | 1  | 12 | 17.69  | 17.39  | 17.77  | 18.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 17.58  | 17.58  | 17.39  |                           |             |
| 5               | 64QAM | 12 | 0  | 17.71  | 17.66  | 17.75  |                           |             |
| 5               | 64QAM | 12 | 7  | 17.70  | 17.68  | 17.66  | 18.5                      | 0           |
| 5               | 64QAM | 12 | 13 | 17.63  | 17.66  | 17.64  |                           |             |
| 5               | 64QAM | 25 | 0  | 17.56  | 17.62  | 17.61  |                           |             |
| Channel         |       |    |    | 131987 | 132322 | 132657 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1711.5 | 1745   | 1778.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 17.44  | 17.36  | 17.36  | 18.5                      | 0           |
| 3               | QPSK  | 1  | 8  | 17.58  | 17.58  | 17.39  |                           |             |
| 3               | QPSK  | 1  | 14 | 17.51  | 17.51  | 17.38  |                           |             |
| 3               | QPSK  | 8  | 0  | 17.65  | 17.57  | 17.56  | 18.5                      | 0           |
| 3               | QPSK  | 8  | 4  | 17.61  | 17.61  | 17.61  |                           |             |
| 3               | QPSK  | 8  | 7  | 17.49  | 17.57  | 17.61  |                           |             |
| 3               | QPSK  | 15 | 0  | 17.66  | 17.55  | 17.63  | 18.5                      | 0           |
| 3               | 16QAM | 1  | 0  | 17.83  | 17.55  | 18.08  |                           |             |
| 3               | 16QAM | 1  | 8  | 18.26  | 18.28  | 18.04  |                           |             |
| 3               | 16QAM | 1  | 14 | 17.76  | 17.92  | 18.05  | 18.5                      | 0           |
| 3               | 16QAM | 8  | 0  | 17.68  | 17.69  | 17.60  |                           |             |
| 3               | 16QAM | 8  | 4  | 17.61  | 17.64  | 17.56  |                           |             |
| 3               | 16QAM | 8  | 7  | 17.65  | 17.72  | 17.53  | 18.5                      | 0           |
| 3               | 16QAM | 15 | 0  | 17.75  | 17.54  | 17.76  |                           |             |
| 3               | 64QAM | 1  | 0  | 17.57  | 17.37  | 17.95  |                           |             |
| 3               | 64QAM | 1  | 8  | 17.97  | 17.43  | 17.72  | 18.5                      | 0           |
| 3               | 64QAM | 1  | 14 | 17.97  | 17.56  | 17.64  |                           |             |
| 3               | 64QAM | 8  | 0  | 17.47  | 17.59  | 17.65  |                           |             |
| 3               | 64QAM | 8  | 4  | 17.54  | 17.66  | 17.60  | 18.5                      | 0           |
| 3               | 64QAM | 8  | 7  | 17.55  | 17.60  | 17.59  |                           |             |
| 3               | 64QAM | 15 | 0  | 17.60  | 17.59  | 17.57  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 131979 | 132322 | 132665 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1710.7 | 1745   | 1779.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 17.82  | 17.28  | 17.71  | 18.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 17.73  | 17.51  | 17.79  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 17.62  | 17.48  | 17.54  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 17.63  | 17.46  | 17.56  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 17.63  | 17.64  | 17.59  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 17.61  | 17.60  | 17.61  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 17.55  | 17.47  | 17.52  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 17.92  | 17.74  | 17.83  | 18.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 17.76  | 18.07  | 18.23  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 17.73  | 17.29  | 17.49  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 17.52  | 17.54  | 17.62  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 17.49  | 17.76  | 17.72  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 17.53  | 17.64  | 17.67  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 17.50  | 17.73  | 17.74  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 18.11  | 17.50  | 17.48  | 18.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 17.69  | 17.57  | 17.40  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 17.63  | 17.57  | 18.01  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 17.41  | 17.48  | 17.69  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 17.94  | 17.54  | 17.62  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 17.55  | 17.68  | 17.60  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 17.52  | 17.68  | 17.66  | 18.5                | 0        |

### <Reduced Power Mode for Hotspot On>

#### <LTE Band 2>

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 18700                    | 18900                       | 19100                     |                           |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1900                      |                           |             |
| 20              | QPSK       | 1       | 0         | 16.10                    | 15.82                       | 15.96                     |                           |             |
| 20              | QPSK       | 1       | 49        | 15.83                    | 15.18                       | 15.53                     | 16.5                      | 0           |
| 20              | QPSK       | 1       | 99        | 15.20                    | 15.50                       | 15.14                     | 16.5                      | 0           |
| 20              | QPSK       | 50      | 0         | 15.55                    | 15.61                       | 15.75                     |                           |             |
| 20              | QPSK       | 50      | 24        | 15.81                    | 15.59                       | 15.77                     |                           |             |
| 20              | QPSK       | 50      | 50        | 15.52                    | 15.32                       | 15.54                     |                           |             |
| 20              | QPSK       | 100     | 0         | 15.59                    | 15.46                       | 15.72                     | 16.5                      | 0           |
| 20              | 16QAM      | 1       | 0         | 15.62                    | 15.95                       | 15.50                     |                           |             |
| 20              | 16QAM      | 1       | 49        | 15.67                    | 15.45                       | 15.57                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 15.00                    | 15.28                       | 15.34                     | 16.5                      | 0           |
| 20              | 16QAM      | 50      | 0         | 15.51                    | 15.73                       | 15.81                     |                           |             |
| 20              | 16QAM      | 50      | 24        | 15.89                    | 15.66                       | 15.91                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 15.59                    | 15.44                       | 15.59                     |                           |             |
| 20              | 16QAM      | 100     | 0         | 15.67                    | 15.49                       | 15.67                     | 16.5                      | 0           |
| 20              | 64QAM      | 1       | 0         | 15.48                    | 15.25                       | 15.65                     |                           |             |
| 20              | 64QAM      | 1       | 49        | 15.64                    | 15.57                       | 15.48                     |                           |             |
| 20              | 64QAM      | 1       | 99        | 15.52                    | 15.28                       | 15.42                     | 16.5                      | 0           |
| 20              | 64QAM      | 50      | 0         | 15.74                    | 15.64                       | 15.79                     |                           |             |
| 20              | 64QAM      | 50      | 24        | 15.79                    | 15.64                       | 15.85                     |                           |             |
| 20              | 64QAM      | 50      | 50        | 15.50                    | 15.43                       | 15.64                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 15.55                    | 15.48                       | 15.65                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18675  | 18900 | 19125  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1902.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 15.39  | 15.38 | 15.60  | 16.5                | 0        |
| 15              | QPSK  | 1  | 37 | 15.58  | 15.63 | 15.76  |                     |          |
| 15              | QPSK  | 1  | 74 | 15.65  | 15.56 | 15.71  |                     |          |
| 15              | QPSK  | 36 | 0  | 15.68  | 15.67 | 15.71  | 16.5                | 0        |
| 15              | QPSK  | 36 | 20 | 15.74  | 15.62 | 15.82  |                     |          |
| 15              | QPSK  | 36 | 39 | 15.71  | 15.57 | 15.75  |                     |          |
| 15              | QPSK  | 75 | 0  | 15.54  | 15.53 | 15.75  | 16.5                | 0        |
| 15              | 16QAM | 1  | 0  | 15.99  | 16.02 | 16.01  |                     |          |
| 15              | 16QAM | 1  | 37 | 15.83  | 16.10 | 16.13  |                     |          |
| 15              | 16QAM | 1  | 74 | 15.54  | 15.64 | 15.86  | 16.5                | 0        |
| 15              | 16QAM | 36 | 0  | 15.73  | 15.52 | 15.70  |                     |          |
| 15              | 16QAM | 36 | 20 | 15.63  | 15.64 | 15.78  |                     |          |
| 15              | 16QAM | 36 | 39 | 15.56  | 15.50 | 15.78  | 16.5                | 0        |
| 15              | 16QAM | 75 | 0  | 15.60  | 15.55 | 15.75  |                     |          |
| 15              | 64QAM | 1  | 0  | 15.88  | 16.13 | 15.55  |                     |          |
| 15              | 64QAM | 1  | 37 | 15.32  | 15.38 | 15.77  | 16.5                | 0        |
| 15              | 64QAM | 1  | 74 | 15.90  | 15.52 | 15.83  |                     |          |
| 15              | 64QAM | 36 | 0  | 15.63  | 15.55 | 15.67  |                     |          |
| 15              | 64QAM | 36 | 20 | 15.60  | 15.61 | 15.86  | 16.5                | 0        |
| 15              | 64QAM | 36 | 39 | 15.54  | 15.48 | 15.66  |                     |          |
| 15              | 64QAM | 75 | 0  | 15.60  | 15.56 | 15.79  |                     |          |
| Channel         |       |    |    | 18650  | 18900 | 19150  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1905   |                     |          |
| 10              | QPSK  | 1  | 0  | 15.60  | 15.65 | 15.80  | 16.5                | 0        |
| 10              | QPSK  | 1  | 25 | 15.68  | 16.04 | 15.70  |                     |          |
| 10              | QPSK  | 1  | 49 | 15.71  | 15.85 | 15.77  |                     |          |
| 10              | QPSK  | 25 | 0  | 15.69  | 15.74 | 15.76  | 16.5                | 0        |
| 10              | QPSK  | 25 | 12 | 15.60  | 15.75 | 15.72  |                     |          |
| 10              | QPSK  | 25 | 25 | 15.72  | 15.79 | 15.66  |                     |          |
| 10              | QPSK  | 50 | 0  | 15.57  | 15.69 | 15.65  | 16.5                | 0        |
| 10              | 16QAM | 1  | 0  | 15.88  | 15.79 | 16.16  |                     |          |
| 10              | 16QAM | 1  | 25 | 15.70  | 15.82 | 16.14  |                     |          |
| 10              | 16QAM | 1  | 49 | 16.12  | 16.09 | 15.70  | 16.5                | 0        |
| 10              | 16QAM | 25 | 0  | 15.72  | 15.69 | 15.80  |                     |          |
| 10              | 16QAM | 25 | 12 | 15.65  | 15.69 | 15.72  |                     |          |
| 10              | 16QAM | 25 | 25 | 15.74  | 15.77 | 15.71  | 16.5                | 0        |
| 10              | 16QAM | 50 | 0  | 15.66  | 15.79 | 15.63  |                     |          |
| 10              | 64QAM | 1  | 0  | 15.89  | 16.14 | 16.19  |                     |          |
| 10              | 64QAM | 1  | 25 | 15.64  | 15.80 | 16.21  | 16.5                | 0        |
| 10              | 64QAM | 1  | 49 | 15.92  | 15.77 | 15.98  |                     |          |
| 10              | 64QAM | 25 | 0  | 15.63  | 15.71 | 15.79  |                     |          |
| 10              | 64QAM | 25 | 12 | 15.68  | 15.72 | 15.64  | 16.5                | 0        |
| 10              | 64QAM | 25 | 25 | 15.66  | 15.69 | 15.66  |                     |          |
| 10              | 64QAM | 50 | 0  | 15.64  | 15.63 | 15.67  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18625  | 18900 | 19175  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1907.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 15.76  | 15.80 | 15.65  | 16.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 15.77  | 15.81 | 15.75  |                           |             |
| 5               | QPSK  | 1  | 24 | 15.60  | 15.76 | 15.76  |                           |             |
| 5               | QPSK  | 12 | 0  | 15.73  | 15.79 | 15.87  | 16.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 15.72  | 15.79 | 15.72  |                           |             |
| 5               | QPSK  | 12 | 13 | 15.64  | 15.68 | 15.70  |                           |             |
| 5               | QPSK  | 25 | 0  | 15.73  | 15.80 | 15.75  | 16.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 16.10  | 16.16 | 15.91  |                           |             |
| 5               | 16QAM | 1  | 12 | 15.88  | 15.71 | 15.67  |                           |             |
| 5               | 16QAM | 1  | 24 | 15.69  | 15.97 | 15.86  | 16.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 15.79  | 15.83 | 15.84  |                           |             |
| 5               | 16QAM | 12 | 7  | 15.77  | 15.79 | 15.75  |                           |             |
| 5               | 16QAM | 12 | 13 | 15.63  | 15.75 | 15.67  | 16.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 15.79  | 15.76 | 15.73  |                           |             |
| 5               | 64QAM | 1  | 0  | 15.94  | 15.98 | 16.02  |                           |             |
| 5               | 64QAM | 1  | 12 | 15.73  | 15.85 | 15.82  | 16.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 15.81  | 15.85 | 15.88  |                           |             |
| 5               | 64QAM | 12 | 0  | 15.74  | 15.85 | 15.88  |                           |             |
| 5               | 64QAM | 12 | 7  | 15.72  | 15.74 | 15.72  | 16.5                      | 0           |
| 5               | 64QAM | 12 | 13 | 15.62  | 15.73 | 15.77  |                           |             |
| 5               | 64QAM | 25 | 0  | 15.78  | 15.82 | 15.73  |                           |             |
| Channel         |       |    |    | 18615  | 18900 | 19185  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1908.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 16.01  | 15.65 | 15.30  | 16.5                      | 0           |
| 3               | QPSK  | 1  | 8  | 15.88  | 15.62 | 15.76  |                           |             |
| 3               | QPSK  | 1  | 14 | 15.73  | 15.65 | 15.74  |                           |             |
| 3               | QPSK  | 8  | 0  | 15.69  | 15.71 | 15.71  | 16.5                      | 0           |
| 3               | QPSK  | 8  | 4  | 15.67  | 15.71 | 15.78  |                           |             |
| 3               | QPSK  | 8  | 7  | 15.69  | 15.73 | 15.79  |                           |             |
| 3               | QPSK  | 15 | 0  | 15.62  | 15.66 | 15.76  | 16.5                      | 0           |
| 3               | 16QAM | 1  | 0  | 16.11  | 16.16 | 15.95  |                           |             |
| 3               | 16QAM | 1  | 8  | 16.00  | 16.10 | 15.94  |                           |             |
| 3               | 16QAM | 1  | 14 | 15.97  | 15.74 | 15.94  | 16.5                      | 0           |
| 3               | 16QAM | 8  | 0  | 15.70  | 15.73 | 15.79  |                           |             |
| 3               | 16QAM | 8  | 4  | 15.69  | 15.72 | 15.80  |                           |             |
| 3               | 16QAM | 8  | 7  | 15.70  | 15.63 | 15.70  | 16.5                      | 0           |
| 3               | 16QAM | 15 | 0  | 15.65  | 15.77 | 15.80  |                           |             |
| 3               | 64QAM | 1  | 0  | 15.67  | 15.84 | 15.75  |                           |             |
| 3               | 64QAM | 1  | 8  | 15.86  | 15.89 | 15.96  | 16.5                      | 0           |
| 3               | 64QAM | 1  | 14 | 15.85  | 15.78 | 15.77  |                           |             |
| 3               | 64QAM | 8  | 0  | 15.77  | 15.93 | 15.82  |                           |             |
| 3               | 64QAM | 8  | 4  | 15.79  | 15.79 | 15.85  | 16.5                      | 0           |
| 3               | 64QAM | 8  | 7  | 15.70  | 15.81 | 15.73  |                           |             |
| 3               | 64QAM | 15 | 0  | 15.65  | 15.71 | 15.76  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 18607  | 18900 | 19193  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1909.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 15.65  | 15.60 | 15.50  | 16.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 15.58  | 15.79 | 15.73  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 15.52  | 15.71 | 15.61  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 15.53  | 15.70 | 15.64  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 15.65  | 15.71 | 15.74  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 15.61  | 15.63 | 15.73  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 15.53  | 15.67 | 15.70  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 15.87  | 16.37 | 16.04  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 16.09  | 15.81 | 15.88  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 15.66  | 15.69 | 16.36  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 15.66  | 15.69 | 15.55  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 15.71  | 15.70 | 15.66  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 15.65  | 15.61 | 15.69  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 15.97  | 15.74 | 15.82  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 15.69  | 15.81 | 15.57  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 15.78  | 15.90 | 15.62  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 15.77  | 15.81 | 15.58  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 15.56  | 15.84 | 15.69  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 15.66  | 15.86 | 15.69  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 15.52  | 15.53 | 15.75  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 15.65  | 15.69 | 15.74  | 16.5                | 0        |



**<LTE Band 4>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20050                 | 20175                    | 20300                  | 16.5                | 0        |
| Frequency (MHz) |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |          |
| 20              | QPSK       | 1       | 0         | 15.58                 | 15.52                    | 15.80                  |                     |          |
| 20              | QPSK       | 1       | 49        | 15.58                 | 15.46                    | 15.59                  | 16.5                | 0        |
| 20              | QPSK       | 1       | 99        | 15.12                 | 15.36                    | 15.20                  |                     |          |
| 20              | QPSK       | 50      | 0         | 15.36                 | 15.33                    | 15.41                  |                     |          |
| 20              | QPSK       | 50      | 24        | 15.46                 | 15.45                    | 15.41                  | 16.5                | 0        |
| 20              | QPSK       | 50      | 50        | 15.21                 | 15.33                    | 15.25                  |                     |          |
| 20              | QPSK       | 100     | 0         | 15.39                 | 15.35                    | 15.26                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 15.18                 | 15.24                    | 15.71                  | 16.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 15.87                 | 15.30                    | 16.07                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 15.86                 | 15.59                    | 15.22                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 15.36                 | 15.45                    | 15.46                  | 16.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 15.54                 | 15.55                    | 15.33                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 15.29                 | 15.40                    | 15.20                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 15.45                 | 15.44                    | 15.25                  | 16.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 15.31                 | 15.39                    | 15.32                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 15.53                 | 15.47                    | 15.24                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 15.38                 | 15.51                    | 15.20                  | 16.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 15.43                 | 15.37                    | 15.37                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 15.44                 | 15.52                    | 15.29                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 15.28                 | 15.43                    | 15.20                  | 16.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 15.41                 | 15.29                    | 15.25                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20025  | 20175  | 20325  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1717.5 | 1732.5 | 1747.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 15.65  | 15.01  | 15.52  | 16.5                | 0        |
| 15              | QPSK  | 1  | 37 | 15.37  | 15.41  | 15.34  |                     |          |
| 15              | QPSK  | 1  | 74 | 15.31  | 15.50  | 15.11  |                     |          |
| 15              | QPSK  | 36 | 0  | 15.52  | 15.50  | 15.39  | 16.5                | 0        |
| 15              | QPSK  | 36 | 20 | 15.54  | 15.50  | 15.43  |                     |          |
| 15              | QPSK  | 36 | 39 | 15.28  | 15.28  | 15.33  |                     |          |
| 15              | QPSK  | 75 | 0  | 15.33  | 15.37  | 15.38  | 16.5                | 0        |
| 15              | 16QAM | 1  | 0  | 15.97  | 16.04  | 15.95  |                     |          |
| 15              | 16QAM | 1  | 37 | 15.46  | 15.47  | 15.21  |                     |          |
| 15              | 16QAM | 1  | 74 | 15.78  | 15.51  | 15.71  | 16.5                | 0        |
| 15              | 16QAM | 36 | 0  | 15.51  | 15.56  | 15.40  |                     |          |
| 15              | 16QAM | 36 | 20 | 15.52  | 15.46  | 15.42  |                     |          |
| 15              | 16QAM | 36 | 39 | 15.35  | 15.46  | 15.33  | 16.5                | 0        |
| 15              | 16QAM | 75 | 0  | 15.34  | 15.56  | 15.34  |                     |          |
| 15              | 64QAM | 1  | 0  | 15.75  | 15.57  | 15.41  |                     |          |
| 15              | 64QAM | 1  | 37 | 15.62  | 15.68  | 15.93  | 16.5                | 0        |
| 15              | 64QAM | 1  | 74 | 15.17  | 15.50  | 15.28  |                     |          |
| 15              | 64QAM | 36 | 0  | 15.52  | 15.48  | 15.31  |                     |          |
| 15              | 64QAM | 36 | 20 | 15.52  | 15.36  | 15.52  | 16.5                | 0        |
| 15              | 64QAM | 36 | 39 | 15.35  | 15.35  | 15.27  |                     |          |
| 15              | 64QAM | 75 | 0  | 15.41  | 15.41  | 15.32  |                     |          |
| Channel         |       |    |    | 20000  | 20175  | 20350  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1715   | 1732.5 | 1750   |                     |          |
| 10              | QPSK  | 1  | 0  | 15.31  | 15.30  | 15.29  | 16.5                | 0        |
| 10              | QPSK  | 1  | 25 | 15.52  | 15.57  | 15.59  |                     |          |
| 10              | QPSK  | 1  | 49 | 15.98  | 15.35  | 15.83  |                     |          |
| 10              | QPSK  | 25 | 0  | 15.59  | 15.62  | 15.57  | 16.5                | 0        |
| 10              | QPSK  | 25 | 12 | 15.56  | 15.55  | 15.57  |                     |          |
| 10              | QPSK  | 25 | 25 | 15.73  | 15.70  | 15.66  |                     |          |
| 10              | QPSK  | 50 | 0  | 15.56  | 15.70  | 15.60  | 16.5                | 0        |
| 10              | 16QAM | 1  | 0  | 16.01  | 16.07  | 16.09  |                     |          |
| 10              | 16QAM | 1  | 25 | 16.08  | 16.08  | 15.74  |                     |          |
| 10              | 16QAM | 1  | 49 | 16.01  | 15.65  | 16.38  | 16.5                | 0        |
| 10              | 16QAM | 25 | 0  | 15.64  | 15.53  | 15.55  |                     |          |
| 10              | 16QAM | 25 | 12 | 15.54  | 15.62  | 15.60  |                     |          |
| 10              | 16QAM | 25 | 25 | 15.74  | 15.64  | 15.69  | 16.5                | 0        |
| 10              | 16QAM | 50 | 0  | 15.67  | 15.65  | 15.55  |                     |          |
| 10              | 64QAM | 1  | 0  | 15.94  | 15.86  | 15.64  |                     |          |
| 10              | 64QAM | 1  | 25 | 15.87  | 15.61  | 15.77  | 16.5                | 0        |
| 10              | 64QAM | 1  | 49 | 16.19  | 15.72  | 16.05  |                     |          |
| 10              | 64QAM | 25 | 0  | 15.70  | 15.66  | 15.61  |                     |          |
| 10              | 64QAM | 25 | 12 | 15.66  | 15.62  | 15.62  | 16.5                | 0        |
| 10              | 64QAM | 25 | 25 | 15.71  | 15.82  | 15.64  |                     |          |
| 10              | 64QAM | 50 | 0  | 15.64  | 15.70  | 15.67  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 19975  | 20175  | 20375  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1712.5 | 1732.5 | 1752.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 15.15  | 15.65  | 15.50  | 16.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 15.52  | 15.62  | 15.51  |                           |             |
| 5               | QPSK  | 1  | 24 | 15.57  | 15.55  | 15.54  |                           |             |
| 5               | QPSK  | 12 | 0  | 15.60  | 15.67  | 15.59  | 16.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 15.60  | 15.56  | 15.58  |                           |             |
| 5               | QPSK  | 12 | 13 | 15.58  | 15.64  | 15.53  |                           |             |
| 5               | QPSK  | 25 | 0  | 15.62  | 15.73  | 15.64  | 16.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 15.63  | 15.68  | 15.78  |                           |             |
| 5               | 16QAM | 1  | 12 | 15.49  | 15.41  | 15.41  |                           |             |
| 5               | 16QAM | 1  | 24 | 15.39  | 15.81  | 15.60  | 16.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 15.77  | 15.73  | 15.64  |                           |             |
| 5               | 16QAM | 12 | 7  | 15.76  | 15.73  | 15.62  |                           |             |
| 5               | 16QAM | 12 | 13 | 15.73  | 15.64  | 15.57  | 16.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 15.61  | 15.70  | 15.61  |                           |             |
| 5               | 64QAM | 1  | 0  | 15.78  | 15.82  | 15.77  |                           |             |
| 5               | 64QAM | 1  | 12 | 15.68  | 15.64  | 15.59  | 16.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 15.70  | 15.61  | 15.63  |                           |             |
| 5               | 64QAM | 12 | 0  | 15.69  | 15.71  | 15.58  |                           |             |
| 5               | 64QAM | 12 | 7  | 15.68  | 15.62  | 15.64  | 16.5                      | 0           |
| 5               | 64QAM | 12 | 13 | 15.67  | 15.63  | 15.57  |                           |             |
| 5               | 64QAM | 25 | 0  | 15.68  | 15.60  | 15.52  |                           |             |
| Channel         |       |    |    | 19965  | 20175  | 20385  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1711.5 | 1732.5 | 1753.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 15.97  | 15.56  | 15.80  | 16.5                      | 0           |
| 3               | QPSK  | 1  | 8  | 15.50  | 15.58  | 15.55  |                           |             |
| 3               | QPSK  | 1  | 14 | 15.48  | 15.57  | 15.50  |                           |             |
| 3               | QPSK  | 8  | 0  | 15.62  | 15.68  | 15.58  | 16.5                      | 0           |
| 3               | QPSK  | 8  | 4  | 15.57  | 15.61  | 15.57  |                           |             |
| 3               | QPSK  | 8  | 7  | 15.61  | 15.61  | 15.50  |                           |             |
| 3               | QPSK  | 15 | 0  | 15.56  | 15.58  | 15.52  | 16.5                      | 0           |
| 3               | 16QAM | 1  | 0  | 16.12  | 15.67  | 15.67  |                           |             |
| 3               | 16QAM | 1  | 8  | 15.94  | 15.60  | 15.46  |                           |             |
| 3               | 16QAM | 1  | 14 | 16.28  | 15.77  | 15.71  | 16.5                      | 0           |
| 3               | 16QAM | 8  | 0  | 15.71  | 15.65  | 15.67  |                           |             |
| 3               | 16QAM | 8  | 4  | 15.44  | 15.75  | 15.74  |                           |             |
| 3               | 16QAM | 8  | 7  | 15.54  | 15.53  | 15.69  | 16.5                      | 0           |
| 3               | 16QAM | 15 | 0  | 15.48  | 15.52  | 15.49  |                           |             |
| 3               | 64QAM | 1  | 0  | 15.99  | 15.58  | 15.68  |                           |             |
| 3               | 64QAM | 1  | 8  | 15.93  | 15.79  | 15.57  | 16.5                      | 0           |
| 3               | 64QAM | 1  | 14 | 15.65  | 15.68  | 15.63  |                           |             |
| 3               | 64QAM | 8  | 0  | 15.61  | 15.67  | 15.66  |                           |             |
| 3               | 64QAM | 8  | 4  | 15.59  | 15.66  | 15.57  | 16.5                      | 0           |
| 3               | 64QAM | 8  | 7  | 15.61  | 15.62  | 15.75  |                           |             |
| 3               | 64QAM | 15 | 0  | 15.47  | 15.61  | 15.59  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 19957  | 20175  | 20393  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1710.7 | 1732.5 | 1754.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 15.78  | 15.80  | 15.65  | 16.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 15.72  | 15.55  | 15.60  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 15.52  | 15.55  | 15.48  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 15.49  | 15.49  | 15.53  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 15.51  | 15.62  | 15.49  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 15.53  | 15.50  | 15.48  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 15.56  | 15.55  | 15.50  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 15.65  | 16.01  | 15.75  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 15.75  | 15.94  | 15.85  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 15.42  | 15.80  | 15.67  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 15.66  | 15.69  | 15.55  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 15.66  | 15.57  | 15.76  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 15.55  | 15.63  | 15.59  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 15.59  | 15.73  | 15.60  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 16.08  | 15.69  | 16.02  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 16.01  | 16.03  | 15.59  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 15.70  | 15.56  | 15.53  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 15.71  | 15.86  | 15.53  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 15.64  | 15.57  | 15.68  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 15.63  | 15.64  | 15.42  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 15.51  | 15.54  | 15.55  | 16.5                | 0        |

**<LTE Band 7>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20850                 | 21100                    | 21350                  |                     |          |
| Frequency (MHz) |            |         |           | 2510                  | 2535                     | 2560                   |                     |          |
| 20              | QPSK       | 1       | 0         | 17.98                 | 18.23                    | 18.20                  |                     |          |
| 20              | QPSK       | 1       | 49        | 18.36                 | 18.21                    | 18.30                  | 19.5                | 0        |
| 20              | QPSK       | 1       | 99        | 18.03                 | 18.08                    | 18.22                  |                     |          |
| 20              | QPSK       | 50      | 0         | 18.18                 | 18.21                    | 18.31                  |                     |          |
| 20              | QPSK       | 50      | 24        | 18.37                 | 18.24                    | 18.28                  | 19.5                | 0        |
| 20              | QPSK       | 50      | 50        | 18.25                 | 18.22                    | 18.32                  |                     |          |
| 20              | QPSK       | 100     | 0         | 18.34                 | 18.22                    | 18.32                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 18.57                 | 18.40                    | 18.34                  | 19.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 18.66                 | 18.57                    | 18.65                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 18.56                 | 18.35                    | 18.39                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 18.30                 | 18.24                    | 18.15                  | 19.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 18.41                 | 18.27                    | 18.24                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 18.32                 | 18.23                    | 18.17                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 18.31                 | 18.22                    | 18.16                  | 19.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 18.40                 | 18.27                    | 18.19                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 18.50                 | 18.44                    | 18.38                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 18.42                 | 18.27                    | 18.27                  | 19.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 18.29                 | 18.21                    | 18.11                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 18.38                 | 18.24                    | 18.22                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 18.31                 | 18.21                    | 18.18                  | 19.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 18.31                 | 18.23                    | 18.17                  |                     |          |



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Report No. : FA892801

| Channel         |       |    |    | 20825  | 21100 | 21375  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2507.5 | 2535  | 2562.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 17.90  | 17.92 | 17.83  | 19.5                | 0        |
| 15              | QPSK  | 1  | 37 | 18.37  | 18.26 | 18.20  |                     |          |
| 15              | QPSK  | 1  | 74 | 18.19  | 18.06 | 18.10  |                     |          |
| 15              | QPSK  | 36 | 0  | 18.30  | 18.27 | 18.21  | 19.5                | 0        |
| 15              | QPSK  | 36 | 20 | 18.39  | 18.30 | 18.24  |                     |          |
| 15              | QPSK  | 36 | 39 | 18.40  | 18.27 | 18.24  |                     |          |
| 15              | QPSK  | 75 | 0  | 18.37  | 18.23 | 18.18  | 19.5                | 0        |
| 15              | 16QAM | 1  | 0  | 18.62  | 18.43 | 18.42  |                     |          |
| 15              | 16QAM | 1  | 37 | 18.56  | 18.53 | 18.51  |                     |          |
| 15              | 16QAM | 1  | 74 | 18.65  | 18.34 | 18.45  | 19.5                | 0        |
| 15              | 16QAM | 36 | 0  | 18.32  | 18.29 | 18.28  |                     |          |
| 15              | 16QAM | 36 | 20 | 18.35  | 18.32 | 18.25  |                     |          |
| 15              | 16QAM | 36 | 39 | 18.40  | 18.29 | 18.22  | 19.5                | 0        |
| 15              | 16QAM | 75 | 0  | 18.42  | 18.24 | 18.17  |                     |          |
| 15              | 64QAM | 1  | 0  | 18.49  | 18.30 | 18.26  |                     |          |
| 15              | 64QAM | 1  | 37 | 18.50  | 18.39 | 18.53  | 19.5                | 0        |
| 15              | 64QAM | 1  | 74 | 18.52  | 18.28 | 18.32  |                     |          |
| 15              | 64QAM | 36 | 0  | 18.31  | 18.28 | 18.26  |                     |          |
| 15              | 64QAM | 36 | 20 | 18.38  | 18.32 | 18.25  | 19.5                | 0        |
| 15              | 64QAM | 36 | 39 | 18.39  | 18.27 | 18.24  |                     |          |
| 15              | 64QAM | 75 | 0  | 18.40  | 18.24 | 18.16  |                     |          |
| Channel         |       |    |    | 20800  | 21100 | 21400  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2505   | 2535  | 2565   |                     |          |
| 10              | QPSK  | 1  | 0  | 18.13  | 18.10 | 18.06  | 19.5                | 0        |
| 10              | QPSK  | 1  | 25 | 18.13  | 18.07 | 17.95  |                     |          |
| 10              | QPSK  | 1  | 49 | 18.28  | 18.23 | 18.13  |                     |          |
| 10              | QPSK  | 25 | 0  | 18.19  | 18.10 | 18.03  | 19.5                | 0        |
| 10              | QPSK  | 25 | 12 | 18.21  | 18.07 | 18.09  |                     |          |
| 10              | QPSK  | 25 | 25 | 18.24  | 18.06 | 18.05  |                     |          |
| 10              | QPSK  | 50 | 0  | 18.21  | 18.11 | 18.06  | 19.5                | 0        |
| 10              | 16QAM | 1  | 0  | 18.62  | 18.60 | 18.54  |                     |          |
| 10              | 16QAM | 1  | 25 | 18.53  | 18.38 | 18.40  |                     |          |
| 10              | 16QAM | 1  | 49 | 18.64  | 18.55 | 18.46  | 19.5                | 0        |
| 10              | 16QAM | 25 | 0  | 18.13  | 18.06 | 18.03  |                     |          |
| 10              | 16QAM | 25 | 12 | 18.20  | 18.10 | 18.04  |                     |          |
| 10              | 16QAM | 25 | 25 | 18.24  | 18.05 | 18.00  | 19.5                | 0        |
| 10              | 16QAM | 50 | 0  | 18.19  | 18.09 | 18.07  |                     |          |
| 10              | 64QAM | 1  | 0  | 18.59  | 18.43 | 18.40  |                     |          |
| 10              | 64QAM | 1  | 25 | 18.38  | 18.25 | 18.25  | 19.5                | 0        |
| 10              | 64QAM | 1  | 49 | 18.52  | 18.39 | 18.37  |                     |          |
| 10              | 64QAM | 25 | 0  | 18.19  | 18.10 | 18.05  |                     |          |
| 10              | 64QAM | 25 | 12 | 18.20  | 18.08 | 18.09  | 19.5                | 0        |
| 10              | 64QAM | 25 | 25 | 18.29  | 18.06 | 18.05  |                     |          |
| 10              | 64QAM | 50 | 0  | 18.22  | 18.08 | 18.05  |                     |          |



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Report No. : FA892801

| Channel         |       |    |    | 20775  | 21100 | 21425  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2502.5 | 2535  | 2567.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 17.86  | 17.88 | 17.82  | 19.5                | 0        |
| 5               | QPSK  | 1  | 12 | 18.17  | 18.03 | 17.96  |                     |          |
| 5               | QPSK  | 1  | 24 | 18.18  | 18.03 | 18.03  |                     |          |
| 5               | QPSK  | 12 | 0  | 18.28  | 18.16 | 18.10  | 19.5                | 0        |
| 5               | QPSK  | 12 | 7  | 18.27  | 18.16 | 18.10  |                     |          |
| 5               | QPSK  | 12 | 13 | 18.20  | 18.08 | 18.05  |                     |          |
| 5               | QPSK  | 25 | 0  | 18.30  | 18.11 | 18.04  | 19.5                | 0        |
| 5               | 16QAM | 1  | 0  | 18.53  | 18.40 | 18.34  |                     |          |
| 5               | 16QAM | 1  | 12 | 18.49  | 18.33 | 18.26  |                     |          |
| 5               | 16QAM | 1  | 24 | 18.50  | 18.34 | 18.22  | 19.5                | 0        |
| 5               | 16QAM | 12 | 0  | 18.33  | 18.17 | 18.12  |                     |          |
| 5               | 16QAM | 12 | 7  | 18.35  | 18.19 | 18.15  |                     |          |
| 5               | 16QAM | 12 | 13 | 18.22  | 18.11 | 18.09  | 19.5                | 0        |
| 5               | 16QAM | 25 | 0  | 18.22  | 18.11 | 18.06  |                     |          |
| 5               | 64QAM | 1  | 0  | 18.39  | 18.25 | 18.25  |                     |          |
| 5               | 64QAM | 1  | 12 | 18.39  | 18.18 | 18.19  | 19.5                | 0        |
| 5               | 64QAM | 1  | 24 | 18.35  | 18.15 | 18.15  |                     |          |
| 5               | 64QAM | 12 | 0  | 18.31  | 18.16 | 18.14  |                     |          |
| 5               | 64QAM | 12 | 7  | 18.30  | 18.16 | 18.13  | 19.5                | 0        |
| 5               | 64QAM | 12 | 13 | 18.20  | 18.10 | 18.07  |                     |          |
| 5               | 64QAM | 25 | 0  | 18.29  | 18.11 | 18.07  |                     |          |



**<LTE Band 25>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 26140                 | 26340                    | 26590                  |                     |          |
| Frequency (MHz) |            |         |           | 1860                  | 1880                     | 1905                   |                     |          |
| 20              | QPSK       | 1       | 0         | 15.64                 | 15.64                    | 15.49                  | 16.5                | 0        |
| 20              | QPSK       | 1       | 49        | 16.10                 | 15.94                    | 15.73                  |                     |          |
| 20              | QPSK       | 1       | 99        | 15.45                 | 15.27                    | 15.32                  |                     |          |
| 20              | QPSK       | 50      | 0         | 15.64                 | 15.90                    | 15.90                  | 16.5                | 0        |
| 20              | QPSK       | 50      | 24        | 15.95                 | 15.94                    | 15.83                  |                     |          |
| 20              | QPSK       | 50      | 50        | 15.82                 | 15.84                    | 15.84                  |                     |          |
| 20              | QPSK       | 100     | 0         | 16.00                 | 15.92                    | 16.03                  | 16.5                | 0        |
| 20              | 16QAM      | 1       | 0         | 16.18                 | 15.82                    | 15.73                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 15.79                 | 15.83                    | 16.11                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 15.43                 | 15.47                    | 15.24                  | 16.5                | 0        |
| 20              | 16QAM      | 50      | 0         | 15.84                 | 15.86                    | 16.03                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 15.94                 | 15.88                    | 15.88                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 16.07                 | 15.87                    | 15.89                  | 16.5                | 0        |
| 20              | 16QAM      | 100     | 0         | 15.85                 | 15.89                    | 15.94                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 16.13                 | 15.93                    | 15.75                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 16.03                 | 15.95                    | 16.30                  | 16.5                | 0        |
| 20              | 64QAM      | 1       | 99        | 15.60                 | 15.52                    | 15.70                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 15.99                 | 15.85                    | 15.72                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 16.02                 | 15.89                    | 15.86                  | 16.5                | 0        |
| 20              | 64QAM      | 50      | 50        | 15.83                 | 15.82                    | 15.87                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 15.91                 | 15.86                    | 15.91                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26115  | 26340 | 26615  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1907.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 15.89  | 15.74 | 15.93  | 16.5                | 0        |
| 15              | QPSK  | 1  | 37 | 15.60  | 15.76 | 15.88  |                     |          |
| 15              | QPSK  | 1  | 74 | 15.63  | 15.75 | 15.19  |                     |          |
| 15              | QPSK  | 36 | 0  | 15.97  | 15.70 | 15.98  | 16.5                | 0        |
| 15              | QPSK  | 36 | 20 | 15.86  | 16.03 | 16.04  |                     |          |
| 15              | QPSK  | 36 | 39 | 16.04  | 15.84 | 16.09  |                     |          |
| 15              | QPSK  | 75 | 0  | 15.77  | 15.92 | 15.96  | 16.5                | 0        |
| 15              | 16QAM | 1  | 0  | 16.12  | 16.21 | 16.19  |                     |          |
| 15              | 16QAM | 1  | 37 | 16.21  | 16.42 | 16.44  |                     |          |
| 15              | 16QAM | 1  | 74 | 15.75  | 16.09 | 15.54  | 16.5                | 0        |
| 15              | 16QAM | 36 | 0  | 15.98  | 15.90 | 15.94  |                     |          |
| 15              | 16QAM | 36 | 20 | 16.05  | 15.94 | 15.95  |                     |          |
| 15              | 16QAM | 36 | 39 | 15.81  | 15.97 | 16.04  | 16.5                | 0        |
| 15              | 16QAM | 75 | 0  | 16.11  | 15.99 | 16.03  |                     |          |
| 15              | 64QAM | 1  | 0  | 15.93  | 15.90 | 16.09  |                     |          |
| 15              | 64QAM | 1  | 37 | 15.58  | 16.12 | 15.83  | 16.5                | 0        |
| 15              | 64QAM | 1  | 74 | 15.45  | 16.21 | 15.67  |                     |          |
| 15              | 64QAM | 36 | 0  | 16.00  | 15.97 | 15.97  |                     |          |
| 15              | 64QAM | 36 | 20 | 15.89  | 15.91 | 15.87  | 16.5                | 0        |
| 15              | 64QAM | 36 | 39 | 16.03  | 15.94 | 15.99  |                     |          |
| 15              | 64QAM | 75 | 0  | 16.13  | 16.00 | 16.05  |                     |          |
| Channel         |       |    |    | 26090  | 26340 | 26640  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1910   |                     |          |
| 10              | QPSK  | 1  | 0  | 16.20  | 16.07 | 16.13  | 16.5                | 0        |
| 10              | QPSK  | 1  | 25 | 16.25  | 15.73 | 15.94  |                     |          |
| 10              | QPSK  | 1  | 49 | 16.10  | 16.06 | 15.35  |                     |          |
| 10              | QPSK  | 25 | 0  | 16.32  | 16.05 | 15.96  | 16.5                | 0        |
| 10              | QPSK  | 25 | 12 | 16.21  | 16.05 | 16.08  |                     |          |
| 10              | QPSK  | 25 | 25 | 16.05  | 15.94 | 16.13  |                     |          |
| 10              | QPSK  | 50 | 0  | 16.16  | 15.97 | 15.92  | 16.5                | 0        |
| 10              | 16QAM | 1  | 0  | 16.26  | 16.44 | 16.20  |                     |          |
| 10              | 16QAM | 1  | 25 | 16.04  | 16.40 | 16.26  |                     |          |
| 10              | 16QAM | 1  | 49 | 16.31  | 16.42 | 15.80  | 16.5                | 0        |
| 10              | 16QAM | 25 | 0  | 16.05  | 16.01 | 16.02  |                     |          |
| 10              | 16QAM | 25 | 12 | 16.12  | 15.96 | 15.98  |                     |          |
| 10              | 16QAM | 25 | 25 | 15.96  | 15.91 | 16.07  | 16.5                | 0        |
| 10              | 16QAM | 50 | 0  | 16.06  | 16.07 | 16.06  |                     |          |
| 10              | 64QAM | 1  | 0  | 16.14  | 16.15 | 16.12  |                     |          |
| 10              | 64QAM | 1  | 25 | 16.09  | 15.91 | 15.78  | 16.5                | 0        |
| 10              | 64QAM | 1  | 49 | 16.23  | 16.40 | 15.78  |                     |          |
| 10              | 64QAM | 25 | 0  | 15.92  | 15.93 | 16.01  |                     |          |
| 10              | 64QAM | 25 | 12 | 15.91  | 16.02 | 16.02  | 16.5                | 0        |
| 10              | 64QAM | 25 | 25 | 15.93  | 15.91 | 16.15  |                     |          |
| 10              | 64QAM | 50 | 0  | 15.99  | 15.94 | 16.01  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26065  | 26340 | 26665  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1912.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 16.14  | 16.07 | 16.20  | 16.5                | 0        |
| 5               | QPSK  | 1  | 12 | 16.27  | 16.13 | 16.09  |                     |          |
| 5               | QPSK  | 1  | 24 | 15.91  | 15.84 | 15.94  |                     |          |
| 5               | QPSK  | 12 | 0  | 15.82  | 15.86 | 16.01  | 16.5                | 0        |
| 5               | QPSK  | 12 | 7  | 16.28  | 15.87 | 15.93  |                     |          |
| 5               | QPSK  | 12 | 13 | 15.72  | 16.07 | 16.04  |                     |          |
| 5               | QPSK  | 25 | 0  | 15.86  | 15.98 | 16.07  | 16.5                | 0        |
| 5               | 16QAM | 1  | 0  | 16.50  | 16.43 | 16.23  |                     |          |
| 5               | 16QAM | 1  | 12 | 15.99  | 16.17 | 16.13  |                     |          |
| 5               | 16QAM | 1  | 24 | 16.36  | 16.03 | 15.99  | 16.5                | 0        |
| 5               | 16QAM | 12 | 0  | 16.10  | 16.09 | 15.99  |                     |          |
| 5               | 16QAM | 12 | 7  | 16.05  | 16.00 | 16.11  |                     |          |
| 5               | 16QAM | 12 | 13 | 15.99  | 15.96 | 16.05  | 16.5                | 0        |
| 5               | 16QAM | 25 | 0  | 16.11  | 16.01 | 16.09  |                     |          |
| 5               | 64QAM | 1  | 0  | 16.09  | 16.34 | 16.46  |                     |          |
| 5               | 64QAM | 1  | 12 | 15.96  | 16.20 | 15.92  | 16.5                | 0        |
| 5               | 64QAM | 1  | 24 | 15.83  | 16.22 | 15.50  |                     |          |
| 5               | 64QAM | 12 | 0  | 15.99  | 16.05 | 16.13  |                     |          |
| 5               | 64QAM | 12 | 7  | 16.02  | 15.95 | 16.04  | 16.5                | 0        |
| 5               | 64QAM | 12 | 13 | 15.97  | 15.92 | 16.01  |                     |          |
| 5               | 64QAM | 25 | 0  | 15.97  | 15.97 | 16.06  |                     |          |
| Channel         |       |    |    | 26055  | 26340 | 26675  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1913.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 16.23  | 16.02 | 16.15  | 16.5                | 0        |
| 3               | QPSK  | 1  | 8  | 15.98  | 15.73 | 16.11  |                     |          |
| 3               | QPSK  | 1  | 14 | 15.79  | 15.67 | 16.12  |                     |          |
| 3               | QPSK  | 8  | 0  | 16.39  | 15.79 | 16.06  | 16.5                | 0        |
| 3               | QPSK  | 8  | 4  | 16.04  | 16.13 | 16.07  |                     |          |
| 3               | QPSK  | 8  | 7  | 15.83  | 16.02 | 16.09  |                     |          |
| 3               | QPSK  | 15 | 0  | 16.31  | 15.74 | 15.99  | 16.5                | 0        |
| 3               | 16QAM | 1  | 0  | 16.47  | 16.42 | 16.28  |                     |          |
| 3               | 16QAM | 1  | 8  | 16.14  | 16.07 | 16.30  |                     |          |
| 3               | 16QAM | 1  | 14 | 16.39  | 16.20 | 15.91  | 16.5                | 0        |
| 3               | 16QAM | 8  | 0  | 15.96  | 15.93 | 16.05  |                     |          |
| 3               | 16QAM | 8  | 4  | 16.09  | 16.04 | 16.14  |                     |          |
| 3               | 16QAM | 8  | 7  | 15.91  | 16.00 | 16.03  | 16.5                | 0        |
| 3               | 16QAM | 15 | 0  | 16.09  | 15.87 | 16.05  |                     |          |
| 3               | 64QAM | 1  | 0  | 16.46  | 16.15 | 16.38  |                     |          |
| 3               | 64QAM | 1  | 8  | 16.11  | 16.39 | 16.40  | 16.5                | 0        |
| 3               | 64QAM | 1  | 14 | 16.22  | 16.01 | 15.83  |                     |          |
| 3               | 64QAM | 8  | 0  | 16.06  | 16.05 | 16.13  |                     |          |
| 3               | 64QAM | 8  | 4  | 16.09  | 16.04 | 16.16  | 16.5                | 0        |
| 3               | 64QAM | 8  | 7  | 16.04  | 16.04 | 16.01  |                     |          |
| 3               | 64QAM | 15 | 0  | 16.02  | 15.90 | 16.10  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 26047  | 26340 | 26683  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1914.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 16.25  | 16.03 | 16.17  | 16.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 16.41  | 16.10 | 16.14  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 16.24  | 16.11 | 16.01  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 16.27  | 16.08 | 15.97  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 16.34  | 15.79 | 16.07  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 15.81  | 15.73 | 16.01  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 16.27  | 16.07 | 16.06  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 16.43  | 16.43 | 16.37  | 16.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 15.88  | 16.41 | 16.34  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 16.12  | 16.19 | 16.36  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 16.08  | 15.90 | 15.90  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 16.04  | 15.88 | 16.03  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 15.92  | 15.83 | 15.76  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 16.16  | 16.10 | 16.07  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 15.99  | 16.14 | 16.49  | 16.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 15.84  | 16.39 | 16.25  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 16.01  | 16.30 | 16.19  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 15.97  | 15.91 | 16.08  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 15.91  | 16.08 | 16.18  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 15.92  | 15.94 | 15.98  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 16.06  | 15.89 | 15.89  | 16.5                | 0        |

**<LTE Band 30>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 27710                       | -                         | 22.5                      | 0           |
| Frequency (MHz) |            |         |           |                          | 2310                        |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 21.70                       |                           |                           |             |
| 10              | QPSK       | 1       | 25        |                          | 21.41                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 1       | 49        |                          | 21.75                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 21.60                       |                           |                           |             |
| 10              | QPSK       | 25      | 12        |                          | 21.64                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 25      | 25        |                          | 21.60                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 21.64                       |                           |                           |             |
| 10              | 16QAM      | 1       | 0         |                          | 21.91                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 1       | 25        |                          | 21.92                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 21.91                       |                           |                           |             |
| 10              | 16QAM      | 25      | 0         |                          | 20.89                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 25      | 12        |                          | 20.81                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 20.83                       |                           |                           |             |
| 10              | 16QAM      | 50      | 0         |                          | 20.76                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 1       | 0         |                          | 21.57                       |                           |                           |             |
| 10              | 64QAM      | 1       | 25        |                          | 21.84                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 21.76                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 25      | 0         |                          | 20.79                       |                           |                           |             |
| 10              | 64QAM      | 25      | 12        |                          | 20.76                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 20.70                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 50      | 0         |                          | 20.68                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 27685  | 27710 | 27735  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2307.5 | 2310  | 2312.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 21.70  | 21.56 | 21.56  | 22.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 21.28  | 21.25 | 21.29  |                           |             |
| 5               | QPSK  | 1  | 24 | 21.71  | 21.55 | 21.62  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.68  | 21.77 | 21.74  | 22.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 21.65  | 21.63 | 21.65  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.66  | 21.66 | 21.66  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.58  | 21.63 | 21.77  | 22.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 21.79  | 21.66 | 21.87  |                           |             |
| 5               | 16QAM | 1  | 12 | 21.64  | 21.54 | 21.74  |                           |             |
| 5               | 16QAM | 1  | 24 | 21.54  | 21.77 | 21.80  | 22.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 20.86  | 20.94 | 20.86  |                           |             |
| 5               | 16QAM | 12 | 7  | 20.96  | 20.84 | 20.78  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.84  | 20.86 | 20.80  | 22.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 20.72  | 20.78 | 20.93  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.81  | 21.91 | 21.83  |                           |             |
| 5               | 64QAM | 1  | 12 | 21.72  | 21.68 | 21.61  | 22.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 21.78  | 21.70 | 21.50  |                           |             |
| 5               | 64QAM | 12 | 0  | 20.79  | 20.89 | 20.89  |                           |             |
| 5               | 64QAM | 12 | 7  | 20.80  | 20.77 | 20.79  | 22.5                      | 0           |
| 5               | 64QAM | 12 | 13 | 20.78  | 20.92 | 20.91  |                           |             |
| 5               | 64QAM | 25 | 0  | 20.70  | 20.76 | 20.89  |                           |             |

**<LTE Band 66>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 132072                | 132322                   | 132572                 | 16.5                | 0        |
| Frequency (MHz) |            |         |           | 1720                  | 1745                     | 1770                   |                     |          |
| 20              | QPSK       | 1       | 0         | 15.59                 | 15.78                    | 15.75                  |                     |          |
| 20              | QPSK       | 1       | 49        | 15.70                 | 16.21                    | 16.28                  | 16.5                | 0        |
| 20              | QPSK       | 1       | 99        | 15.67                 | 16.20                    | 16.30                  |                     |          |
| 20              | QPSK       | 50      | 0         | 15.88                 | 15.80                    | 15.96                  |                     |          |
| 20              | QPSK       | 50      | 24        | 15.94                 | 15.98                    | 16.02                  | 16.5                | 0        |
| 20              | QPSK       | 50      | 50        | 15.92                 | 15.91                    | 16.00                  |                     |          |
| 20              | QPSK       | 100     | 0         | 15.76                 | 15.86                    | 15.95                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 16.47                 | 15.98                    | 16.03                  | 16.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 16.44                 | 16.42                    | 15.89                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 16.39                 | 16.41                    | 16.31                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 15.94                 | 15.87                    | 15.92                  | 16.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 15.91                 | 15.93                    | 16.04                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 15.88                 | 15.86                    | 16.03                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 15.87                 | 15.89                    | 15.99                  | 16.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 16.22                 | 15.58                    | 15.68                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 15.87                 | 15.79                    | 15.92                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 16.17                 | 16.19                    | 15.85                  | 16.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 15.72                 | 15.86                    | 15.94                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 15.91                 | 15.90                    | 15.99                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 15.94                 | 15.80                    | 16.05                  | 16.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 15.91                 | 15.90                    | 16.04                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 132047 | 132322 | 132597 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1717.5 | 1745   | 1772.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 15.90  | 16.03  | 16.16  | 16.5                      | 0           |
| 15              | QPSK  | 1  | 37 | 15.83  | 15.92  | 16.43  |                           |             |
| 15              | QPSK  | 1  | 74 | 16.10  | 15.92  | 16.21  |                           |             |
| 15              | QPSK  | 36 | 0  | 16.10  | 15.96  | 16.03  | 16.5                      | 0           |
| 15              | QPSK  | 36 | 20 | 15.98  | 16.00  | 16.02  |                           |             |
| 15              | QPSK  | 36 | 39 | 15.86  | 15.75  | 16.02  |                           |             |
| 15              | QPSK  | 75 | 0  | 15.86  | 15.91  | 15.95  | 16.5                      | 0           |
| 15              | 16QAM | 1  | 0  | 16.26  | 16.46  | 16.42  |                           |             |
| 15              | 16QAM | 1  | 37 | 16.30  | 15.88  | 16.33  |                           |             |
| 15              | 16QAM | 1  | 74 | 16.31  | 16.20  | 16.41  | 16.5                      | 0           |
| 15              | 16QAM | 36 | 0  | 16.05  | 15.98  | 16.02  |                           |             |
| 15              | 16QAM | 36 | 20 | 15.96  | 16.04  | 16.00  |                           |             |
| 15              | 16QAM | 36 | 39 | 15.98  | 15.91  | 15.88  | 16.5                      | 0           |
| 15              | 16QAM | 75 | 0  | 15.91  | 15.92  | 15.95  |                           |             |
| 15              | 64QAM | 1  | 0  | 16.11  | 16.11  | 16.18  |                           |             |
| 15              | 64QAM | 1  | 37 | 15.87  | 16.18  | 16.35  | 16.5                      | 0           |
| 15              | 64QAM | 1  | 74 | 16.03  | 16.18  | 16.12  |                           |             |
| 15              | 64QAM | 36 | 0  | 15.99  | 15.93  | 16.08  |                           |             |
| 15              | 64QAM | 36 | 20 | 15.91  | 15.95  | 15.97  | 16.5                      | 0           |
| 15              | 64QAM | 36 | 39 | 15.82  | 15.72  | 15.96  |                           |             |
| 15              | 64QAM | 75 | 0  | 15.82  | 15.92  | 16.04  |                           |             |
| Channel         |       |    |    | 132022 | 132322 | 132622 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1715   | 1745   | 1775   |                           |             |
| 10              | QPSK  | 1  | 0  | 15.54  | 16.30  | 15.54  | 16.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 15.76  | 16.14  | 15.73  |                           |             |
| 10              | QPSK  | 1  | 49 | 15.85  | 16.43  | 16.47  |                           |             |
| 10              | QPSK  | 25 | 0  | 16.00  | 16.05  | 16.01  | 16.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 16.19  | 16.16  | 16.25  |                           |             |
| 10              | QPSK  | 25 | 25 | 16.11  | 16.08  | 16.22  |                           |             |
| 10              | QPSK  | 50 | 0  | 16.13  | 16.04  | 16.20  | 16.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 15.89  | 15.68  | 15.64  |                           |             |
| 10              | 16QAM | 1  | 25 | 16.02  | 16.37  | 16.38  |                           |             |
| 10              | 16QAM | 1  | 49 | 15.85  | 16.30  | 16.45  | 16.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 16.12  | 16.05  | 16.02  |                           |             |
| 10              | 16QAM | 25 | 12 | 16.20  | 16.16  | 16.13  |                           |             |
| 10              | 16QAM | 25 | 25 | 16.14  | 16.17  | 16.05  | 16.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 16.18  | 16.05  | 16.17  |                           |             |
| 10              | 64QAM | 1  | 0  | 16.25  | 15.53  | 15.66  |                           |             |
| 10              | 64QAM | 1  | 25 | 16.30  | 16.11  | 16.42  | 16.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 16.12  | 16.35  | 16.35  |                           |             |
| 10              | 64QAM | 25 | 0  | 16.02  | 16.06  | 15.98  |                           |             |
| 10              | 64QAM | 25 | 12 | 16.19  | 16.21  | 16.10  | 16.5                      | 0           |
| 10              | 64QAM | 25 | 25 | 16.10  | 16.22  | 16.17  |                           |             |
| 10              | 64QAM | 50 | 0  | 16.07  | 16.11  | 16.15  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 131997 | 132322 | 132647 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1712.5 | 1745   | 1777.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 16.18  | 16.07  | 16.13  | 16.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 15.95  | 16.15  | 16.00  |                           |             |
| 5               | QPSK  | 1  | 24 | 16.07  | 16.10  | 16.13  |                           |             |
| 5               | QPSK  | 12 | 0  | 16.21  | 16.18  | 16.15  | 16.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 16.07  | 16.14  | 16.12  |                           |             |
| 5               | QPSK  | 12 | 13 | 16.08  | 16.02  | 16.10  |                           |             |
| 5               | QPSK  | 25 | 0  | 16.08  | 16.20  | 16.19  | 16.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 16.35  | 16.37  | 16.42  |                           |             |
| 5               | 16QAM | 1  | 12 | 16.45  | 16.28  | 16.49  |                           |             |
| 5               | 16QAM | 1  | 24 | 16.23  | 16.49  | 16.45  | 16.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 16.17  | 16.15  | 16.29  |                           |             |
| 5               | 16QAM | 12 | 7  | 16.06  | 16.28  | 16.11  |                           |             |
| 5               | 16QAM | 12 | 13 | 16.03  | 16.20  | 16.21  | 16.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 16.18  | 16.02  | 16.00  |                           |             |
| 5               | 64QAM | 1  | 0  | 16.08  | 16.25  | 16.32  |                           |             |
| 5               | 64QAM | 1  | 12 | 16.15  | 16.33  | 15.95  | 16.5                      | 0           |
| 5               | 64QAM | 1  | 24 | 15.89  | 16.13  | 15.99  |                           |             |
| 5               | 64QAM | 12 | 0  | 16.25  | 16.10  | 16.09  |                           |             |
| 5               | 64QAM | 12 | 7  | 16.11  | 16.09  | 16.16  | 16.5                      | 0           |
| 5               | 64QAM | 12 | 13 | 16.19  | 16.18  | 16.02  |                           |             |
| 5               | 64QAM | 25 | 0  | 16.19  | 16.20  | 16.06  |                           |             |
| Channel         |       |    |    | 131987 | 132322 | 132657 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1711.5 | 1745   | 1778.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 16.11  | 15.95  | 16.33  | 16.5                      | 0           |
| 3               | QPSK  | 1  | 8  | 16.21  | 16.04  | 16.00  |                           |             |
| 3               | QPSK  | 1  | 14 | 16.05  | 16.05  | 16.00  |                           |             |
| 3               | QPSK  | 8  | 0  | 16.08  | 16.01  | 16.10  | 16.5                      | 0           |
| 3               | QPSK  | 8  | 4  | 16.11  | 16.08  | 16.14  |                           |             |
| 3               | QPSK  | 8  | 7  | 16.04  | 16.07  | 16.08  |                           |             |
| 3               | QPSK  | 15 | 0  | 16.09  | 16.12  | 16.07  | 16.5                      | 0           |
| 3               | 16QAM | 1  | 0  | 16.31  | 16.15  | 16.45  |                           |             |
| 3               | 16QAM | 1  | 8  | 16.38  | 16.33  | 16.27  |                           |             |
| 3               | 16QAM | 1  | 14 | 16.49  | 16.43  | 16.30  | 16.5                      | 0           |
| 3               | 16QAM | 8  | 0  | 15.99  | 16.12  | 16.11  |                           |             |
| 3               | 16QAM | 8  | 4  | 16.26  | 16.22  | 16.27  |                           |             |
| 3               | 16QAM | 8  | 7  | 16.02  | 16.23  | 16.18  | 16.5                      | 0           |
| 3               | 16QAM | 15 | 0  | 16.10  | 16.09  | 16.07  |                           |             |
| 3               | 64QAM | 1  | 0  | 16.43  | 15.98  | 16.15  |                           |             |
| 3               | 64QAM | 1  | 8  | 16.42  | 16.14  | 16.45  | 16.5                      | 0           |
| 3               | 64QAM | 1  | 14 | 16.16  | 16.36  | 16.17  |                           |             |
| 3               | 64QAM | 8  | 0  | 16.16  | 15.92  | 16.16  |                           |             |
| 3               | 64QAM | 8  | 4  | 16.02  | 16.06  | 16.25  | 16.5                      | 0           |
| 3               | 64QAM | 8  | 7  | 16.00  | 16.06  | 16.05  |                           |             |
| 3               | 64QAM | 15 | 0  | 16.09  | 16.16  | 16.11  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 131979 | 132322 | 132665 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1710.7 | 1745   | 1779.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 15.99  | 15.75  | 16.19  | 16.5                      | 0           |
| 1.4             | QPSK  | 1 | 3 | 16.30  | 16.05  | 16.25  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 16.12  | 15.86  | 16.08  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 16.11  | 15.95  | 16.03  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 16.08  | 16.08  | 16.16  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 16.11  | 15.97  | 16.07  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 16.03  | 15.97  | 16.01  | 16.5                      | 0           |
| 1.4             | 16QAM | 1 | 0 | 16.23  | 16.14  | 16.34  | 16.5                      | 0           |
| 1.4             | 16QAM | 1 | 3 | 16.21  | 16.35  | 16.39  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 16.02  | 16.08  | 16.07  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 16.15  | 16.17  | 16.06  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 16.08  | 16.31  | 16.13  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 16.02  | 16.21  | 16.15  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 16.25  | 16.26  | 16.26  | 16.5                      | 0           |
| 1.4             | 64QAM | 1 | 0 | 16.24  | 15.92  | 16.28  | 16.5                      | 0           |
| 1.4             | 64QAM | 1 | 3 | 15.98  | 16.14  | 16.06  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 16.43  | 15.88  | 15.82  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 16.09  | 15.99  | 16.26  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 16.10  | 15.96  | 16.09  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 16.36  | 15.91  | 16.24  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 16.18  | 16.05  | 16.05  | 16.5                      | 0           |



**<Reduced Power Mode for Handheld On>**

**<LTE Band 2>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 18700                    | 18900                       | 19100                     |                           |             |
| Frequency (MHz) |            |         |           | 1860                     | 1880                        | 1900                      |                           |             |
| 20              | QPSK       | 1       | 0         | 19.78                    | 19.86                       | 19.50                     | 21                        | 0           |
| 20              | QPSK       | 1       | 49        | 19.55                    | 19.69                       | 19.61                     |                           |             |
| 20              | QPSK       | 1       | 99        | 19.60                    | 19.11                       | 19.31                     |                           |             |
| 20              | QPSK       | 50      | 0         | 19.72                    | 19.81                       | 19.83                     | 21                        | 0           |
| 20              | QPSK       | 50      | 24        | 19.84                    | 19.84                       | 19.85                     |                           |             |
| 20              | QPSK       | 50      | 50        | 19.57                    | 19.47                       | 19.73                     |                           |             |
| 20              | QPSK       | 100     | 0         | 19.74                    | 19.59                       | 19.86                     | 21                        | 0           |
| 20              | 16QAM      | 1       | 0         | 19.75                    | 19.92                       | 20.17                     |                           |             |
| 20              | 16QAM      | 1       | 49        | 20.02                    | 20.36                       | 20.29                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 19.23                    | 19.56                       | 19.71                     | 21                        | 0           |
| 20              | 16QAM      | 50      | 0         | 19.79                    | 19.80                       | 19.85                     |                           |             |
| 20              | 16QAM      | 50      | 24        | 19.83                    | 19.74                       | 19.88                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 19.52                    | 19.58                       | 19.73                     | 21                        | 0           |
| 20              | 16QAM      | 100     | 0         | 19.71                    | 19.64                       | 19.71                     |                           |             |
| 20              | 64QAM      | 1       | 0         | 19.53                    | 19.56                       | 19.66                     |                           |             |
| 20              | 64QAM      | 1       | 49        | 19.77                    | 19.75                       | 19.80                     | 21                        | 0           |
| 20              | 64QAM      | 1       | 99        | 19.06                    | 19.45                       | 19.01                     |                           |             |
| 20              | 64QAM      | 50      | 0         | 19.77                    | 19.76                       | 19.83                     |                           |             |
| 20              | 64QAM      | 50      | 24        | 19.80                    | 19.73                       | 19.88                     | 21                        | 0           |
| 20              | 64QAM      | 50      | 50        | 19.49                    | 19.54                       | 19.71                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 19.60                    | 19.62                       | 19.71                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18675  | 18900 | 19125  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1902.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 19.46  | 19.43 | 19.45  | 21                        | 0           |
| 15              | QPSK  | 1  | 37 | 19.69  | 19.53 | 19.84  |                           |             |
| 15              | QPSK  | 1  | 74 | 19.75  | 19.75 | 19.96  |                           |             |
| 15              | QPSK  | 36 | 0  | 19.78  | 19.84 | 19.80  | 21                        | 0           |
| 15              | QPSK  | 36 | 20 | 19.80  | 19.83 | 19.93  |                           |             |
| 15              | QPSK  | 36 | 39 | 19.70  | 19.71 | 19.78  |                           |             |
| 15              | QPSK  | 75 | 0  | 19.71  | 19.73 | 19.86  | 21                        | 0           |
| 15              | 16QAM | 1  | 0  | 20.27  | 20.15 | 20.28  |                           |             |
| 15              | 16QAM | 1  | 37 | 20.24  | 20.33 | 20.04  |                           |             |
| 15              | 16QAM | 1  | 74 | 20.08  | 20.30 | 19.69  | 21                        | 0           |
| 15              | 16QAM | 36 | 0  | 19.77  | 19.80 | 19.80  |                           |             |
| 15              | 16QAM | 36 | 20 | 19.71  | 19.79 | 19.93  |                           |             |
| 15              | 16QAM | 36 | 39 | 19.75  | 19.66 | 19.88  | 21                        | 0           |
| 15              | 16QAM | 75 | 0  | 19.72  | 19.72 | 19.87  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.19  | 19.97 | 19.94  |                           |             |
| 15              | 64QAM | 1  | 37 | 19.40  | 19.64 | 19.65  | 21                        | 0           |
| 15              | 64QAM | 1  | 74 | 19.92  | 19.87 | 19.35  |                           |             |
| 15              | 64QAM | 36 | 0  | 19.72  | 19.72 | 19.80  |                           |             |
| 15              | 64QAM | 36 | 20 | 19.74  | 19.70 | 19.93  | 21                        | 0           |
| 15              | 64QAM | 36 | 39 | 19.72  | 19.66 | 19.81  |                           |             |
| 15              | 64QAM | 75 | 0  | 19.70  | 19.70 | 19.86  |                           |             |
| Channel         |       |    |    | 18650  | 18900 | 19150  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1905   |                           |             |
| 10              | QPSK  | 1  | 0  | 19.37  | 19.38 | 19.49  | 21                        | 0           |
| 10              | QPSK  | 1  | 25 | 19.70  | 19.92 | 19.67  |                           |             |
| 10              | QPSK  | 1  | 49 | 19.96  | 19.82 | 19.92  |                           |             |
| 10              | QPSK  | 25 | 0  | 19.88  | 19.88 | 19.89  | 21                        | 0           |
| 10              | QPSK  | 25 | 12 | 19.77  | 19.76 | 19.76  |                           |             |
| 10              | QPSK  | 25 | 25 | 19.83  | 19.85 | 19.86  |                           |             |
| 10              | QPSK  | 50 | 0  | 19.70  | 19.80 | 19.80  | 21                        | 0           |
| 10              | 16QAM | 1  | 0  | 20.20  | 20.35 | 20.38  |                           |             |
| 10              | 16QAM | 1  | 25 | 20.04  | 20.20 | 20.25  |                           |             |
| 10              | 16QAM | 1  | 49 | 20.17  | 19.87 | 20.03  | 21                        | 0           |
| 10              | 16QAM | 25 | 0  | 19.77  | 19.77 | 19.81  |                           |             |
| 10              | 16QAM | 25 | 12 | 19.84  | 19.72 | 19.89  |                           |             |
| 10              | 16QAM | 25 | 25 | 19.86  | 19.88 | 19.79  | 21                        | 0           |
| 10              | 16QAM | 50 | 0  | 19.82  | 19.77 | 19.77  |                           |             |
| 10              | 64QAM | 1  | 0  | 19.90  | 20.13 | 19.83  |                           |             |
| 10              | 64QAM | 1  | 25 | 19.65  | 20.11 | 19.70  | 21                        | 0           |
| 10              | 64QAM | 1  | 49 | 19.69  | 19.54 | 19.34  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.78  | 19.78 | 19.89  |                           |             |
| 10              | 64QAM | 25 | 12 | 19.83  | 19.83 | 19.77  | 21                        | 0           |
| 10              | 64QAM | 25 | 25 | 19.80  | 19.80 | 19.78  |                           |             |
| 10              | 64QAM | 50 | 0  | 19.77  | 19.79 | 19.72  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 18625  | 18900 | 19175  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1907.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 19.52  | 19.43 | 19.80  | 21                  | 0        |
| 5               | QPSK  | 1  | 12 | 19.97  | 19.76 | 19.88  |                     |          |
| 5               | QPSK  | 1  | 24 | 19.74  | 19.88 | 19.90  |                     |          |
| 5               | QPSK  | 12 | 0  | 19.90  | 19.88 | 19.90  | 21                  | 0        |
| 5               | QPSK  | 12 | 7  | 19.86  | 19.86 | 19.90  |                     |          |
| 5               | QPSK  | 12 | 13 | 19.84  | 19.73 | 19.88  |                     |          |
| 5               | QPSK  | 25 | 0  | 19.87  | 19.85 | 19.94  | 21                  | 0        |
| 5               | 16QAM | 1  | 0  | 20.42  | 20.09 | 20.08  |                     |          |
| 5               | 16QAM | 1  | 12 | 20.30  | 19.96 | 20.31  |                     |          |
| 5               | 16QAM | 1  | 24 | 20.26  | 20.00 | 19.89  | 21                  | 0        |
| 5               | 16QAM | 12 | 0  | 19.91  | 19.92 | 20.08  |                     |          |
| 5               | 16QAM | 12 | 7  | 19.82  | 19.87 | 20.00  |                     |          |
| 5               | 16QAM | 12 | 13 | 19.84  | 19.83 | 19.96  | 21                  | 0        |
| 5               | 16QAM | 25 | 0  | 19.83  | 19.81 | 19.93  |                     |          |
| 5               | 64QAM | 1  | 0  | 20.34  | 20.14 | 20.10  |                     |          |
| 5               | 64QAM | 1  | 12 | 19.98  | 19.97 | 19.86  | 21                  | 0        |
| 5               | 64QAM | 1  | 24 | 20.19  | 20.02 | 19.94  |                     |          |
| 5               | 64QAM | 12 | 0  | 19.91  | 19.88 | 19.94  |                     |          |
| 5               | 64QAM | 12 | 7  | 19.85  | 19.83 | 19.94  | 21                  | 0        |
| 5               | 64QAM | 12 | 13 | 19.84  | 19.82 | 19.92  |                     |          |
| 5               | 64QAM | 25 | 0  | 19.93  | 19.85 | 19.87  |                     |          |
| Channel         |       |    |    | 18615  | 18900 | 19185  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1908.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 19.79  | 19.57 | 19.86  | 21                  | 0        |
| 3               | QPSK  | 1  | 8  | 19.73  | 19.73 | 19.75  |                     |          |
| 3               | QPSK  | 1  | 14 | 19.72  | 19.63 | 19.77  |                     |          |
| 3               | QPSK  | 8  | 0  | 19.91  | 19.82 | 19.83  | 21                  | 0        |
| 3               | QPSK  | 8  | 4  | 19.87  | 19.77 | 19.86  |                     |          |
| 3               | QPSK  | 8  | 7  | 19.86  | 19.77 | 19.83  |                     |          |
| 3               | QPSK  | 15 | 0  | 19.81  | 19.74 | 19.82  | 21                  | 0        |
| 3               | 16QAM | 1  | 0  | 20.33  | 19.94 | 19.93  |                     |          |
| 3               | 16QAM | 1  | 8  | 20.02  | 20.30 | 19.97  |                     |          |
| 3               | 16QAM | 1  | 14 | 19.96  | 19.89 | 19.89  | 21                  | 0        |
| 3               | 16QAM | 8  | 0  | 19.91  | 19.86 | 19.79  |                     |          |
| 3               | 16QAM | 8  | 4  | 19.74  | 19.90 | 19.82  |                     |          |
| 3               | 16QAM | 8  | 7  | 19.85  | 19.78 | 19.80  | 21                  | 0        |
| 3               | 16QAM | 15 | 0  | 19.90  | 19.79 | 19.87  |                     |          |
| 3               | 64QAM | 1  | 0  | 19.91  | 19.87 | 19.53  |                     |          |
| 3               | 64QAM | 1  | 8  | 19.66  | 19.89 | 19.76  | 21                  | 0        |
| 3               | 64QAM | 1  | 14 | 20.25  | 19.77 | 19.79  |                     |          |
| 3               | 64QAM | 8  | 0  | 19.87  | 19.84 | 19.81  |                     |          |
| 3               | 64QAM | 8  | 4  | 19.94  | 19.88 | 19.86  | 21                  | 0        |
| 3               | 64QAM | 8  | 7  | 19.93  | 19.70 | 19.90  |                     |          |
| 3               | 64QAM | 15 | 0  | 19.78  | 19.71 | 19.76  |                     |          |



# FCC SAR Test Report

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| Channel         |       |   |   | 18607  | 18900 | 19193  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1909.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 19.59  | 19.33 | 19.37  | 21                        | 0           |
| 1.4             | QPSK  | 1 | 3 | 19.72  | 19.76 | 19.74  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 19.68  | 19.64 | 19.84  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 19.71  | 19.84 | 19.75  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 19.73  | 19.80 | 19.83  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 19.64  | 19.74 | 19.72  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 19.66  | 19.74 | 19.77  | 21                        | 0           |
| 1.4             | 16QAM | 1 | 0 | 19.73  | 19.89 | 20.24  | 21                        | 0           |
| 1.4             | 16QAM | 1 | 3 | 20.18  | 20.33 | 19.95  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 20.16  | 19.95 | 19.89  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 19.54  | 19.71 | 19.88  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 19.58  | 19.82 | 19.88  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 19.58  | 19.86 | 19.85  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 19.73  | 19.77 | 19.83  | 21                        | 0           |
| 1.4             | 64QAM | 1 | 0 | 20.17  | 19.81 | 19.74  | 21                        | 0           |
| 1.4             | 64QAM | 1 | 3 | 19.59  | 19.80 | 19.94  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 19.99  | 20.08 | 19.92  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 19.73  | 19.95 | 19.95  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.03  | 19.86 | 19.94  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 19.95  | 19.84 | 19.90  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.63  | 19.75 | 19.82  | 21                        | 0           |



**<LTE Band 4>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20050                 | 20175                    | 20300                  |                     |          |
| Frequency (MHz) |            |         |           | 1720                  | 1732.5                   | 1745                   |                     |          |
| 20              | QPSK       | 1       | 0         | 19.86                 | 20.00                    | 19.76                  |                     |          |
| 20              | QPSK       | 1       | 49        | 19.70                 | 19.68                    | 19.64                  | 20.5                | 0        |
| 20              | QPSK       | 1       | 99        | 19.76                 | 19.50                    | 19.80                  |                     |          |
| 20              | QPSK       | 50      | 0         | 19.45                 | 19.49                    | 19.50                  |                     |          |
| 20              | QPSK       | 50      | 24        | 19.59                 | 19.46                    | 19.44                  | 20.5                | 0        |
| 20              | QPSK       | 50      | 50        | 19.32                 | 19.41                    | 19.30                  |                     |          |
| 20              | QPSK       | 100     | 0         | 19.40                 | 19.66                    | 19.40                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 19.40                 | 19.46                    | 19.41                  | 20.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 19.74                 | 19.76                    | 19.92                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 19.39                 | 19.78                    | 19.48                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 19.43                 | 19.43                    | 19.47                  | 20.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 19.56                 | 19.57                    | 19.39                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 19.38                 | 19.36                    | 19.30                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 19.51                 | 19.47                    | 19.26                  | 20.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 19.53                 | 19.24                    | 19.30                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 19.27                 | 19.40                    | 19.07                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 19.55                 | 19.77                    | 19.46                  | 20.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 19.37                 | 19.47                    | 19.42                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.51                 | 19.49                    | 19.38                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.41                 | 19.50                    | 19.28                  | 20.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 19.46                 | 19.44                    | 19.36                  |                     |          |



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| Channel         |       |    |    | 20025  | 20175  | 20325  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1717.5 | 1732.5 | 1747.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 19.18  | 19.75  | 19.56  | 20.5                | 0        |
| 15              | QPSK  | 1  | 37 | 19.41  | 19.44  | 19.44  |                     |          |
| 15              | QPSK  | 1  | 74 | 19.41  | 19.52  | 19.20  |                     |          |
| 15              | QPSK  | 36 | 0  | 19.58  | 19.53  | 19.50  | 20.5                | 0        |
| 15              | QPSK  | 36 | 20 | 19.67  | 19.56  | 19.50  |                     |          |
| 15              | QPSK  | 36 | 39 | 19.45  | 19.42  | 19.39  |                     |          |
| 15              | QPSK  | 75 | 0  | 19.41  | 19.43  | 19.43  | 20.5                | 0        |
| 15              | 16QAM | 1  | 0  | 20.08  | 20.19  | 20.04  |                     |          |
| 15              | 16QAM | 1  | 37 | 19.83  | 19.87  | 19.84  |                     |          |
| 15              | 16QAM | 1  | 74 | 20.05  | 19.78  | 19.95  | 20.5                | 0        |
| 15              | 16QAM | 36 | 0  | 19.53  | 19.56  | 19.50  |                     |          |
| 15              | 16QAM | 36 | 20 | 19.62  | 19.57  | 19.53  |                     |          |
| 15              | 16QAM | 36 | 39 | 19.42  | 19.48  | 19.55  | 20.5                | 0        |
| 15              | 16QAM | 75 | 0  | 19.40  | 19.60  | 19.43  |                     |          |
| 15              | 64QAM | 1  | 0  | 19.47  | 19.94  | 19.44  |                     |          |
| 15              | 64QAM | 1  | 37 | 20.16  | 20.14  | 19.57  | 20.5                | 0        |
| 15              | 64QAM | 1  | 74 | 19.35  | 19.59  | 19.76  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.51  | 19.56  | 19.59  |                     |          |
| 15              | 64QAM | 36 | 20 | 19.65  | 19.51  | 19.57  | 20.5                | 0        |
| 15              | 64QAM | 36 | 39 | 19.41  | 19.42  | 19.47  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.34  | 19.58  | 19.45  |                     |          |
| Channel         |       |    |    | 20000  | 20175  | 20350  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1715   | 1732.5 | 1750   |                     |          |
| 10              | QPSK  | 1  | 0  | 19.36  | 19.56  | 19.59  | 20.5                | 0        |
| 10              | QPSK  | 1  | 25 | 19.38  | 19.55  | 19.68  |                     |          |
| 10              | QPSK  | 1  | 49 | 19.68  | 19.80  | 19.93  |                     |          |
| 10              | QPSK  | 25 | 0  | 19.74  | 19.76  | 19.59  | 20.5                | 0        |
| 10              | QPSK  | 25 | 12 | 19.64  | 19.77  | 19.61  |                     |          |
| 10              | QPSK  | 25 | 25 | 19.77  | 19.79  | 19.73  |                     |          |
| 10              | QPSK  | 50 | 0  | 19.69  | 19.68  | 19.57  | 20.5                | 0        |
| 10              | 16QAM | 1  | 0  | 20.12  | 20.21  | 20.13  |                     |          |
| 10              | 16QAM | 1  | 25 | 19.82  | 19.92  | 20.04  |                     |          |
| 10              | 16QAM | 1  | 49 | 20.31  | 19.56  | 20.22  | 20.5                | 0        |
| 10              | 16QAM | 25 | 0  | 19.65  | 19.66  | 19.57  |                     |          |
| 10              | 16QAM | 25 | 12 | 19.72  | 19.74  | 19.63  |                     |          |
| 10              | 16QAM | 25 | 25 | 19.69  | 19.81  | 19.59  | 20.5                | 0        |
| 10              | 16QAM | 50 | 0  | 19.71  | 19.74  | 19.71  |                     |          |
| 10              | 64QAM | 1  | 0  | 20.34  | 19.77  | 19.75  |                     |          |
| 10              | 64QAM | 1  | 25 | 20.17  | 19.40  | 19.54  | 20.5                | 0        |
| 10              | 64QAM | 1  | 49 | 20.14  | 19.86  | 19.93  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.59  | 19.70  | 19.63  |                     |          |
| 10              | 64QAM | 25 | 12 | 19.62  | 19.78  | 19.61  | 20.5                | 0        |
| 10              | 64QAM | 25 | 25 | 19.78  | 19.84  | 19.69  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.61  | 19.67  | 19.63  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 19975  | 20175  | 20375  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1712.5 | 1732.5 | 1752.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 19.86  | 19.80  | 19.98  | 20.5                      | 0           |
| 5               | QPSK  | 1  | 12 | 19.66  | 19.71  | 19.46  |                           |             |
| 5               | QPSK  | 1  | 24 | 19.51  | 19.62  | 19.62  |                           |             |
| 5               | QPSK  | 12 | 0  | 19.75  | 19.73  | 19.67  | 20.5                      | 0           |
| 5               | QPSK  | 12 | 7  | 19.61  | 19.72  | 19.64  |                           |             |
| 5               | QPSK  | 12 | 13 | 19.66  | 19.61  | 19.57  |                           |             |
| 5               | QPSK  | 25 | 0  | 19.69  | 19.72  | 19.69  | 20.5                      | 0           |
| 5               | 16QAM | 1  | 0  | 20.25  | 19.98  | 19.97  |                           |             |
| 5               | 16QAM | 1  | 12 | 19.91  | 20.03  | 19.59  |                           |             |
| 5               | 16QAM | 1  | 24 | 19.93  | 20.18  | 19.69  | 20.5                      | 0           |
| 5               | 16QAM | 12 | 0  | 19.81  | 19.77  | 19.62  |                           |             |
| 5               | 16QAM | 12 | 7  | 19.71  | 19.77  | 19.59  |                           |             |
| 5               | 16QAM | 12 | 13 | 19.65  | 19.66  | 19.61  | 20.5                      | 0           |
| 5               | 16QAM | 25 | 0  | 19.65  | 19.80  | 19.60  |                           |             |
| 5               | 64QAM | 1  | 0  | 19.76  | 19.87  | 19.72  | 20.5                      | 0           |
| 5               | 64QAM | 1  | 12 | 20.08  | 19.66  | 19.64  |                           |             |
| 5               | 64QAM | 1  | 24 | 19.64  | 19.49  | 19.42  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.71  | 19.75  | 19.84  | 20.5                      | 0           |
| 5               | 64QAM | 12 | 7  | 19.58  | 19.71  | 19.74  |                           |             |
| 5               | 64QAM | 12 | 13 | 19.69  | 19.81  | 19.75  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.77  | 19.71  | 19.57  | 20.5                      | 0           |
| Channel         |       |    |    | 19965  | 20175  | 20385  |                           |             |
| Frequency (MHz) |       |    |    | 1711.5 | 1732.5 | 1753.5 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| 3               | QPSK  | 1  | 0  | 19.05  | 19.56  | 19.65  |                           |             |
| 3               | QPSK  | 1  | 8  | 19.52  | 19.58  | 19.68  | 20.5                      | 0           |
| 3               | QPSK  | 1  | 14 | 19.52  | 19.70  | 19.54  |                           |             |
| 3               | QPSK  | 8  | 0  | 19.63  | 19.76  | 19.68  | 20.5                      | 0           |
| 3               | QPSK  | 8  | 4  | 19.62  | 19.65  | 19.62  |                           |             |
| 3               | QPSK  | 8  | 7  | 19.62  | 19.60  | 19.60  |                           |             |
| 3               | QPSK  | 15 | 0  | 19.57  | 19.63  | 19.54  | 20.5                      | 0           |
| 3               | 16QAM | 1  | 0  | 20.15  | 19.73  | 19.46  |                           |             |
| 3               | 16QAM | 1  | 8  | 19.81  | 19.61  | 19.47  |                           |             |
| 3               | 16QAM | 1  | 14 | 19.69  | 19.71  | 19.34  | 20.5                      | 0           |
| 3               | 16QAM | 8  | 0  | 19.79  | 19.71  | 19.81  |                           |             |
| 3               | 16QAM | 8  | 4  | 19.70  | 19.79  | 19.73  |                           |             |
| 3               | 16QAM | 8  | 7  | 19.65  | 19.79  | 19.74  | 20.5                      | 0           |
| 3               | 16QAM | 15 | 0  | 19.75  | 19.72  | 19.70  |                           |             |
| 3               | 64QAM | 1  | 0  | 19.76  | 19.83  | 19.76  |                           |             |
| 3               | 64QAM | 1  | 8  | 19.89  | 19.84  | 19.65  | 20.5                      | 0           |
| 3               | 64QAM | 1  | 14 | 20.02  | 19.70  | 19.68  |                           |             |
| 3               | 64QAM | 8  | 0  | 19.60  | 19.71  | 19.64  |                           |             |
| 3               | 64QAM | 8  | 4  | 19.67  | 19.72  | 19.66  | 20.5                      | 0           |
| 3               | 64QAM | 8  | 7  | 19.55  | 19.69  | 19.68  |                           |             |
| 3               | 64QAM | 15 | 0  | 19.67  | 19.65  | 19.64  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 19957  | 20175  | 20393  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |   |   | 1710.7 | 1732.5 | 1754.3 |                     |          |
| 1.4             | QPSK  | 1 | 0 | 19.86  | 19.76  | 19.65  | 20.5                | 0        |
| 1.4             | QPSK  | 1 | 3 | 19.59  | 19.74  | 19.57  |                     |          |
| 1.4             | QPSK  | 1 | 5 | 19.61  | 19.63  | 19.52  |                     |          |
| 1.4             | QPSK  | 3 | 0 | 19.57  | 19.64  | 19.54  |                     |          |
| 1.4             | QPSK  | 3 | 1 | 19.63  | 19.65  | 19.61  |                     |          |
| 1.4             | QPSK  | 3 | 3 | 19.52  | 19.56  | 19.60  |                     |          |
| 1.4             | QPSK  | 6 | 0 | 19.54  | 19.63  | 19.57  | 20.5                | 0        |
| 1.4             | 16QAM | 1 | 0 | 19.87  | 19.98  | 19.97  | 20.5                | 0        |
| 1.4             | 16QAM | 1 | 3 | 19.92  | 20.18  | 20.12  |                     |          |
| 1.4             | 16QAM | 1 | 5 | 19.81  | 20.05  | 20.05  |                     |          |
| 1.4             | 16QAM | 3 | 0 | 19.71  | 19.68  | 19.76  |                     |          |
| 1.4             | 16QAM | 3 | 1 | 19.77  | 19.86  | 19.80  |                     |          |
| 1.4             | 16QAM | 3 | 3 | 19.77  | 19.67  | 19.66  |                     |          |
| 1.4             | 16QAM | 6 | 0 | 19.63  | 19.71  | 19.58  | 20.5                | 0        |
| 1.4             | 64QAM | 1 | 0 | 19.65  | 19.51  | 19.65  | 20.5                | 0        |
| 1.4             | 64QAM | 1 | 3 | 19.42  | 20.03  | 19.75  |                     |          |
| 1.4             | 64QAM | 1 | 5 | 19.73  | 19.96  | 19.96  |                     |          |
| 1.4             | 64QAM | 3 | 0 | 19.67  | 19.86  | 19.71  |                     |          |
| 1.4             | 64QAM | 3 | 1 | 19.93  | 19.96  | 19.70  |                     |          |
| 1.4             | 64QAM | 3 | 3 | 19.82  | 19.93  | 19.75  |                     |          |
| 1.4             | 64QAM | 6 | 0 | 19.65  | 19.68  | 19.65  | 20.5                | 0        |



**<LTE Band 7>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 20850                 | 21100                    | 21350                  |                     |          |
| Frequency (MHz) |            |         |           | 2510                  | 2535                     | 2560                   |                     |          |
| 20              | QPSK       | 1       | 0         | 21.89                 | 21.87                    | 21.82                  |                     |          |
| 20              | QPSK       | 1       | 49        | 21.92                 | 21.75                    | 21.95                  | 22                  | 0        |
| 20              | QPSK       | 1       | 99        | 21.78                 | 21.56                    | 21.69                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.73                 | 21.59                    | 21.58                  |                     |          |
| 20              | QPSK       | 50      | 24        | 21.75                 | 21.71                    | 21.77                  | 22                  | 0        |
| 20              | QPSK       | 50      | 50        | 21.74                 | 21.64                    | 21.65                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.70                 | 21.60                    | 21.73                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.81                 | 21.80                    | 21.89                  | 22                  | 0        |
| 20              | 16QAM      | 1       | 49        | 21.90                 | 21.97                    | 21.91                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.92                 | 21.64                    | 21.91                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.92                 | 20.90                    | 20.78                  | 22                  | 0        |
| 20              | 16QAM      | 50      | 24        | 21.01                 | 20.92                    | 20.94                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.95                 | 20.89                    | 20.95                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.91                 | 20.82                    | 20.85                  | 22                  | 0        |
| 20              | 64QAM      | 1       | 0         | 21.97                 | 21.53                    | 21.44                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 21.55                 | 21.93                    | 21.50                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 21.84                 | 21.88                    | 21.54                  | 22                  | 0        |
| 20              | 64QAM      | 50      | 0         | 20.90                 | 20.90                    | 20.86                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 21.07                 | 20.91                    | 20.93                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 20.97                 | 20.87                    | 20.87                  | 22                  | 0        |
| 20              | 64QAM      | 100     | 0         | 21.01                 | 20.83                    | 20.86                  |                     |          |



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| Channel         |       |    |    | 20825  | 21100 | 21375  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2507.5 | 2535  | 2562.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 21.80  | 21.78 | 21.70  | 22                        | 0           |
| 15              | QPSK  | 1  | 37 | 21.71  | 21.60 | 21.73  |                           |             |
| 15              | QPSK  | 1  | 74 | 21.56  | 21.41 | 21.40  |                           |             |
| 15              | QPSK  | 36 | 0  | 21.68  | 21.64 | 21.59  | 22                        | 0           |
| 15              | QPSK  | 36 | 20 | 21.77  | 21.65 | 21.64  |                           |             |
| 15              | QPSK  | 36 | 39 | 21.78  | 21.74 | 21.64  |                           |             |
| 15              | QPSK  | 75 | 0  | 21.77  | 21.66 | 21.64  | 22                        | 0           |
| 15              | 16QAM | 1  | 0  | 21.87  | 21.91 | 21.67  |                           |             |
| 15              | 16QAM | 1  | 37 | 21.94  | 21.93 | 21.70  |                           |             |
| 15              | 16QAM | 1  | 74 | 21.97  | 21.95 | 21.57  | 22                        | 0           |
| 15              | 16QAM | 36 | 0  | 20.98  | 20.99 | 21.02  |                           |             |
| 15              | 16QAM | 36 | 20 | 20.99  | 21.03 | 21.00  |                           |             |
| 15              | 16QAM | 36 | 39 | 21.00  | 20.96 | 21.03  | 22                        | 0           |
| 15              | 16QAM | 75 | 0  | 21.11  | 20.93 | 20.85  |                           |             |
| 15              | 64QAM | 1  | 0  | 21.51  | 21.78 | 21.57  |                           |             |
| 15              | 64QAM | 1  | 37 | 21.98  | 21.94 | 21.95  | 22                        | 0           |
| 15              | 64QAM | 1  | 74 | 21.80  | 21.66 | 21.72  |                           |             |
| 15              | 64QAM | 36 | 0  | 20.98  | 20.99 | 21.05  |                           |             |
| 15              | 64QAM | 36 | 20 | 21.02  | 21.05 | 21.01  | 22                        | 0           |
| 15              | 64QAM | 36 | 39 | 21.10  | 20.98 | 21.01  |                           |             |
| 15              | 64QAM | 75 | 0  | 21.11  | 20.93 | 20.87  |                           |             |
| Channel         |       |    |    | 20800  | 21100 | 21400  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2505   | 2535  | 2565   |                           |             |
| 10              | QPSK  | 1  | 0  | 21.98  | 21.92 | 21.94  | 22                        | 0           |
| 10              | QPSK  | 1  | 25 | 21.59  | 21.34 | 21.42  |                           |             |
| 10              | QPSK  | 1  | 49 | 21.69  | 21.58 | 21.50  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.60  | 21.51 | 21.42  | 22                        | 0           |
| 10              | QPSK  | 25 | 12 | 21.55  | 21.51 | 21.42  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.63  | 21.38 | 21.47  |                           |             |
| 10              | QPSK  | 50 | 0  | 21.50  | 21.49 | 21.47  | 22                        | 0           |
| 10              | 16QAM | 1  | 0  | 21.91  | 21.90 | 21.86  |                           |             |
| 10              | 16QAM | 1  | 25 | 21.98  | 21.62 | 21.60  |                           |             |
| 10              | 16QAM | 1  | 49 | 21.98  | 21.76 | 21.88  | 22                        | 0           |
| 10              | 16QAM | 25 | 0  | 20.85  | 20.80 | 20.81  |                           |             |
| 10              | 16QAM | 25 | 12 | 20.85  | 20.81 | 20.83  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.90  | 20.85 | 20.89  | 22                        | 0           |
| 10              | 16QAM | 50 | 0  | 21.00  | 20.73 | 20.78  |                           |             |
| 10              | 64QAM | 1  | 0  | 21.86  | 21.78 | 21.82  |                           |             |
| 10              | 64QAM | 1  | 25 | 21.86  | 21.92 | 21.75  | 22                        | 0           |
| 10              | 64QAM | 1  | 49 | 21.96  | 21.86 | 21.94  |                           |             |
| 10              | 64QAM | 25 | 0  | 20.87  | 20.73 | 20.74  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.92  | 20.81 | 20.76  | 22                        | 0           |
| 10              | 64QAM | 25 | 25 | 21.01  | 20.76 | 20.70  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.87  | 20.78 | 20.69  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 20775  | 21100 | 21425  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2502.5 | 2535  | 2567.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 20.94  | 20.92 | 20.93  | 22                        | 0           |
| 5               | QPSK  | 1  | 12 | 21.56  | 21.38 | 21.43  |                           |             |
| 5               | QPSK  | 1  | 24 | 21.64  | 21.45 | 21.46  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.61  | 21.50 | 21.51  | 22                        | 0           |
| 5               | QPSK  | 12 | 7  | 21.61  | 21.52 | 21.41  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.50  | 21.41 | 21.47  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.62  | 21.53 | 21.42  | 22                        | 0           |
| 5               | 16QAM | 1  | 0  | 21.88  | 21.99 | 21.59  |                           |             |
| 5               | 16QAM | 1  | 12 | 21.89  | 21.86 | 21.71  |                           |             |
| 5               | 16QAM | 1  | 24 | 21.91  | 21.92 | 21.69  | 22                        | 0           |
| 5               | 16QAM | 12 | 0  | 20.94  | 20.83 | 20.92  |                           |             |
| 5               | 16QAM | 12 | 7  | 20.92  | 20.91 | 20.90  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.82  | 20.81 | 20.83  | 22                        | 0           |
| 5               | 16QAM | 25 | 0  | 20.86  | 20.76 | 20.67  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.94  | 21.97 | 21.67  |                           |             |
| 5               | 64QAM | 1  | 12 | 21.45  | 21.91 | 21.68  | 22                        | 0           |
| 5               | 64QAM | 1  | 24 | 21.71  | 21.85 | 21.91  |                           |             |
| 5               | 64QAM | 12 | 0  | 21.00  | 20.76 | 20.83  |                           |             |
| 5               | 64QAM | 12 | 7  | 21.00  | 20.88 | 20.81  | 22                        | 0           |
| 5               | 64QAM | 12 | 13 | 20.88  | 20.83 | 20.80  |                           |             |
| 5               | 64QAM | 25 | 0  | 21.01  | 20.80 | 20.87  |                           |             |



**<LTE Band 25>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 26140                 | 26340                    | 26590                  |                     |          |
| Frequency (MHz) |            |         |           | 1860                  | 1880                     | 1905                   |                     |          |
| 20              | QPSK       | 1       | 0         | 19.79                 | 19.82                    | 19.76                  |                     |          |
| 20              | QPSK       | 1       | 49        | 20.05                 | 19.88                    | 19.89                  | 21                  | 0        |
| 20              | QPSK       | 1       | 99        | 19.29                 | 19.48                    | 19.13                  |                     |          |
| 20              | QPSK       | 50      | 0         | 19.91                 | 19.92                    | 20.00                  |                     |          |
| 20              | QPSK       | 50      | 24        | 20.00                 | 19.95                    | 20.01                  | 21                  | 0        |
| 20              | QPSK       | 50      | 50        | 19.90                 | 19.91                    | 19.87                  |                     |          |
| 20              | QPSK       | 100     | 0         | 19.94                 | 19.93                    | 20.05                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 19.88                 | 19.82                    | 19.85                  | 21                  | 0        |
| 20              | 16QAM      | 1       | 49        | 19.96                 | 19.95                    | 19.98                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 19.99                 | 19.64                    | 19.71                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 19.93                 | 19.91                    | 19.91                  | 21                  | 0        |
| 20              | 16QAM      | 50      | 24        | 20.06                 | 20.02                    | 19.98                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 19.89                 | 19.95                    | 19.98                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 19.98                 | 19.85                    | 20.00                  | 21                  | 0        |
| 20              | 64QAM      | 1       | 0         | 20.06                 | 20.02                    | 19.81                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.03                 | 20.25                    | 20.13                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 19.47                 | 19.66                    | 19.78                  | 21                  | 0        |
| 20              | 64QAM      | 50      | 0         | 20.01                 | 19.90                    | 20.05                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 20.13                 | 19.94                    | 20.02                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.89                 | 19.87                    | 19.97                  | 21                  | 0        |
| 20              | 64QAM      | 100     | 0         | 19.94                 | 19.93                    | 19.86                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26115  | 26340 | 26615  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1857.5 | 1880  | 1907.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 19.99  | 19.99 | 19.00  | 21                        | 0           |
| 15              | QPSK  | 1  | 37 | 19.88  | 19.87 | 19.97  |                           |             |
| 15              | QPSK  | 1  | 74 | 19.85  | 19.83 | 19.09  |                           |             |
| 15              | QPSK  | 36 | 0  | 20.05  | 19.95 | 20.04  | 21                        | 0           |
| 15              | QPSK  | 36 | 20 | 20.07  | 20.12 | 20.13  |                           |             |
| 15              | QPSK  | 36 | 39 | 20.07  | 19.89 | 19.98  |                           |             |
| 15              | QPSK  | 75 | 0  | 20.06  | 20.01 | 20.07  | 21                        | 0           |
| 15              | 16QAM | 1  | 0  | 20.12  | 20.06 | 20.49  |                           |             |
| 15              | 16QAM | 1  | 37 | 20.29  | 20.19 | 20.45  |                           |             |
| 15              | 16QAM | 1  | 74 | 19.78  | 20.03 | 19.80  | 21                        | 0           |
| 15              | 16QAM | 36 | 0  | 20.02  | 19.90 | 20.04  |                           |             |
| 15              | 16QAM | 36 | 20 | 20.04  | 20.03 | 20.06  |                           |             |
| 15              | 16QAM | 36 | 39 | 20.03  | 20.02 | 20.14  | 21                        | 0           |
| 15              | 16QAM | 75 | 0  | 20.15  | 20.04 | 20.19  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.02  | 20.05 | 19.85  |                           |             |
| 15              | 64QAM | 1  | 37 | 20.01  | 19.84 | 19.89  | 21                        | 0           |
| 15              | 64QAM | 1  | 74 | 19.63  | 19.78 | 19.90  |                           |             |
| 15              | 64QAM | 36 | 0  | 19.97  | 19.83 | 20.04  |                           |             |
| 15              | 64QAM | 36 | 20 | 19.99  | 19.98 | 20.05  | 21                        | 0           |
| 15              | 64QAM | 36 | 39 | 19.99  | 19.93 | 20.01  |                           |             |
| 15              | 64QAM | 75 | 0  | 20.12  | 19.99 | 20.23  |                           |             |
| Channel         |       |    |    | 26090  | 26340 | 26640  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1855   | 1880  | 1910   |                           |             |
| 10              | QPSK  | 1  | 0  | 20.20  | 20.01 | 19.98  | 21                        | 0           |
| 10              | QPSK  | 1  | 25 | 19.94  | 19.80 | 20.00  |                           |             |
| 10              | QPSK  | 1  | 49 | 20.18  | 20.08 | 19.50  |                           |             |
| 10              | QPSK  | 25 | 0  | 20.09  | 20.03 | 20.07  | 21                        | 0           |
| 10              | QPSK  | 25 | 12 | 20.05  | 20.00 | 20.06  |                           |             |
| 10              | QPSK  | 25 | 25 | 20.04  | 19.96 | 20.15  |                           |             |
| 10              | QPSK  | 50 | 0  | 20.10  | 19.94 | 20.11  | 21                        | 0           |
| 10              | 16QAM | 1  | 0  | 20.44  | 20.25 | 20.31  |                           |             |
| 10              | 16QAM | 1  | 25 | 20.18  | 20.14 | 20.30  |                           |             |
| 10              | 16QAM | 1  | 49 | 19.92  | 20.22 | 19.70  | 21                        | 0           |
| 10              | 16QAM | 25 | 0  | 20.15  | 19.97 | 19.99  |                           |             |
| 10              | 16QAM | 25 | 12 | 20.10  | 19.99 | 19.96  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.07  | 20.02 | 20.12  | 21                        | 0           |
| 10              | 16QAM | 50 | 0  | 20.12  | 20.02 | 20.09  |                           |             |
| 10              | 64QAM | 1  | 0  | 20.45  | 20.24 | 19.93  |                           |             |
| 10              | 64QAM | 1  | 25 | 20.15  | 20.04 | 20.21  | 21                        | 0           |
| 10              | 64QAM | 1  | 49 | 20.08  | 20.04 | 19.80  |                           |             |
| 10              | 64QAM | 25 | 0  | 20.07  | 19.93 | 19.98  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.02  | 19.87 | 20.09  | 21                        | 0           |
| 10              | 64QAM | 25 | 25 | 20.08  | 19.98 | 20.07  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.05  | 19.94 | 20.04  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 26065  | 26340 | 26665  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1852.5 | 1880  | 1912.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 19.26  | 19.28 | 19.23  | 21                        | 0           |
| 5               | QPSK  | 1  | 12 | 20.05  | 19.89 | 20.07  |                           |             |
| 5               | QPSK  | 1  | 24 | 20.04  | 19.95 | 19.72  |                           |             |
| 5               | QPSK  | 12 | 0  | 20.20  | 20.03 | 20.11  | 21                        | 0           |
| 5               | QPSK  | 12 | 7  | 20.06  | 19.98 | 20.07  |                           |             |
| 5               | QPSK  | 12 | 13 | 20.04  | 19.94 | 20.09  |                           |             |
| 5               | QPSK  | 25 | 0  | 20.16  | 19.90 | 20.14  | 21                        | 0           |
| 5               | 16QAM | 1  | 0  | 20.43  | 20.41 | 20.45  |                           |             |
| 5               | 16QAM | 1  | 12 | 20.51  | 19.95 | 20.19  |                           |             |
| 5               | 16QAM | 1  | 24 | 20.46  | 20.35 | 19.80  | 21                        | 0           |
| 5               | 16QAM | 12 | 0  | 20.20  | 20.01 | 20.18  |                           |             |
| 5               | 16QAM | 12 | 7  | 20.17  | 19.98 | 20.13  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.05  | 20.03 | 20.08  | 21                        | 0           |
| 5               | 16QAM | 25 | 0  | 20.03  | 19.91 | 20.03  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.37  | 20.45 | 20.29  |                           |             |
| 5               | 64QAM | 1  | 12 | 20.23  | 20.17 | 20.37  | 21                        | 0           |
| 5               | 64QAM | 1  | 24 | 20.28  | 20.27 | 19.90  |                           |             |
| 5               | 64QAM | 12 | 0  | 20.22  | 20.11 | 20.18  |                           |             |
| 5               | 64QAM | 12 | 7  | 20.18  | 19.96 | 20.12  | 21                        | 0           |
| 5               | 64QAM | 12 | 13 | 20.13  | 20.02 | 20.12  |                           |             |
| 5               | 64QAM | 25 | 0  | 20.17  | 19.95 | 20.18  |                           |             |
| Channel         |       |    |    | 26055  | 26340 | 26675  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1851.5 | 1880  | 1913.5 |                           |             |
| 3               | QPSK  | 1  | 0  | 19.89  | 20.20 | 20.23  | 21                        | 0           |
| 3               | QPSK  | 1  | 8  | 19.95  | 19.90 | 20.01  |                           |             |
| 3               | QPSK  | 1  | 14 | 19.93  | 19.84 | 19.96  |                           |             |
| 3               | QPSK  | 8  | 0  | 20.03  | 19.92 | 20.05  | 21                        | 0           |
| 3               | QPSK  | 8  | 4  | 20.01  | 19.96 | 20.08  |                           |             |
| 3               | QPSK  | 8  | 7  | 19.99  | 19.87 | 20.04  |                           |             |
| 3               | QPSK  | 15 | 0  | 19.97  | 19.93 | 20.03  | 21                        | 0           |
| 3               | 16QAM | 1  | 0  | 20.32  | 20.18 | 20.34  |                           |             |
| 3               | 16QAM | 1  | 8  | 20.36  | 20.20 | 20.42  |                           |             |
| 3               | 16QAM | 1  | 14 | 20.24  | 20.08 | 20.27  | 21                        | 0           |
| 3               | 16QAM | 8  | 0  | 20.07  | 20.00 | 20.10  |                           |             |
| 3               | 16QAM | 8  | 4  | 20.06  | 20.02 | 20.15  |                           |             |
| 3               | 16QAM | 8  | 7  | 20.05  | 19.98 | 20.07  | 21                        | 0           |
| 3               | 16QAM | 15 | 0  | 19.98  | 19.94 | 20.03  |                           |             |
| 3               | 64QAM | 1  | 0  | 20.19  | 20.08 | 20.23  |                           |             |
| 3               | 64QAM | 1  | 8  | 20.19  | 20.12 | 20.25  | 21                        | 0           |
| 3               | 64QAM | 1  | 14 | 20.09  | 19.98 | 20.20  |                           |             |
| 3               | 64QAM | 8  | 0  | 20.03  | 19.97 | 20.09  |                           |             |
| 3               | 64QAM | 8  | 4  | 20.04  | 19.95 | 20.12  | 21                        | 0           |
| 3               | 64QAM | 8  | 7  | 20.00  | 19.91 | 20.08  |                           |             |
| 3               | 64QAM | 15 | 0  | 20.01  | 19.95 | 20.09  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |   |   | 26047  | 26340 | 26683  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1850.7 | 1880  | 1914.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 19.31  | 20.15 | 20.12  | 21                        | 0           |
| 1.4             | QPSK  | 1 | 3 | 19.97  | 19.91 | 20.11  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 19.94  | 19.82 | 20.04  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 19.92  | 19.87 | 20.02  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 19.99  | 19.90 | 20.05  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 19.97  | 19.90 | 20.03  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 19.97  | 19.87 | 20.02  | 21                        | 0           |
| 1.4             | 16QAM | 1 | 0 | 20.25  | 20.13 | 20.37  | 21                        | 0           |
| 1.4             | 16QAM | 1 | 3 | 20.28  | 20.15 | 20.42  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 20.24  | 20.12 | 20.33  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 20.00  | 19.95 | 20.07  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 20.04  | 19.98 | 20.10  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 19.96  | 19.94 | 19.99  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 20.01  | 19.95 | 20.09  | 21                        | 0           |
| 1.4             | 64QAM | 1 | 0 | 20.13  | 20.07 | 20.22  | 21                        | 0           |
| 1.4             | 64QAM | 1 | 3 | 20.14  | 20.06 | 20.27  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 20.11  | 20.00 | 20.19  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 20.00  | 19.97 | 20.06  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.04  | 19.98 | 20.12  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 20.02  | 19.91 | 20.10  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.94  | 19.88 | 19.93  | 21                        | 0           |



**<LTE Band 30>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | -                        | 27710                       | -                         | 22.5                      | 0           |
| Frequency (MHz) |            |         |           |                          | 2310                        |                           |                           |             |
| 10              | QPSK       | 1       | 0         |                          | 21.74                       |                           |                           |             |
| 10              | QPSK       | 1       | 25        |                          | 21.37                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 1       | 49        |                          | 21.80                       |                           |                           |             |
| 10              | QPSK       | 25      | 0         |                          | 21.59                       |                           |                           |             |
| 10              | QPSK       | 25      | 12        |                          | 21.71                       |                           | 22.5                      | 0           |
| 10              | QPSK       | 25      | 25        |                          | 21.63                       |                           |                           |             |
| 10              | QPSK       | 50      | 0         |                          | 21.68                       |                           |                           |             |
| 10              | 16QAM      | 1       | 0         |                          | 22.00                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 1       | 25        |                          | 21.82                       |                           |                           |             |
| 10              | 16QAM      | 1       | 49        |                          | 22.03                       |                           |                           |             |
| 10              | 16QAM      | 25      | 0         |                          | 20.63                       |                           | 22.5                      | 0           |
| 10              | 16QAM      | 25      | 12        |                          | 20.70                       |                           |                           |             |
| 10              | 16QAM      | 25      | 25        |                          | 20.75                       |                           |                           |             |
| 10              | 16QAM      | 50      | 0         |                          | 20.62                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 1       | 0         |                          | 21.90                       |                           |                           |             |
| 10              | 64QAM      | 1       | 25        |                          | 21.73                       |                           |                           |             |
| 10              | 64QAM      | 1       | 49        |                          | 21.93                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 25      | 0         |                          | 20.67                       |                           |                           |             |
| 10              | 64QAM      | 25      | 12        |                          | 20.72                       |                           |                           |             |
| 10              | 64QAM      | 25      | 25        |                          | 20.75                       |                           | 22.5                      | 0           |
| 10              | 64QAM      | 50      | 0         |                          | 20.63                       |                           |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 27685  | 27710 | 27735  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2307.5 | 2310  | 2312.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 20.89  | 21.23 | 21.40  | 22.5                | 0        |
| 5               | QPSK  | 1  | 12 | 21.47  | 21.42 | 21.46  |                     |          |
| 5               | QPSK  | 1  | 24 | 21.47  | 21.48 | 21.49  |                     |          |
| 5               | QPSK  | 12 | 0  | 21.64  | 21.65 | 21.71  | 22.5                | 0        |
| 5               | QPSK  | 12 | 7  | 21.64  | 21.62 | 21.64  |                     |          |
| 5               | QPSK  | 12 | 13 | 21.55  | 21.65 | 21.64  |                     |          |
| 5               | QPSK  | 25 | 0  | 21.57  | 21.63 | 21.73  | 22.5                | 0        |
| 5               | 16QAM | 1  | 0  | 21.94  | 21.93 | 21.86  |                     |          |
| 5               | 16QAM | 1  | 12 | 21.84  | 21.82 | 21.78  |                     |          |
| 5               | 16QAM | 1  | 24 | 21.83  | 21.81 | 21.82  | 22.5                | 0        |
| 5               | 16QAM | 12 | 0  | 20.79  | 20.81 | 20.86  |                     |          |
| 5               | 16QAM | 12 | 7  | 20.80  | 20.78 | 20.80  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.69  | 20.82 | 20.82  | 22.5                | 0        |
| 5               | 16QAM | 25 | 0  | 20.62  | 20.66 | 20.78  |                     |          |
| 5               | 64QAM | 1  | 0  | 21.80  | 21.77 | 21.74  |                     |          |
| 5               | 64QAM | 1  | 12 | 21.74  | 21.67 | 21.65  | 22.5                | 0        |
| 5               | 64QAM | 1  | 24 | 21.66  | 21.65 | 21.69  |                     |          |
| 5               | 64QAM | 12 | 0  | 20.73  | 20.76 | 20.79  |                     |          |
| 5               | 64QAM | 12 | 7  | 20.78  | 20.76 | 20.77  | 22.5                | 0        |
| 5               | 64QAM | 12 | 13 | 20.67  | 20.80 | 20.79  |                     |          |
| 5               | 64QAM | 25 | 0  | 20.64  | 20.69 | 20.82  |                     |          |



**<LTE Band 66>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|--------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 132072                | 132322                   | 132572                 |                     |          |
| Frequency (MHz) |            |         |           | 1720                  | 1745                     | 1770                   |                     |          |
| 20              | QPSK       | 1       | 0         | 19.70                 | 19.73                    | 19.83                  |                     |          |
| 20              | QPSK       | 1       | 49        | 19.52                 | 20.09                    | 19.86                  | 20.5                | 0        |
| 20              | QPSK       | 1       | 99        | 20.07                 | 20.32                    | 20.33                  |                     |          |
| 20              | QPSK       | 50      | 0         | 19.94                 | 19.83                    | 19.89                  |                     |          |
| 20              | QPSK       | 50      | 24        | 19.98                 | 19.95                    | 20.03                  | 20.5                | 0        |
| 20              | QPSK       | 50      | 50        | 19.81                 | 19.86                    | 20.01                  |                     |          |
| 20              | QPSK       | 100     | 0         | 19.91                 | 19.82                    | 19.98                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 19.94                 | 20.24                    | 20.32                  | 20.5                | 0        |
| 20              | 16QAM      | 1       | 49        | 20.19                 | 20.38                    | 19.77                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 20.35                 | 20.43                    | 20.45                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 19.92                 | 19.77                    | 19.96                  | 20.5                | 0        |
| 20              | 16QAM      | 50      | 24        | 19.98                 | 20.00                    | 20.02                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 19.92                 | 19.93                    | 19.99                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 19.79                 | 19.88                    | 19.96                  | 20.5                | 0        |
| 20              | 64QAM      | 1       | 0         | 19.91                 | 20.03                    | 20.14                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 20.19                 | 20.16                    | 19.81                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.07                 | 20.20                    | 20.19                  | 20.5                | 0        |
| 20              | 64QAM      | 50      | 0         | 19.84                 | 19.72                    | 19.96                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 19.91                 | 19.98                    | 20.03                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.85                 | 19.79                    | 19.99                  | 20.5                | 0        |
| 20              | 64QAM      | 100     | 0         | 19.85                 | 19.86                    | 19.98                  |                     |          |



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| Channel         |       |    |    | 132047 | 132322 | 132597 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 1717.5 | 1745   | 1772.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 20.21  | 20.02  | 20.20  | 20.5                      | 0           |
| 15              | QPSK  | 1  | 37 | 20.38  | 20.05  | 19.61  |                           |             |
| 15              | QPSK  | 1  | 74 | 20.10  | 20.07  | 19.84  |                           |             |
| 15              | QPSK  | 36 | 0  | 19.97  | 19.98  | 20.07  | 20.5                      | 0           |
| 15              | QPSK  | 36 | 20 | 19.93  | 19.99  | 19.95  |                           |             |
| 15              | QPSK  | 36 | 39 | 19.93  | 19.86  | 19.93  |                           |             |
| 15              | QPSK  | 75 | 0  | 19.90  | 19.88  | 19.85  | 20.5                      | 0           |
| 15              | 16QAM | 1  | 0  | 20.41  | 20.18  | 20.10  |                           |             |
| 15              | 16QAM | 1  | 37 | 20.16  | 19.94  | 19.80  |                           |             |
| 15              | 16QAM | 1  | 74 | 20.38  | 20.30  | 20.15  | 20.5                      | 0           |
| 15              | 16QAM | 36 | 0  | 20.13  | 19.99  | 20.06  |                           |             |
| 15              | 16QAM | 36 | 20 | 19.89  | 19.99  | 20.00  |                           |             |
| 15              | 16QAM | 36 | 39 | 19.81  | 19.85  | 19.89  | 20.5                      | 0           |
| 15              | 16QAM | 75 | 0  | 19.81  | 19.90  | 19.90  |                           |             |
| 15              | 64QAM | 1  | 0  | 20.45  | 20.24  | 20.43  |                           |             |
| 15              | 64QAM | 1  | 37 | 20.27  | 20.27  | 20.48  | 20.5                      | 0           |
| 15              | 64QAM | 1  | 74 | 20.39  | 20.14  | 20.35  |                           |             |
| 15              | 64QAM | 36 | 0  | 20.01  | 19.96  | 20.04  |                           |             |
| 15              | 64QAM | 36 | 20 | 20.00  | 19.94  | 20.05  | 20.5                      | 0           |
| 15              | 64QAM | 36 | 39 | 19.89  | 19.81  | 19.92  |                           |             |
| 15              | 64QAM | 75 | 0  | 19.81  | 19.88  | 19.87  |                           |             |
| Channel         |       |    |    | 132022 | 132322 | 132622 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 1715   | 1745   | 1775   |                           |             |
| 10              | QPSK  | 1  | 0  | 20.10  | 20.12  | 20.20  | 20.5                      | 0           |
| 10              | QPSK  | 1  | 25 | 19.76  | 20.00  | 19.91  |                           |             |
| 10              | QPSK  | 1  | 49 | 19.94  | 20.33  | 20.34  |                           |             |
| 10              | QPSK  | 25 | 0  | 20.04  | 19.91  | 19.90  | 20.5                      | 0           |
| 10              | QPSK  | 25 | 12 | 20.06  | 20.10  | 20.09  |                           |             |
| 10              | QPSK  | 25 | 25 | 20.08  | 20.14  | 20.26  |                           |             |
| 10              | QPSK  | 50 | 0  | 20.00  | 20.10  | 20.15  | 20.5                      | 0           |
| 10              | 16QAM | 1  | 0  | 20.03  | 19.96  | 19.98  |                           |             |
| 10              | 16QAM | 1  | 25 | 20.41  | 20.43  | 20.43  |                           |             |
| 10              | 16QAM | 1  | 49 | 20.27  | 20.41  | 20.41  | 20.5                      | 0           |
| 10              | 16QAM | 25 | 0  | 20.02  | 20.04  | 20.09  |                           |             |
| 10              | 16QAM | 25 | 12 | 20.15  | 20.12  | 20.21  |                           |             |
| 10              | 16QAM | 25 | 25 | 20.17  | 20.04  | 20.26  | 20.5                      | 0           |
| 10              | 16QAM | 50 | 0  | 19.98  | 20.07  | 20.13  |                           |             |
| 10              | 64QAM | 1  | 0  | 19.55  | 19.49  | 19.47  |                           |             |
| 10              | 64QAM | 1  | 25 | 19.90  | 20.01  | 20.13  | 20.5                      | 0           |
| 10              | 64QAM | 1  | 49 | 19.78  | 20.35  | 20.46  |                           |             |
| 10              | 64QAM | 25 | 0  | 19.98  | 20.03  | 20.00  |                           |             |
| 10              | 64QAM | 25 | 12 | 20.12  | 20.14  | 20.10  | 20.5                      | 0           |
| 10              | 64QAM | 25 | 25 | 20.14  | 20.14  | 20.04  |                           |             |
| 10              | 64QAM | 50 | 0  | 20.05  | 20.09  | 20.05  |                           |             |



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| Channel         |       |    |    | 131997 | 132322 | 132647 | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 1712.5 | 1745   | 1777.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 20.00  | 19.90  | 20.06  | 20.5                | 0        |
| 5               | QPSK  | 1  | 12 | 19.85  | 19.91  | 20.06  |                     |          |
| 5               | QPSK  | 1  | 24 | 19.81  | 20.04  | 19.95  |                     |          |
| 5               | QPSK  | 12 | 0  | 20.08  | 20.07  | 20.15  | 20.5                | 0        |
| 5               | QPSK  | 12 | 7  | 20.12  | 20.13  | 20.08  |                     |          |
| 5               | QPSK  | 12 | 13 | 20.08  | 20.00  | 20.14  |                     |          |
| 5               | QPSK  | 25 | 0  | 20.11  | 20.15  | 20.13  | 20.5                | 0        |
| 5               | 16QAM | 1  | 0  | 20.43  | 20.42  | 20.33  |                     |          |
| 5               | 16QAM | 1  | 12 | 20.28  | 20.15  | 20.14  |                     |          |
| 5               | 16QAM | 1  | 24 | 20.42  | 20.24  | 20.15  | 20.5                | 0        |
| 5               | 16QAM | 12 | 0  | 20.17  | 20.05  | 20.24  |                     |          |
| 5               | 16QAM | 12 | 7  | 20.01  | 20.12  | 20.09  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.01  | 20.07  | 20.13  | 20.5                | 0        |
| 5               | 16QAM | 25 | 0  | 20.14  | 20.02  | 20.15  |                     |          |
| 5               | 64QAM | 1  | 0  | 20.03  | 20.35  | 20.33  |                     |          |
| 5               | 64QAM | 1  | 12 | 19.78  | 20.24  | 20.40  | 20.5                | 0        |
| 5               | 64QAM | 1  | 24 | 19.76  | 20.19  | 20.15  |                     |          |
| 5               | 64QAM | 12 | 0  | 20.23  | 20.09  | 20.15  |                     |          |
| 5               | 64QAM | 12 | 7  | 20.16  | 20.15  | 20.11  | 20.5                | 0        |
| 5               | 64QAM | 12 | 13 | 20.06  | 20.12  | 20.08  |                     |          |
| 5               | 64QAM | 25 | 0  | 20.07  | 20.14  | 20.22  |                     |          |
| Channel         |       |    |    | 131987 | 132322 | 132657 | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 1711.5 | 1745   | 1778.5 |                     |          |
| 3               | QPSK  | 1  | 0  | 20.02  | 19.91  | 19.92  | 20.5                | 0        |
| 3               | QPSK  | 1  | 8  | 20.11  | 20.07  | 20.03  |                     |          |
| 3               | QPSK  | 1  | 14 | 20.00  | 20.01  | 20.02  |                     |          |
| 3               | QPSK  | 8  | 0  | 20.12  | 20.03  | 20.11  | 20.5                | 0        |
| 3               | QPSK  | 8  | 4  | 20.16  | 20.04  | 20.12  |                     |          |
| 3               | QPSK  | 8  | 7  | 20.05  | 20.00  | 20.01  |                     |          |
| 3               | QPSK  | 15 | 0  | 20.12  | 20.10  | 20.03  | 20.5                | 0        |
| 3               | 16QAM | 1  | 0  | 20.36  | 19.99  | 20.32  |                     |          |
| 3               | 16QAM | 1  | 8  | 20.25  | 20.12  | 20.38  |                     |          |
| 3               | 16QAM | 1  | 14 | 19.94  | 20.12  | 20.27  | 20.5                | 0        |
| 3               | 16QAM | 8  | 0  | 20.19  | 20.12  | 20.09  |                     |          |
| 3               | 16QAM | 8  | 4  | 20.12  | 20.16  | 20.13  |                     |          |
| 3               | 16QAM | 8  | 7  | 20.02  | 20.12  | 20.04  | 20.5                | 0        |
| 3               | 16QAM | 15 | 0  | 20.02  | 20.05  | 20.12  |                     |          |
| 3               | 64QAM | 1  | 0  | 20.44  | 20.08  | 20.28  |                     |          |
| 3               | 64QAM | 1  | 8  | 20.43  | 20.18  | 20.41  | 20.5                | 0        |
| 3               | 64QAM | 1  | 14 | 20.32  | 20.11  | 20.12  |                     |          |
| 3               | 64QAM | 8  | 0  | 20.21  | 19.92  | 19.97  |                     |          |
| 3               | 64QAM | 8  | 4  | 20.13  | 20.09  | 20.11  | 20.5                | 0        |
| 3               | 64QAM | 8  | 7  | 20.04  | 19.95  | 20.01  |                     |          |
| 3               | 64QAM | 15 | 0  | 20.04  | 20.10  | 20.11  |                     |          |



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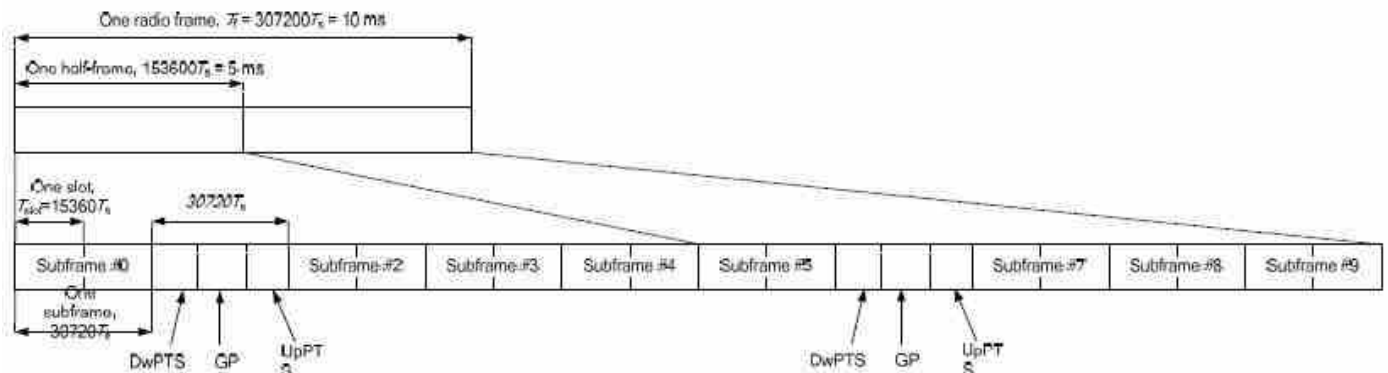
| Channel         |       |   |   | 131979 | 132322 | 132665 | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|---|---|--------|--------|--------|---------------------------|-------------|
| Frequency (MHz) |       |   |   | 1710.7 | 1745   | 1779.3 |                           |             |
| 1.4             | QPSK  | 1 | 0 | 20.01  | 19.91  | 20.15  | 20.5                      | 0           |
| 1.4             | QPSK  | 1 | 3 | 20.03  | 19.97  | 20.18  |                           |             |
| 1.4             | QPSK  | 1 | 5 | 19.90  | 19.91  | 20.02  |                           |             |
| 1.4             | QPSK  | 3 | 0 | 20.01  | 19.89  | 20.02  |                           |             |
| 1.4             | QPSK  | 3 | 1 | 20.10  | 20.03  | 20.01  |                           |             |
| 1.4             | QPSK  | 3 | 3 | 20.07  | 20.05  | 20.11  |                           |             |
| 1.4             | QPSK  | 6 | 0 | 20.05  | 19.99  | 20.05  | 20.5                      | 0           |
| 1.4             | 16QAM | 1 | 0 | 20.41  | 20.45  | 20.27  | 20.5                      | 0           |
| 1.4             | 16QAM | 1 | 3 | 20.43  | 20.23  | 20.26  |                           |             |
| 1.4             | 16QAM | 1 | 5 | 20.41  | 20.36  | 20.26  |                           |             |
| 1.4             | 16QAM | 3 | 0 | 20.00  | 19.95  | 20.02  |                           |             |
| 1.4             | 16QAM | 3 | 1 | 20.11  | 20.10  | 20.03  |                           |             |
| 1.4             | 16QAM | 3 | 3 | 19.99  | 20.03  | 20.19  |                           |             |
| 1.4             | 16QAM | 6 | 0 | 20.04  | 20.04  | 20.06  | 20.5                      | 0           |
| 1.4             | 64QAM | 1 | 0 | 20.36  | 20.40  | 19.94  | 20.5                      | 0           |
| 1.4             | 64QAM | 1 | 3 | 20.40  | 20.35  | 19.92  |                           |             |
| 1.4             | 64QAM | 1 | 5 | 20.41  | 20.45  | 19.79  |                           |             |
| 1.4             | 64QAM | 3 | 0 | 20.13  | 20.07  | 20.30  |                           |             |
| 1.4             | 64QAM | 3 | 1 | 20.15  | 20.27  | 20.30  |                           |             |
| 1.4             | 64QAM | 3 | 3 | 20.14  | 20.20  | 20.09  |                           |             |
| 1.4             | 64QAM | 6 | 0 | 19.97  | 20.08  | 20.13  | 20.5                      | 0           |

### <TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.



**Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).**

**Table 4.2-2: Uplink-downlink configurations.**

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D |

**Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).**

| Special subframe configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$                   | $2192 \cdot T_s$               | $2560 \cdot T_s$                 |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                              | $26336 \cdot T_s$                | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $7680 \cdot T_s$                   | $4384 \cdot T_s$               | $5120 \cdot T_s$                 |
| 5                              | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  |                                |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |

| Special subframe (30720·T <sub>s</sub> ): Normal cyclic prefix in downlink (UpPTS) |                                |                                |                                  |
|------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|
|                                                                                    | Special subframe configuration | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| Uplink duty factor in one special subframe                                         | 0~4                            | 7.13%                          | 8.33%                            |
|                                                                                    | 5~9                            | 14.3%                          | 16.7%                            |

| Special subframe(30720·T <sub>s</sub> ): Extended cyclic prefix in downlink (UpPTS) |                                |                                |                                  |
|-------------------------------------------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|
|                                                                                     | Special subframe configuration | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| Uplink duty factor in one special subframe                                          | 0~3                            | 7.13%                          | 8.33%                            |
|                                                                                     | 4~7                            | 14.3%                          | 16.7%                            |

The highest duty factor is resulted from:

For LTE Band 41 Power class 2

- Uplink-downlink configuration: 1. In a half-frame consisted of 5 subframes, uplink operation is in 2 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  
 $(2+0.167)/5 = 43.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  
 $(2+0.143)/5 = 42.9\%$
- For TDD LTE SAR measurement, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $43.3\%/42.9\% = 1.009$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.

For LTE Band 41 Power class 3

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  
 $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  
 $(3+0.143)/5 = 62.9\%$
- For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.

The device can adjust uplink/downlink configuration automatically according to the transmitting power class level for LTE band 41.



**<Full Power Mode>**

**<LTE Band 38>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 37850                    | 38000                       | 38150                     |                           |             |
| Frequency (MHz) |            |         |           | 2580                     | 2595                        | 2610                      |                           |             |
| 20              | QPSK       | 1       | 0         | 23.53                    | 23.50                       | 23.42                     | 24                        | 0           |
| 20              | QPSK       | 1       | 49        | 23.26                    | 23.14                       | 23.22                     |                           |             |
| 20              | QPSK       | 1       | 99        | 23.29                    | 23.09                       | 23.16                     |                           |             |
| 20              | QPSK       | 50      | 0         | 22.18                    | 22.06                       | 22.05                     | 23                        | 1           |
| 20              | QPSK       | 50      | 24        | 22.29                    | 22.23                       | 22.24                     |                           |             |
| 20              | QPSK       | 50      | 50        | 22.25                    | 22.20                       | 22.20                     |                           |             |
| 20              | QPSK       | 100     | 0         | 22.24                    | 22.15                       | 22.17                     | 23                        | 1           |
| 20              | 16QAM      | 1       | 0         | 22.06                    | 21.97                       | 21.91                     |                           |             |
| 20              | 16QAM      | 1       | 49        | 22.34                    | 22.22                       | 22.25                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 22.23                    | 22.02                       | 22.07                     | 22                        | 2           |
| 20              | 16QAM      | 50      | 0         | 21.24                    | 21.11                       | 21.08                     |                           |             |
| 20              | 16QAM      | 50      | 24        | 21.35                    | 21.26                       | 21.32                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 21.32                    | 21.22                       | 21.24                     | 22                        | 2           |
| 20              | 16QAM      | 100     | 0         | 21.27                    | 21.19                       | 21.18                     |                           |             |
| 20              | 64QAM      | 1       | 0         | 20.83                    | 20.73                       | 20.65                     | 22                        | 2           |
| 20              | 64QAM      | 1       | 49        | 21.09                    | 21.02                       | 21.03                     |                           |             |
| 20              | 64QAM      | 1       | 99        | 21.05                    | 20.79                       | 20.82                     |                           |             |
| 20              | 64QAM      | 50      | 0         | 20.18                    | 20.05                       | 20.03                     | 21                        | 3           |
| 20              | 64QAM      | 50      | 24        | 20.27                    | 20.21                       | 20.28                     |                           |             |
| 20              | 64QAM      | 50      | 50        | 20.27                    | 20.18                       | 20.19                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 20.31                    | 20.24                       | 20.25                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 37825  | 38000 | 38175  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2577.5 | 2595  | 2612.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 23.20  | 23.17 | 23.26  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 23.31  | 23.33 | 23.45  |                     |          |
| 15              | QPSK  | 1  | 74 | 23.38  | 23.40 | 23.46  |                     |          |
| 15              | QPSK  | 36 | 0  | 22.23  | 22.29 | 22.24  | 23                  | 1        |
| 15              | QPSK  | 36 | 20 | 22.23  | 22.28 | 22.31  |                     |          |
| 15              | QPSK  | 36 | 39 | 22.37  | 22.32 | 22.43  |                     |          |
| 15              | QPSK  | 75 | 0  | 22.25  | 22.30 | 22.33  |                     |          |
| 15              | 16QAM | 1  | 0  | 22.31  | 22.22 | 22.36  | 23                  | 1        |
| 15              | 16QAM | 1  | 37 | 22.18  | 22.17 | 22.21  |                     |          |
| 15              | 16QAM | 1  | 74 | 22.46  | 22.45 | 22.50  |                     |          |
| 15              | 16QAM | 36 | 0  | 21.23  | 21.25 | 21.28  | 22                  | 2        |
| 15              | 16QAM | 36 | 20 | 21.26  | 21.29 | 21.35  |                     |          |
| 15              | 16QAM | 36 | 39 | 21.36  | 21.29 | 21.43  |                     |          |
| 15              | 16QAM | 75 | 0  | 21.30  | 21.33 | 21.37  |                     |          |
| 15              | 64QAM | 1  | 0  | 20.64  | 20.52 | 20.64  | 22                  | 2        |
| 15              | 64QAM | 1  | 37 | 20.58  | 20.57 | 20.65  |                     |          |
| 15              | 64QAM | 1  | 74 | 20.71  | 20.74 | 20.77  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.76  | 19.80 | 19.76  | 21                  | 3        |
| 15              | 64QAM | 36 | 20 | 19.75  | 19.80 | 19.84  |                     |          |
| 15              | 64QAM | 36 | 39 | 19.90  | 19.83 | 19.96  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.81  | 19.83 | 19.88  |                     |          |
| Channel         |       |    |    | 37800  | 38000 | 38200  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2575   | 2595  | 2615   |                     |          |
| 10              | QPSK  | 1  | 0  | 23.44  | 23.45 | 23.49  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 23.30  | 23.26 | 23.38  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.23  | 23.20 | 23.30  |                     |          |
| 10              | QPSK  | 25 | 0  | 22.39  | 22.40 | 22.39  | 23                  | 1        |
| 10              | QPSK  | 25 | 12 | 22.28  | 22.32 | 22.40  |                     |          |
| 10              | QPSK  | 25 | 25 | 22.35  | 22.30 | 22.41  |                     |          |
| 10              | QPSK  | 50 | 0  | 22.36  | 22.32 | 22.46  |                     |          |
| 10              | 16QAM | 1  | 0  | 22.55  | 22.56 | 22.63  | 23                  | 1        |
| 10              | 16QAM | 1  | 25 | 22.34  | 22.35 | 22.45  |                     |          |
| 10              | 16QAM | 1  | 49 | 22.72  | 22.67 | 22.66  |                     |          |
| 10              | 16QAM | 25 | 0  | 21.40  | 21.36 | 21.35  | 22                  | 2        |
| 10              | 16QAM | 25 | 12 | 21.32  | 21.29 | 21.43  |                     |          |
| 10              | 16QAM | 25 | 25 | 21.36  | 21.40 | 21.50  |                     |          |
| 10              | 16QAM | 50 | 0  | 21.36  | 21.37 | 21.48  |                     |          |
| 10              | 64QAM | 1  | 0  | 20.87  | 20.89 | 20.88  | 22                  | 2        |
| 10              | 64QAM | 1  | 25 | 20.65  | 20.58 | 20.67  |                     |          |
| 10              | 64QAM | 1  | 49 | 21.00  | 20.99 | 21.11  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.82  | 19.80 | 19.83  | 21                  | 3        |
| 10              | 64QAM | 25 | 12 | 19.79  | 19.79 | 19.90  |                     |          |
| 10              | 64QAM | 25 | 25 | 19.84  | 19.87 | 19.95  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.77  | 19.80 | 19.92  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 37775  | 38000 | 38225  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2572.5 | 2595  | 2617.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.35  | 23.34 | 23.41  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.30  | 23.26 | 23.32  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.27  | 23.26 | 23.33  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.39  | 22.37 | 22.43  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 22.34  | 22.35 | 22.39  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.34  | 22.31 | 22.38  |                           |             |
| 5               | QPSK  | 25 | 0  | 22.38  | 22.35 | 22.40  |                           |             |
| 5               | 16QAM | 1  | 0  | 22.48  | 22.44 | 22.59  | 23                        | 1           |
| 5               | 16QAM | 1  | 12 | 22.45  | 22.46 | 22.56  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.36  | 22.36 | 22.45  |                           |             |
| 5               | 16QAM | 12 | 0  | 21.39  | 21.42 | 21.48  | 22                        | 2           |
| 5               | 16QAM | 12 | 7  | 21.33  | 21.36 | 21.45  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.32  | 21.30 | 21.39  |                           |             |
| 5               | 16QAM | 25 | 0  | 21.41  | 21.34 | 21.44  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.84  | 20.78 | 20.83  | 22                        | 2           |
| 5               | 64QAM | 1  | 12 | 20.64  | 20.67 | 20.74  |                           |             |
| 5               | 64QAM | 1  | 24 | 20.65  | 20.63 | 20.76  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.88  | 19.85 | 19.93  | 21                        | 3           |
| 5               | 64QAM | 12 | 7  | 19.84  | 19.86 | 19.94  |                           |             |
| 5               | 64QAM | 12 | 13 | 19.87  | 19.81 | 19.90  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.87  | 19.82 | 19.89  |                           |             |



**<LTE Band 41 Power Class 2>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 26.51                 | 26.34                        | 26.60                    | 26.57                         | 26.45                  | 27                  | 0        |
| 20              | QPSK       | 1       | 49        | 25.98                 | 26.06                        | 26.13                    | 26.18                         | 26.17                  |                     |          |
| 20              | QPSK       | 1       | 99        | 26.07                 | 26.01                        | 26.16                    | 26.13                         | 26.23                  |                     |          |
| 20              | QPSK       | 50      | 0         | 24.84                 | 25.00                        | 25.20                    | 25.01                         | 25.00                  | 26                  | 1        |
| 20              | QPSK       | 50      | 24        | 24.93                 | 24.95                        | 25.15                    | 25.03                         | 25.08                  |                     |          |
| 20              | QPSK       | 50      | 50        | 25.01                 | 24.99                        | 25.18                    | 25.13                         | 25.13                  |                     |          |
| 20              | QPSK       | 100     | 0         | 25.04                 | 24.94                        | 25.17                    | 25.13                         | 25.06                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 24.70                 | 24.76                        | 24.82                    | 24.82                         | 24.88                  | 26                  | 1        |
| 20              | 16QAM      | 1       | 49        | 25.11                 | 25.18                        | 25.22                    | 25.18                         | 25.22                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 25.09                 | 24.87                        | 25.11                    | 25.10                         | 25.06                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 23.88                 | 24.04                        | 24.24                    | 24.01                         | 24.13                  | 25                  | 2        |
| 20              | 16QAM      | 50      | 24        | 24.07                 | 24.12                        | 24.21                    | 24.06                         | 24.15                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 24.04                 | 24.07                        | 24.18                    | 24.20                         | 24.15                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 24.03                 | 24.01                        | 24.14                    | 24.13                         | 24.13                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 23.93                 | 23.77                        | 23.89                    | 23.65                         | 23.82                  | 25                  | 2        |
| 20              | 64QAM      | 1       | 49        | 24.35                 | 24.23                        | 24.44                    | 24.16                         | 24.32                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 24.21                 | 23.91                        | 24.30                    | 23.92                         | 24.12                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 22.97                 | 23.15                        | 23.19                    | 23.01                         | 23.14                  | 24                  | 3        |
| 20              | 64QAM      | 50      | 24        | 23.15                 | 23.13                        | 23.24                    | 23.08                         | 23.21                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 23.04                 | 23.09                        | 23.29                    | 23.15                         | 23.24                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 22.71                 | 22.41                        | 22.80                    | 22.42                         | 22.62                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 26.20  | 26.43  | 26.43 | 26.43  | 26.40  | 27                  | 0        |
| 15              | QPSK  | 1  | 37 | 26.25  | 26.29  | 26.50 | 26.44  | 26.45  |                     |          |
| 15              | QPSK  | 1  | 74 | 26.18  | 26.19  | 26.24 | 26.34  | 26.47  |                     |          |
| 15              | QPSK  | 36 | 0  | 24.91  | 24.93  | 25.04 | 25.01  | 25.22  | 26                  | 1        |
| 15              | QPSK  | 36 | 20 | 24.99  | 24.89  | 25.10 | 25.14  | 25.19  |                     |          |
| 15              | QPSK  | 36 | 39 | 25.02  | 24.89  | 25.08 | 25.13  | 25.28  |                     |          |
| 15              | QPSK  | 75 | 0  | 25.01  | 24.97  | 25.08 | 25.11  | 25.22  |                     |          |
| 15              | 16QAM | 1  | 0  | 24.94  | 25.05  | 25.15 | 25.13  | 25.27  | 26                  | 1        |
| 15              | 16QAM | 1  | 37 | 24.96  | 24.46  | 24.57 | 24.87  | 24.78  |                     |          |
| 15              | 16QAM | 1  | 74 | 25.19  | 25.12  | 25.23 | 25.27  | 25.43  |                     |          |
| 15              | 16QAM | 36 | 0  | 23.90  | 23.96  | 24.09 | 24.09  | 24.23  | 25                  | 2        |
| 15              | 16QAM | 36 | 20 | 23.96  | 24.00  | 24.14 | 24.14  | 24.20  |                     |          |
| 15              | 16QAM | 36 | 39 | 24.03  | 23.97  | 24.07 | 24.17  | 24.22  |                     |          |
| 15              | 16QAM | 75 | 0  | 24.10  | 24.00  | 24.05 | 24.15  | 24.35  |                     |          |
| 15              | 64QAM | 1  | 0  | 23.69  | 23.51  | 23.81 | 23.69  | 23.81  | 25                  | 2        |
| 15              | 64QAM | 1  | 37 | 23.95  | 23.44  | 24.00 | 23.62  | 23.93  |                     |          |
| 15              | 64QAM | 1  | 74 | 23.75  | 23.54  | 23.99 | 23.82  | 23.99  |                     |          |
| 15              | 64QAM | 36 | 0  | 23.00  | 23.12  | 23.20 | 23.26  | 23.30  | 24                  | 3        |
| 15              | 64QAM | 36 | 20 | 23.09  | 23.08  | 23.20 | 23.25  | 23.35  |                     |          |
| 15              | 64QAM | 36 | 39 | 23.11  | 23.08  | 23.26 | 23.28  | 23.39  |                     |          |
| 15              | 64QAM | 75 | 0  | 22.79  | 22.61  | 22.91 | 22.79  | 22.91  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 26.25  | 26.58  | 26.18 | 26.40  | 26.02  | 27                  | 0        |
| 10              | QPSK  | 1  | 25 | 26.21  | 26.07  | 26.26 | 26.07  | 26.24  |                     |          |
| 10              | QPSK  | 1  | 49 | 26.43  | 26.26  | 26.38 | 26.33  | 26.46  |                     |          |
| 10              | QPSK  | 25 | 0  | 25.11  | 25.07  | 25.08 | 25.04  | 25.20  | 26                  | 1        |
| 10              | QPSK  | 25 | 12 | 25.07  | 25.00  | 25.14 | 25.14  | 25.21  |                     |          |
| 10              | QPSK  | 25 | 25 | 25.11  | 25.10  | 25.14 | 25.08  | 25.16  |                     |          |
| 10              | QPSK  | 50 | 0  | 24.96  | 24.95  | 25.02 | 24.96  | 25.18  |                     |          |
| 10              | 16QAM | 1  | 0  | 25.29  | 25.25  | 25.31 | 25.27  | 25.47  | 26                  | 1        |
| 10              | 16QAM | 1  | 25 | 25.22  | 25.16  | 25.33 | 25.24  | 25.37  |                     |          |
| 10              | 16QAM | 1  | 49 | 25.53  | 25.29  | 25.45 | 25.42  | 25.50  |                     |          |
| 10              | 16QAM | 25 | 0  | 24.12  | 23.99  | 24.05 | 24.01  | 24.20  | 25                  | 2        |
| 10              | 16QAM | 25 | 12 | 24.11  | 24.14  | 24.10 | 24.12  | 24.17  |                     |          |
| 10              | 16QAM | 25 | 25 | 24.24  | 24.18  | 24.13 | 24.13  | 24.20  |                     |          |
| 10              | 16QAM | 50 | 0  | 24.07  | 24.01  | 24.12 | 24.13  | 24.17  |                     |          |
| 10              | 64QAM | 1  | 0  | 24.02  | 23.76  | 23.75 | 23.72  | 23.89  | 25                  | 2        |
| 10              | 64QAM | 1  | 25 | 23.74  | 23.46  | 23.82 | 23.58  | 23.73  |                     |          |
| 10              | 64QAM | 1  | 49 | 24.10  | 23.78  | 23.93 | 23.94  | 23.94  |                     |          |
| 10              | 64QAM | 25 | 0  | 23.14  | 23.02  | 23.15 | 23.03  | 23.23  | 24                  | 3        |
| 10              | 64QAM | 25 | 12 | 23.19  | 23.12  | 23.22 | 23.14  | 23.26  |                     |          |
| 10              | 64QAM | 25 | 25 | 23.22  | 23.16  | 23.22 | 23.13  | 23.28  |                     |          |
| 10              | 64QAM | 50 | 0  | 23.17  | 23.07  | 23.13 | 23.13  | 23.27  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 26.40  | 26.39  | 26.40 | 26.21   | 26.26  | 27                        | 0           |
| 5               | QPSK  | 1  | 12 | 26.11  | 26.05  | 26.11 | 26.08   | 26.20  |                           |             |
| 5               | QPSK  | 1  | 24 | 26.11  | 26.10  | 26.11 | 26.06   | 26.17  |                           |             |
| 5               | QPSK  | 12 | 0  | 25.15  | 25.01  | 25.15 | 25.01   | 25.13  | 26                        | 1           |
| 5               | QPSK  | 12 | 7  | 25.11  | 24.91  | 25.05 | 25.05   | 25.12  |                           |             |
| 5               | QPSK  | 12 | 13 | 25.01  | 24.96  | 25.05 | 24.98   | 25.12  |                           |             |
| 5               | QPSK  | 25 | 0  | 25.07  | 24.96  | 25.15 | 25.02   | 25.16  |                           |             |
| 5               | 16QAM | 1  | 0  | 25.19  | 25.19  | 25.35 | 25.24   | 25.33  | 26                        | 1           |
| 5               | 16QAM | 1  | 12 | 25.39  | 25.38  | 25.64 | 25.46   | 25.51  |                           |             |
| 5               | 16QAM | 1  | 24 | 25.21  | 25.15  | 25.32 | 25.14   | 25.32  |                           |             |
| 5               | 16QAM | 12 | 0  | 24.12  | 24.11  | 24.24 | 24.17   | 24.22  | 25                        | 2           |
| 5               | 16QAM | 12 | 7  | 24.11  | 24.18  | 24.15 | 24.20   | 24.20  |                           |             |
| 5               | 16QAM | 12 | 13 | 24.11  | 24.12  | 24.14 | 24.11   | 24.22  |                           |             |
| 5               | 16QAM | 25 | 0  | 24.07  | 24.13  | 24.17 | 24.05   | 24.13  |                           |             |
| 5               | 64QAM | 1  | 0  | 23.93  | 23.69  | 23.99 | 23.79   | 23.81  | 25                        | 2           |
| 5               | 64QAM | 1  | 12 | 23.72  | 23.61  | 23.76 | 23.68   | 23.71  |                           |             |
| 5               | 64QAM | 1  | 24 | 23.74  | 23.69  | 23.96 | 23.65   | 23.81  |                           |             |
| 5               | 64QAM | 12 | 0  | 23.15  | 23.15  | 23.20 | 23.20   | 23.23  | 24                        | 3           |
| 5               | 64QAM | 12 | 7  | 23.20  | 23.24  | 23.27 | 23.28   | 23.23  |                           |             |
| 5               | 64QAM | 12 | 13 | 23.16  | 23.19  | 23.20 | 23.23   | 23.34  |                           |             |
| 5               | 64QAM | 25 | 0  | 23.03  | 23.19  | 23.09 | 22.89   | 22.91  |                           |             |



**<LTE Band 41 Power Class 3>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.79                 | 22.91                        | 23.06                    | 22.61                         | 22.77                  | 24.5                | 0        |
| 20              | QPSK       | 1       | 49        | 22.84                 | 22.94                        | 23.04                    | 22.57                         | 22.71                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.83                 | 22.89                        | 22.96                    | 22.65                         | 22.35                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.47                 | 21.52                        | 21.74                    | 21.26                         | 21.50                  | 23.5                | 1        |
| 20              | QPSK       | 50      | 24        | 21.47                 | 21.57                        | 21.67                    | 21.26                         | 21.36                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.46                 | 21.52                        | 21.66                    | 21.30                         | 21.39                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.48                 | 21.48                        | 21.70                    | 21.32                         | 21.36                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.20                 | 21.21                        | 21.30                    | 21.02                         | 21.13                  | 23.5                | 1        |
| 20              | 16QAM      | 1       | 49        | 21.59                 | 21.62                        | 21.70                    | 21.25                         | 21.46                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.56                 | 21.41                        | 21.52                    | 21.23                         | 21.38                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.40                 | 20.54                        | 20.66                    | 20.27                         | 20.33                  | 22.5                | 2        |
| 20              | 16QAM      | 50      | 24        | 20.51                 | 20.62                        | 20.69                    | 20.28                         | 20.39                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.47                 | 20.56                        | 20.68                    | 20.38                         | 20.43                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.50                 | 20.49                        | 20.67                    | 20.32                         | 20.39                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.13                 | 20.18                        | 20.21                    | 20.06                         | 20.19                  | 22.5                | 2        |
| 20              | 64QAM      | 1       | 49        | 20.44                 | 20.40                        | 20.34                    | 20.02                         | 20.20                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.31                 | 20.22                        | 20.22                    | 20.13                         | 20.01                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.31                 | 19.48                        | 19.58                    | 19.19                         | 19.26                  | 21.5                | 3        |
| 20              | 64QAM      | 50      | 24        | 19.47                 | 19.57                        | 19.65                    | 19.23                         | 19.35                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.42                 | 19.49                        | 19.63                    | 19.32                         | 19.35                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.55                 | 19.54                        | 19.67                    | 19.34                         | 19.08                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 23.25  | 23.29  | 23.36 | 23.01  | 23.18  | 24.5                | 0        |
| 15              | QPSK  | 1  | 37 | 23.22  | 23.31  | 23.38 | 23.12  | 22.98  |                     |          |
| 15              | QPSK  | 1  | 74 | 23.36  | 23.09  | 23.23 | 22.91  | 23.08  |                     |          |
| 15              | QPSK  | 36 | 0  | 21.51  | 21.59  | 21.66 | 21.27  | 21.47  | 23.5                | 1        |
| 15              | QPSK  | 36 | 20 | 21.46  | 21.57  | 21.63 | 21.35  | 21.42  |                     |          |
| 15              | QPSK  | 36 | 39 | 21.54  | 21.57  | 21.64 | 21.35  | 21.45  |                     |          |
| 15              | QPSK  | 75 | 0  | 21.60  | 21.59  | 21.69 | 21.35  | 21.49  |                     |          |
| 15              | 16QAM | 1  | 0  | 21.30  | 21.03  | 21.09 | 21.02  | 21.12  | 23.5                | 1        |
| 15              | 16QAM | 1  | 37 | 21.43  | 21.02  | 21.20 | 21.23  | 21.10  |                     |          |
| 15              | 16QAM | 1  | 74 | 21.26  | 21.11  | 21.16 | 21.02  | 21.13  |                     |          |
| 15              | 16QAM | 36 | 0  | 20.41  | 20.60  | 20.67 | 20.30  | 20.46  | 22.5                | 2        |
| 15              | 16QAM | 36 | 20 | 20.52  | 20.57  | 20.65 | 20.30  | 20.45  |                     |          |
| 15              | 16QAM | 36 | 39 | 20.57  | 20.49  | 20.63 | 20.30  | 20.42  |                     |          |
| 15              | 16QAM | 75 | 0  | 20.61  | 20.64  | 20.72 | 20.42  | 20.50  |                     |          |
| 15              | 64QAM | 1  | 0  | 20.37  | 20.36  | 20.46 | 20.06  | 20.37  | 22.5                | 2        |
| 15              | 64QAM | 1  | 37 | 20.26  | 20.22  | 20.26 | 20.10  | 20.17  |                     |          |
| 15              | 64QAM | 1  | 74 | 20.50  | 20.41  | 20.49 | 20.15  | 20.42  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.47  | 19.60  | 19.70 | 19.30  | 19.48  | 21.5                | 3        |
| 15              | 64QAM | 36 | 20 | 19.55  | 19.62  | 19.69 | 19.35  | 19.49  |                     |          |
| 15              | 64QAM | 36 | 39 | 19.56  | 19.53  | 19.67 | 19.33  | 19.47  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.60  | 19.64  | 19.72 | 19.40  | 19.50  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 23.48  | 23.54  | 23.20 | 23.02  | 22.85  | 24.5                | 0        |
| 10              | QPSK  | 1  | 25 | 23.17  | 23.05  | 23.16 | 22.73  | 22.92  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.36  | 23.31  | 23.40 | 22.93  | 23.19  |                     |          |
| 10              | QPSK  | 25 | 0  | 21.65  | 21.67  | 21.72 | 21.22  | 21.44  | 23.5                | 1        |
| 10              | QPSK  | 25 | 12 | 21.62  | 21.62  | 21.71 | 21.28  | 21.41  |                     |          |
| 10              | QPSK  | 25 | 25 | 21.73  | 21.69  | 21.71 | 21.28  | 21.44  |                     |          |
| 10              | QPSK  | 50 | 0  | 21.60  | 21.66  | 21.65 | 21.29  | 21.41  |                     |          |
| 10              | 16QAM | 1  | 0  | 21.33  | 21.26  | 21.33 | 21.02  | 21.07  | 23.5                | 1        |
| 10              | 16QAM | 1  | 25 | 21.11  | 21.14  | 21.18 | 21.02  | 21.05  |                     |          |
| 10              | 16QAM | 1  | 49 | 21.44  | 21.34  | 21.45 | 21.06  | 21.20  |                     |          |
| 10              | 16QAM | 25 | 0  | 20.62  | 20.66  | 20.68 | 20.16  | 20.40  | 22.5                | 2        |
| 10              | 16QAM | 25 | 12 | 20.60  | 20.69  | 20.69 | 20.30  | 20.41  |                     |          |
| 10              | 16QAM | 25 | 25 | 20.73  | 20.70  | 20.71 | 20.27  | 20.43  |                     |          |
| 10              | 16QAM | 50 | 0  | 20.66  | 20.67  | 20.69 | 20.31  | 20.44  |                     |          |
| 10              | 64QAM | 1  | 0  | 20.78  | 20.56  | 20.65 | 20.10  | 20.41  | 22.5                | 2        |
| 10              | 64QAM | 1  | 25 | 20.62  | 20.37  | 20.40 | 20.09  | 20.27  |                     |          |
| 10              | 64QAM | 1  | 49 | 20.87  | 20.63  | 20.72 | 20.30  | 20.53  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.58  | 19.58  | 19.65 | 19.11  | 19.33  | 21.5                | 3        |
| 10              | 64QAM | 25 | 12 | 19.58  | 19.64  | 19.66 | 19.26  | 19.38  |                     |          |
| 10              | 64QAM | 25 | 25 | 19.72  | 19.69  | 19.69 | 19.24  | 19.40  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.57  | 19.61  | 19.62 | 19.23  | 19.38  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 23.22  | 23.31  | 23.28 | 22.87   | 23.02  | 24.5                | 0        |
| 5               | QPSK  | 1  | 12 | 23.06  | 23.14  | 23.10 | 22.68   | 22.79  |                     |          |
| 5               | QPSK  | 1  | 24 | 23.11  | 23.08  | 23.08 | 22.66   | 22.81  |                     |          |
| 5               | QPSK  | 12 | 0  | 21.69  | 21.66  | 21.69 | 21.27   | 21.39  | 23.5                | 1        |
| 5               | QPSK  | 12 | 7  | 21.63  | 21.66  | 21.67 | 21.23   | 21.38  |                     |          |
| 5               | QPSK  | 12 | 13 | 21.63  | 21.63  | 21.62 | 21.20   | 21.35  |                     |          |
| 5               | QPSK  | 25 | 0  | 21.66  | 21.64  | 21.68 | 21.28   | 21.39  |                     |          |
| 5               | 16QAM | 1  | 0  | 21.18  | 21.21  | 21.24 | 21.20   | 21.02  | 23.5                | 1        |
| 5               | 16QAM | 1  | 12 | 21.11  | 21.31  | 21.47 | 21.03   | 21.04  |                     |          |
| 5               | 16QAM | 1  | 24 | 21.11  | 21.17  | 21.17 | 21.06   | 21.00  |                     |          |
| 5               | 16QAM | 12 | 0  | 20.59  | 20.62  | 20.73 | 20.30   | 20.38  | 22.5                | 2        |
| 5               | 16QAM | 12 | 7  | 20.58  | 20.66  | 20.71 | 20.28   | 20.36  |                     |          |
| 5               | 16QAM | 12 | 13 | 20.57  | 20.65  | 20.66 | 20.27   | 20.35  |                     |          |
| 5               | 16QAM | 25 | 0  | 20.63  | 20.65  | 20.69 | 20.26   | 20.38  |                     |          |
| 5               | 64QAM | 1  | 0  | 20.76  | 20.52  | 20.56 | 20.09   | 20.32  | 22.5                | 2        |
| 5               | 64QAM | 1  | 12 | 20.56  | 20.52  | 20.53 | 20.10   | 20.23  |                     |          |
| 5               | 64QAM | 1  | 24 | 20.59  | 20.50  | 20.48 | 20.00   | 20.22  |                     |          |
| 5               | 64QAM | 12 | 0  | 19.62  | 19.63  | 19.73 | 19.27   | 19.37  | 21.5                | 3        |
| 5               | 64QAM | 12 | 7  | 19.60  | 19.66  | 19.72 | 19.30   | 19.39  |                     |          |
| 5               | 64QAM | 12 | 13 | 19.61  | 19.63  | 19.69 | 19.25   | 19.36  |                     |          |
| 5               | 64QAM | 25 | 0  | 19.60  | 19.60  | 19.65 | 19.17   | 19.32  |                     |          |

**<Reduced Power Mode for P-Sensor On>**
**<LTE Band 41 Power Class 2>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 23.80                 | 23.78                        | 23.81                    | 23.79                         | 23.70                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 23.19                 | 23.61                        | 23.63                    | 23.49                         | 23.49                  |                     |          |
| 20              | QPSK       | 1       | 99        | 23.45                 | 23.51                        | 23.58                    | 23.60                         | 23.63                  |                     |          |
| 20              | QPSK       | 50      | 0         | 23.62                 | 23.67                        | 23.80                    | 23.44                         | 23.66                  | 24                  | 0        |
| 20              | QPSK       | 50      | 24        | 23.72                 | 23.75                        | 23.76                    | 23.76                         | 23.79                  |                     |          |
| 20              | QPSK       | 50      | 50        | 23.35                 | 23.46                        | 23.81                    | 23.80                         | 23.74                  |                     |          |
| 20              | QPSK       | 100     | 0         | 23.74                 | 23.64                        | 23.83                    | 23.76                         | 23.71                  | 24                  | 0        |
| 20              | 16QAM      | 1       | 0         | 23.59                 | 23.35                        | 23.52                    | 23.54                         | 23.49                  |                     |          |
| 20              | 16QAM      | 1       | 49        | 23.45                 | 23.82                        | 23.84                    | 23.91                         | 23.90                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 23.68                 | 23.29                        | 23.82                    | 23.59                         | 23.92                  | 24                  | 0        |
| 20              | 16QAM      | 50      | 0         | 23.70                 | 23.43                        | 23.92                    | 23.91                         | 23.76                  |                     |          |
| 20              | 16QAM      | 50      | 24        | 23.86                 | 23.86                        | 23.85                    | 23.73                         | 23.80                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 23.77                 | 23.77                        | 23.91                    | 23.92                         | 23.87                  | 24                  | 0        |
| 20              | 16QAM      | 100     | 0         | 23.80                 | 23.64                        | 23.89                    | 23.63                         | 23.71                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 23.25                 | 23.13                        | 23.40                    | 23.31                         | 23.27                  |                     |          |
| 20              | 64QAM      | 1       | 49        | 23.58                 | 23.61                        | 23.81                    | 23.55                         | 23.70                  | 24                  | 0        |
| 20              | 64QAM      | 1       | 99        | 23.55                 | 23.43                        | 23.60                    | 23.31                         | 23.48                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 23.64                 | 23.64                        | 23.79                    | 23.71                         | 23.49                  |                     |          |
| 20              | 64QAM      | 50      | 24        | 23.68                 | 23.80                        | 23.49                    | 23.48                         | 23.75                  | 24                  | 0        |
| 20              | 64QAM      | 50      | 50        | 23.72                 | 23.70                        | 23.83                    | 23.75                         | 23.82                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 23.38                 | 23.68                        | 23.78                    | 23.67                         | 23.87                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 23.82  | 23.67  | 23.73 | 23.63  | 23.72  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 23.52  | 23.82  | 23.55 | 23.68  | 23.59  |                     |          |
| 15              | QPSK  | 1  | 74 | 23.74  | 23.85  | 23.98 | 23.93  | 23.87  |                     |          |
| 15              | QPSK  | 36 | 0  | 23.69  | 23.75  | 23.51 | 23.37  | 23.75  | 24                  | 0        |
| 15              | QPSK  | 36 | 20 | 23.78  | 23.74  | 23.85 | 23.80  | 23.84  |                     |          |
| 15              | QPSK  | 36 | 39 | 23.76  | 23.71  | 23.88 | 23.84  | 23.86  |                     |          |
| 15              | QPSK  | 75 | 0  | 23.83  | 23.84  | 23.89 | 23.82  | 23.83  |                     |          |
| 15              | 16QAM | 1  | 0  | 23.52  | 23.80  | 23.96 | 23.85  | 23.92  | 24                  | 0        |
| 15              | 16QAM | 1  | 37 | 23.32  | 23.78  | 23.67 | 23.47  | 23.72  |                     |          |
| 15              | 16QAM | 1  | 74 | 23.96  | 23.69  | 23.67 | 23.71  | 23.79  |                     |          |
| 15              | 16QAM | 36 | 0  | 23.82  | 23.86  | 23.92 | 23.77  | 23.90  | 24                  | 0        |
| 15              | 16QAM | 36 | 20 | 23.76  | 23.76  | 23.87 | 23.75  | 23.79  |                     |          |
| 15              | 16QAM | 36 | 39 | 23.32  | 23.79  | 23.93 | 23.82  | 23.84  |                     |          |
| 15              | 16QAM | 75 | 0  | 23.82  | 23.83  | 23.94 | 23.59  | 23.94  |                     |          |
| 15              | 64QAM | 1  | 0  | 23.97  | 23.67  | 23.73 | 23.64  | 23.80  | 24                  | 0        |
| 15              | 64QAM | 1  | 37 | 23.91  | 23.52  | 23.73 | 23.64  | 23.51  |                     |          |
| 15              | 64QAM | 1  | 74 | 23.73  | 23.55  | 23.95 | 23.66  | 23.76  |                     |          |
| 15              | 64QAM | 36 | 0  | 23.83  | 23.47  | 23.93 | 23.48  | 23.92  | 24                  | 0        |
| 15              | 64QAM | 36 | 20 | 23.77  | 23.78  | 23.88 | 23.90  | 23.81  |                     |          |
| 15              | 64QAM | 36 | 39 | 23.76  | 23.80  | 23.94 | 23.85  | 23.87  |                     |          |
| 15              | 64QAM | 75 | 0  | 23.91  | 23.82  | 23.92 | 23.93  | 23.94  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 23.69  | 23.41  | 23.63 | 23.84  | 23.89  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 23.68  | 23.45  | 23.45 | 23.00  | 23.10  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.80  | 23.79  | 23.71 | 23.33  | 23.40  |                     |          |
| 10              | QPSK  | 25 | 0  | 23.57  | 23.79  | 23.76 | 23.53  | 23.67  | 24                  | 0        |
| 10              | QPSK  | 25 | 12 | 23.88  | 23.80  | 23.71 | 23.65  | 23.65  |                     |          |
| 10              | QPSK  | 25 | 25 | 23.97  | 23.82  | 23.77 | 23.63  | 23.67  |                     |          |
| 10              | QPSK  | 50 | 0  | 23.86  | 23.76  | 23.41 | 23.65  | 23.66  |                     |          |
| 10              | 16QAM | 1  | 0  | 23.89  | 23.90  | 23.95 | 23.74  | 23.82  | 24                  | 0        |
| 10              | 16QAM | 1  | 25 | 23.80  | 23.80  | 23.66 | 23.66  | 23.71  |                     |          |
| 10              | 16QAM | 1  | 49 | 23.94  | 23.91  | 23.79 | 23.87  | 23.90  |                     |          |
| 10              | 16QAM | 25 | 0  | 23.91  | 23.84  | 23.53 | 23.54  | 23.67  | 24                  | 0        |
| 10              | 16QAM | 25 | 12 | 23.96  | 23.59  | 23.72 | 23.63  | 23.65  |                     |          |
| 10              | 16QAM | 25 | 25 | 23.95  | 23.88  | 23.69 | 23.65  | 23.72  |                     |          |
| 10              | 16QAM | 50 | 0  | 23.90  | 23.89  | 23.70 | 23.65  | 23.69  |                     |          |
| 10              | 64QAM | 1  | 0  | 23.82  | 23.97  | 23.79 | 23.39  | 23.57  | 24                  | 0        |
| 10              | 64QAM | 1  | 25 | 23.65  | 23.92  | 23.84 | 23.30  | 23.38  |                     |          |
| 10              | 64QAM | 1  | 49 | 23.79  | 23.53  | 23.85 | 23.63  | 23.71  |                     |          |
| 10              | 64QAM | 25 | 0  | 23.95  | 23.48  | 23.36 | 23.47  | 23.60  | 24                  | 0        |
| 10              | 64QAM | 25 | 12 | 23.88  | 23.82  | 23.79 | 23.62  | 23.64  |                     |          |
| 10              | 64QAM | 25 | 25 | 23.88  | 23.91  | 23.62 | 23.61  | 23.67  |                     |          |
| 10              | 64QAM | 50 | 0  | 23.84  | 23.85  | 23.62 | 23.59  | 23.63  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.54  | 23.50  | 23.46 | 23.87   | 23.88  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.69  | 23.77  | 23.49 | 23.09   | 23.05  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.74  | 23.69  | 23.60 | 22.98   | 23.07  |                           |             |
| 5               | QPSK  | 12 | 0  | 23.87  | 23.71  | 23.59 | 23.63   | 23.61  | 24                        | 0           |
| 5               | QPSK  | 12 | 7  | 23.86  | 23.85  | 23.61 | 23.64   | 23.60  |                           |             |
| 5               | QPSK  | 12 | 13 | 23.77  | 23.79  | 23.64 | 23.61   | 23.63  |                           |             |
| 5               | QPSK  | 25 | 0  | 23.90  | 23.89  | 23.62 | 23.59   | 23.61  |                           |             |
| 5               | 16QAM | 1  | 0  | 23.89  | 23.97  | 23.96 | 23.72   | 23.74  | 24                        | 0           |
| 5               | 16QAM | 1  | 12 | 23.96  | 23.94  | 23.92 | 23.87   | 23.77  |                           |             |
| 5               | 16QAM | 1  | 24 | 23.93  | 23.84  | 23.93 | 23.68   | 23.67  |                           |             |
| 5               | 16QAM | 12 | 0  | 23.90  | 23.80  | 23.80 | 23.69   | 23.63  | 24                        | 0           |
| 5               | 16QAM | 12 | 7  | 23.92  | 23.84  | 23.84 | 23.64   | 23.63  |                           |             |
| 5               | 16QAM | 12 | 13 | 23.84  | 23.90  | 23.64 | 23.61   | 23.58  |                           |             |
| 5               | 16QAM | 25 | 0  | 23.86  | 23.90  | 23.63 | 23.64   | 23.61  |                           |             |
| 5               | 64QAM | 1  | 0  | 23.88  | 23.81  | 23.75 | 23.48   | 23.52  | 24                        | 0           |
| 5               | 64QAM | 1  | 12 | 23.86  | 23.90  | 23.79 | 23.44   | 23.38  |                           |             |
| 5               | 64QAM | 1  | 24 | 23.90  | 23.69  | 23.71 | 23.41   | 23.43  |                           |             |
| 5               | 64QAM | 12 | 0  | 23.94  | 23.87  | 23.75 | 23.69   | 23.62  | 24                        | 0           |
| 5               | 64QAM | 12 | 7  | 23.97  | 23.92  | 23.36 | 23.70   | 23.63  |                           |             |
| 5               | 64QAM | 12 | 13 | 23.91  | 23.90  | 23.83 | 23.67   | 23.64  |                           |             |
| 5               | 64QAM | 25 | 0  | 23.89  | 23.89  | 23.71 | 23.61   | 23.59  |                           |             |

**<LTE Band 41 Power Class 3>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.79                 | 22.91                        | 23.06                    | 22.61                         | 22.77                  | 24                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.84                 | 22.94                        | 23.04                    | 22.57                         | 22.71                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.83                 | 22.89                        | 22.96                    | 22.65                         | 22.35                  |                     |          |
| 20              | QPSK       | 50      | 0         | 21.47                 | 21.52                        | 21.74                    | 21.26                         | 21.50                  | 23                  | 1        |
| 20              | QPSK       | 50      | 24        | 21.47                 | 21.57                        | 21.67                    | 21.26                         | 21.36                  |                     |          |
| 20              | QPSK       | 50      | 50        | 21.46                 | 21.52                        | 21.66                    | 21.30                         | 21.39                  |                     |          |
| 20              | QPSK       | 100     | 0         | 21.48                 | 21.48                        | 21.70                    | 21.32                         | 21.36                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 21.20                 | 21.21                        | 21.30                    | 21.02                         | 21.13                  | 23                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.59                 | 21.62                        | 21.70                    | 21.25                         | 21.46                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 21.56                 | 21.41                        | 21.52                    | 21.23                         | 21.38                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 20.40                 | 20.54                        | 20.66                    | 20.27                         | 20.33                  | 22                  | 2        |
| 20              | 16QAM      | 50      | 24        | 20.51                 | 20.62                        | 20.69                    | 20.28                         | 20.39                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 20.47                 | 20.56                        | 20.68                    | 20.38                         | 20.43                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 20.50                 | 20.49                        | 20.67                    | 20.32                         | 20.39                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.13                 | 20.18                        | 20.21                    | 20.06                         | 20.19                  | 22                  | 2        |
| 20              | 64QAM      | 1       | 49        | 20.44                 | 20.40                        | 20.34                    | 20.02                         | 20.20                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.31                 | 20.22                        | 20.22                    | 20.13                         | 20.01                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 19.31                 | 19.48                        | 19.58                    | 19.19                         | 19.26                  | 21                  | 3        |
| 20              | 64QAM      | 50      | 24        | 19.47                 | 19.57                        | 19.65                    | 19.23                         | 19.35                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 19.42                 | 19.49                        | 19.63                    | 19.32                         | 19.35                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 19.55                 | 19.54                        | 19.67                    | 19.34                         | 19.08                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 23.25  | 23.29  | 23.36 | 23.01  | 23.18  | 24                  | 0        |
| 15              | QPSK  | 1  | 37 | 23.22  | 23.31  | 23.38 | 23.12  | 22.98  |                     |          |
| 15              | QPSK  | 1  | 74 | 23.36  | 23.09  | 23.23 | 22.91  | 23.08  |                     |          |
| 15              | QPSK  | 36 | 0  | 21.51  | 21.59  | 21.66 | 21.27  | 21.47  | 23                  | 1        |
| 15              | QPSK  | 36 | 20 | 21.46  | 21.57  | 21.63 | 21.35  | 21.42  |                     |          |
| 15              | QPSK  | 36 | 39 | 21.54  | 21.57  | 21.64 | 21.35  | 21.45  |                     |          |
| 15              | QPSK  | 75 | 0  | 21.60  | 21.59  | 21.69 | 21.35  | 21.49  |                     |          |
| 15              | 16QAM | 1  | 0  | 21.30  | 21.03  | 21.09 | 21.02  | 21.12  | 23                  | 1        |
| 15              | 16QAM | 1  | 37 | 21.43  | 21.02  | 21.20 | 21.23  | 21.10  |                     |          |
| 15              | 16QAM | 1  | 74 | 21.26  | 21.11  | 21.16 | 21.02  | 21.13  |                     |          |
| 15              | 16QAM | 36 | 0  | 20.41  | 20.60  | 20.67 | 20.30  | 20.46  | 22                  | 2        |
| 15              | 16QAM | 36 | 20 | 20.52  | 20.57  | 20.65 | 20.30  | 20.45  |                     |          |
| 15              | 16QAM | 36 | 39 | 20.57  | 20.49  | 20.63 | 20.30  | 20.42  |                     |          |
| 15              | 16QAM | 75 | 0  | 20.61  | 20.64  | 20.72 | 20.42  | 20.50  |                     |          |
| 15              | 64QAM | 1  | 0  | 20.37  | 20.36  | 20.46 | 20.06  | 20.37  | 22                  | 2        |
| 15              | 64QAM | 1  | 37 | 20.26  | 20.22  | 20.26 | 20.10  | 20.17  |                     |          |
| 15              | 64QAM | 1  | 74 | 20.50  | 20.41  | 20.49 | 20.15  | 20.42  |                     |          |
| 15              | 64QAM | 36 | 0  | 19.47  | 19.60  | 19.70 | 19.30  | 19.48  | 21                  | 3        |
| 15              | 64QAM | 36 | 20 | 19.55  | 19.62  | 19.69 | 19.35  | 19.49  |                     |          |
| 15              | 64QAM | 36 | 39 | 19.56  | 19.53  | 19.67 | 19.33  | 19.47  |                     |          |
| 15              | 64QAM | 75 | 0  | 19.60  | 19.64  | 19.72 | 19.40  | 19.50  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 23.48  | 23.54  | 23.20 | 23.02  | 22.85  | 24                  | 0        |
| 10              | QPSK  | 1  | 25 | 23.17  | 23.05  | 23.16 | 22.73  | 22.92  |                     |          |
| 10              | QPSK  | 1  | 49 | 23.36  | 23.31  | 23.40 | 22.93  | 23.19  |                     |          |
| 10              | QPSK  | 25 | 0  | 21.65  | 21.67  | 21.72 | 21.22  | 21.44  | 23                  | 1        |
| 10              | QPSK  | 25 | 12 | 21.62  | 21.62  | 21.71 | 21.28  | 21.41  |                     |          |
| 10              | QPSK  | 25 | 25 | 21.73  | 21.69  | 21.71 | 21.28  | 21.44  |                     |          |
| 10              | QPSK  | 50 | 0  | 21.60  | 21.66  | 21.65 | 21.29  | 21.41  |                     |          |
| 10              | 16QAM | 1  | 0  | 21.33  | 21.26  | 21.33 | 21.02  | 21.07  | 23                  | 1        |
| 10              | 16QAM | 1  | 25 | 21.11  | 21.14  | 21.18 | 21.02  | 21.05  |                     |          |
| 10              | 16QAM | 1  | 49 | 21.44  | 21.34  | 21.45 | 21.06  | 21.20  |                     |          |
| 10              | 16QAM | 25 | 0  | 20.62  | 20.66  | 20.68 | 20.16  | 20.40  | 22                  | 2        |
| 10              | 16QAM | 25 | 12 | 20.60  | 20.69  | 20.69 | 20.30  | 20.41  |                     |          |
| 10              | 16QAM | 25 | 25 | 20.73  | 20.70  | 20.71 | 20.27  | 20.43  |                     |          |
| 10              | 16QAM | 50 | 0  | 20.66  | 20.67  | 20.69 | 20.31  | 20.44  |                     |          |
| 10              | 64QAM | 1  | 0  | 20.78  | 20.56  | 20.65 | 20.10  | 20.41  | 22                  | 2        |
| 10              | 64QAM | 1  | 25 | 20.62  | 20.37  | 20.40 | 20.09  | 20.27  |                     |          |
| 10              | 64QAM | 1  | 49 | 20.87  | 20.63  | 20.72 | 20.30  | 20.53  |                     |          |
| 10              | 64QAM | 25 | 0  | 19.58  | 19.58  | 19.65 | 19.11  | 19.33  | 21                  | 3        |
| 10              | 64QAM | 25 | 12 | 19.58  | 19.64  | 19.66 | 19.26  | 19.38  |                     |          |
| 10              | 64QAM | 25 | 25 | 19.72  | 19.69  | 19.69 | 19.24  | 19.40  |                     |          |
| 10              | 64QAM | 50 | 0  | 19.57  | 19.61  | 19.62 | 19.23  | 19.38  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 23.22  | 23.31  | 23.28 | 22.87   | 23.02  | 24                        | 0           |
| 5               | QPSK  | 1  | 12 | 23.06  | 23.14  | 23.10 | 22.68   | 22.79  |                           |             |
| 5               | QPSK  | 1  | 24 | 23.11  | 23.08  | 23.08 | 22.66   | 22.81  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.69  | 21.66  | 21.69 | 21.27   | 21.39  | 23                        | 1           |
| 5               | QPSK  | 12 | 7  | 21.63  | 21.66  | 21.67 | 21.23   | 21.38  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.63  | 21.63  | 21.62 | 21.20   | 21.35  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.66  | 21.64  | 21.68 | 21.28   | 21.39  |                           |             |
| 5               | 16QAM | 1  | 0  | 21.18  | 21.21  | 21.24 | 21.20   | 21.02  | 23                        | 1           |
| 5               | 16QAM | 1  | 12 | 21.11  | 21.31  | 21.47 | 21.03   | 21.04  |                           |             |
| 5               | 16QAM | 1  | 24 | 21.11  | 21.17  | 21.17 | 21.06   | 21.00  |                           |             |
| 5               | 16QAM | 12 | 0  | 20.59  | 20.62  | 20.73 | 20.30   | 20.38  | 22                        | 2           |
| 5               | 16QAM | 12 | 7  | 20.58  | 20.66  | 20.71 | 20.28   | 20.36  |                           |             |
| 5               | 16QAM | 12 | 13 | 20.57  | 20.65  | 20.66 | 20.27   | 20.35  |                           |             |
| 5               | 16QAM | 25 | 0  | 20.63  | 20.65  | 20.69 | 20.26   | 20.38  |                           |             |
| 5               | 64QAM | 1  | 0  | 20.76  | 20.52  | 20.56 | 20.09   | 20.32  | 22                        | 2           |
| 5               | 64QAM | 1  | 12 | 20.56  | 20.52  | 20.53 | 20.10   | 20.23  |                           |             |
| 5               | 64QAM | 1  | 24 | 20.59  | 20.50  | 20.48 | 20.00   | 20.22  |                           |             |
| 5               | 64QAM | 12 | 0  | 19.62  | 19.63  | 19.73 | 19.27   | 19.37  | 21                        | 3           |
| 5               | 64QAM | 12 | 7  | 19.60  | 19.66  | 19.72 | 19.30   | 19.39  |                           |             |
| 5               | 64QAM | 12 | 13 | 19.61  | 19.63  | 19.69 | 19.25   | 19.36  |                           |             |
| 5               | 64QAM | 25 | 0  | 19.60  | 19.60  | 19.65 | 19.17   | 19.32  |                           |             |

### <Reduced Power Mode for Hotspot On>

#### <LTE Band 38>

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low<br>Ch. / Freq. | Power Middle<br>Ch. / Freq. | Power High<br>Ch. / Freq. | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|------------|---------|-----------|--------------------------|-----------------------------|---------------------------|---------------------------|-------------|
| Channel         |            |         |           | 37850                    | 38000                       | 38150                     |                           |             |
| Frequency (MHz) |            |         |           | 2580                     | 2595                        | 2610                      |                           |             |
| 20              | QPSK       | 1       | 0         | 22.08                    | 22.07                       | 22.07                     | 23                        | 0           |
| 20              | QPSK       | 1       | 49        | 21.91                    | 21.84                       | 21.83                     |                           |             |
| 20              | QPSK       | 1       | 99        | 21.85                    | 21.73                       | 21.73                     |                           |             |
| 20              | QPSK       | 50      | 0         | 21.76                    | 21.68                       | 21.68                     | 23                        | 0           |
| 20              | QPSK       | 50      | 24        | 21.98                    | 21.92                       | 21.92                     |                           |             |
| 20              | QPSK       | 50      | 50        | 21.92                    | 21.81                       | 21.83                     |                           |             |
| 20              | QPSK       | 100     | 0         | 21.79                    | 21.80                       | 21.83                     | 23                        | 0           |
| 20              | 16QAM      | 1       | 0         | 21.66                    | 21.56                       | 21.59                     |                           |             |
| 20              | 16QAM      | 1       | 49        | 22.01                    | 21.88                       | 21.91                     |                           |             |
| 20              | 16QAM      | 1       | 99        | 21.81                    | 21.66                       | 21.67                     | 23                        | 0           |
| 20              | 16QAM      | 50      | 0         | 21.33                    | 21.22                       | 21.22                     |                           |             |
| 20              | 16QAM      | 50      | 24        | 21.53                    | 21.42                       | 21.43                     |                           |             |
| 20              | 16QAM      | 50      | 50        | 21.50                    | 21.37                       | 21.35                     | 23                        | 0           |
| 20              | 16QAM      | 100     | 0         | 21.33                    | 21.33                       | 21.33                     |                           |             |
| 20              | 64QAM      | 1       | 0         | 21.41                    | 21.26                       | 21.27                     |                           |             |
| 20              | 64QAM      | 1       | 49        | 21.76                    | 21.62                       | 21.63                     | 23                        | 0           |
| 20              | 64QAM      | 1       | 99        | 21.57                    | 21.37                       | 21.39                     |                           |             |
| 20              | 64QAM      | 50      | 0         | 21.26                    | 21.15                       | 21.15                     |                           |             |
| 20              | 64QAM      | 50      | 24        | 21.46                    | 21.35                       | 21.39                     | 23                        | 0           |
| 20              | 64QAM      | 50      | 50        | 21.43                    | 21.30                       | 21.31                     |                           |             |
| 20              | 64QAM      | 100     | 0         | 21.37                    | 21.39                       | 21.36                     |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 37825  | 38000 | 38175  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2577.5 | 2595  | 2612.5 |                           |             |
| 15              | QPSK  | 1  | 0  | 22.11  | 21.97 | 22.00  | 23                        | 0           |
| 15              | QPSK  | 1  | 37 | 22.06  | 22.00 | 21.99  |                           |             |
| 15              | QPSK  | 1  | 74 | 21.93  | 21.79 | 21.76  |                           |             |
| 15              | QPSK  | 36 | 0  | 21.82  | 21.79 | 21.77  | 23                        | 0           |
| 15              | QPSK  | 36 | 20 | 21.94  | 21.87 | 21.88  |                           |             |
| 15              | QPSK  | 36 | 39 | 22.01  | 21.88 | 21.83  |                           |             |
| 15              | QPSK  | 75 | 0  | 21.87  | 21.81 | 21.80  |                           |             |
| 15              | 16QAM | 1  | 0  | 21.72  | 21.57 | 21.58  | 23                        | 0           |
| 15              | 16QAM | 1  | 37 | 21.84  | 21.54 | 21.45  |                           |             |
| 15              | 16QAM | 1  | 74 | 21.90  | 21.73 | 21.73  |                           |             |
| 15              | 16QAM | 36 | 0  | 21.31  | 21.32 | 21.29  | 23                        | 0           |
| 15              | 16QAM | 36 | 20 | 21.44  | 21.39 | 21.38  |                           |             |
| 15              | 16QAM | 36 | 39 | 21.49  | 21.36 | 21.34  |                           |             |
| 15              | 16QAM | 75 | 0  | 21.41  | 21.38 | 21.35  |                           |             |
| 15              | 64QAM | 1  | 0  | 21.52  | 21.32 | 21.27  | 23                        | 0           |
| 15              | 64QAM | 1  | 37 | 21.52  | 21.45 | 21.42  |                           |             |
| 15              | 64QAM | 1  | 74 | 21.65  | 21.44 | 21.43  |                           |             |
| 15              | 64QAM | 36 | 0  | 21.37  | 21.34 | 21.33  | 23                        | 0           |
| 15              | 64QAM | 36 | 20 | 21.46  | 21.42 | 21.42  |                           |             |
| 15              | 64QAM | 36 | 39 | 21.52  | 21.39 | 21.37  |                           |             |
| 15              | 64QAM | 75 | 0  | 21.41  | 21.38 | 21.35  |                           |             |
| Channel         |       |    |    | 37800  | 38000 | 38200  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
| Frequency (MHz) |       |    |    | 2575   | 2595  | 2615   |                           |             |
| 10              | QPSK  | 1  | 0  | 22.28  | 21.98 | 22.20  | 23                        | 0           |
| 10              | QPSK  | 1  | 25 | 21.74  | 21.77 | 21.80  |                           |             |
| 10              | QPSK  | 1  | 49 | 22.11  | 22.05 | 21.98  |                           |             |
| 10              | QPSK  | 25 | 0  | 21.85  | 21.91 | 21.95  | 23                        | 0           |
| 10              | QPSK  | 25 | 12 | 21.84  | 21.81 | 21.92  |                           |             |
| 10              | QPSK  | 25 | 25 | 21.83  | 21.86 | 21.91  |                           |             |
| 10              | QPSK  | 50 | 0  | 21.81  | 21.89 | 21.91  |                           |             |
| 10              | 16QAM | 1  | 0  | 21.99  | 21.99 | 21.97  | 23                        | 0           |
| 10              | 16QAM | 1  | 25 | 21.86  | 21.88 | 21.90  |                           |             |
| 10              | 16QAM | 1  | 49 | 22.11  | 22.07 | 22.07  |                           |             |
| 10              | 16QAM | 25 | 0  | 21.36  | 21.39 | 21.44  | 23                        | 0           |
| 10              | 16QAM | 25 | 12 | 21.34  | 21.38 | 21.40  |                           |             |
| 10              | 16QAM | 25 | 25 | 21.36  | 21.43 | 21.42  |                           |             |
| 10              | 16QAM | 50 | 0  | 21.38  | 21.40 | 21.44  |                           |             |
| 10              | 64QAM | 1  | 0  | 21.67  | 21.73 | 21.64  | 23                        | 0           |
| 10              | 64QAM | 1  | 25 | 21.58  | 21.56 | 21.55  |                           |             |
| 10              | 64QAM | 1  | 49 | 21.87  | 21.78 | 21.85  |                           |             |
| 10              | 64QAM | 25 | 0  | 21.29  | 21.32 | 21.38  | 23                        | 0           |
| 10              | 64QAM | 25 | 12 | 21.30  | 21.33 | 21.39  |                           |             |
| 10              | 64QAM | 25 | 25 | 21.34  | 21.38 | 21.41  |                           |             |
| 10              | 64QAM | 50 | 0  | 21.30  | 21.33 | 21.39  |                           |             |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 37775  | 38000 | 38225  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|-------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2572.5 | 2595  | 2617.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.27  | 22.26 | 22.20  | 23                        | 0           |
| 5               | QPSK  | 1  | 12 | 21.82  | 21.86 | 21.86  |                           |             |
| 5               | QPSK  | 1  | 24 | 21.80  | 21.82 | 21.80  |                           |             |
| 5               | QPSK  | 12 | 0  | 21.88  | 21.88 | 21.91  | 23                        | 0           |
| 5               | QPSK  | 12 | 7  | 21.88  | 21.91 | 21.90  |                           |             |
| 5               | QPSK  | 12 | 13 | 21.85  | 21.88 | 21.87  |                           |             |
| 5               | QPSK  | 25 | 0  | 21.88  | 21.85 | 21.91  |                           |             |
| 5               | 16QAM | 1  | 0  | 21.92  | 21.99 | 22.00  | 23                        | 0           |
| 5               | 16QAM | 1  | 12 | 22.02  | 22.05 | 22.08  |                           |             |
| 5               | 16QAM | 1  | 24 | 21.84  | 21.90 | 21.94  |                           |             |
| 5               | 16QAM | 12 | 0  | 21.43  | 21.39 | 21.46  | 23                        | 0           |
| 5               | 16QAM | 12 | 7  | 21.39  | 21.40 | 21.44  |                           |             |
| 5               | 16QAM | 12 | 13 | 21.34  | 21.35 | 21.39  |                           |             |
| 5               | 16QAM | 25 | 0  | 21.37  | 21.39 | 21.42  |                           |             |
| 5               | 64QAM | 1  | 0  | 21.71  | 21.70 | 21.72  | 23                        | 0           |
| 5               | 64QAM | 1  | 12 | 21.64  | 21.62 | 21.68  |                           |             |
| 5               | 64QAM | 1  | 24 | 21.59  | 21.58 | 21.66  |                           |             |
| 5               | 64QAM | 12 | 0  | 21.34  | 21.38 | 21.40  | 23                        | 0           |
| 5               | 64QAM | 12 | 7  | 21.39  | 21.43 | 21.43  |                           |             |
| 5               | 64QAM | 12 | 13 | 21.36  | 21.38 | 21.44  |                           |             |
| 5               | 64QAM | 25 | 0  | 21.33  | 21.34 | 21.36  |                           |             |



**<LTE Band 41 Power Class 2>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.16                 | 22.00                        | 22.45                    | 22.02                         | 22.12                  | 23                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.03                 | 22.36                        | 22.42                    | 22.35                         | 22.39                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.02                 | 22.31                        | 22.19                    | 22.43                         | 22.03                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.34                 | 22.44                        | 22.62                    | 22.47                         | 22.46                  | 23                  | 0        |
| 20              | QPSK       | 50      | 24        | 22.48                 | 22.53                        | 22.61                    | 22.54                         | 22.31                  |                     |          |
| 20              | QPSK       | 50      | 50        | 22.22                 | 22.27                        | 22.46                    | 22.57                         | 22.48                  |                     |          |
| 20              | QPSK       | 100     | 0         | 22.45                 | 22.39                        | 22.62                    | 22.54                         | 22.45                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 22.33                 | 22.18                        | 22.29                    | 22.23                         | 22.28                  | 23                  | 0        |
| 20              | 16QAM      | 1       | 49        | 22.59                 | 22.51                        | 22.64                    | 22.49                         | 22.56                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 22.33                 | 22.41                        | 22.47                    | 22.44                         | 22.30                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 22.40                 | 22.56                        | 22.59                    | 22.50                         | 22.50                  | 23                  | 0        |
| 20              | 16QAM      | 50      | 24        | 22.46                 | 22.59                        | 22.66                    | 22.47                         | 22.57                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 22.51                 | 22.50                        | 22.70                    | 22.69                         | 22.43                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 22.51                 | 22.49                        | 22.37                    | 22.55                         | 22.49                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 22.29                 | 22.11                        | 22.15                    | 21.97                         | 22.21                  | 23                  | 0        |
| 20              | 64QAM      | 1       | 49        | 22.57                 | 22.44                        | 22.31                    | 22.12                         | 22.36                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 22.10                 | 22.24                        | 22.19                    | 22.30                         | 22.29                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 22.39                 | 22.47                        | 22.57                    | 22.43                         | 22.45                  | 23                  | 0        |
| 20              | 64QAM      | 50      | 24        | 22.50                 | 22.33                        | 22.59                    | 22.29                         | 22.31                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 22.43                 | 22.43                        | 22.63                    | 22.52                         | 22.47                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 22.34                 | 22.51                        | 22.70                    | 22.58                         | 22.42                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 22.35  | 22.47  | 22.54 | 22.32  | 22.30  | 23                  | 0        |
| 15              | QPSK  | 1  | 37 | 22.28  | 22.58  | 22.67 | 22.55  | 22.55  |                     |          |
| 15              | QPSK  | 1  | 74 | 22.26  | 22.63  | 22.75 | 22.52  | 22.61  |                     |          |
| 15              | QPSK  | 36 | 0  | 22.49  | 22.28  | 22.59 | 22.32  | 22.52  | 23                  | 0        |
| 15              | QPSK  | 36 | 20 | 22.44  | 22.48  | 22.64 | 22.62  | 22.52  |                     |          |
| 15              | QPSK  | 36 | 39 | 22.55  | 22.49  | 22.60 | 22.55  | 22.56  |                     |          |
| 15              | QPSK  | 75 | 0  | 22.50  | 22.58  | 22.68 | 22.63  | 22.44  |                     |          |
| 15              | 16QAM | 1  | 0  | 22.66  | 22.61  | 22.67 | 22.63  | 22.67  | 23                  | 0        |
| 15              | 16QAM | 1  | 37 | 22.60  | 22.40  | 22.37 | 22.33  | 22.64  |                     |          |
| 15              | 16QAM | 1  | 74 | 22.54  | 22.72  | 22.77 | 22.60  | 22.70  |                     |          |
| 15              | 16QAM | 36 | 0  | 22.42  | 22.35  | 22.72 | 22.62  | 22.61  | 23                  | 0        |
| 15              | 16QAM | 36 | 20 | 22.49  | 22.47  | 22.64 | 22.61  | 22.52  |                     |          |
| 15              | 16QAM | 36 | 39 | 22.51  | 22.49  | 22.62 | 22.62  | 22.57  |                     |          |
| 15              | 16QAM | 75 | 0  | 22.54  | 22.62  | 22.73 | 22.63  | 22.66  |                     |          |
| 15              | 64QAM | 1  | 0  | 22.64  | 22.47  | 22.78 | 22.49  | 22.61  | 23                  | 0        |
| 15              | 64QAM | 1  | 37 | 22.87  | 22.43  | 22.47 | 22.30  | 22.65  |                     |          |
| 15              | 64QAM | 1  | 74 | 22.51  | 22.28  | 22.63 | 22.56  | 22.68  |                     |          |
| 15              | 64QAM | 36 | 0  | 22.43  | 22.55  | 22.41 | 22.64  | 22.43  | 23                  | 0        |
| 15              | 64QAM | 36 | 20 | 22.50  | 22.49  | 22.49 | 22.62  | 22.53  |                     |          |
| 15              | 64QAM | 36 | 39 | 22.52  | 22.51  | 22.73 | 22.63  | 22.59  |                     |          |
| 15              | 64QAM | 75 | 0  | 22.65  | 22.61  | 22.72 | 22.41  | 22.65  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 22.29  | 22.47  | 22.53 | 22.40  | 22.44  | 23                  | 0        |
| 10              | QPSK  | 1  | 25 | 22.53  | 22.43  | 22.53 | 22.21  | 22.32  |                     |          |
| 10              | QPSK  | 1  | 49 | 22.49  | 22.68  | 22.79 | 22.41  | 22.46  |                     |          |
| 10              | QPSK  | 25 | 0  | 22.64  | 22.28  | 22.65 | 22.42  | 22.51  | 23                  | 0        |
| 10              | QPSK  | 25 | 12 | 22.63  | 22.38  | 22.69 | 22.46  | 22.38  |                     |          |
| 10              | QPSK  | 25 | 25 | 22.68  | 22.65  | 22.49 | 22.48  | 22.50  |                     |          |
| 10              | QPSK  | 50 | 0  | 22.53  | 22.56  | 22.67 | 22.54  | 22.44  |                     |          |
| 10              | 16QAM | 1  | 0  | 22.98  | 22.89  | 22.92 | 22.76  | 22.89  | 23                  | 0        |
| 10              | 16QAM | 1  | 25 | 22.66  | 22.78  | 22.81 | 22.66  | 22.59  |                     |          |
| 10              | 16QAM | 1  | 49 | 22.57  | 22.66  | 22.90 | 22.74  | 22.80  |                     |          |
| 10              | 16QAM | 25 | 0  | 22.64  | 22.54  | 22.65 | 22.25  | 22.46  | 23                  | 0        |
| 10              | 16QAM | 25 | 12 | 22.68  | 22.64  | 22.49 | 22.41  | 22.54  |                     |          |
| 10              | 16QAM | 25 | 25 | 22.82  | 22.61  | 22.67 | 22.50  | 22.54  |                     |          |
| 10              | 16QAM | 50 | 0  | 22.62  | 22.61  | 22.64 | 22.55  | 22.49  |                     |          |
| 10              | 64QAM | 1  | 0  | 22.83  | 22.63  | 22.78 | 22.40  | 22.67  | 23                  | 0        |
| 10              | 64QAM | 1  | 25 | 22.62  | 22.64  | 22.57 | 22.41  | 22.58  |                     |          |
| 10              | 64QAM | 1  | 49 | 22.44  | 22.50  | 22.75 | 22.59  | 22.48  |                     |          |
| 10              | 64QAM | 25 | 0  | 22.40  | 22.58  | 22.44 | 22.29  | 22.51  | 23                  | 0        |
| 10              | 64QAM | 25 | 12 | 22.55  | 22.59  | 22.49 | 22.55  | 22.57  |                     |          |
| 10              | 64QAM | 25 | 25 | 22.76  | 22.43  | 22.72 | 22.44  | 22.49  |                     |          |
| 10              | 64QAM | 50 | 0  | 22.57  | 22.34  | 22.57 | 22.48  | 22.42  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up<br>limit<br>(dBm) | MPR<br>(dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------------|-------------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                           |             |
| 5               | QPSK  | 1  | 0  | 22.44  | 22.57  | 22.38 | 22.33   | 22.46  | 23                        | 0           |
| 5               | QPSK  | 1  | 12 | 22.42  | 22.45  | 22.56 | 22.41   | 22.32  |                           |             |
| 5               | QPSK  | 1  | 24 | 22.43  | 22.50  | 22.56 | 22.33   | 22.30  |                           |             |
| 5               | QPSK  | 12 | 0  | 22.68  | 22.53  | 22.68 | 22.51   | 22.53  | 23                        | 0           |
| 5               | QPSK  | 12 | 7  | 22.65  | 22.58  | 22.59 | 22.54   | 22.45  |                           |             |
| 5               | QPSK  | 12 | 13 | 22.63  | 22.53  | 22.61 | 22.46   | 22.37  |                           |             |
| 5               | QPSK  | 25 | 0  | 22.66  | 22.60  | 22.62 | 22.46   | 22.46  |                           |             |
| 5               | 16QAM | 1  | 0  | 22.66  | 22.54  | 22.83 | 22.74   | 22.65  | 23                        | 0           |
| 5               | 16QAM | 1  | 12 | 22.51  | 22.89  | 22.93 | 22.65   | 22.77  |                           |             |
| 5               | 16QAM | 1  | 24 | 22.67  | 22.58  | 22.84 | 22.68   | 22.59  |                           |             |
| 5               | 16QAM | 12 | 0  | 22.64  | 22.37  | 22.74 | 22.53   | 22.36  | 23                        | 0           |
| 5               | 16QAM | 12 | 7  | 22.62  | 22.62  | 22.65 | 22.55   | 22.38  |                           |             |
| 5               | 16QAM | 12 | 13 | 22.60  | 22.57  | 22.67 | 22.49   | 22.40  |                           |             |
| 5               | 16QAM | 25 | 0  | 22.65  | 22.67  | 22.70 | 22.51   | 22.43  |                           |             |
| 5               | 64QAM | 1  | 0  | 22.78  | 22.62  | 22.71 | 22.43   | 22.47  | 23                        | 0           |
| 5               | 64QAM | 1  | 12 | 22.60  | 22.66  | 22.61 | 22.61   | 22.58  |                           |             |
| 5               | 64QAM | 1  | 24 | 22.67  | 22.56  | 22.64 | 22.46   | 22.48  |                           |             |
| 5               | 64QAM | 12 | 0  | 22.60  | 22.61  | 22.69 | 22.58   | 22.42  | 23                        | 0           |
| 5               | 64QAM | 12 | 7  | 22.59  | 22.57  | 22.71 | 22.51   | 22.45  |                           |             |
| 5               | 64QAM | 12 | 13 | 22.57  | 22.63  | 22.71 | 22.54   | 22.47  |                           |             |
| 5               | 64QAM | 25 | 0  | 22.51  | 22.60  | 22.62 | 22.54   | 22.47  |                           |             |

**<LTE Band 41 Power Class 3>**

| BW [MHz]        | Modulation | RB Size | RB Offset | Power Low Ch. / Freq. | Power Low Middle Ch. / Freq. | Power Middle Ch. / Freq. | Power High Middle Ch. / Freq. | Power High Ch. / Freq. | Tune-up limit (dBm) | MPR (dB) |
|-----------------|------------|---------|-----------|-----------------------|------------------------------|--------------------------|-------------------------------|------------------------|---------------------|----------|
| Channel         |            |         |           | 39750                 | 40185                        | 40620                    | 41055                         | 41490                  |                     |          |
| Frequency (MHz) |            |         |           | 2506                  | 2549.5                       | 2593                     | 2636.5                        | 2680                   |                     |          |
| 20              | QPSK       | 1       | 0         | 22.34                 | 22.24                        | 22.54                    | 22.30                         | 22.24                  | 23                  | 0        |
| 20              | QPSK       | 1       | 49        | 22.27                 | 22.53                        | 22.53                    | 22.34                         | 22.48                  |                     |          |
| 20              | QPSK       | 1       | 99        | 22.39                 | 22.34                        | 22.34                    | 22.11                         | 22.28                  |                     |          |
| 20              | QPSK       | 50      | 0         | 22.40                 | 22.54                        | 22.68                    | 22.61                         | 22.57                  | 23                  | 0        |
| 20              | QPSK       | 50      | 24        | 22.54                 | 22.57                        | 22.66                    | 22.57                         | 22.52                  |                     |          |
| 20              | QPSK       | 50      | 50        | 22.62                 | 22.50                        | 22.50                    | 22.62                         | 22.56                  |                     |          |
| 20              | QPSK       | 100     | 0         | 22.56                 | 22.49                        | 22.70                    | 22.68                         | 22.54                  |                     |          |
| 20              | 16QAM      | 1       | 0         | 20.81                 | 20.61                        | 20.91                    | 20.92                         | 20.82                  | 22                  | 1        |
| 20              | 16QAM      | 1       | 49        | 21.05                 | 21.11                        | 21.07                    | 21.05                         | 21.07                  |                     |          |
| 20              | 16QAM      | 1       | 99        | 20.64                 | 20.99                        | 20.98                    | 20.89                         | 20.92                  |                     |          |
| 20              | 16QAM      | 50      | 0         | 21.45                 | 21.58                        | 21.65                    | 21.58                         | 21.51                  | 22                  | 1        |
| 20              | 16QAM      | 50      | 24        | 21.59                 | 21.58                        | 21.76                    | 21.53                         | 21.61                  |                     |          |
| 20              | 16QAM      | 50      | 50        | 21.50                 | 21.53                        | 21.64                    | 21.67                         | 21.55                  |                     |          |
| 20              | 16QAM      | 100     | 0         | 21.54                 | 21.52                        | 21.71                    | 21.62                         | 21.61                  |                     |          |
| 20              | 64QAM      | 1       | 0         | 20.51                 | 20.46                        | 20.45                    | 20.46                         | 20.43                  | 22                  | 1        |
| 20              | 64QAM      | 1       | 49        | 20.90                 | 20.66                        | 20.71                    | 20.49                         | 20.71                  |                     |          |
| 20              | 64QAM      | 1       | 99        | 20.68                 | 20.58                        | 20.62                    | 20.54                         | 20.65                  |                     |          |
| 20              | 64QAM      | 50      | 0         | 21.39                 | 21.42                        | 21.58                    | 21.52                         | 21.46                  | 22                  | 1        |
| 20              | 64QAM      | 50      | 24        | 21.53                 | 21.54                        | 21.61                    | 21.59                         | 21.55                  |                     |          |
| 20              | 64QAM      | 50      | 50        | 21.45                 | 21.48                        | 21.67                    | 21.63                         | 21.50                  |                     |          |
| 20              | 64QAM      | 100     | 0         | 21.58                 | 21.46                        | 21.75                    | 21.67                         | 21.58                  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39725  | 40173  | 40620 | 41068  | 41515  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|--------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2503.5 | 2548.3 | 2593  | 2637.8 | 2682.5 |                     |          |
| 15              | QPSK  | 1  | 0  | 22.42  | 22.47  | 22.48 | 22.38  | 22.40  | 23                  | 0        |
| 15              | QPSK  | 1  | 37 | 22.59  | 22.68  | 22.71 | 22.60  | 22.56  |                     |          |
| 15              | QPSK  | 1  | 74 | 22.66  | 22.62  | 22.73 | 22.78  | 22.72  |                     |          |
| 15              | QPSK  | 36 | 0  | 22.46  | 22.50  | 22.63 | 22.47  | 22.50  | 23                  | 0        |
| 15              | QPSK  | 36 | 20 | 22.54  | 22.54  | 22.67 | 22.53  | 22.52  |                     |          |
| 15              | QPSK  | 36 | 39 | 22.62  | 22.58  | 22.65 | 22.61  | 22.57  |                     |          |
| 15              | QPSK  | 75 | 0  | 22.59  | 22.58  | 22.61 | 22.59  | 22.61  |                     |          |
| 15              | 16QAM | 1  | 0  | 21.22  | 21.05  | 21.30 | 21.17  | 21.25  | 22                  | 1        |
| 15              | 16QAM | 1  | 37 | 20.75  | 20.89  | 20.85 | 20.78  | 20.76  |                     |          |
| 15              | 16QAM | 1  | 74 | 21.29  | 21.09  | 21.27 | 20.96  | 21.35  |                     |          |
| 15              | 16QAM | 36 | 0  | 21.42  | 21.59  | 21.68 | 21.51  | 21.54  | 22                  | 1        |
| 15              | 16QAM | 36 | 20 | 21.47  | 21.54  | 21.63 | 21.57  | 21.55  |                     |          |
| 15              | 16QAM | 36 | 39 | 21.47  | 21.54  | 21.70 | 21.65  | 21.50  |                     |          |
| 15              | 16QAM | 75 | 0  | 21.65  | 21.58  | 21.70 | 21.68  | 21.60  |                     |          |
| 15              | 64QAM | 1  | 0  | 21.12  | 20.83  | 20.74 | 20.63  | 20.82  | 22                  | 1        |
| 15              | 64QAM | 1  | 37 | 20.88  | 20.72  | 20.64 | 20.52  | 20.62  |                     |          |
| 15              | 64QAM | 1  | 74 | 20.94  | 20.84  | 20.85 | 20.69  | 20.92  |                     |          |
| 15              | 64QAM | 36 | 0  | 21.46  | 21.64  | 21.68 | 21.54  | 21.57  | 22                  | 1        |
| 15              | 64QAM | 36 | 20 | 21.50  | 21.62  | 21.62 | 21.61  | 21.59  |                     |          |
| 15              | 64QAM | 36 | 39 | 21.49  | 21.59  | 21.71 | 21.58  | 21.62  |                     |          |
| 15              | 64QAM | 75 | 0  | 21.66  | 21.60  | 21.68 | 21.68  | 21.68  |                     |          |
| Channel         |       |    |    | 39700  | 40160  | 40620 | 41080  | 41540  | Tune-up limit (dBm) | MPR (dB) |
| Frequency (MHz) |       |    |    | 2501   | 2547   | 2593  | 2639   | 2685   |                     |          |
| 10              | QPSK  | 1  | 0  | 22.55  | 22.47  | 22.60 | 22.40  | 22.48  | 23                  | 0        |
| 10              | QPSK  | 1  | 25 | 22.61  | 22.43  | 22.46 | 22.37  | 22.40  |                     |          |
| 10              | QPSK  | 1  | 49 | 22.75  | 22.61  | 22.80 | 22.48  | 22.60  |                     |          |
| 10              | QPSK  | 25 | 0  | 22.71  | 22.62  | 22.69 | 22.53  | 22.56  | 23                  | 0        |
| 10              | QPSK  | 25 | 12 | 22.60  | 22.62  | 22.65 | 22.43  | 22.46  |                     |          |
| 10              | QPSK  | 25 | 25 | 22.72  | 22.66  | 22.68 | 22.51  | 22.56  |                     |          |
| 10              | QPSK  | 50 | 0  | 22.65  | 22.56  | 22.61 | 22.44  | 22.50  |                     |          |
| 10              | 16QAM | 1  | 0  | 21.33  | 21.37  | 21.50 | 21.24  | 21.30  | 22                  | 1        |
| 10              | 16QAM | 1  | 25 | 21.14  | 21.29  | 21.39 | 21.28  | 21.18  |                     |          |
| 10              | 16QAM | 1  | 49 | 21.14  | 21.26  | 21.32 | 21.05  | 21.20  |                     |          |
| 10              | 16QAM | 25 | 0  | 21.68  | 21.57  | 21.62 | 21.49  | 21.45  | 22                  | 1        |
| 10              | 16QAM | 25 | 12 | 21.65  | 21.53  | 21.64 | 21.53  | 21.53  |                     |          |
| 10              | 16QAM | 25 | 25 | 21.69  | 21.60  | 21.67 | 21.49  | 21.54  |                     |          |
| 10              | 16QAM | 50 | 0  | 21.72  | 21.63  | 21.73 | 21.52  | 21.49  |                     |          |
| 10              | 64QAM | 1  | 0  | 21.19  | 20.92  | 21.05 | 20.69  | 20.95  | 22                  | 1        |
| 10              | 64QAM | 1  | 25 | 21.01  | 20.84  | 20.93 | 20.69  | 20.82  |                     |          |
| 10              | 64QAM | 1  | 49 | 21.10  | 21.11  | 20.99 | 20.80  | 20.74  |                     |          |
| 10              | 64QAM | 25 | 0  | 21.62  | 21.61  | 21.58 | 21.45  | 21.42  | 22                  | 1        |
| 10              | 64QAM | 25 | 12 | 21.59  | 21.61  | 21.61 | 21.50  | 21.48  |                     |          |
| 10              | 64QAM | 25 | 25 | 21.73  | 21.64  | 21.62 | 21.44  | 21.48  |                     |          |
| 10              | 64QAM | 50 | 0  | 21.58  | 21.57  | 21.67 | 21.46  | 21.52  |                     |          |



# FCC SAR Test Report

Report No. : FA892801

| Channel         |       |    |    | 39675  | 40148  | 40620 | 41093   | 41565  | Tune-up limit (dBm) | MPR (dB) |
|-----------------|-------|----|----|--------|--------|-------|---------|--------|---------------------|----------|
| Frequency (MHz) |       |    |    | 2498.5 | 2545.8 | 2593  | 2640.30 | 2687.5 |                     |          |
| 5               | QPSK  | 1  | 0  | 22.56  | 22.55  | 22.60 | 22.46   | 22.42  | 23                  | 0        |
| 5               | QPSK  | 1  | 12 | 22.54  | 22.56  | 22.58 | 22.49   | 22.44  |                     |          |
| 5               | QPSK  | 1  | 24 | 22.53  | 22.56  | 22.56 | 22.39   | 22.37  |                     |          |
| 5               | QPSK  | 12 | 0  | 22.64  | 22.55  | 22.71 | 22.53   | 22.47  | 23                  | 0        |
| 5               | QPSK  | 12 | 7  | 22.69  | 22.60  | 22.73 | 22.53   | 22.48  |                     |          |
| 5               | QPSK  | 12 | 13 | 22.58  | 22.54  | 22.78 | 22.47   | 22.51  |                     |          |
| 5               | QPSK  | 25 | 0  | 22.62  | 22.61  | 22.78 | 22.48   | 22.50  |                     |          |
| 5               | 16QAM | 1  | 0  | 21.34  | 21.30  | 21.40 | 21.04   | 21.51  | 22                  | 1        |
| 5               | 16QAM | 1  | 12 | 21.28  | 21.41  | 21.41 | 21.48   | 21.17  |                     |          |
| 5               | 16QAM | 1  | 24 | 21.16  | 21.19  | 21.15 | 21.21   | 21.08  |                     |          |
| 5               | 16QAM | 12 | 0  | 21.56  | 21.64  | 21.78 | 21.57   | 21.50  | 22                  | 1        |
| 5               | 16QAM | 12 | 7  | 21.62  | 21.60  | 21.70 | 21.44   | 21.43  |                     |          |
| 5               | 16QAM | 12 | 13 | 21.70  | 21.55  | 21.71 | 21.51   | 21.43  |                     |          |
| 5               | 16QAM | 25 | 0  | 21.68  | 21.59  | 21.69 | 21.55   | 21.40  |                     |          |
| 5               | 64QAM | 1  | 0  | 21.17  | 21.01  | 20.99 | 20.82   | 20.82  | 22                  | 1        |
| 5               | 64QAM | 1  | 12 | 21.06  | 20.86  | 21.08 | 20.80   | 20.81  |                     |          |
| 5               | 64QAM | 1  | 24 | 21.00  | 20.95  | 20.90 | 20.75   | 20.70  |                     |          |
| 5               | 64QAM | 12 | 0  | 21.57  | 21.54  | 21.68 | 21.56   | 21.52  | 22                  | 1        |
| 5               | 64QAM | 12 | 7  | 21.62  | 21.59  | 21.70 | 21.58   | 21.54  |                     |          |
| 5               | 64QAM | 12 | 13 | 21.59  | 21.63  | 21.71 | 21.55   | 21.44  |                     |          |
| 5               | 64QAM | 25 | 0  | 21.55  | 21.61  | 21.63 | 21.37   | 21.46  |                     |          |

**<LTE Carrier Aggregation>****General Note:**

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.

| Index   | 2CC        |
|---------|------------|
| 2CC #1  | CA_2A-4A   |
| 2CC #2  | CA_2A-5A   |
| 2CC #3  | CA_2A-7A   |
| 2CC #4  | CA_2A-12A  |
| 2CC #5  | CA_2A-13A  |
| 2CC #6  | CA_2A-14A  |
| 2CC #7  | CA_2A-17A  |
| 2CC #8  | CA_2A-29A  |
| 2CC #9  | CA_2A-30A  |
| 2CC #10 | CA_2A-66A  |
| 2CC #11 | CA_2A-71A  |
| 2CC #12 | CA_4A-5A   |
| 2CC #13 | CA_4A-7A   |
| 2CC #14 | CA_4A-12A  |
| 2CC #15 | CA_4A-13A  |
| 2CC #16 | CA_4A-17A  |
| 2CC #17 | CA_4A-29A  |
| 2CC #18 | CA_4A-30A  |
| 2CC #19 | CA_4A-71A  |
| 2CC #20 | CA_5A-7A   |
| 2CC #21 | CA_5A-30A  |
| 2CC #22 | CA_5A-66A  |
| 2CC #23 | CA_7A-12A  |
| 2CC #24 | CA_7A-66A  |
| 2CC #25 | CA_12A-30A |
| 2CC #26 | CA_12A-66A |
| 2CC #27 | CA_13A-66A |
| 2CC #28 | CA_14A-30A |
| 2CC #29 | CA_14A-66A |
| 2CC #30 | CA_25A-26A |
| 2CC #31 | CA_29A-30A |
| 2CC #32 | CA_29A-66A |
| 2CC #33 | CA_30A-66A |
| 2CC #34 | CA_66A-71A |
| 2CC #35 | CA_2C      |
| 2CC #36 | CA_5B      |
| 2CC #37 | CA_7C      |
| 2CC #38 | CA_12B     |
| 2CC #39 | CA_38C     |
| 2CC #40 | CA_41C     |
| 2CC #41 | CA_66B     |
| 2CC #42 | CA_66C     |
| 2CC #43 | CA_2A-2A   |
| 2CC #44 | CA_4A-4A   |
| 2CC #45 | CA_7A-7A   |
| 2CC #46 | CA_25A-25A |
| 2CC #47 | CA_41A-41A |
| 2CC #48 | CA_66A-66A |

**LTE Carrier Aggregation Conducted Power (Downlink)**

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. The device supports uplink carrier aggregation for LTE B41C only for power class 3 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the above 3GPP requirement.
- vi. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.
- vii. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- viii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$



## &lt;Full Power Mode&gt;

| Configure  | PCC      |          |                |            |      |        |              | SCC      |          |                |            | Power                   |                            |
|------------|----------|----------|----------------|------------|------|--------|--------------|----------|----------|----------------|------------|-------------------------|----------------------------|
|            | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod. | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx. Power (dBm) | Without CA Tx. Power (dBm) |
| Inter-Band | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.34                   | 22.52                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.35                   | 22.53                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 22.34                   | 22.52                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.65                   | 22.98                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.34                   | 22.52                      |
|            | Band 7   | 20M      | 2560           | 21350      | QPSK | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 23.36                   | 23.67                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 22.34                   | 22.52                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.69                   | 22.88                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 13  | 10M      | 751            | 5230       | 22.34                   | 22.52                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.55                   | 22.73                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 14  | 10M      | 763            | 5530       | 22.34                   | 22.52                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.66                   | 22.94                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 17  | 10M      | 740            | 5790       | 22.34                   | 22.52                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK | 1      | 0            | Band 2   | 10M      | 1960           | 900        | 22.53                   | 22.72                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 29  | 10M      | 722.5          | 9715       | 22.34                   | 22.52                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.34                   | 22.52                      |
|            | Band 30  | 10M      | 2310           | 27710      | QPSK | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 23.01                   | 23.29                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.34                   | 22.52                      |
|            | Band 66  | 20M      | 1770           | 132572     | QPSK | 1      | 99           | Band 2   | 20M      | 1960           | 900        | 22.86                   | 23.10                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK | 1      | 49           | Band 71  | 20M      | 637            | 68786      | 22.34                   | 22.52                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.92                   | 23.10                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 22.35                   | 22.53                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.65                   | 22.98                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.35                   | 22.53                      |
|            | Band 7   | 20M      | 2560           | 21350      | QPSK | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 23.36                   | 23.67                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 22.35                   | 22.53                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.69                   | 22.88                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 13  | 10M      | 751            | 5230       | 22.35                   | 22.53                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.55                   | 22.73                      |
|            | Band 4   | 10M      | 1715           | 20000      | QPSK | 1      | 49           | Band 17  | 10M      | 740            | 5790       | 22.35                   | 22.53                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK | 1      | 0            | Band 4   | 10M      | 2132.5         | 2175       | 22.53                   | 22.72                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 29  | 10M      | 722.5          | 9715       | 22.35                   | 22.53                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.35                   | 22.53                      |
|            | Band 30  | 10M      | 2310           | 27710      | QPSK | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 23.01                   | 23.29                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK | 1      | 49           | Band 71  | 20M      | 637            | 68786      | 22.35                   | 22.53                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.92                   | 23.10                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 22.65                   | 22.98                      |
|            | Band 7   | 20M      | 2560           | 21350      | QPSK | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 23.36                   | 23.67                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.65                   | 22.98                      |
|            | Band 30  | 10M      | 2310           | 27710      | QPSK | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 23.01                   | 23.29                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.65                   | 22.98                      |
|            | Band 66  | 20M      | 1770           | 132572     | QPSK | 1      | 99           | Band 5   | 10M      | 881.5          | 2525       | 22.86                   | 23.10                      |
|            | Band 7   | 20M      | 2560           | 21350      | QPSK | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 23.36                   | 23.67                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.69                   | 22.88                      |
|            | Band 7   | 20M      | 2560           | 21350      | QPSK | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 23.36                   | 23.67                      |
|            | Band 66  | 20M      | 1720           | 132072     | QPSK | 1      | 99           | Band 7   | 20M      | 2655           | 3100       | 22.86                   | 23.10                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.69                   | 22.88                      |
|            | Band 30  | 10M      | 2310           | 27710      | QPSK | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 23.01                   | 23.29                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.69                   | 22.88                      |
|            | Band 66  | 20M      | 1720           | 132072     | QPSK | 1      | 99           | Band 12  | 10M      | 737.5          | 5095       | 22.86                   | 23.10                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.55                   | 22.73                      |
|            | Band 66  | 20M      | 1720           | 132072     | QPSK | 1      | 99           | Band 13  | 10M      | 751            | 5230       | 22.86                   | 23.10                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.66                   | 22.94                      |
|            | Band 30  | 10M      | 2310           | 27710      | QPSK | 1      | 49           | Band 14  | 10M      | 763            | 5530       | 23.01                   | 23.29                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.66                   | 22.94                      |
|            | Band 66  | 20M      | 1720           | 132072     | QPSK | 1      | 99           | Band 14  | 10M      | 763            | 5530       | 22.86                   | 23.10                      |
|            | Band 25  | 20M      | 1905           | 26590      | QPSK | 1      | 49           | Band 26  | 15M      | 876.5          | 8865       | 22.48                   | 22.71                      |
|            | Band 26  | 15M      | 831.5          | 26865      | QPSK | 1      | 49           | Band 25  | 20M      | 1962.5         | 8365       | 22.86                   | 23.13                      |



# FCC SAR Test Report

Report No. : FA892801

|            |                |         |     |        |        |      |   |    |         |     |        |       |       |       |
|------------|----------------|---------|-----|--------|--------|------|---|----|---------|-----|--------|-------|-------|-------|
|            |                | Band 30 | 10M | 2310   | 27710  | QPSK | 1 | 49 | Band 29 | 10M | 722.5  | 9715  | 23.01 | 23.29 |
|            |                | Band 66 | 20M | 1720   | 132072 | QPSK | 1 | 99 | Band 29 | 10M | 722.5  | 9715  | 22.86 | 23.10 |
|            |                | Band 30 | 10M | 2310   | 27710  | QPSK | 1 | 49 | Band 66 | 20M | 2155   | 66886 | 23.01 | 23.29 |
|            |                | Band 66 | 20M | 1720   | 132072 | QPSK | 1 | 99 | Band 30 | 10M | 2355   | 9820  | 22.86 | 23.10 |
|            |                | Band 71 | 20M | 683    | 133322 | QPSK | 1 | 0  | Band 66 | 20M | 2155   | 66886 | 22.92 | 23.10 |
|            |                | Band 66 | 20M | 1720   | 132072 | QPSK | 1 | 99 | Band 71 | 20M | 637    | 68786 | 22.86 | 23.10 |
|            |                | Band 2  | 20M | 1860   | 18700  | QPSK | 1 | 49 | Band 2  | 20M | 1959.8 | 898   | 22.34 | 22.52 |
|            |                | Band 5  | 10M | 829    | 20450  | QPSK | 1 | 0  | Band 5  | 10M | 883.9  | 2549  | 22.65 | 22.98 |
|            |                | Band 7  | 20M | 2560   | 21350  | QPSK | 1 | 49 | Band 7  | 20M | 2649.8 | 3048  | 23.36 | 23.67 |
|            |                | Band 12 | 5M  | 701.5  | 23035  | QPSK | 1 | 0  | Band 12 | 10M | 741.2  | 5132  | 22.51 | 22.76 |
| Intra-Band | Contiguous     | Band 38 | 20M | 2580   | 37850  | QPSK | 1 | 0  | Band 38 | 20M | 2599.8 | 38048 | 23.31 | 23.53 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK | 1 | 0  | Band 41 | 20M | 2612.8 | 40818 | 22.84 | 23.06 |
|            |                | Band 66 | 15M | 1717.5 | 132047 | QPSK | 1 | 74 | Band 66 | 5M  | 2121.8 | 66554 | 22.67 | 22.98 |
|            |                | Band 66 | 20M | 1720   | 132072 | QPSK | 1 | 99 | Band 66 | 20M | 2139.8 | 66734 | 22.86 | 23.10 |
|            |                | Band 2  | 20M | 1860   | 18700  | QPSK | 1 | 49 | Band 2  | 5M  | 1987.5 | 1175  | 22.34 | 22.52 |
|            |                | Band 4  | 20M | 1745   | 20300  | QPSK | 1 | 49 | Band 4  | 5M  | 2112.5 | 1975  | 22.35 | 22.53 |
|            | Non-Contiguous | Band 7  | 20M | 2560   | 21350  | QPSK | 1 | 49 | Band 7  | 5M  | 2622.5 | 2775  | 23.36 | 23.67 |
|            |                | Band 25 | 20M | 1905   | 26590  | QPSK | 1 | 49 | Band 25 | 5M  | 1932.5 | 8065  | 22.48 | 22.71 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK | 1 | 0  | Band 41 | 5M  | 2687.5 | 41565 | 22.84 | 23.06 |
|            |                | Band 66 | 20M | 1720   | 132072 | QPSK | 1 | 99 | Band 66 | 5M  | 2197.5 | 67311 | 22.36 | 23.10 |

**<Reduced Power Mode for P-Sensor On>**

| Configure  | PCC      |          |                |            |       |        |              | SCC      |          |                |            | Power                   |                            |
|------------|----------|----------|----------------|------------|-------|--------|--------------|----------|----------|----------------|------------|-------------------------|----------------------------|
|            | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod.  | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx. Power (dBm) | Without CA Tx. Power (dBm) |
| Inter-Band | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 17.95                   | 18.16                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.35                   | 22.53                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 17.95                   | 18.16                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.65                   | 22.98                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 17.95                   | 18.16                      |
|            | Band 7   | 20M      | 2560           | 21350      | 16QAM | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 20.28                   | 20.43                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 17.95                   | 18.16                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.69                   | 22.88                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 13  | 10M      | 751            | 5230       | 17.95                   | 18.16                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.55                   | 22.73                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 14  | 10M      | 763            | 5530       | 17.95                   | 18.16                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.66                   | 22.94                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 17  | 10M      | 740            | 5790       | 17.95                   | 18.16                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 2   | 10M      | 1960           | 900        | 22.53                   | 22.72                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 29  | 10M      | 722.5          | 9715       | 17.95                   | 18.16                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 17.95                   | 18.16                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 2   | 20M      | 1960           | 900        | 21.76                   | 21.92                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 17.95                   | 18.16                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 2   | 20M      | 1960           | 900        | 17.94                   | 18.03                      |
|            | Band 2   | 20M      | 1900           | 19100      | 64QAM | 1      | 49           | Band 71  | 20M      | 637            | 68786      | 17.95                   | 18.16                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.92                   | 23.10                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 5   | 10M      | 881.5          | 2525       | 17.01                   | 17.18                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.65                   | 22.98                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 17.01                   | 17.18                      |
|            | Band 7   | 20M      | 2560           | 21350      | 16QAM | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 20.28                   | 20.43                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 12  | 10M      | 737.5          | 5095       | 17.01                   | 17.18                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.69                   | 22.88                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 13  | 10M      | 751            | 5230       | 17.01                   | 17.18                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.55                   | 22.73                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 17  | 10M      | 740            | 5790       | 17.01                   | 17.18                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 4   | 10M      | 2132.5         | 2175       | 22.53                   | 22.72                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 29  | 10M      | 722.5          | 9715       | 17.01                   | 17.18                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 17.01                   | 17.18                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 4   | 20M      | 2132.5         | 2175       | 21.76                   | 21.92                      |
|            | Band 4   | 20M      | 1745           | 20300      | QPSK  | 1      | 0            | Band 71  | 20M      | 637            | 68786      | 17.01                   | 17.18                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.92                   | 23.10                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 22.65                   | 22.98                      |
|            | Band 7   | 20M      | 2560           | 21350      | 16QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 20.28                   | 20.43                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.65                   | 22.98                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 5   | 10M      | 881.5          | 2525       | 21.76                   | 21.92                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.65                   | 22.98                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 5   | 10M      | 881.5          | 2525       | 17.94                   | 18.03                      |
|            | Band 7   | 20M      | 2560           | 21350      | 16QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 20.28                   | 20.43                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.69                   | 22.88                      |
|            | Band 7   | 20M      | 2560           | 21350      | 16QAM | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 20.28                   | 20.43                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 7   | 20M      | 2655           | 3100       | 17.94                   | 18.03                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.69                   | 22.88                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 12  | 10M      | 737.5          | 5095       | 21.76                   | 21.92                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.69                   | 22.88                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 12  | 10M      | 737.5          | 5095       | 17.94                   | 18.03                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.55                   | 22.73                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 13  | 10M      | 751            | 5230       | 17.94                   | 18.03                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.66                   | 22.94                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 14  | 10M      | 763            | 5530       | 21.76                   | 21.92                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.66                   | 22.94                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 99           | Band 14  | 10M      | 763            | 5530       | 17.94                   | 18.03                      |
|            | Band 25  | 20M      | 1880           | 26340      | QPSK  | 1      | 0            | Band 26  | 15M      | 876.5          | 8865       | 17.98                   | 18.22                      |



# FCC SAR Test Report

Report No. : FA892801

|            |                |         |     |        |        |       |   |    |         |     |        |       |       |       |
|------------|----------------|---------|-----|--------|--------|-------|---|----|---------|-----|--------|-------|-------|-------|
| Intra-Band |                | Band 26 | 15M | 831.5  | 26865  | QPSK  | 1 | 49 | Band 25 | 20M | 1962.5 | 8365  | 22.86 | 23.13 |
|            |                | Band 30 | 10M | 2310   | 27710  | 16QAM | 1 | 25 | Band 29 | 10M | 722.5  | 9715  | 21.76 | 21.92 |
|            |                | Band 66 | 20M | 1720   | 132072 | 16QAM | 1 | 99 | Band 29 | 10M | 722.5  | 9715  | 17.94 | 18.03 |
|            |                | Band 30 | 10M | 2310   | 27710  | 16QAM | 1 | 25 | Band 66 | 20M | 2155   | 66886 | 21.76 | 21.92 |
|            |                | Band 66 | 20M | 1720   | 132072 | 16QAM | 1 | 99 | Band 30 | 10M | 2355   | 9820  | 17.94 | 18.03 |
|            |                | Band 71 | 20M | 683    | 133322 | QPSK  | 1 | 0  | Band 66 | 20M | 2155   | 66886 | 22.92 | 23.10 |
|            |                | Band 66 | 20M | 1720   | 132072 | 16QAM | 1 | 99 | Band 71 | 20M | 637    | 68786 | 17.94 | 18.03 |
|            | Contiguous     | Band 2  | 20M | 1900   | 19100  | 64QAM | 1 | 49 | Band 2  | 20M | 1960.2 | 902   | 17.95 | 18.16 |
|            |                | Band 5  | 10M | 829    | 20450  | QPSK  | 1 | 0  | Band 5  | 10M | 883.9  | 2549  | 22.65 | 22.98 |
|            |                | Band 7  | 20M | 2560   | 21350  | 16QAM | 1 | 49 | Band 7  | 20M | 2649.8 | 3048  | 20.28 | 20.43 |
|            |                | Band 12 | 5M  | 701.5  | 23035  | QPSK  | 1 | 0  | Band 12 | 10M | 741.2  | 5132  | 22.51 | 22.76 |
|            |                | Band 38 | 20M | 2580   | 37850  | QPSK  | 1 | 0  | Band 38 | 20M | 2599.8 | 38048 | 23.31 | 23.53 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK  | 1 | 0  | Band 41 | 20M | 2612.8 | 40818 | 22.84 | 23.06 |
|            |                | Band 66 | 15M | 1772.5 | 132597 | 64QAM | 1 | 37 | Band 66 | 5M  | 2188.2 | 67218 | 18.22 | 18.31 |
|            | Non-Contiguous | Band 66 | 20M | 1720   | 132072 | 16QAM | 1 | 99 | Band 66 | 20M | 2139.8 | 66734 | 17.94 | 18.03 |
|            |                | Band 2  | 20M | 1900   | 19100  | 64QAM | 1 | 49 | Band 2  | 5M  | 1932.5 | 625   | 17.95 | 18.16 |
|            |                | Band 4  | 20M | 1745   | 20300  | QPSK  | 1 | 0  | Band 4  | 5M  | 2112.5 | 1975  | 17.01 | 17.18 |
|            |                | Band 7  | 20M | 2560   | 21350  | 16QAM | 1 | 49 | Band 7  | 5M  | 2622.5 | 2775  | 20.28 | 20.43 |
|            |                | Band 25 | 20M | 1880   | 26340  | QPSK  | 1 | 0  | Band 25 | 5M  | 1992.5 | 8665  | 17.98 | 18.22 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK  | 1 | 0  | Band 41 | 5M  | 2687.5 | 41565 | 22.84 | 23.06 |
|            |                | Band 66 | 20M | 1720   | 132072 | 16QAM | 1 | 99 | Band 66 | 5M  | 2197.5 | 67311 | 17.94 | 18.03 |



## &lt;Reduced Power Mode for Hotspot On&gt;

| Configure  | PCC      |          |                |            |       |        |              | SCC      |          |                |            | Power                   |                            |
|------------|----------|----------|----------------|------------|-------|--------|--------------|----------|----------|----------------|------------|-------------------------|----------------------------|
|            | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod.  | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx. Power (dBm) | Without CA Tx. Power (dBm) |
| Inter-Band | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 15.92                   | 16.10                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 15.89                   | 16.07                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 5   | 10M      | 881.5          | 2525       | 15.92                   | 16.10                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.65                   | 22.98                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 15.92                   | 16.10                      |
|            | Band 7   | 20M      | 2510           | 20850      | 16QAM | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 18.43                   | 18.66                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 12  | 10M      | 737.5          | 5095       | 15.92                   | 16.10                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.69                   | 22.88                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 13  | 10M      | 751            | 5230       | 15.92                   | 16.10                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.55                   | 22.73                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 14  | 10M      | 763            | 5530       | 15.92                   | 16.10                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.66                   | 22.94                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 17  | 10M      | 740            | 5790       | 15.92                   | 16.10                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 2   | 10M      | 1960           | 900        | 22.53                   | 22.72                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 29  | 10M      | 722.5          | 9715       | 15.92                   | 16.10                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 15.92                   | 16.10                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 2   | 20M      | 1960           | 900        | 21.76                   | 21.92                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 15.92                   | 16.10                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 16.23                   | 16.47                      |
|            | Band 2   | 20M      | 1860           | 18700      | QPSK  | 1      | 0            | Band 71  | 20M      | 637            | 68786      | 15.92                   | 16.10                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.92                   | 23.10                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 15.89                   | 16.07                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.65                   | 22.98                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 15.89                   | 16.07                      |
|            | Band 7   | 20M      | 2510           | 20850      | 16QAM | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 18.43                   | 18.66                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 15.89                   | 16.07                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.69                   | 22.88                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 13  | 10M      | 751            | 5230       | 15.89                   | 16.07                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.55                   | 22.73                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 17  | 10M      | 740            | 5790       | 15.89                   | 16.07                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 4   | 10M      | 2132.5         | 2175       | 22.53                   | 22.72                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 29  | 10M      | 722.5          | 9715       | 15.89                   | 16.07                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 15.89                   | 16.07                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 4   | 20M      | 2132.5         | 2175       | 21.76                   | 21.92                      |
|            | Band 4   | 20M      | 1745           | 20300      | 16QAM | 1      | 49           | Band 71  | 20M      | 637            | 68786      | 15.89                   | 16.07                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.92                   | 23.10                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 22.65                   | 22.98                      |
|            | Band 7   | 20M      | 2510           | 20850      | 16QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 18.43                   | 18.66                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.65                   | 22.98                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 5   | 10M      | 881.5          | 2525       | 21.76                   | 21.92                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.65                   | 22.98                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 5   | 10M      | 881.5          | 2525       | 16.23                   | 16.47                      |
|            | Band 7   | 20M      | 2510           | 20850      | 16QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 18.43                   | 18.66                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.69                   | 22.88                      |
|            | Band 7   | 20M      | 2510           | 20850      | 16QAM | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 18.43                   | 18.66                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 16.23                   | 16.47                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.69                   | 22.88                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 12  | 10M      | 737.5          | 5095       | 21.76                   | 21.92                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.69                   | 22.88                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 12  | 10M      | 737.5          | 5095       | 16.23                   | 16.47                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.55                   | 22.73                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 13  | 10M      | 751            | 5230       | 16.23                   | 16.47                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.66                   | 22.94                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 25           | Band 14  | 10M      | 763            | 5530       | 21.76                   | 21.92                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.66                   | 22.94                      |
|            | Band 66  | 20M      | 1720           | 132072     | 16QAM | 1      | 0            | Band 14  | 10M      | 763            | 5530       | 16.23                   | 16.47                      |
|            | Band 25  | 20M      | 1905           | 26590      | 64QAM | 1      | 49           | Band 26  | 15M      | 876.5          | 8865       | 16.12                   | 16.30                      |



# FCC SAR Test Report

Report No. : FA892801

|            |                |         |     |       |        |       |     |    |         |     |        |       |       |       |
|------------|----------------|---------|-----|-------|--------|-------|-----|----|---------|-----|--------|-------|-------|-------|
| Intra-Band |                | Band 26 | 15M | 831.5 | 26865  | QPSK  | 1   | 49 | Band 25 | 20M | 1962.5 | 8365  | 22.86 | 23.13 |
|            |                | Band 30 | 10M | 2310  | 27710  | 16QAM | 1   | 25 | Band 29 | 10M | 722.5  | 9715  | 21.76 | 21.92 |
|            |                | Band 66 | 20M | 1720  | 132072 | 16QAM | 1   | 0  | Band 29 | 10M | 722.5  | 9715  | 16.23 | 16.47 |
|            |                | Band 30 | 10M | 2310  | 27710  | 16QAM | 1   | 25 | Band 66 | 20M | 2155   | 66886 | 21.76 | 21.92 |
|            |                | Band 66 | 20M | 1720  | 132072 | 16QAM | 1   | 0  | Band 30 | 10M | 2355   | 9820  | 16.23 | 16.47 |
|            |                | Band 71 | 20M | 683   | 133322 | QPSK  | 1   | 0  | Band 66 | 20M | 2155   | 66886 | 22.92 | 23.10 |
|            |                | Band 66 | 20M | 1720  | 132072 | 16QAM | 1   | 0  | Band 71 | 20M | 637    | 68786 | 16.23 | 16.47 |
|            | Contiguous     | Band 2  | 20M | 1860  | 18700  | QPSK  | 1   | 0  | Band 2  | 20M | 1959.8 | 898   | 15.92 | 16.10 |
|            |                | Band 5  | 10M | 829   | 20450  | QPSK  | 1   | 0  | Band 5  | 10M | 883.9  | 2549  | 22.65 | 22.98 |
|            |                | Band 7  | 20M | 2510  | 20850  | 16QAM | 1   | 49 | Band 7  | 20M | 2649.8 | 3048  | 18.43 | 18.66 |
|            |                | Band 12 | 5M  | 701.5 | 23035  | QPSK  | 1   | 0  | Band 12 | 10M | 741.2  | 5132  | 22.51 | 22.76 |
|            |                | Band 38 | 20M | 2580  | 37850  | QPSK  | 1   | 0  | Band 38 | 20M | 2599.8 | 38048 | 21.86 | 22.08 |
|            |                | Band 41 | 20M | 2593  | 40620  | QPSK  | 100 | 0  | Band 41 | 20M | 2612.8 | 40818 | 22.48 | 22.70 |
|            |                | Band 66 | 15M | 1745  | 132322 | 16QAM | 1   | 0  | Band 66 | 5M  | 2164.3 | 66979 | 16.21 | 16.46 |
|            | Non-Contiguous | Band 66 | 20M | 1720  | 132072 | 16QAM | 1   | 0  | Band 66 | 20M | 2139.8 | 66734 | 16.23 | 16.47 |
|            |                | Band 2  | 20M | 1860  | 18700  | QPSK  | 1   | 0  | Band 2  | 5M  | 1987.5 | 1175  | 15.92 | 16.10 |
|            |                | Band 4  | 20M | 1745  | 20300  | 16QAM | 1   | 49 | Band 4  | 5M  | 2112.5 | 1975  | 15.89 | 16.07 |
|            |                | Band 7  | 20M | 2510  | 20850  | 16QAM | 1   | 49 | Band 7  | 5M  | 2687.5 | 3425  | 18.43 | 18.66 |
|            |                | Band 25 | 20M | 1905  | 26590  | 64QAM | 1   | 49 | Band 25 | 5M  | 1932.5 | 8065  | 16.12 | 16.30 |
|            |                | Band 41 | 20M | 2593  | 40620  | QPSK  | 100 | 0  | Band 41 | 5M  | 2687.5 | 41565 | 22.48 | 22.70 |
|            |                | Band 66 | 20M | 1720  | 132072 | 16QAM | 1   | 0  | Band 66 | 5M  | 2197.5 | 67311 | 16.23 | 16.47 |



## &lt;Reduced Power Mode for Handheld On&gt;

| Configure  | PCC      |          |                |            |       |        |              | SCC      |          |                |            | Power                   |                            |
|------------|----------|----------|----------------|------------|-------|--------|--------------|----------|----------|----------------|------------|-------------------------|----------------------------|
|            | LTE Band | BW (MHz) | UL Freq. (MHz) | UL Channel | Mod.  | UL# RB | UL RB Offset | LTE Band | BW (MHz) | DL Freq. (MHz) | DL Channel | With CA Tx. Power (dBm) | Without CA Tx. Power (dBm) |
| Inter-Band | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 20.23                   | 20.36                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 19.86                   | 20.00                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 20.23                   | 20.36                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.65                   | 22.98                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 20.23                   | 20.36                      |
|            | Band 7   | 20M      | 2510           | 20850      | 64QAM | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 21.75                   | 21.97                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 20.23                   | 20.36                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.69                   | 22.88                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 13  | 10M      | 751            | 5230       | 20.23                   | 20.36                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 22.55                   | 22.73                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 14  | 10M      | 763            | 5530       | 20.23                   | 20.36                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.66                   | 22.94                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 17  | 10M      | 740            | 5790       | 20.23                   | 20.36                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 2   | 10M      | 1960           | 900        | 22.53                   | 22.72                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 29  | 10M      | 722.5          | 9715       | 20.23                   | 20.36                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 20.23                   | 20.36                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 49           | Band 2   | 20M      | 1960           | 900        | 21.82                   | 22.03                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 20.23                   | 20.36                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 2   | 20M      | 1960           | 900        | 20.22                   | 20.45                      |
|            | Band 2   | 20M      | 1880           | 18900      | 16QAM | 1      | 49           | Band 71  | 20M      | 637            | 68786      | 20.23                   | 20.36                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 2   | 20M      | 1960           | 900        | 22.92                   | 23.10                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 5   | 10M      | 881.5          | 2525       | 19.86                   | 20.00                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.65                   | 22.98                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 19.86                   | 20.00                      |
|            | Band 7   | 20M      | 2510           | 20850      | 64QAM | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 21.75                   | 21.97                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 12  | 10M      | 737.5          | 5095       | 19.86                   | 20.00                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.69                   | 22.88                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 13  | 10M      | 751            | 5230       | 19.86                   | 20.00                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 22.55                   | 22.73                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 17  | 10M      | 740            | 5790       | 19.86                   | 20.00                      |
|            | Band 17  | 10M      | 709            | 23780      | QPSK  | 1      | 0            | Band 4   | 10M      | 2132.5         | 2175       | 22.53                   | 22.72                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 29  | 10M      | 722.5          | 9715       | 19.86                   | 20.00                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 19.86                   | 20.00                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 49           | Band 4   | 20M      | 2132.5         | 2175       | 21.82                   | 22.03                      |
|            | Band 4   | 20M      | 1732.5         | 20175      | QPSK  | 1      | 0            | Band 71  | 20M      | 637            | 68786      | 19.86                   | 20.00                      |
|            | Band 71  | 20M      | 683            | 133322     | QPSK  | 1      | 0            | Band 4   | 20M      | 2132.5         | 2175       | 22.92                   | 23.10                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 7   | 20M      | 2655           | 3100       | 22.65                   | 22.98                      |
|            | Band 7   | 20M      | 2510           | 20850      | 64QAM | 1      | 0            | Band 5   | 10M      | 881.5          | 2525       | 21.75                   | 21.97                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.65                   | 22.98                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 49           | Band 5   | 10M      | 881.5          | 2525       | 21.82                   | 22.03                      |
|            | Band 5   | 10M      | 829            | 20450      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.65                   | 22.98                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 5   | 10M      | 881.5          | 2525       | 20.22                   | 20.45                      |
|            | Band 7   | 20M      | 2510           | 20850      | 64QAM | 1      | 0            | Band 12  | 10M      | 737.5          | 5095       | 21.75                   | 21.97                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 7   | 20M      | 2655           | 3100       | 22.69                   | 22.88                      |
|            | Band 7   | 20M      | 2510           | 20850      | 64QAM | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 21.75                   | 21.97                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 7   | 20M      | 2655           | 3100       | 20.22                   | 20.45                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 30  | 10M      | 2355           | 9820       | 22.69                   | 22.88                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 49           | Band 12  | 10M      | 737.5          | 5095       | 21.82                   | 22.03                      |
|            | Band 12  | 10M      | 707.5          | 23095      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.69                   | 22.88                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 12  | 10M      | 737.5          | 5095       | 20.22                   | 20.45                      |
|            | Band 13  | 10M      | 782            | 23230      | QPSK  | 1      | 49           | Band 66  | 20M      | 2155           | 66886      | 22.55                   | 22.73                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 13  | 10M      | 751            | 5230       | 20.22                   | 20.45                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 30  | 10M      | 2355           | 9820       | 22.66                   | 22.94                      |
|            | Band 30  | 10M      | 2310           | 27710      | 16QAM | 1      | 49           | Band 14  | 10M      | 763            | 5530       | 21.82                   | 22.03                      |
|            | Band 14  | 10M      | 793            | 23330      | QPSK  | 1      | 0            | Band 66  | 20M      | 2155           | 66886      | 22.66                   | 22.94                      |
|            | Band 66  | 20M      | 1770           | 132572     | 16QAM | 1      | 99           | Band 14  | 10M      | 763            | 5530       | 20.22                   | 20.45                      |
|            | Band 25  | 20M      | 1880           | 26340      | 64QAM | 1      | 49           | Band 26  | 15M      | 876.5          | 8865       | 20.11                   | 20.25                      |



# FCC SAR Test Report

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|            |                |         |     |        |        |       |   |    |         |     |        |       |       |       |
|------------|----------------|---------|-----|--------|--------|-------|---|----|---------|-----|--------|-------|-------|-------|
| Intra-Band |                | Band 26 | 15M | 831.5  | 26865  | QPSK  | 1 | 49 | Band 25 | 20M | 1962.5 | 8365  | 22.86 | 23.13 |
|            |                | Band 30 | 10M | 2310   | 27710  | 16QAM | 1 | 49 | Band 29 | 10M | 722.5  | 9715  | 21.82 | 22.03 |
|            |                | Band 66 | 20M | 1770   | 132572 | 16QAM | 1 | 99 | Band 29 | 10M | 722.5  | 9715  | 20.22 | 20.45 |
|            |                | Band 30 | 10M | 2310   | 27710  | 16QAM | 1 | 49 | Band 66 | 20M | 2155   | 66886 | 21.82 | 22.03 |
|            |                | Band 66 | 20M | 1770   | 132572 | 16QAM | 1 | 99 | Band 30 | 10M | 2355   | 9820  | 20.22 | 20.45 |
|            |                | Band 71 | 20M | 683    | 133322 | QPSK  | 1 | 0  | Band 66 | 20M | 2155   | 66886 | 22.92 | 23.10 |
|            |                | Band 66 | 20M | 1770   | 132572 | 16QAM | 1 | 99 | Band 71 | 20M | 637    | 68786 | 20.22 | 20.45 |
|            | Contiguous     | Band 2  | 20M | 1880   | 18900  | 16QAM | 1 | 49 | Band 2  | 20M | 1979.8 | 1098  | 20.23 | 20.36 |
|            |                | Band 5  | 10M | 829    | 20450  | QPSK  | 1 | 0  | Band 5  | 10M | 883.9  | 2549  | 22.65 | 22.98 |
|            |                | Band 7  | 20M | 2510   | 20850  | 64QAM | 1 | 0  | Band 7  | 20M | 2649.8 | 3048  | 21.75 | 21.97 |
|            |                | Band 12 | 5M  | 701.5  | 23035  | QPSK  | 1 | 0  | Band 12 | 10M | 741.2  | 5132  | 22.51 | 22.76 |
|            |                | Band 38 | 20M | 2580   | 37850  | QPSK  | 1 | 0  | Band 38 | 20M | 2599.8 | 38048 | 23.31 | 23.53 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK  | 1 | 0  | Band 41 | 20M | 2612.8 | 40818 | 22.84 | 23.06 |
|            |                | Band 66 | 15M | 1772.5 | 132597 | 64QAM | 1 | 37 | Band 66 | 5M  | 2188.2 | 67218 | 20.26 | 20.48 |
|            | Non-Contiguous | Band 66 | 20M | 1770   | 132572 | 16QAM | 1 | 99 | Band 66 | 20M | 2170.2 | 67038 | 20.22 | 20.45 |
|            |                | Band 2  | 20M | 1880   | 18900  | 16QAM | 1 | 49 | Band 2  | 5M  | 1987.5 | 1175  | 20.23 | 20.36 |
|            |                | Band 4  | 20M | 1732.5 | 20175  | QPSK  | 1 | 0  | Band 4  | 5M  | 2152.5 | 2375  | 19.86 | 20.00 |
|            |                | Band 7  | 20M | 2510   | 20850  | 64QAM | 1 | 0  | Band 7  | 5M  | 2687.5 | 3425  | 21.75 | 21.97 |
|            |                | Band 25 | 20M | 1880   | 26340  | 64QAM | 1 | 49 | Band 25 | 5M  | 1992.5 | 8665  | 20.11 | 20.25 |
|            |                | Band 41 | 20M | 2593   | 40620  | QPSK  | 1 | 0  | Band 41 | 5M  | 2687.5 | 41565 | 22.84 | 23.06 |
|            |                | Band 66 | 20M | 1770   | 132572 | 16QAM | 1 | 99 | Band 66 | 5M  | 2112.5 | 66461 | 20.22 | 20.45 |