# RF EXPOSURE TEST REPORT

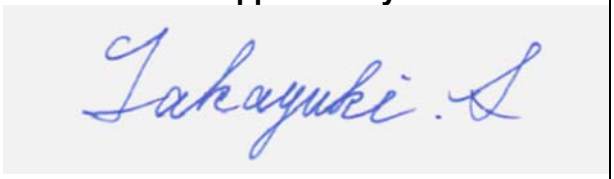
## Test Report No. 15169633H-A

| | |
|---|---|
| **Customer** | **Panasonic Corporation of North America** |
| **Description of EUT** | **Radio Module**<br>**(Tested inside of Panasonic Personal Computer FZ-G2)** |
| **Model Number of EUT** | **WW23A** |
| **FCC ID** | **ACJ9TGWW23A** |
| **Test Regulation** | **FCC47CFR 2.1093** |
| **Test Result** | **Complied** |
| **Issue Date** | **May 31, 2024** |
| **Remarks** | **The highest reported value**<br>[Standalone]<br>Body: 1.03 W/kg (1 g)<br>[Simultaneous Transmission]<br>Body: 1.59 W/kg (1 g)<br>Worst SPLSR: 0.02<br>Worst TER: 0.972 |

**Representative Test Engineer**

Takeshi Hiyaji
Engineer

**Approved By**



Takayuki Shimada
Leader

CERTIFICATE 5107.02

☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc.
☒ There is no testing item of "Non-accreditation".



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# REVISION HISTORY

### Original Test Report No. 15169633H-A

| Revision | Test report No. | Date | Page Revised Contents |
|---|---|---|---|
| - (Original) | 15169633H-A | May 31, 2024 | - |

## Reference: Abbreviations (Including words undescribed in this report)

| | | | |
|---|---|---|---|
| A2LA | The American Association for Laboratory Accreditation | ICES | Interference-Causing Equipment Standard |
| AC | Alternating Current | IEC | International Electrotechnical Commission |
| AFH | Adaptive Frequency Hopping | IEEE | Institute of Electrical and Electronics Engineers |
| AM | Amplitude Modulation | IF | Intermediate Frequency |
| Amp, AMP | Amplifier | ILAC | International Laboratory Accreditation Conference |
| ANSI | American National Standards Institute | ISED | Innovation, Science and Economic Development Canada |
| Ant, ANT | Antenna | ISO | International Organization for Standardization |
| AP | Access Point | JAB | Japan Accreditation Board |
| APD | Absorbed Power Density | LAN | Local Area Network |
| ASK | Amplitude Shift Keying | LIMS | Laboratory Information Management System |
| Atten., ATT | Attenuator | MCS | Modulation and Coding Scheme |
| AV | Average | MRA | Mutual Recognition Arrangement |
| BPSK | Binary Phase-Shift Keying | N/A | Not Applicable |
| BR | Bluetooth Basic Rate | NIST | National Institute of Standards and Technology |
| BT | Bluetooth | NS | Nerve Stimulation |
| BT LE | Bluetooth Low Energy | NSA | Normalized Site Attenuation |
| BW | BandWidth | NVLAP | National Voluntary Laboratory Accreditation Program |
| Cal Int | Calibration Interval | OBW | Occupied Band Width |
| CCK | Complementary Code Keying | OFDM | Orthogonal Frequency Division Multiplexing |
| Ch., CH | Channel | P/M | Power meter |
| CISPR | Comite International Special des Perturbations Radioelectriques | PCB | Printed Circuit Board |
| CW | Continuous Wave | PER | Packet Error Rate |
| DBPSK | Differential BPSK | PHY | Physical Layer |
| DC | Direct Current | PK | Peak |
| D-factor | Distance factor | PN | Pseudo random Noise |
| DFS | Dynamic Frequency Selection | PRBS | Pseudo-Random Bit Sequence |
| DQPSK | Differential QPSK | PSD | Power Spectral Density |
| DSSS | Direct Sequence Spread Spectrum | QAM | Quadrature Amplitude Modulation |
| EDR | Enhanced Data Rate | QP | Quasi-Peak |
| EIRP, e.i.r.p. | Equivalent Isotropically Radiated Power | QPSK | Quadri-Phase Shift Keying |
| EMC | ElectroMagnetic Compatibility | RBW | Resolution Band Width |
| EMI | ElectroMagnetic Interference | RDS | Radio Data System |
| EN | European Norm | RE | Radio Equipment |
| ERP, e.r.p. | Effective Radiated Power | RF | Radio Frequency |
| EU | European Union | RMS | Root Mean Square |
| EUT | Equipment Under Test | RSS | Radio Standards Specifications |
| Fac. | Factor | Rx | Receiving |
| FCC | Federal Communications Commission | SA, S/A | Spectrum Analyzer |
| FHSS | Frequency Hopping Spread Spectrum | SAR | Specific Absorption Rate |
| FM | Frequency Modulation | SG | Signal Generator |
| Freq. | Frequency | SVSWR | Site-Voltage Standing Wave Ratio |
| FSK | Frequency Shift Keying | TR | Test Receiver |
| GFSK | Gaussian Frequency-Shift Keying | Tx | Transmitting |
| GNSS | Global Navigation Satellite System | VBW | Video BandWidth |
| GPS | Global Positioning System | Vert. | Vertical |
| Hori. | Horizontal | WLAN | Wireless LAN |
| HPF | High-Pass Filter | WPT | Wireless Power Transmit |

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## SECTION 1: Customer information

| | |
|---|---|
| Company Name | Panasonic Corporation of North America |
| Address | Two Riverfront Plaza, Newark, New Jersey, 07102-5490, USA |
| Telephone Number | +1-201-348-7760 |
| Contact Person | Ben Botros |

*Remarks:
Panasonic Connect Co., Ltd. is on behalf of the applicant: Panasonic Corporation of North America (Company incorporated abroad).

The information provided by the customer is as follows;
- Customer, Description of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer Information
- SECTION 2: Equipment Under Test (EUT) other than the Receipt Date and software information
- SECTION 3: Tune-up tolerance information

## SECTION 2: Equipment under test (EUT)

### 2.1 Identification of EUT

| | |
|---|---|
| Description | Radio Module |
| Model Number | WW23A |
| Serial Number | Controlled by Host device |
| Condition | Engineering prototype<br>(Not for Sale: This sample is equivalent to mass-produced items.) |
| Modification | No Modification by the test lab |
| Receipt Date | April 8, 2024 |
| Test Date | April 12 to 26 , 2024 (For Output power measurement)<br>April 12, 2024 to May 2 , 2024 (For SAR measurement)<br>May 7 to 10, 2024 (For DLCA Power measurement) |

<Information of Host device>

| | |
|---|---|
| Type of Equipment | Personal Computer |
| Model No. | FZ-G2 |
| Serial No. | 4CTSA00664 (Above 2 GHz)<br>4CTSA00661 (1 GHz to 2 GHz)<br>4CTSA00655 (Below 1 GHz)<br>4CTSA00728 (DLCA Power measurement) |
| Remarks | Intel Core Ultra 5 processor 135U, 12M Cache, up to 4.40 GHz<br>10.1 inch LCD (1920 x 1200) |

## 2.2 Product Description

### General Specification

| | |
|---|---|
| Rating | DC 3.0 to 3.6 V |

### Radio Specification

**WWAN**

| Wireless technologies | Dup. | Band | Mode |
|---|---|---|---|
| WCDMA | FDD | 2 | UMTS Rel. 99 (Data) HSDPA (Rel. 5) |
| | FDD | 4 | HSUPA (Rel. 6), HSPA+ (Rel. 7), DC-HSDPA (Rel. 8) |
| | FDD | 5 | |
| LTE | FDD | 2 | QPSK, 16QAM, 64AQM |
| | FDD | 4 | |
| | FDD | 5 | Downlink MIMO Support: Yes (2x2) |
| | FDD | 7 | Supported band : B2, B4, B5, B7, B12, B13, B14, |
| | FDD | 12 | B25, B26, B42, B48, B66, B71 |
| | FDD | 13 | Uplink MIMO Support: No |
| | FDD | 14 | Uplink transmission is limited to a single output stream. |
| | FDD | 25 | |
| | FDD | 26 | |
| | TDD | 42 | |
| | TDD | 48 | |
| | FDD | 66 | |
| | FDD | 71 | |
| LTE CA | Downlink | | Uplink |
| | Maximum 3 carriers<br><br>See Section 12.4.1 for supported Downlink CA combinations | | Not supported |

**WLAN**

WLAN Module (Tested inside of Panasonic Personal Computer FZ-G2)
Model: WL23C (FCC ID ACJ9TGWL23C / ISED Certification Number 216H-CFWL23C)

| Band & Mode | Operating Mode | Tx Frequency |
|---|---|---|
| WLAN 2.4 GHz | 802.11b<br>802.11g<br>802.11n-20 / 40<br>802.11ax-20 / 40 | 2412 MHz ~ 2472 MHz (20 MHz BW)<br>2422 MHz ~ 2462 MHz (40 MHz BW) |
| WLAN 5 GHz | 802.11a<br>802.11n-20<br>802.11ac-20<br>802.11ax-20 | 5180 MHz ~ 5240 MHz<br>5260 MHz ~ 5320 MHz<br>5500 MHz ~ 5720 MHz<br>5745 MHz ~ 5825 MHz |
| WLAN 5 GHz | 802.11n-40<br>802.11ac-40<br>802.11ax-40 | 5190 MHz ~ 5230 MHz<br>5270 MHz ~ 5310 MHz<br>5510 MHz ~ 5710 MHz<br>5755 MHz ~ 5795 MHz |
| WLAN 5 GHz | 802.11n-80<br>802.11ac-80<br>802.11ax-80 | 5210 MHz<br>5290 MHz<br>5530 MHz, 5690 MHz<br>5775 MHz |
| WLAN 5 GHz | 802.11ac-160<br>802.11ax-160 | 5250 MHz<br>5570 MHz |
| WLAN 6 GHz | 802.11ax-20 | 5955 MHz ~ 7115 MHz |
| WLAN 6 GHz | 802.11ax-40 | 5965 MHz ~ 7085 MHz |
| WLAN 6 GHz | 802.11ax-80 | 5985 MHz ~ 7025 MHz |
| WLAN 6 GHz | 802.11ax-160 | 6025 MHz ~ 6985 MHz |
| Bluetooth | BR / EDR / LE | 2402 MHz ~ 2480 MHz |

**RFID**

RFID Module (Tested inside of Panasonic Personal Computer FZ-G2)
Model: RI20A (FCC ID ACJ9TGRI20A, ISED Certification Number 216H-CFRI20A)

| | |
|---|---|
| Equipment Type | Transceiver |
| Frequency of Operation | 13.56 MHz |
| Type of Modulation | ASK |

## 2.3 Software information

*The power value of the EUT was set for testing as follows (setting value might be different from product specification value);
Software: SWIX12C_02.02.02.16

*This setting of software is the worst case.
The test was performed with condition that obtained the maximum average power (Burst) in pre-check.
Any conditions under the normal use do not exceed the condition of setting.
In addition, end users cannot change the settings of the output power of the product.

### 2.3.1 DSI(Device State Index) Scenarios

This device supports multiple DSI Scenarios and Each DSIs operate to each RF exposure Conditions.

Please below table.

| RF exposure Conditions | Technologuies Supported | Supported Power Back-off mode | Power State | DSI conditions | Description |
|---|---|---|---|---|---|
| Body | All WWAN bands | Proximity sensor -Not triggering- | Full | DSI = 0 | When Device is not within certain distance of user. Proximity sensor is not triggered. |
| | All WWAN bands | Proximity sensor -Triggering- | Reduction | DSI = 1 | When Device is within certain distance of user. Proximity sensor is triggered. |

Note : This devices uses different Device State Index (DSI) to configure different time averaged power levels based on exposure scenarios for WWAN Bands.

### 2.3.2 Power Reduction by Proximity Sensing

Refer to Appendix C for details on the manufacturer's declared proximity sensing.

## 2.4 Antenna information

### 2.4.1 Antenna configuration

| Antennas | WWAN | WLAN | BT |
|---|---|---|---|
| WLAN-#1 (Main) | N | Y | N |
| WLAN-#2 (Aux) | N | Y | Y |
| WWAN | Y | N | N |

RFID antenna only tranmits at 13.56 MHz

### 2.4.2 Simultaneous transmission combinations

| NO. | Combinations Antenna | WWAN | DTS Ant Main | DTS Ant Aux | UNII Ant Main | UNII Ant Aux | BT | RFID |
|---|---|---|---|---|---|---|---|---|
| 1 | WWAN + DTS + BT + RFID | ○ | ○ | | | | ○ | ○ |
| 2 | WWAN + DTS MIMO + RFID | ○ | ○ | ○ | | | | ○ |
| 3 | WWAN + UNII Ant Main+ BT + RFID | ○ | | | ○ | | ○ | ○ |
| 4 | WWAN + UNII Ant AUX + BT + RFID | ○ | | | | ○ | ○ | ○ |
| 5 | WWAN + UNIIMIMO + BT + RFID | ○ | | | ○ | ○ | ○ | ○ |

### 2.4.3 Antenna location

WLAN

| Position | WLAN #1 antenna [mm] | WLAN #2 antenna [mm] |
|---|---|---|
| Edge1 | 3.8 | 9.2 |
| Edge2 | 214.8 | 58.7 |
| Edge3 | 181.3 | 181.3 |
| Edge4 | 29 | 191.7 |
| Rear | 21.1 | 5.5 |
| Rear tilt (Edge1 side) | 3.8 | 5.5 |
| Rear tilt (Edge 2 side) | 214.8 | 58.7 |
| Rear tilt (Edge 4 side) | 29 | 191.7 |
| Bottom side with keyboard | 227.5 | 227.5 |

WWAN

| Position | WWAN antenna [mm] |
|---|---|
| Edge1 | 40.8 |
| Edge2 | 268.4 |
| Edge3 | 82.1 |
| Edge4 | 1.7 |
| Rear | 7.6 |
| Rear tilt (Edge1 side) | 40.8 |
| Rear tilt (Edge 2 side) | 268.4 |
| Rear tilt (Edge 4 side) | 1.7 |
| Bottom side with keyboard | 123.8 |

Antenna location information is shown in appendix B.

### 2.4.4 Antenna gain

| WWAN |
|---|
| 0.94 dBi max 663 – 698 MHz |
| -1.23 dBi max 699 – 716 MHz |
| -1.23 dBi max 704 – 716 MHz |
| -0.68 dBi max 777 – 787 MHz |
| -0.35 dBi max 788 – 798 MHz |
| 0.00 dBi max 814 – 849 MHz |
| 2.30 dBi max 1710 – 1780 MHz |
| 2.75 dBi max 1850 – 1915 MHz |
| 0.96 dBi max 2500 – 2570 MHz |
| 1.55 dBi max 2496 – 2690 MHz |
| 1.79 dBi max 3400 – 3600 MHz |
| 2.38 dBi max 3550 – 3700 MHz |

**SECTION 3: Tune-up tolerance information**

**3.1.1 WWAN**

| RAT | Band | Plimit | |
|---|---|---|---|
| | | DSI 0 | DSI 1 |
| WCDMA | 2 | 24 | 17.7 |
| | 4 | 23.2 | 16.8 |
| | 5 | 24 | 17.3 |
| LTE | 2 | 24 | 17.4 |
| | 4 | 24 | 17.5 |
| | 5 | 24 | 16.8 |
| | 7 | 24 | 16 |
| | 12 | 24 | 18.4 |
| | 13 | 24 | 18.1 |
| | 14 | 24 | 17.4 |
| | 25 | 24 | 17.4 |
| | 26 | 24 | 17.1 |
| | 42 | 19 | 11 |
| | 48 | 19 | 11 |
| | 66 | 24 | 16.9 |
| | 71 | 24 | 18.1 |

### 3.1.2 General LTE/NR SAR Test and Reporting Considerations

**Frequency range, Channel Bandwidth, Numbers and Frequencies**

| Band | | Frequency range: 1850 - 1910 MHz | | | | | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 2 | | 20 | 15 | 10 | 5 | 3 | 1.4 |
| Low | Ch | 18700 | 18675 | 18650 | 18625 | 18625 | 18607 |
| | Freq[MHz] | 1860 | 1857.5 | 1855 | 1852.5 | 18625 | 1850.7 |
| Mid | Ch | 18900 | 18900 | 18900 | 18900 | 18900 | 18900 |
| | Freq[MHz] | 1880 | 1880 | 1880 | 1880 | 1880 | 1880 |
| High | Ch | 19100 | 19125 | 19150 | 19175 | 19185 | 19193 |
| | Freq[MHz] | 1900 | 1902.5 | 1905 | 1907.5 | 1908.5 | 1909.3 |

| Band | | Frequency range: 1710 - 1755 MHz | | | | | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 4 | | 20 *1 | 15 | 10 | 5 | 3 | 1.4 |
| Low | Ch | 20050 | 20025 | 20000 | 19975 | 19965 | 19957 |
| | Freq[MHz] | 1720 | 1717.5 | 1715 | 1712.5 | 1711.5 | 1710.7 |
| Mid | Ch | 20175 | 20175 | 20175 | 20175 | 20175 | 20175 |
| | Freq[MHz] | 1732.5 | 1732.5 | 1732.5 | 1732.5 | 1732.5 | 1732.5 |
| High | Ch | 20300 | 20325 | 20350 | 20375 | 20385 | 20393 |
| | Freq[MHz] | 1745 | 1747.5 | 1750 | 1752.5 | 1753.5 | 1754.3 |

| Band | | Frequency range: 824 - 849 MHz | | | | | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 5 | | | | 10 *1 | 5 | 3 | 1.4 |
| Low | Ch | | | 20450 | 20425 | 20415 | 20407 |
| | Freq[MHz] | | | 829 | 826.5 | 825.5 | 824.7 |
| Mid | Ch | | | 20525 | 20525 | 20525 | 20525 |
| | Freq[MHz] | | | 836.5 | 836.5 | 836.5 | 836.5 |
| High | Ch | | | 20600 | 20625 | 20635 | 20643 |
| | Freq[MHz] | | | 844 | 846.5 | 847.5 | 848.3 |

| Band | | Frequency range: 2500 - 2570 MHz | | | | | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 7 | | 20 | 15 | 10 | 5 | | |
| Low | Ch | 20850 | 20825 | 20800 | 20775 | | |
| | Freq[MHz] | 2510 | 2507.5 | 2505 | 2502.5 | | |
| Mid | Ch | 21100 | 21100 | 21100 | 21100 | | |
| | Freq[MHz] | 2535 | 2535 | 2535 | 2535 | | |
| High | Ch | 21350 | 21375 | 21400 | 21425 | | |
| | Freq[MHz] | 2560 | 2562.5 | 2565 | 2567.5 | | |

| Band | | Frequency range: 699 - 716 MHz | | | | | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 12 | | | | 10 *1 | 5 | 3 | 1.4 |
| Low | Ch | | | 23060 | 23035 | 23025 | 23017 |
| | Freq[MHz] | | | 704 | 701.5 | 700.5 | 699.7 |
| Mid | Ch | | | 23095 | 23095 | 23095 | 23095 |
| | Freq[MHz] | | | 707.5 | 707.5 | 707.5 | 707.5 |
| High | Ch | | | 23130 | 23155 | 23165 | 23173 |
| | Freq[MHz] | | | 711 | 713.5 | 714.5 | 715.3 |

| Band | | Frequency range: | | 777 | - | 787 | MHz |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 13 | | | | 10 *1 | 5 | | |
| Low | Ch | | | | 23205 | | |
| | Freq[MHz] | | | | 779.5 | | |
| Mid | Ch | | | 23230 | 23230 | | |
| | Freq[MHz] | | | 782 | 782 | | |
| High | Ch | | | | 23255 | | |
| | Freq[MHz] | | | | 784.5 | | |

| Band | | Frequency range: | | 788 | - | 798 | MHz |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 14 | | | | 10 *1 | 5 *1 | | |
| Low | Ch | | | | 23305 | | |
| | Freq[MHz] | | | | 790.5 | | |
| Mid | Ch | | | 23330 | 23330 | | |
| | Freq[MHz] | | | 793 | 793 | | |
| High | Ch | | | | 23355 | | |
| | Freq[MHz] | | | | 795.5 | | |

| Band | | Frequency range: | | 1850 | - | 1915 | MHz |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 25 | | 20 | 15 | 10 | 5 | 3 | 1.4 |
| Low | Ch | 26140 | 26115 | 26090 | 26065 | 26055 | 26047 |
| | Freq[MHz] | 1860 | 1857.5 | 1855 | 1882.5 | 1851.5 | 1850.7 |
| Mid | Ch | 26365 | 26365 | 26365 | 26365 | 26365 | 26365 |
| | Freq[MHz] | 1882.5 | 1882.5 | 1882.5 | 1882.5 | 1882.5 | 1882.5 |
| High | Ch | 26590 | 26615 | 26640 | 26665 | 26675 | 26683 |
| | Freq[MHz] | 1905 | 1907.5 | 1910 | 1912.5 | 1913.5 | 1914.3 |

| Band | | Frequency range: | | 814 | - | 849 | MHz |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 26 | | | 15 *1 | 10 | 5 | 3 | 1.4 |
| Low | Ch | | 26765 | 26740 | 26715 | 26705 | 26697 |
| | Freq[MHz] | | 821.5 | 819 | 816.5 | 815.5 | 814.7 |
| Mid | Ch | | 26865 | 26865 | 26865 | 26865 | 26865 |
| | Freq[MHz] | | 831.5 | 831.5 | 831.5 | 831.5 | 831.5 |
| High | Ch | | 26965 | 26990 | 27015 | 27025 | 27033 |
| | Freq[MHz] | | 841.5 | 844 | 846.5 | 847.5 | 848.3 |

| Band | | Frequency range: | | 3450 - | | 3700 MHz | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 42 /48 | | 20 | 15 | 10 | 5 | | |
| Low | Ch | 42190 | 42165 | 42140 | 42115 | | |
| | Freq[MHz] | 3460 | 3457.5 | 3455 | 3452.5 | | |
| Low-Mid | Ch | 42715 | 42715 | 42715 | 42715 | | |
| | Freq[MHz] | 3512.5 | 3512.5 | 3512.5 | 3512.5 | | |
| Mid | Ch | 55740 | 55740 | 55740 | 55740 | | |
| | Freq[MHz] | 3600 | 3600 | 3600 | 3600 | | |
| Mid-High | Ch | 56115 | 56115 | 56115 | 56115 | | |
| | Freq[MHz] | 3637.5 | 3637.5 | 3637.5 | 3637.5 | | |
| High | Ch | 56640 | 56665 | 56690 | 56715 | | |
| | Freq[MHz] | 3690 | 3692.5 | 3695 | 3697.5 | | |

| Band | | Frequency range: | | 1710 - | | 1780 MHz | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 66 | | 20 | 15 | 10 | 5 | 3 | 1.4 |
| Low | Ch | 132072 | 132047 | 132022 | 131997 | 131987 | 131979 |
| | Freq[MHz] | 1720 | 1717.5 | 1715 | 1712.5 | 1711.5 | 1710.7 |
| Mid | Ch | 132322 | 132322 | 132322 | 132322 | 132322 | 132322 |
| | Freq[MHz] | 1745 | 1745 | 1745 | 1745 | 1745 | 1745 |
| High | Ch | 132572 | 132597 | 132622 | 132647 | 132657 | 132665 |
| | Freq[MHz] | 1770 | 1772.5 | 1775 | 1777.5 | 1778.5 | 1779.3 |

| Band | | Frequency range: | | 663 - | | 698 MHz | |
|---|---|---|---|---|---|---|---|
| | | Channel Bandwidth[MHz] | | | | | |
| 71 | | 20 *1 | 15 *1 | 10 | 5 | | |
| Low | Ch | 133222 | 133197 | 133172 | 133147 | | |
| | Freq[MHz] | 673 | 670.5 | 668 | 665.5 | | |
| Mid | Ch | 133297 | 133297 | 133297 | 133297 | | |
| | Freq[MHz] | 680.5 | 680.5 | 680.5 | 680.5 | | |
| High | Ch | 133372 | 133397 | 133422 | 133447 | | |
| | Freq[MHz] | 688 | 690.5 | 693 | 695.5 | | |

*1 : This bandwidth does not support at least three non-overlapping channels. 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 per KDB 941225 D05 for LTE Devices.

・Band 2 is covered with Band 25.

## SECTION 4: Definitions

This may contain the definitions which are not used in this report.

| | |
|---|---|
| Specific Absorption Rate (SAR) | 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), as shown in the following equation:<br>$$SAR = \frac{d}{dt}\left(\frac{dW}{dm}\right) = \frac{d}{dt}\left(\frac{dW}{\rho dV}\right)$$ |
| Power density (PD) or $S_{av}$ | The energy per unit time and unit area crossing a surface of area *A* characterized by the normal unit vector **n**ˆ and averaging time.<br>$$S_{av} = \frac{1}{AT}\iint (E \times H) \cdot \hat{n} dA dT$$ |
| Absorbed power density (APD) | The APD (absorbed power density) shall be derived from the measured SAR values using the formulas in the Compliance Assessment of the Epithelial.<br>*APD 1cm²(W/m²) = 10(kg/m²) × SAR_1g(W/kg)*<br>*APD 4cm²(W/m²) = 20(kg/m²) ×SAR_8g(W/kg)* |
| Reported SAR / IPD / APD | Measured SAR / iPD / APD is scaled to the maximum tune-up tolerance limit and the maximum duty by the following formulas.<br>$Reported$ SAR, i PD or APD<br>$= Measured$ SAR, iPD or APD<br>$\times scale\ factor\ for\ power$<br>$\times\ scaled\ factor\ for\ duty(if\ needed)$<br>$\times\ Compensatefactor(if\ needed)$<br>*Where:*<br>$$Scaled\ factor\ for\ duty = \frac{1}{Duty}$$<br>$$Compensate\ factor = 10^{\frac{measurement\ uncert.[dB]}{10}} - 1 + 0.7$$ |
| Maximum Tune-up tolerance limit, Tune up limit or Tune-up limit | Maximum power including tolerance power specified by customer. |

| Symbol | Quantity | Unit | Dimensions |
|---|---|---|---|
| E | Electric field | volt per meter | V / m |
| f | Frequency | hertz | Hz |
| H | Magnetic field | ampere per meter | A / m |
| λ | Wavelength | meter | m |
| S | Local power density | watt per square meter | W / m² |
| PD/APD $S_{av}$ | Spatial-average power density | watt per square meter | W / m² (mW / cm²) |
| SAR | Specific Absorption Rate | watt per square meter | W / kg |

## SECTION 5: Test standard information

### 5.1 Test Specification

Title : **FCC47CFR 2.1093**
Radiofrequency radiation exposure evaluation: portable devices.

**Published RF exposure KDB procedures**

| | |
|---|---|
| ☐ **KDB 447498 D01(v06)** | RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices |
| ☒ **KDB 447498 D04(v01)** | Interim General RF Exposure Guidance |
| ☐ **KDB 447498 D02(v02r01)** | SAR Measurement Procedures for USB Dongle Transmitters |
| ☐ **KDB 648474 D04(v01r03)** | SAR Evaluation Considerations for Wireless Handsets |
| ☒ **KDB 941225 D01(v03r01)** | 3G SAR Measurement Procedures |
| ☒ **KDB 941225 D05(v02r05)** | SAR Evaluation Considerations for LTE Devices |
| ☐ **KDB 941225 D06(v02r01)** | SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities (Hot Spot SAR) |
| ☐ **KDB 941225 D07(v01r02)** | SAR Evaluation Procedures for UMPC Mini-Tablet Devices |
| ☒ **KDB 616217 D04(v01r02)** | SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers |
| ☒ **KDB 865664 D01(v01r04)** | SAR Measurement Requirements for 100 MHz to 6 GHz |
| ☐ **KDB 248227 D01(v02r02)** | SAR Guidance for 802.11(Wi-Fi) Transmitters |

**Reference**
[1] Schmid & Partner Engineering AG, DASY Manual, September 2019
[2] IEEE Std 1528-2013

### 5.2 Work Procedures

| Name of documents | Title or details |
|---|---|
| ☒C/N: Work Instructions-ULID-003598 | UL Japan, Inc.'s SAR Measurement Equipment Calibration and Inspection Work Procedure |
| ☒C/N: Work Instructions-ULID-003599 | UL Japan, Inc.'s SAR Measurement Work Procedure |
| ☐C/N: Work Instructions-ULID-003619 | UL Japan, Inc.'s Power Density Measurement Procedure |
| ☒IEEE Std 1528-2013 | IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques. |
| ☐IEC/IEEE 63195-1:2021 | Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz) - Part 1: Measurement procedure |
| ☐IEC/IEEE 63195-2:2021 | Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz) - Part 2: Computational procedure |
| ☒IEC/IEEE 62209-1528 Edition 1.0 2020-10 | Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-worn wireless communication devices - Human models, instrumentation and procedures (Frequency range of 4 MHz to 10 GHz) |

### 5.3 Refrence

Schmid & Partner Engineering AG, DASY Manual
TCB workshop slide decks.

## SECTION 6: Limit

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

| Spatial Average (averaged over the whole body) | Spatial Peak (averaged over any 1 g of tissue) | Spatial Peak (hands/wrists/feet/ankles averaged over 10 g) |
|---|---|---|
| 0.4 | 8.0 | 20.0 |

(B) Limits for General population/Uncontrolled Exposure (W/kg)

| Spatial Average (averaged over the whole body | Spatial Peak (averaged over any 1 g of tissue) | Spatial Peak (hands/wrists/feet/ankles averaged over 10 g) |
|---|---|---|
| 0.08 | 1.6 | 4.0 |

**Occupational/Controlled Environments:** are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

**General Population/Uncontrolled Environments:** are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

**NOTE:GENERAL POPULATION/UNCONTROLLED EXPOSURE**
**SPATIAL PEAK(averaged over any 1 g of tissue) LIMIT**
**1.6 W/kg**

### 6.1 SAR

Specific Absorption Rate (SAR): 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), as shown in the following equation:

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

SAR is expressed in units of watts per kilogram (W/kg) or equivalently milliwatts per gram (mW/g).

SAR is related to the E-field at a point by the following equation:

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

where
σ = conductivity of the tissue (S/m)
ρ = mass density of the tissue (kg/m3)
E = rms E-field strength (V/m)

## SECTION 7: Test Location

UL Japan, Inc. Ise EMC Lab.
Shielded room for SAR testing
*A2LA Certificate Number: 5107.02 / FCC Test Firm Registration Number: 884919
ISED Lab Company Number: 2973C / CAB identifier: JP0002
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone : +81-596-24-8999

## SECTION 8: Test result

### 8.1 Result

Complied
Highest values at each band are listed next section.

### 8.2 Stand-alone SAR result

| RAT | Band | 1-g SAR Scaled |
|---|---|---|
| WCDMA | 2 | 0.842 |
| | 4 | 1.027 |
| | 5 | 0.834 |
| LTE | 4 | 0.892 |
| | 5 | 0.854 |
| | 7 | 0.726 |
| | 12 | 0.802 |
| | 13 | 0.976 |
| | 14 | 0.911 |
| | 25 | 0.861 |
| | 26 | 0.924 |
| | 42 / 48 | 0.395 |
| | 66 | 0.944 |
| | 71 | 0.711 |

*Details are shown at section 15.

### 8.3 Simultaneous transmission SAR result

Sum of SAR: 1.59
SPLSR: 0.02
TER: 0.972

*Details are shown at section 16.

## SECTION 9: Uncertainty

Table of uncertainties are listed for ISO/IEC 17025.

### 9.1 0.3 GHz - 6 GHz range SAR

| Error Description | Uncert. value | | Prob. Dist. | Div. | (ci) 1g | (ci) 10g | Std. Unc. (1g) | Std.Unc. (10g) |
|---|---|---|---|---|---|---|---|---|
| **Measurement System Errors** | | | | | | | | |
| Probe Calibration | ± 13.10 | % | N | 2 | 1 | 1 | ±6.6% | ±6.55% |
| Probe Calibration Drift | ± 1.7 | % | R | √3 | 1 | 1 | ±1.0% | ±1.0% |
| Probe Linearity | ± 4.7 | % | R | √3 | 1 | 1 | ±2.7% | ±2.7% |
| Broadband Signal | ± 2.6 | % | R | √3 | 1 | 1 | ±1.5% | ±1.5% |
| Probe Isotropy | ± 7.6 | % | R | √3 | 1 | 1 | ±4.4% | ±4.4% |
| Other Probe ⁺Electronic | ± 1.2 | % | N | 1 | 1 | 1 | ±1.2% | ±1.2% |
| RF Ambient | ± 1.8 | % | N | 1 | 1 | 1 | ±1.8% | ±1.8% |
| Probe Positioning | ± 0.005 | mm | N | 1 | 0.29 | 0.29 | ±0.2% | ±0.2% |
| Data Processing | ± 2.3 | % | N | 1 | 1 | 1 | ±2.3% | ±2.3% |
| **Phantom and Device Errors** | | | | | | | | |
| Conductivity (meas.)$^{DAK}$ | ± 10.0 | % | N | 1 | 0.78 | 0.71 | ±7.8% | ±7.1% |
| Conductivity (temp.)$^{BB}$ | ± 10.0 | % | R | √3 | 0.78 | 0.71 | ±4.5% | ±4.1% |
| Phantom Permittivity | ± 14.0 | % | R | √3 | 0.25 | 0.25 | ±2.0% | ±2.0% |
| Distance DUT - TSL | ± 2.0 | % | N | 1 | 2 | 2 | ±4.0% | ±4.0% |
| Device Positioning (+/- 0.5mm) | ± 1.0 | % | N | 1 | 1 | 1 | ±1.0% | ±1.0% |
| Device Holder | ± 3.6 | % | N | 1 | 1 | 1 | ±3.6% | ±3.6% |
| DUT Modulation$^{m}$ | ± 2.4 | % | R | √3 | 1 | 1 | ±1.4% | ±1.4% |
| Time-average SAR | ± 1.7 | % | R | √3 | 1 | 1 | ±1.0% | ±1.0% |
| DUT drift | ± 2.5 | % | N | 1 | 1 | 1 | ±2.5% | ±2.5% |
| Val Antenna Unc.$^{val}$ | ± 0.0 | % | N | 1 | 1 | 1 | ±0.0% | ±0.0% |
| Unc. Input Power$^{val}$ | ± 0.0 | % | N | 1 | 1 | 1 | ±0.0% | ±0.0% |
| **Correction to the SAR results** | | | | | | | | |
| Deviation to Target | ± 1.9 | % | N | 1 | 1 | 0.84 | ±1.9% | ±1.6% |
| SAR scaling$^{p}$ | ± 0.0 | % | R | √3 | 1 | 1 | ±0.0% | ±0.0% |
| Combined Std. Uncertainty | | | | | | | ±14.5% | ±14.0% |
| **Expanded STD Uncertainty (κ=2)** | | | | | | | ±29.1% | ±28.0% |

## SECTION 10: RF Exposure Conditions (Test Configurations)

### 10.1 SAR-based Exemption - FCC section 1.1307

Exception condition as per section 1.1307 (b)(3)(i)(B)
the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold $P_{th}$ (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). $P_{th}$ is given by:

$$P_{th}\ (mW) = \begin{cases} ERP_{20dm}\ (d/20\ cm)^{x} & d \leq 20\ cm \\ ERP_{20cm} & 20\ cm < d \leq 40 cm \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20dm}\sqrt{f}}\right)\ and\ f\ is\ in\ GHz;$$

And

$$ERP_{20cm}(mW) = \begin{cases} 2040\ f & 0.3\ GHz \leq f < 1.5\ GHz \\ 3060 & 1.5\ GHz \leq f \leq 6\ GHz \end{cases}$$

d = the separation distance.

In the table below, when the separation of antenna to EUT's surfaces and edges are ≤ 5 cm, the separation distance used for the SAR exclusion calculations is 0.5 cm.

As per section 1.1307 (b)(2)
*Separation distance* is the minimum distance in any direction from any part of a radiating structure and any part of the body of a nearby person.

*Radiating structure* is an unshielded RF current-carrying conductor that generates an RF reactive near electric or magnetic field and/or radiates an RF electromagnetic wave. It is the component of an RF source that transmits, generates, or reradiates an RF fields, such as an antenna, aperture, coil, or plate.

## For Full Power exemption

| Antenna | RAT | Frequency | Output Pow er or ERP | | Separation Distances (mm) | | | | | | | | Calculated Threshold Value | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | [MHz] | dBm | mW | Edge1 | Edge2 | Edge3 | Edge4 | Rear | Rear tilt (Edge1 side) | Rear tilt (Edge2 side) | Rear tilt (Edge4 side) | Edge1 | Edge2 | Edge3 | Edge4 | Rear | Rear tilt (Edge1 side) | Rear tilt (Edge2 side) | Rear tilt (Edge4 side) |
| Main | WCDMA | 1850 | 24.61 | 289 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -MEASURE- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | WCDMA | 1710 | 23.36 | 217 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -MEASURE- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | WCDMA | 824 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -MEASURE- | 1680.96 mW -EXEMPT- | 481 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 186 mW -MEASURE- | 1680.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1850 | 24.61 | 289 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -MEASURE- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1710 | 24.16 | 261 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -MEASURE- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 824 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -MEASURE- | 1680.96 mW -EXEMPT- | 481 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 186 mW -MEASURE- | 1680.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 2500 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 155 mW -MEASURE- | 3060 mW -EXEMPT- | 560 mW -EXEMPT- | <5mm - MEASURE- | 6 mW -MEASURE- | 155 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 699 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 187 mW -MEASURE- | 1425.96 mW -EXEMPT- | 449 mW -EXEMPT- | <5mm - MEASURE- | 20 mW -MEASURE- | 187 mW -MEASURE- | 1425.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 777 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -MEASURE- | 1585.08 mW -EXEMPT- | 469 mW -EXEMPT- | <5mm - MEASURE- | 18 mW -MEASURE- | 186 mW -MEASURE- | 1585.08 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 788 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -MEASURE- | 1607.52 mW -EXEMPT- | 472 mW -EXEMPT- | <5mm - MEASURE- | 18 mW -MEASURE- | 186 mW -MEASURE- | 1607.52 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1850 | 24.61 | 289 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -MEASURE- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 814 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 166 mW -MEASURE- | 1660.56 mW -EXEMPT- | 479 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 166 mW -MEASURE- | 1660.56 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 3400 | 19.00 | 79 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 139 mW -EXEMPT- | 3060 mW -EXEMPT- | 528 mW -EXEMPT- | <5mm - MEASURE- | 5 mW -MEASURE- | 139 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 3550 | 19.24 | 84 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 137 mW -EXEMPT- | 3060 mW -EXEMPT- | 524 mW -EXEMPT- | <5mm - MEASURE- | 5 mW -MEASURE- | 137 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1710 | 24.16 | 261 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -MEASURE- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -MEASURE- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 663 | 24.00 | 251 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 187 mW -MEASURE- | 1352.52 mW -EXEMPT- | 439 mW -EXEMPT- | <5mm - MEASURE- | 22 mW -MEASURE- | 187 mW -MEASURE- | 1352.52 mW -EXEMPT- | <5mm - MEASURE- |

## For Reduction Power exemption

| Antenna | RAT | Frequency | Output Pow er or ERP | | Separation Distances (mm) | | | | | | | | Calculated Threshold Value | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | [MHz] | dBm | mW | Edge1 | Edge2 | Edge3 | Edge4 | Rear | Rear tilt (Edge1 side) | Rear tilt (Edge2 side) | Rear tilt (Edge4 side) | Edge1 | Edge2 | Edge3 | Edge4 | Rear | Rear tilt (Edge1 side) | Rear tilt (Edge2 side) | Rear tilt (Edge4 side) |
| Main | WCDMA | 1850 | 17.91 | 62 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | WCDMA | 1710 | 16.96 | 50 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | WCDMA | 824 | 17.70 | 59 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -EXEMPT- | 1680.96 mW -EXEMPT- | 481 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 186 mW -EXEMPT- | 1680.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1850 | 18.01 | 63 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1710 | 17.66 | 58 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 824 | 16.80 | 48 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -EXEMPT- | 1680.96 mW -EXEMPT- | 481 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 186 mW -EXEMPT- | 1680.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 2500 | 16.00 | 40 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 155 mW -EXEMPT- | 3060 mW -EXEMPT- | 560 mW -EXEMPT- | <5mm - MEASURE- | 6 mW -MEASURE- | 155 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 699 | 18.40 | 69 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 187 mW -EXEMPT- | 1425.96 mW -EXEMPT- | 449 mW -EXEMPT- | <5mm - MEASURE- | 20 mW -MEASURE- | 187 mW -EXEMPT- | 1425.96 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 777 | 18.10 | 65 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -EXEMPT- | 1585.08 mW -EXEMPT- | 469 mW -EXEMPT- | <5mm - MEASURE- | 18 mW -MEASURE- | 186 mW -EXEMPT- | 1585.08 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 788 | 17.40 | 55 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 186 mW -EXEMPT- | 1607.52 mW -EXEMPT- | 472 mW -EXEMPT- | <5mm - MEASURE- | 18 mW -MEASURE- | 186 mW -EXEMPT- | 1607.52 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1850 | 18.01 | 63 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | 594 mW -EXEMPT- | <5mm - MEASURE- | 7 mW -MEASURE- | 171 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 814 | 17.10 | 51 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 166 mW -EXEMPT- | 1660.56 mW -EXEMPT- | 479 mW -EXEMPT- | <5mm - MEASURE- | 17 mW -MEASURE- | 166 mW -EXEMPT- | 1660.56 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 3400 | 11.00 | 13 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 139 mW -EXEMPT- | 3060 mW -EXEMPT- | 528 mW -EXEMPT- | <5mm - MEASURE- | 5 mW -MEASURE- | 139 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 3550 | 11.24 | 13 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 137 mW -EXEMPT- | 3060 mW -EXEMPT- | 524 mW -EXEMPT- | <5mm - MEASURE- | 5 mW -MEASURE- | 137 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 1710 | 17.06 | 51 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | 603 mW -EXEMPT- | <5mm - MEASURE- | 8 mW -MEASURE- | 176 mW -EXEMPT- | 3060 mW -EXEMPT- | <5mm - MEASURE- |
| Main | LTE | 663 | 18.10 | 65 | 41.80 | 268.40 | 82.10 | 1.70 | 7.60 | 41.80 | 268.40 | 1.70 | 187 mW -EXEMPT- | 1352.52 mW -EXEMPT- | 439 mW -EXEMPT- | <5mm - MEASURE- | 22 mW -MEASURE- | 187 mW -EXEMPT- | 1352.52 mW -EXEMPT- | <5mm - MEASURE- |

| | |
|---|---|
| | : measurement is NOT required |
| | : measurement is required |

## SECTION 11: Description of the Body setup

### 11.1 Test position

According to the previous considerations, following position is required.

Additional surfaces will be tested to evaluate the addition of other features.

Table Test position

| No. | Position | Test distance | DSI 0 | Test distance | DSI 1 |
|---|---|---|---|---|---|
| | | | Tested | | Tasted |
| 1 | Edge1 | 0 mm | ☒ | 0 mm | ☐ |
| 2 | Edge2 | 0 mm | ☐ | 0 mm | ☐ |
| 3 | Edge3 | 0 mm | ☒ | 0 mm | ☐ |
| 4 | Edge4 | 19 mm | ☒ | 0 mm | ☒ |
| 5 | Rear | 9 mm | ☒ | 0 mm | ☒ |
| 6 | Rear tilt (Edge 1 side) | 0 mm | ☒ | 0 mm | ☐ |
| 7 | Rear tilt (Edge 2 side) | 0 mm | ☐ | 0 mm | ☐ |
| 8 | Rear tilt (Edge 4 side) | 9 mm | ☒ | 0 mm | ☒ |

## SECTION 12: Conducted Output Power / SAR / PD Measurements

### 12.1 Measurement configuration for conducted output power

WWAN average output power was measured with burst power (on time).

### 12.1.1 WCDMA configuration

**Release 99 Setup Procedures used to establish the test signals**

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

| Mode | Subtest | Rel99 |
|---|---|---|
| WCDMA General Settings | Loopback Mode | Test Mode 2 |
| | Rel99 RMC | 12.2kbps RMC |
| | Power Control Algorithm | Algorithm2 |
| | βc/βd | 8/15 |

**HSDPA Setup Procedures used to establish the test signals**

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

**Table C.10.2.4: β values for transmitter characteristics tests with HS-DPCCH**

| | Mode | HSDPA | HSDPA | HSDPA | HSDPA |
|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 |
| W-CDMA General Settings | Loopback Mode | Test Mode 1 | | | |
| | Rel99 RMC | 12.2kbps RMC | | | |
| | HSDPA FRC | H-Set 1 | | | |
| | Power Control Algorithm | Algorithm 2 | | | |
| | βc | 2/15 | 11/15 | 15/15 | 15/15 |
| | βd | 15/15 | 15/15 | 8/15 | 4/15 |
| | Bd (SF) | 64 | | | |
| | βc/βd | 2/15 | 11/15 | 15/8 | 15/4 |
| | βhs | 4/15 | 24/15 | 30/15 | 30/15 |
| | MPR (dB) | 0 | 0 | 0.5 | 0.5 |
| HSDPA Specific Settings | $D_{ACK}$ | 8 | | | |
| | $D_{NAK}$ | 8 | | | |
| | DCQI | 8 | | | |
| | Ack-Nack repetition factor | 3 | | | |
| | CQI Feedback (Table 5.2B.4) | 4ms | | | |
| | CQI Repetition Factor (Table 5.2B.4) | 2 | | | |
| | Ahs=βhs/βc | 30/15 | | | |

## HSPA (HSDPA & HSUPA) Setup Procedures used to establish the test signals

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1
A summary of these settings are illustrated below:

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

| | Mode | HSPA | | | | |
|---|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 | 5 |
| WCDMA General Settings | Loopback Mode | Test Mode 1 | | | | |
| | Rel99 RMC | 12.2 kbps RMC | | | | |
| | HSDPA FRC | H-Set 1 | | | | |
| | HSUPA Test | HSPA | | | | |
| | Power Control Algorithm | Algorithm 2 | | | | Algorithm 1 |
| | βc | 11/15 | 6/15 | 15/15 | 2/15 | 15/15 |
| | βd | 15/15 | 15/15 | 9/15 | 15/15 | 0 |
| | βec | 209/225 | 12/15 | 30/15 | 2/15 | 5/15 |
| | βc/βd | 11/15 | 6/15 | 15/9 | 2/15 | - |
| | βhs | 22/15 | 12/15 | 30/15 | 4/15 | 5/15 |
| | βed | 1309/225 | 94/75 | 47/15 | 56/75 | 47/15 |
| | CM (dB) | 1 | 3 | 2 | 3 | 1 |
| | MPR (dB) | 0 | 2 | 1 | 2 | 0 |
| HSDPA Specific Settings | DACK | 8 | | | | 0 |
| | DNAK | 8 | | | | 0 |
| | DCQI | 8 | | | | 0 |
| | Ack-Nack repetition factor | 3 | | | | |
| | CQI Feedback (Table 5.2B.4) | 4ms | | | | |
| | CQI Repetition Factor (Table 5.2B.4) | 2 | | | | |
| | Ahs = βhs/βc | 30/15 | | | | |
| HSUPA Specific Settings | E-DPDCCH | 6 | 8 | 8 | 5 | 0 |
| | DHARQ | 0 | 0 | 0 | 0 | 0 |
| | AG Index | 20 | 12 | 15 | 17 | 12 |
| | ETFCI (from 34.121 Table C.11.1.3) | 75 | 67 | 92 | 71 | 67 |
| | Associated Max UL Data Rate kbps | 242.1 | 174.9 | 482.8 | 205.8 | 308.9 |
| | Reference E-TFCIs | 5 | 5 | 2 | 5 | 1 |
| | Reference E-TFCI | 11 | 11 | 11 | 11 | 67 |
| | Reference E-TFCI PO | 4 | 4 | 4 | 4 | 18 |
| | Reference E-TFCI | 67 | 67 | 92 | 67 | 67 |
| | Reference E-TFCI PO | 18 | 18 | 18 | 18 | 18 |
| | Reference E-TFCI | 71 | 71 | 71 | 71 | 71 |
| | Reference E-TFCI PO | 23 | 23 | 23 | 23 | 23 |
| | Reference E-TFCI | 75 | 75 | 75 | 75 | 75 |
| | Reference E-TFCI PO | 26 | 26 | 26 | 26 | 26 |
| | Reference E-TFCI | 81 | 81 | 81 | 81 | 81 |
| | Reference E-TFCI PO | 27 | 27 | 27 | 27 | 27 |
| | Maximum Channelization Codes | 2xSF2 | | | | SF4 |

**DC-HSDPA Setup Procedures used to establish the test signals**

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108. A summary of these settings are illustrated below:
Downlink Physical Channels are set as per 3GPP TS34.121-1

**Table E.5.0: Levels for HSDPA connection setup**

| Parameter During Connection setup | Unit | Value |
|---|---|---|
| P-CPICH_Ec/Ior | dB | -10 |
| P-CCPCH and SCH_Ec/Ior | dB | -12 |
| PICH _Ec/Ior | dB | -15 |
| HS-PDSCH | dB | off |
| HS-SCCH_1 | dB | off |
| DPCH_Ec/Ior | dB | -5 |
| OCNS_Ec/Ior | dB | -3.1 |

Call is set up as per 3GPP TS34.108 sub clause 7.3.13
The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

**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 | Proces ses | 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. | | |

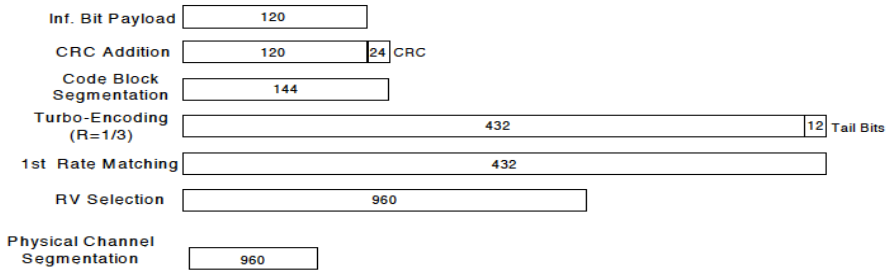



**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)**

The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121.
A summary of subtest settings are illustrated below:

| | Mode | HSDPA | HSDPA | HSDPA | HSDPA |
|---|---|---|---|---|---|
| | Subtest | 1 | 2 | 3 | 4 |
| WCDMA General Settings | Loopback Mode | Test Mode 1 | | | |
| | Rel99 RMC | 12.2kbps RMC | | | |
| | HSDPA FRC | H-Set 1 | | | |
| | Power Control Algorithm | Algorithm2 | | | |
| | βc | 2/15 | 11/15 | 15/15 | 15/15 |
| | βd | 15/15 | 15/15 | 8/15 | 4/15 |
| | βd (SF) | 64 | | | |
| | βc/βd | 2/15 | 12/15 | 15/8 | 15/4 |
| | βhs | 4/15 | 24/15 | 30/15 | 30/15 |
| | MPR (dB) | 0 | 0 | 0.5 | 0.5 |
| HSDPA Specific Settings | DACK | 8 | | | |
| | DNAK | 8 | | | |
| | DCQI | 8 | | | |
| | Ack-Nack Repetition factor | 3 | | | |
| | CQI Feedback | 4ms | | | |
| | CQI Repetition Factor | 2 | | | |
| | Ahs = βhs/ βc | 30/15 | | | |

**HSPA+**

The following 1 Sub-test was completed according to Release 7 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

**Table** C.11.1.4: **β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM**

| Sub-test | $\beta_c$ (Note3) | $\beta_d$ | $\beta_{HS}$ (Note1) | $\beta_{ec}$ | $\beta_{ed}$ (2xSF2) (Note 4) | $\beta_{ed}$ (2xSF4) (Note 4) | CM (dB) (Note 2) | MPR (dB) (Note 2) | AG Index (Note 4) | E-TFCI (Note 5) | E-TFCI (boost) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 30/15 | 30/15 | $\beta_{ed}$1: 30/15<br>$\beta_{ed}$2: 30/15 | $\beta_{ed}$3: 24/15<br>$\beta_{ed}$4: 24/15 | 3.5 | 2.5 | 14 | 105 | 105 |

Note 1: $\Delta_{ACK}$, $\Delta_{NACK}$ and $\Delta_{CQI}$ = 30/15 with $\beta_{hs}$ = 30/15 * $\beta_c$.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the $\beta_c$ is set to 1 and $\beta_d$ = 0 by default.
Note 4: $\beta_{ed}$ can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

### 12.1.2 LTE single configuration

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.
UE Power Class: 3 (23 +/- 2 dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

**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 |

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.

| Network Signalling value | Requirements (subclause) | E-UTRA Band | Channel bandwidth (MHz) | Resources Blocks ($N_{RB}$) | A-MPR (dB) |
|---|---|---|---|---|---|
| NS_01 | 6.6.2.1.1 | Table 5.5-1 | 1.4, 3, 5, 10, 15, 20 | Table 5.6-1 | N/A |

### 12.1.3 LTE CA configuration

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power applicable to the DUT in table below. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

| Modulation | CA bandwidth Class B and C / Smallest Component Carrier Transmission Bandwidth Configuration | | | | MPR (dB) |
|---|---|---|---|---|---|
| | 25 RB | 50 RB | 75 RB | 100 RB | |
| QPSK | > 8 and ≤ 25 | > 12 and ≤ 50 | > 16 and ≤ 75 | > 18 and ≤ 100 | ≤ 1 |
| QPSK | > 25 | > 50 | > 75 | > 100 | ≤ 2 |
| 16 QAM | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 |
| 16 QAM | > 8 and ≤ 25 | > 12 and ≤ 50 | > 16 and ≤ 75 | > 18 and ≤ 100 | ≤ 2 |
| 16 QAM | > 25 | > 50 | > 75 | > 100 | ≤ 3 |
| 64 QAM | ≤ 8 and allocation wholly contained within a single CC | ≤ 12 and allocation wholly contained within a single CC | ≤ 16 and allocation wholly contained within a single CC | ≤ 18 and allocation wholly contained within a single CC | ≤ 2 |
| 64 QAM | > 8 or allocation extends across two CC's | > 12 or allocation extends across two CC's | > 16 or allocation extends across two CC's | > 18 or allocation extends across two CC's | ≤ 3 |

For PUCCH and SRS transmissions, the allowed MPR is according to that specified for PUSCH WPDK modulation for the corresponding transmission bandwidth.

### 12.1.4 LTE CA power measurement combination

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

**LTE DLCA Test Reduction Methodology:**
- The supported combinations were arranged by the number of component carriers in columns.
- Any limitations on the PCC or SCC for each combination were identified alongside the combination.
- Power measurements were performed for "supersets" (LTE CA combinations with multiple components carriers) and any "subsets" (LTE CA combinations with fewer component carriers) that were not completely covered by the supersets.
- Only subsets that have the exact same components as a superset were excluded for measurement.
- When there were certain restrictions on component carriers that existed in the superset that were not applied for the subset, the subset configuration was additionally evaluated.
- Both inter-band and intra-band downlink carrier aggregation scenarios were considered.
- Downlink CA combinations for SISO and 2x2 Downlink MIMO operations were measured independently, per May 2017 TCBC Workshop notes.
- All bands required for SAR testing per FCC KDB procedures were considered.

**General PCC and SCC configuration selection procedure:**
- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.
- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
- All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.

**Downlink CA with Downlink 2x2 MIMO RF Conducted Powers:**
This device supports downlink 4x4 MIMO operations for some LTE bands. Uplink transmission is limited to a single output stream. When carrier aggregation was applicable, the general test selection and setup procedures described above were applied.

**Uplink CA Conducted Powers:**
This device supports uplink carrier aggregation for some LTE bands with a maximum of two 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 noncontiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.

Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

**Downlink CA with Uplink CA Enabled:**
This device supports uplink carrier aggregation (ULCA) with additional Carrier Aggregation configurations active in the downlink. 2x2 DL MIMO is only operating in the downlink. Uplink transmission is limited to a single output stream for each component carrier of ULCA.
Power measurements were performed with ULCA active and additional CA configurations active in the downlink for the configuration per Fall 2017 TCB Workshop Notes.

## 12.2 WCDMA Power measurement result

### 12.2.1 WCDMA Band 2

**R99**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 2 | Rel 99 (RMC, 12.2 kbps) | 9262 | 1852.4 | 24.00 | 17.70 | 23.11 | 16.85 |
| | | 9400 | 1880.0 | 24.00 | 17.70 | 23.22 | 16.96 |
| | | 9538 | 1907.6 | 24.00 | 17.70 | 23.29 | 17.03 |

**HSDPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 2 | Subtest 1 | 9262 | 1852.4 | 21.50 | 16.70 | 21.12 | 15.71 |
| | | 9400 | 1880.0 | 21.50 | 16.70 | 20.07 | 14.75 |
| | | 9538 | 1907.6 | 21.50 | 16.70 | 20.36 | 14.91 |
| | Subtest 2 | 9262 | 1852.4 | 22.00 | 16.70 | 21.38 | 15.60 |
| | | 9400 | 1880.0 | 22.00 | 16.70 | 20.44 | 15.11 |
| | | 9538 | 1907.6 | 22.00 | 16.70 | 20.87 | 15.26 |
| | Subtest 3 | 9262 | 1852.4 | 21.50 | 15.70 | 20.70 | 14.82 |
| | | 9400 | 1880.0 | 21.50 | 15.70 | 19.73 | 14.12 |
| | | 9538 | 1907.6 | 21.50 | 15.70 | 20.14 | 14.34 |
| | Subtest 4 | 9262 | 1852.4 | 21.50 | 16.20 | 20.77 | 15.15 |
| | | 9400 | 1880.0 | 21.50 | 16.20 | 19.82 | 14.23 |
| | | 9538 | 1907.6 | 21.50 | 16.20 | 20.38 | 14.44 |

**DC-HSDPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 2 | Subtest 1 | 9262 | 1852.4 | 21.50 | 16.20 | 20.88 | 15.44 |
| | | 9400 | 1880.0 | 21.50 | 16.20 | 19.86 | 14.46 |
| | | 9538 | 1907.6 | 21.50 | 16.20 | 20.10 | 14.55 |
| | Subtest 2 | 9262 | 1852.4 | 22.00 | 16.70 | 21.27 | 15.57 |
| | | 9400 | 1880.0 | 22.00 | 16.70 | 20.34 | 14.96 |
| | | 9538 | 1907.6 | 22.00 | 16.70 | 20.76 | 15.15 |
| | Subtest 3 | 9262 | 1852.4 | 21.50 | 15.70 | 20.72 | 15.27 |
| | | 9400 | 1880.0 | 21.50 | 15.70 | 19.68 | 14.11 |
| | | 9538 | 1907.6 | 21.50 | 15.70 | 19.92 | 14.20 |
| | Subtest 4 | 9262 | 1852.4 | 21.50 | 16.20 | 20.88 | 15.19 |
| | | 9400 | 1880.0 | 21.50 | 16.20 | 19.96 | 14.37 |
| | | 9538 | 1907.6 | 21.50 | 16.20 | 20.33 | 14.53 |

**HSUPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | Avg Pwr (dBm) |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| WCDMA (UMTS) Band 2 | Subtest 1 | 9262 | 1852.4 | 23.00 | 16.70 | 21.64 | 15.86 |
| | | 9400 | 1880.0 | 23.00 | 16.70 | 21.09 | 15.63 |
| | | 9538 | 1907.6 | 23.00 | 16.70 | 21.35 | 15.68 |
| | Subtest 2 | 9262 | 1852.4 | 21.50 | 16.50 | 20.63 | 15.78 |
| | | 9400 | 1880.0 | 21.50 | 16.50 | 19.86 | 14.59 |
| | | 9538 | 1907.6 | 21.50 | 16.50 | 20.27 | 14.69 |
| | Subtest 3 | 9262 | 1852.4 | 22.00 | 16.70 | 21.52 | 15.78 |
| | | 9400 | 1880.0 | 22.00 | 16.70 | 20.51 | 15.36 |
| | | 9538 | 1907.6 | 22.00 | 16.70 | 20.76 | 15.53 |
| | Subtest 4 | 9262 | 1852.4 | 21.50 | 16.70 | 20.79 | 15.78 |
| | | 9400 | 1880.0 | 21.50 | 16.70 | 20.44 | 14.83 |
| | | 9538 | 1907.6 | 21.50 | 16.70 | 20.59 | 14.97 |
| | Subtest 5 | 9262 | 1852.4 | 22.50 | 16.70 | 21.34 | 15.80 |
| | | 9400 | 1880.0 | 22.50 | 16.70 | 20.84 | 15.19 |
| | | 9538 | 1907.6 | 22.50 | 16.70 | 21.13 | 15.39 |

**HSPA+**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 2 | Subtest 1 | 9262 | 1852.4 | 23.00 | 16.70 | 21.78 | 15.41 |
| | | 9400 | 1880.0 | 23.00 | 16.70 | 21.83 | 15.46 |
| | | 9538 | 1907.6 | 23.00 | 16.70 | 21.94 | 15.76 |

## 12.2.2 WCDMA Band 4

**R99**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 4 | Rel 99 (RMC, 12.2 kbps) | 1312 | 1712.4 | 23.20 | 16.80 | 23.03 | 15.89 |
| | | 1413 | 1732.6 | 23.20 | 16.80 | 23.15 | 15.92 |
| | | 1513 | 1752.6 | 23.20 | 16.80 | 22.82 | 15.58 |

**HSDPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 4 | Subtest 1 | 1312 | 1712.4 | 22.00 | 15.80 | 21.99 | 15.34 |
| | | 1413 | 1732.6 | 22.00 | 15.80 | 20.80 | 14.21 |
| | | 1513 | 1752.6 | 22.00 | 15.80 | 21.85 | 15.04 |
| | Subtest 2 | 1312 | 1712.4 | 22.00 | 15.80 | 21.96 | 15.27 |
| | | 1413 | 1732.6 | 22.00 | 15.80 | 20.84 | 13.91 |
| | | 1513 | 1752.6 | 22.00 | 15.80 | 21.82 | 14.70 |
| | Subtest 3 | 1312 | 1712.4 | 22.00 | 15.30 | 21.52 | 14.74 |
| | | 1413 | 1732.6 | 22.00 | 15.30 | 20.42 | 13.54 |
| | | 1513 | 1752.6 | 22.00 | 15.30 | 21.59 | 14.40 |
| | Subtest 4 | 1312 | 1712.4 | 21.50 | 15.30 | 21.40 | 14.62 |
| | | 1413 | 1732.6 | 21.50 | 15.30 | 20.29 | 13.32 |
| | | 1513 | 1752.6 | 21.50 | 15.30 | 21.27 | 14.13 |

**DC-HSDPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 4 | Subtest 1 | 1312 | 1712.4 | 22.00 | 15.30 | 21.66 | 14.94 |
| | | 1413 | 1732.6 | 22.00 | 15.30 | 20.52 | 13.67 |
| | | 1513 | 1752.6 | 22.00 | 15.30 | 21.61 | 14.68 |
| | Subtest 2 | 1312 | 1712.4 | 22.00 | 15.80 | 21.86 | 15.21 |
| | | 1413 | 1732.6 | 22.00 | 15.80 | 20.74 | 13.89 |
| | | 1513 | 1752.6 | 22.00 | 15.80 | 21.74 | 14.81 |
| | Subtest 3 | 1312 | 1712.4 | 22.00 | 15.30 | 21.51 | 14.47 |
| | | 1413 | 1732.6 | 22.00 | 15.30 | 20.42 | 13.59 |
| | | 1513 | 1752.6 | 22.00 | 15.30 | 21.34 | 14.41 |
| | Subtest 4 | 1312 | 1712.4 | 21.50 | 15.30 | 21.45 | 14.66 |
| | | 1413 | 1732.6 | 21.50 | 15.30 | 20.34 | 13.36 |
| | | 1513 | 1752.6 | 21.50 | 15.30 | 21.29 | 14.12 |

**HSUPA**

| Band | Mode | UL Ch No. | Freq. | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| WCDMA (UMTS) Band 4 | Subtest 1 | 1312 | 1712.4 | 23.00 | 15.80 | 22.24 | 15.12 |
| | | 1413 | 1732.6 | 23.00 | 15.80 | 21.65 | 14.89 |
| | | 1513 | 1752.6 | 23.00 | 15.80 | 22.13 | 15.06 |
| | Subtest 2 | 1312 | 1712.4 | 22.00 | 15.50 | 21.21 | 14.90 |
| | | 1413 | 1732.6 | 22.00 | 15.50 | 20.30 | 13.52 |
| | | 1513 | 1752.6 | 22.00 | 15.50 | 21.07 | 14.38 |
| | Subtest 3 | 1312 | 1712.4 | 23.00 | 15.80 | 22.04 | 14.97 |
| | | 1413 | 1732.6 | 23.00 | 15.80 | 21.34 | 14.26 |
| | | 1513 | 1752.6 | 23.00 | 15.80 | 21.96 | 14.92 |
| | Subtest 4 | 1312 | 1712.4 | 22.00 | 15.80 | 21.98 | 15.04 |
| | | 1413 | 1732.6 | 22.00 | 15.80 | 20.81 | 14.37 |
| | | 1513 | 1752.6 | 22.00 | 15.80 | 21.92 | 14.94 |
| | Subtest 5 | 1312 | 1712.4 | 23.00 | 15.80 | 21.95 | 15.10 |
| | | 1413 | 1732.6 | 23.00 | 15.80 | 21.32 | 14.29 |
| | | 1513 | 1752.6 | 23.00 | 15.80 | 21.92 | 14.96 |

**HSPA+**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 4 | Subtest 1 | 1312 | 1712.4 | 23.00 | 15.80 | 21.97 | 14.69 |
| | | 1413 | 1732.6 | 23.00 | 15.80 | 22.04 | 14.76 |
| | | 1513 | 1752.6 | 23.00 | 15.80 | 21.83 | 14.51 |

## 12.2.3 WCDMA Band 5

**R99**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 5 | Rel 99 (RMC, 12.2 kbps) | 4132 | 826.4 | 24.00 | 17.30 | 23.66 | 16.92 |
| | | 4183 | 836.6 | 24.00 | 17.30 | 23.71 | 16.99 |
| | | 4233 | 846.6 | 24.00 | 17.30 | 23.65 | 16.89 |

**HSDPA**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 5 | Subtest 1 | 4132 | 826.4 | 22.00 | 15.30 | 20.73 | 14.44 |
| | | 4183 | 836.6 | 22.00 | 15.30 | 21.02 | 14.63 |
| | | 4233 | 846.6 | 22.00 | 15.30 | 20.02 | 13.50 |
| | Subtest 2 | 4132 | 826.4 | 22.00 | 16.30 | 21.07 | 15.21 |
| | | 4183 | 836.6 | 22.00 | 16.30 | 21.38 | 15.62 |
| | | 4233 | 846.6 | 22.00 | 16.30 | 20.49 | 14.38 |
| | Subtest 3 | 4132 | 826.4 | 21.50 | 14.80 | 20.54 | 14.02 |
| | | 4183 | 836.6 | 21.50 | 14.80 | 20.76 | 14.15 |
| | | 4233 | 846.6 | 21.50 | 14.80 | 19.86 | 13.10 |
| | Subtest 4 | 4132 | 826.4 | 21.50 | 15.30 | 20.56 | 14.67 |
| | | 4183 | 836.6 | 21.50 | 15.30 | 20.84 | 14.93 |
| | | 4233 | 846.6 | 21.50 | 15.30 | 20.08 | 13.66 |

**DC-HSDPA**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 5 | Subtest 1 | 4132 | 826.4 | 22.00 | 16.30 | 21.23 | 15.45 |
| | | 4183 | 836.6 | 22.00 | 16.30 | 21.35 | 15.55 |
| | | 4233 | 846.6 | 22.00 | 16.30 | 21.27 | 14.57 |
| | Subtest 2 | 4132 | 826.4 | 22.00 | 16.30 | 21.06 | 15.37 |
| | | 4183 | 836.6 | 22.00 | 16.30 | 21.09 | 15.52 |
| | | 4233 | 846.6 | 22.00 | 16.30 | 21.14 | 14.51 |
| | Subtest 3 | 4132 | 826.4 | 21.50 | 16.30 | 20.54 | 14.68 |
| | | 4183 | 836.6 | 21.50 | 16.30 | 20.72 | 14.94 |
| | | 4233 | 846.6 | 21.50 | 16.30 | 20.44 | 14.39 |
| | Subtest 4 | 4132 | 826.4 | 21.50 | 16.30 | 20.71 | 14.78 |
| | | 4183 | 836.6 | 21.50 | 16.30 | 20.87 | 14.88 |
| | | 4233 | 846.6 | 21.50 | 16.30 | 20.63 | 14.49 |

**HSUPA**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| WCDMA (UMTS) Band 5 | Subtest 1 | 4132 | 826.4 | 23.00 | 16.30 | 21.93 | 15.63 |
| | | 4183 | 836.6 | 23.00 | 16.30 | 22.25 | 15.93 |
| | | 4233 | 846.6 | 23.00 | 16.30 | 21.72 | 15.51 |
| | Subtest 2 | 4132 | 826.4 | 21.00 | 14.80 | 20.63 | 14.06 |
| | | 4183 | 836.6 | 21.00 | 14.80 | 20.75 | 14.35 |
| | | 4233 | 846.6 | 21.00 | 14.80 | 19.78 | 14.14 |
| | Subtest 3 | 4132 | 826.4 | 22.00 | 16.30 | 20.92 | 14.52 |
| | | 4183 | 836.6 | 22.00 | 16.30 | 21.27 | 14.97 |
| | | 4233 | 846.6 | 22.00 | 16.30 | 20.78 | 14.49 |
| | Subtest 4 | 4132 | 826.4 | 21.00 | 14.80 | 20.00 | 13.60 |
| | | 4183 | 836.6 | 21.00 | 14.80 | 20.13 | 13.99 |
| | | 4233 | 846.6 | 21.00 | 14.80 | 19.89 | 13.56 |
| | Subtest 5 | 4132 | 826.4 | 23.00 | 16.30 | 21.93 | 15.49 |
| | | 4183 | 836.6 | 23.00 | 16.30 | 22.24 | 15.88 |
| | | 4233 | 846.6 | 23.00 | 16.30 | 21.67 | 15.49 |

**HSPA+**

| Band | Mode | UL Ch No. | Freq. (MHz) | Tune-up Upper Power(dBm) | | Avg Pwr (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | Full Power | Reduced Power | Full Power | Reduced Power |
| W-CDMA (UMTS) Band 5 | Subtest 1 | 4132 | 826.4 | 23.00 | 16.30 | 22.28 | 15.58 |
| | | 4183 | 836.6 | 23.00 | 16.30 | 22.32 | 15.61 |
| | | 4233 | 846.6 | 23.00 | 16.30 | 22.23 | 15.56 |

## 12.3 LTE Power measurement result

### 12.3.1 LTE Band 4 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 20175 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 1732.5 | - |
| 20 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.42 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.08 | - |
| | | 1 | 99 | 0 | 24.0 | - | 23.55 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.23 | - |
| | | 50 | 24 | 1 | 23.0 | - | 22.21 | - |
| | | 50 | 50 | 1 | 23.0 | - | 22.16 | - |
| | | 100 | 0 | 1 | 23.0 | - | 22.21 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.70 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.46 | - |
| | | 1 | 99 | 1 | 23.0 | - | 22.58 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.23 | - |
| | | 50 | 24 | 2 | 22.0 | - | 21.24 | - |
| | | 50 | 50 | 2 | 22.0 | - | 21.22 | - |
| | | 100 | 0 | 2 | 22.0 | - | 21.27 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.77 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.48 | - |
| | | 1 | 99 | 2 | 22.0 | - | 21.32 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.28 | - |
| | | 50 | 24 | 3 | 21.0 | - | 20.29 | - |
| | | 50 | 50 | 3 | 21.0 | - | 20.20 | - |
| | | 100 | 0 | 3 | 21.0 | - | 20.25 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20025 | 20175 | 20325 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1717.5 | 1732.5 | 1747.5 |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | 23.10 | 23.34 | 23.10 |
| | | 1 | 37 | 0 | 24.0 | 22.93 | 23.07 | 22.88 |
| | | 1 | 74 | 0 | 24.0 | 23.25 | 23.30 | 22.79 |
| | | 36 | 0 | 1 | 23.0 | 22.30 | 22.23 | 22.25 |
| | | 36 | 19 | 1 | 23.0 | 22.27 | 22.21 | 22.05 |
| | | 36 | 39 | 1 | 23.0 | 22.26 | 22.20 | 22.01 |
| | | 75 | 0 | 1 | 23.0 | 22.29 | 22.23 | 22.08 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.53 | 22.57 | 22.50 |
| | | 1 | 37 | 1 | 23.0 | 22.31 | 22.60 | 22.48 |
| | | 1 | 74 | 1 | 23.0 | 22.54 | 22.20 | 22.16 |
| | | 36 | 0 | 2 | 22.0 | 21.21 | 21.27 | 21.12 |
| | | 36 | 19 | 2 | 22.0 | 21.29 | 21.29 | 21.04 |
| | | 36 | 39 | 2 | 22.0 | 21.26 | 21.30 | 20.97 |
| | | 75 | 0 | 2 | 22.0 | 21.29 | 21.24 | 21.09 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.28 | 21.61 | 21.49 |
| | | 1 | 37 | 2 | 22.0 | 21.21 | 21.33 | 21.40 |
| | | 1 | 74 | 2 | 22.0 | 21.22 | 21.16 | 21.44 |
| | | 36 | 0 | 3 | 21.0 | 20.19 | 20.34 | 20.17 |
| | | 36 | 19 | 3 | 21.0 | 20.31 | 20.34 | 20.07 |
| | | 36 | 39 | 3 | 21.0 | 20.30 | 20.30 | 20.04 |
| | | 75 | 0 | 3 | 21.0 | 20.34 | 20.27 | 20.11 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20000 | 20175 | 20350 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1715 | 1732.5 | 1750 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 23.17 | 23.34 | 23.16 |
| | | 1 | 24 | 0 | 24.0 | 23.07 | 23.25 | 22.88 |
| | | 1 | 49 | 0 | 24.0 | 22.79 | 23.10 | 23.09 |
| | | 25 | 0 | 1 | 23.0 | 22.15 | 22.22 | 21.94 |
| | | 25 | 12 | 1 | 23.0 | 22.14 | 22.24 | 21.95 |
| | | 25 | 25 | 1 | 23.0 | 22.11 | 22.18 | 21.90 |
| | | 50 | 0 | 1 | 23.0 | 22.13 | 22.23 | 21.94 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.34 | 22.71 | 22.40 |
| | | 1 | 24 | 1 | 23.0 | 22.42 | 22.61 | 22.27 |
| | | 1 | 49 | 1 | 23.0 | 22.79 | 22.63 | 22.16 |
| | | 25 | 0 | 2 | 22.0 | 21.08 | 21.28 | 21.01 |
| | | 25 | 12 | 2 | 22.0 | 21.14 | 21.36 | 20.99 |
| | | 25 | 25 | 2 | 22.0 | 21.03 | 21.26 | 20.89 |
| | | 50 | 0 | 2 | 22.0 | 21.11 | 21.28 | 20.98 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.14 | 21.70 | 21.68 |
| | | 1 | 24 | 2 | 22.0 | 21.37 | 21.63 | 21.18 |
| | | 1 | 49 | 2 | 22.0 | 21.38 | 21.48 | 21.08 |
| | | 25 | 0 | 3 | 21.0 | 20.14 | 20.33 | 20.29 |
| | | 25 | 12 | 3 | 21.0 | 20.22 | 20.31 | 20.26 |
| | | 25 | 25 | 3 | 21.0 | 20.18 | 20.32 | 20.25 |
| | | 50 | 0 | 3 | 21.0 | 20.14 | 20.35 | 20.02 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19975 | 20175 | 20375 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1712.5 | 1732.5 | 1752.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.09 | 23.22 | 22.90 |
| | | 1 | 12 | 0 | 24.0 | 23.24 | 23.21 | 22.88 |
| | | 1 | 24 | 0 | 24.0 | 22.95 | 23.06 | 22.84 |
| | | 12 | 0 | 1 | 23.0 | 22.33 | 22.51 | 21.91 |
| | | 12 | 6 | 1 | 23.0 | 22.26 | 22.45 | 21.96 |
| | | 12 | 13 | 1 | 23.0 | 22.23 | 22.43 | 21.88 |
| | | 25 | 0 | 1 | 23.0 | 22.13 | 22.26 | 21.92 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.23 | 22.31 | 22.23 |
| | | 1 | 12 | 1 | 23.0 | 22.56 | 22.32 | 22.04 |
| | | 1 | 24 | 1 | 23.0 | 22.22 | 22.46 | 22.03 |
| | | 12 | 0 | 2 | 22.0 | 21.21 | 21.35 | 21.00 |
| | | 12 | 6 | 2 | 22.0 | 21.28 | 21.36 | 21.00 |
| | | 12 | 13 | 2 | 22.0 | 21.16 | 21.37 | 20.96 |
| | | 25 | 0 | 2 | 22.0 | 21.22 | 21.26 | 20.95 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.31 | 21.70 | 20.84 |
| | | 1 | 12 | 2 | 22.0 | 21.12 | 21.74 | 21.03 |
| | | 1 | 24 | 2 | 22.0 | 21.42 | 21.70 | 21.04 |
| | | 12 | 0 | 3 | 21.0 | 20.25 | 20.30 | 20.05 |
| | | 12 | 6 | 3 | 21.0 | 20.38 | 20.31 | 20.16 |
| | | 12 | 13 | 3 | 21.0 | 20.23 | 20.33 | 20.00 |
| | | 25 | 0 | 3 | 21.0 | 20.28 | 20.25 | 19.97 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19965 | 20175 | 20385 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1711.5 | 1732.5 | 1753.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 23.08 | 23.23 | 22.75 |
| | | 1 | 7 | 0 | 24.0 | 23.35 | 23.28 | 22.88 |
| | | 1 | 14 | 0 | 24.0 | 23.10 | 23.20 | 22.71 |
| | | 8 | 0 | 1 | 23.0 | 22.17 | 22.32 | 21.97 |
| | | 8 | 4 | 1 | 23.0 | 22.32 | 22.34 | 21.99 |
| | | 8 | 7 | 1 | 23.0 | 22.20 | 22.35 | 21.98 |
| | | 15 | 0 | 1 | 23.0 | 22.18 | 22.28 | 21.93 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.32 | 22.42 | 22.19 |
| | | 1 | 7 | 1 | 23.0 | 22.51 | 22.49 | 22.43 |
| | | 1 | 14 | 1 | 23.0 | 22.37 | 22.50 | 22.22 |
| | | 8 | 0 | 2 | 22.0 | 21.24 | 21.45 | 21.14 |
| | | 8 | 4 | 2 | 22.0 | 21.39 | 21.39 | 21.16 |
| | | 8 | 7 | 2 | 22.0 | 21.24 | 21.36 | 21.06 |
| | | 15 | 0 | 2 | 22.0 | 21.31 | 21.42 | 21.08 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.35 | 21.40 | 21.22 |
| | | 1 | 7 | 2 | 22.0 | 21.57 | 21.58 | 21.32 |
| | | 1 | 14 | 2 | 22.0 | 21.48 | 21.64 | 21.26 |
| | | 8 | 0 | 3 | 21.0 | 20.28 | 20.53 | 19.95 |
| | | 8 | 4 | 3 | 21.0 | 20.36 | 20.49 | 20.06 |
| | | 8 | 7 | 3 | 21.0 | 20.34 | 20.51 | 20.13 |
| | | 15 | 0 | 3 | 21.0 | 20.28 | 20.45 | 20.15 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19957 | 20175 | 20393 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1710.7 | 1732.5 | 1754.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 22.91 | 22.83 | 22.52 |
| | | 1 | 2 | 0 | 24.0 | 22.93 | 22.91 | 22.44 |
| | | 1 | 5 | 0 | 24.0 | 22.87 | 22.80 | 22.50 |
| | | 3 | 0 | 0 | 24.0 | 22.91 | 22.89 | 22.59 |
| | | 3 | 1 | 0 | 24.0 | 22.92 | 23.02 | 22.58 |
| | | 3 | 3 | 0 | 24.0 | 22.78 | 22.95 | 22.51 |
| | | 6 | 0 | 1 | 23.0 | 21.79 | 22.03 | 21.68 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.40 | 22.37 | 21.97 |
| | | 1 | 2 | 1 | 23.0 | 22.28 | 22.03 | 22.02 |
| | | 1 | 5 | 1 | 23.0 | 22.10 | 22.12 | 21.67 |
| | | 3 | 0 | 1 | 23.0 | 22.18 | 22.03 | 21.79 |
| | | 3 | 1 | 1 | 23.0 | 21.96 | 21.91 | 21.77 |
| | | 3 | 3 | 1 | 23.0 | 21.90 | 22.04 | 21.68 |
| | | 6 | 0 | 2 | 22.0 | 20.89 | 21.19 | 20.62 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.13 | 21.39 | 21.11 |
| | | 1 | 2 | 2 | 22.0 | 21.25 | 21.38 | 21.10 |
| | | 1 | 5 | 2 | 22.0 | 21.32 | 21.21 | 20.83 |
| | | 3 | 0 | 2 | 22.0 | 20.92 | 21.04 | 20.69 |
| | | 3 | 1 | 2 | 22.0 | 20.96 | 21.06 | 20.70 |
| | | 3 | 3 | 2 | 22.0 | 21.17 | 21.15 | 20.82 |
| | | 6 | 0 | 3 | 21.0 | 20.08 | 20.08 | 19.76 |

### 12.3.2 LTE Band 4 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 20175 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 1732.5 | - |
| 20 | QPSK | 1 | 0 | - | 17.5 | - | 16.58 | - |
| | | 1 | 49 | - | 17.5 | - | 16.79 | - |
| | | 1 | 99 | - | 17.5 | - | 16.81 | - |
| | | 50 | 0 | - | 17.5 | - | 16.75 | - |
| | | 50 | 24 | - | 17.5 | - | 16.72 | - |
| | | 50 | 50 | - | 17.5 | - | 16.66 | - |
| | | 100 | 0 | - | 17.5 | - | 16.70 | - |
| | 16QAM | 1 | 0 | - | 17.5 | - | 16.86 | - |
| | | 1 | 49 | - | 17.5 | - | 17.18 | - |
| | | 1 | 99 | - | 17.5 | - | 16.80 | - |
| | | 50 | 0 | - | 17.5 | - | 16.80 | - |
| | | 50 | 24 | - | 17.5 | - | 16.74 | - |
| | | 50 | 50 | - | 17.5 | - | 16.77 | - |
| | | 100 | 0 | - | 17.5 | - | 16.71 | - |
| | 64QAM | 1 | 0 | - | 17.5 | - | 16.98 | - |
| | | 1 | 49 | - | 17.5 | - | 16.68 | - |
| | | 1 | 99 | - | 17.5 | - | 16.74 | - |
| | | 50 | 0 | - | 17.5 | - | 16.74 | - |
| | | 50 | 24 | - | 17.5 | - | 16.79 | - |
| | | 50 | 50 | - | 17.5 | - | 16.74 | - |
| | | 100 | 0 | - | 17.5 | - | 16.74 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20025 | 20175 | 20325 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1717.5 | 1732.5 | 1747.5 |
| 15 | QPSK | 1 | 0 | - | 17.5 | 16.80 | 16.85 | 16.96 |
| | | 1 | 37 | - | 17.5 | 16.50 | 16.86 | 16.61 |
| | | 1 | 74 | - | 17.5 | 16.70 | 16.51 | 16.57 |
| | | 36 | 0 | - | 17.5 | 16.68 | 16.77 | 16.57 |
| | | 36 | 19 | - | 17.5 | 16.77 | 16.75 | 16.47 |
| | | 36 | 39 | - | 17.5 | 16.76 | 16.73 | 16.43 |
| | | 75 | 0 | - | 17.5 | 16.75 | 16.73 | 16.55 |
| | 16QAM | 1 | 0 | - | 17.5 | 16.76 | 17.13 | 17.14 |
| | | 1 | 37 | - | 17.5 | 16.65 | 16.96 | 16.72 |
| | | 1 | 74 | - | 17.5 | 16.59 | 16.87 | 16.68 |
| | | 36 | 0 | - | 17.5 | 16.67 | 16.79 | 16.57 |
| | | 36 | 19 | - | 17.5 | 16.80 | 16.81 | 16.50 |
| | | 36 | 39 | - | 17.5 | 16.78 | 16.77 | 16.50 |
| | | 75 | 0 | - | 17.5 | 16.82 | 16.77 | 16.57 |
| | 64QAM | 1 | 0 | - | 17.5 | 16.84 | 16.94 | 16.50 |
| | | 1 | 37 | - | 17.5 | 16.87 | 16.64 | 16.72 |
| | | 1 | 74 | - | 17.5 | 16.88 | 16.97 | 16.68 |
| | | 36 | 0 | - | 17.5 | 16.73 | 16.78 | 16.62 |
| | | 36 | 19 | - | 17.5 | 16.83 | 16.72 | 16.51 |
| | | 36 | 39 | - | 17.5 | 16.78 | 16.78 | 16.45 |
| | | 75 | 0 | - | 17.5 | 16.80 | 16.75 | 16.59 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20000 | 20175 | 20350 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1715 | 1732.5 | 1750 |
| 10 | QPSK | 1 | 0 | - | 17.5 | 16.66 | 16.94 | 16.69 |
| | | 1 | 24 | - | 17.5 | 16.56 | 16.71 | 16.62 |
| | | 1 | 49 | - | 17.5 | 16.75 | 16.56 | 16.55 |
| | | 25 | 0 | - | 17.5 | 16.75 | 16.72 | 16.47 |
| | | 25 | 12 | - | 17.5 | 16.77 | 16.73 | 16.45 |
| | | 25 | 25 | - | 17.5 | 16.72 | 16.70 | 16.41 |
| | | 50 | 0 | - | 17.5 | 16.73 | 16.71 | 16.45 |
| | 16QAM | 1 | 0 | - | 17.5 | 16.99 | 16.81 | 16.58 |
| | | 1 | 24 | - | 17.5 | 16.91 | 16.89 | 16.57 |
| | | 1 | 49 | - | 17.5 | 16.76 | 16.96 | 16.83 |
| | | 25 | 0 | - | 17.5 | 16.74 | 16.81 | 16.54 |
| | | 25 | 12 | - | 17.5 | 16.70 | 16.80 | 16.50 |
| | | 25 | 25 | - | 17.5 | 16.80 | 16.80 | 16.48 |
| | | 50 | 0 | - | 17.5 | 16.73 | 16.80 | 16.47 |
| | 64QAM | 1 | 0 | - | 17.5 | 16.86 | 16.84 | 16.81 |
| | | 1 | 24 | - | 17.5 | 16.69 | 16.96 | 16.67 |
| | | 1 | 49 | - | 17.5 | 16.47 | 16.94 | 16.81 |
| | | 25 | 0 | - | 17.5 | 16.73 | 16.79 | 16.50 |
| | | 25 | 12 | - | 17.5 | 16.70 | 16.82 | 16.53 |
| | | 25 | 25 | - | 17.5 | 16.73 | 16.78 | 16.54 |
| | | 50 | 0 | - | 17.5 | 16.74 | 16.77 | 16.48 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19975 | 20175 | 20375 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1712.5 | 1732.5 | 1752.5 |
| 5 | QPSK | 1 | 0 | - | 17.5 | 16.74 | 16.76 | 16.71 |
| | | 1 | 12 | - | 17.5 | 16.60 | 16.67 | 16.68 |
| | | 1 | 24 | - | 17.5 | 16.65 | 16.61 | 16.66 |
| | | 12 | 0 | - | 17.5 | 16.75 | 16.78 | 16.41 |
| | | 12 | 6 | - | 17.5 | 16.76 | 16.77 | 16.49 |
| | | 12 | 13 | - | 17.5 | 16.74 | 16.73 | 16.42 |
| | | 25 | 0 | - | 17.5 | 16.73 | 16.72 | 16.41 |
| | 16QAM | 1 | 0 | - | 17.5 | 16.88 | 16.99 | 16.85 |
| | | 1 | 12 | - | 17.5 | 16.87 | 16.86 | 16.58 |
| | | 1 | 24 | - | 17.5 | 16.80 | 16.71 | 16.39 |
| | | 12 | 0 | - | 17.5 | 16.70 | 16.81 | 16.48 |
| | | 12 | 6 | - | 17.5 | 16.79 | 16.89 | 16.53 |
| | | 12 | 13 | - | 17.5 | 16.74 | 16.80 | 16.54 |
| | | 25 | 0 | - | 17.5 | 16.73 | 16.80 | 16.47 |
| | 64QAM | 1 | 0 | - | 17.5 | 16.92 | 16.91 | 16.68 |
| | | 1 | 12 | - | 17.5 | 16.80 | 16.74 | 16.63 |
| | | 1 | 24 | - | 17.5 | 16.66 | 16.85 | 16.85 |
| | | 12 | 0 | - | 17.5 | 16.86 | 16.86 | 16.56 |
| | | 12 | 6 | - | 17.5 | 16.80 | 16.87 | 16.63 |
| | | 12 | 13 | - | 17.5 | 16.80 | 16.85 | 16.52 |
| | | 25 | 0 | - | 17.5 | 16.71 | 16.79 | 16.46 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19965 | 20175 | 20385 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1711.5 | 1732.5 | 1753.5 |
| 3 | QPSK | 1 | 0 | - | 17.5 | 16.72 | 16.63 | 16.49 |
| | | 1 | 7 | - | 17.5 | 16.86 | 16.74 | 16.43 |
| | | 1 | 14 | - | 17.5 | 16.65 | 16.70 | 16.38 |
| | | 8 | 0 | - | 17.5 | 16.75 | 16.77 | 16.45 |
| | | 8 | 4 | - | 17.5 | 16.79 | 16.76 | 16.42 |
| | | 8 | 7 | - | 17.5 | 16.71 | 16.71 | 16.40 |
| | | 15 | 0 | - | 17.5 | 16.78 | 16.72 | 16.41 |
| | 16QAM | 1 | 0 | - | 17.5 | 16.79 | 17.05 | 16.77 |
| | | 1 | 7 | - | 17.5 | 17.17 | 17.15 | 16.88 |
| | | 1 | 14 | - | 17.5 | 17.00 | 17.00 | 16.81 |
| | | 8 | 0 | - | 17.5 | 16.82 | 16.86 | 16.51 |
| | | 8 | 4 | - | 17.5 | 16.80 | 16.93 | 16.52 |
| | | 8 | 7 | - | 17.5 | 16.78 | 16.88 | 16.50 |
| | | 15 | 0 | - | 17.5 | 16.74 | 16.80 | 16.47 |
| | 64QAM | 1 | 0 | - | 17.5 | 16.65 | 16.95 | 16.31 |
| | | 1 | 7 | - | 17.5 | 16.83 | 17.00 | 16.72 |
| | | 1 | 14 | - | 17.5 | 16.90 | 16.95 | 16.64 |
| | | 8 | 0 | - | 17.5 | 16.76 | 16.75 | 16.52 |
| | | 8 | 4 | - | 17.5 | 16.78 | 16.91 | 16.47 |
| | | 8 | 7 | - | 17.5 | 16.73 | 16.75 | 16.50 |
| | | 15 | 0 | - | 17.5 | 16.76 | 16.77 | 16.42 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 4 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 19957 | 20175 | 20393 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1710.7 | 1732.5 | 1754.3 |
| 1.4 | QPSK | 1 | 0 | - | 17.5 | 16.77 | 16.52 | 16.25 |
| | | 1 | 2 | - | 17.5 | 16.72 | 16.48 | 16.20 |
| | | 1 | 5 | - | 17.5 | 16.61 | 16.39 | 15.98 |
| | | 3 | 0 | - | 17.5 | 16.64 | 16.36 | 16.05 |
| | | 3 | 1 | - | 17.5 | 16.67 | 16.53 | 16.11 |
| | | 3 | 3 | - | 17.5 | 16.63 | 16.43 | 16.06 |
| | | 6 | 0 | - | 17.5 | 16.60 | 16.44 | 16.06 |
| | 16QAM | 1 | 0 | - | 17.5 | 16.78 | 16.81 | 16.53 |
| | | 1 | 2 | - | 17.5 | 16.94 | 16.76 | 16.68 |
| | | 1 | 5 | - | 17.5 | 16.88 | 16.66 | 16.32 |
| | | 3 | 0 | - | 17.5 | 16.77 | 16.52 | 16.18 |
| | | 3 | 1 | - | 17.5 | 16.78 | 16.55 | 16.27 |
| | | 3 | 3 | - | 17.5 | 16.76 | 16.41 | 16.23 |
| | | 6 | 0 | - | 17.5 | 16.80 | 16.45 | 16.03 |
| | 64QAM | 1 | 0 | - | 17.5 | 16.87 | 16.76 | 16.58 |
| | | 1 | 2 | - | 17.5 | 16.90 | 16.86 | 16.39 |
| | | 1 | 5 | - | 17.5 | 16.89 | 16.71 | 16.20 |
| | | 3 | 0 | - | 17.5 | 16.72 | 16.47 | 16.19 |
| | | 3 | 1 | - | 17.5 | 16.82 | 16.74 | 16.16 |
| | | 3 | 3 | - | 17.5 | 16.82 | 16.73 | 16.31 |
| | | 6 | 0 | - | 17.5 | 16.68 | 16.51 | 16.19 |

### 12.3.3 LTE Band 5 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 20525 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 836.5 | - |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.67 | - |
| | | 1 | 24 | 0 | 24.0 | - | 23.52 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.41 | - |
| | | 25 | 0 | 1 | 23.0 | - | 22.70 | - |
| | | 25 | 12 | 1 | 23.0 | - | 22.68 | - |
| | | 25 | 25 | 1 | 23.0 | - | 22.60 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.64 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.94 | - |
| | | 1 | 24 | 1 | 23.0 | - | 22.61 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.90 | - |
| | | 25 | 0 | 2 | 22.0 | - | 21.64 | - |
| | | 25 | 12 | 2 | 22.0 | - | 21.66 | - |
| | | 25 | 25 | 2 | 22.0 | - | 21.62 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.66 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.85 | - |
| | | 1 | 24 | 2 | 22.0 | - | 21.75 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.76 | - |
| | | 25 | 0 | 3 | 21.0 | - | 20.70 | - |
| | | 25 | 12 | 3 | 21.0 | - | 20.64 | - |
| | | 25 | 25 | 3 | 21.0 | - | 20.59 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.62 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20425 | 20525 | 20625 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 826.5 | 836.5 | 846.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.32 | 23.46 | 23.44 |
| | | 1 | 12 | 0 | 24.0 | 23.50 | 23.56 | 23.52 |
| | | 1 | 24 | 0 | 24.0 | 23.58 | 23.64 | 23.51 |
| | | 12 | 0 | 1 | 23.0 | 22.61 | 22.64 | 22.56 |
| | | 12 | 6 | 1 | 23.0 | 22.65 | 22.65 | 22.63 |
| | | 12 | 13 | 1 | 23.0 | 22.63 | 22.62 | 22.61 |
| | | 25 | 0 | 1 | 23.0 | 22.56 | 22.62 | 22.54 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.69 | 22.85 | 22.67 |
| | | 1 | 12 | 1 | 23.0 | 22.81 | 22.60 | 22.96 |
| | | 1 | 24 | 1 | 23.0 | 22.96 | 22.71 | 22.57 |
| | | 12 | 0 | 2 | 22.0 | 21.51 | 21.67 | 21.61 |
| | | 12 | 6 | 2 | 22.0 | 21.61 | 21.79 | 21.63 |
| | | 12 | 13 | 2 | 22.0 | 21.62 | 21.69 | 21.60 |
| | | 25 | 0 | 2 | 22.0 | 21.60 | 21.61 | 21.53 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.63 | 21.77 | 21.73 |
| | | 1 | 12 | 2 | 22.0 | 21.89 | 21.77 | 21.99 |
| | | 1 | 24 | 2 | 22.0 | 21.57 | 21.57 | 21.70 |
| | | 12 | 0 | 3 | 21.0 | 20.59 | 20.63 | 20.63 |
| | | 12 | 6 | 3 | 21.0 | 20.61 | 20.66 | 20.62 |
| | | 12 | 13 | 3 | 21.0 | 20.60 | 20.68 | 20.59 |
| | | 25 | 0 | 3 | 21.0 | 20.56 | 20.62 | 20.47 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20415 | 20525 | 20635 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 825.5 | 836.5 | 847.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 23.47 | 23.56 | 23.56 |
| | | 1 | 7 | 0 | 24.0 | 23.58 | 23.63 | 23.59 |
| | | 1 | 14 | 0 | 24.0 | 23.56 | 23.43 | 23.49 |
| | | 8 | 0 | 1 | 23.0 | 22.63 | 22.68 | 22.69 |
| | | 8 | 4 | 1 | 23.0 | 22.67 | 22.73 | 22.71 |
| | | 8 | 7 | 1 | 23.0 | 22.68 | 22.74 | 22.57 |
| | | 15 | 0 | 1 | 23.0 | 22.62 | 22.67 | 22.66 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.87 | 22.80 | 22.74 |
| | | 1 | 7 | 1 | 23.0 | 22.94 | 22.97 | 22.89 |
| | | 1 | 14 | 1 | 23.0 | 22.76 | 22.83 | 22.65 |
| | | 8 | 0 | 2 | 22.0 | 21.82 | 21.76 | 21.75 |
| | | 8 | 4 | 2 | 22.0 | 21.88 | 21.69 | 21.73 |
| | | 8 | 7 | 2 | 22.0 | 21.73 | 21.77 | 21.66 |
| | | 15 | 0 | 2 | 22.0 | 21.74 | 21.72 | 21.78 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.73 | 21.84 | 21.80 |
| | | 1 | 7 | 2 | 22.0 | 21.93 | 21.83 | 21.99 |
| | | 1 | 14 | 2 | 22.0 | 21.85 | 21.86 | 21.75 |
| | | 8 | 0 | 3 | 21.0 | 20.75 | 20.92 | 20.80 |
| | | 8 | 4 | 3 | 21.0 | 20.90 | 20.93 | 20.72 |
| | | 8 | 7 | 3 | 21.0 | 20.78 | 20.65 | 20.86 |
| | | 15 | 0 | 3 | 21.0 | 20.88 | 20.87 | 20.86 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20407 | 20525 | 20643 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 824.7 | 836.5 | 848.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 23.01 | 23.19 | 23.27 |
| | | 1 | 2 | 0 | 24.0 | 23.10 | 23.18 | 23.09 |
| | | 1 | 5 | 0 | 24.0 | 23.02 | 23.15 | 23.10 |
| | | 3 | 0 | 0 | 24.0 | 23.04 | 23.16 | 23.25 |
| | | 3 | 1 | 0 | 24.0 | 23.13 | 23.14 | 23.20 |
| | | 3 | 3 | 0 | 24.0 | 23.10 | 23.22 | 23.24 |
| | | 6 | 0 | 1 | 23.0 | 22.15 | 22.19 | 22.32 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.40 | 22.56 | 22.46 |
| | | 1 | 2 | 1 | 23.0 | 22.40 | 22.53 | 22.18 |
| | | 1 | 5 | 1 | 23.0 | 22.33 | 22.21 | 22.24 |
| | | 3 | 0 | 1 | 23.0 | 22.32 | 22.34 | 22.24 |
| | | 3 | 1 | 1 | 23.0 | 22.26 | 22.32 | 22.20 |
| | | 3 | 3 | 1 | 23.0 | 22.24 | 22.37 | 22.23 |
| | | 6 | 0 | 2 | 22.0 | 21.20 | 21.37 | 21.16 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.27 | 21.42 | 21.43 |
| | | 1 | 2 | 2 | 22.0 | 21.35 | 21.32 | 21.40 |
| | | 1 | 5 | 2 | 22.0 | 21.21 | 21.35 | 21.34 |
| | | 3 | 0 | 2 | 22.0 | 21.25 | 21.44 | 21.28 |
| | | 3 | 1 | 2 | 22.0 | 21.15 | 21.32 | 21.32 |
| | | 3 | 3 | 2 | 22.0 | 21.17 | 21.28 | 21.15 |
| | | 6 | 0 | 3 | 21.0 | 20.11 | 20.25 | 20.20 |

### 12.3.4 LTE Band 5 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 20525 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 836.5 | - |
| 10 | QPSK | 1 | 0 | - | 16.8 | - | 15.98 | - |
| | | 1 | 24 | - | 16.8 | - | 15.78 | - |
| | | 1 | 49 | - | 16.8 | - | 15.87 | - |
| | | 25 | 0 | - | 16.8 | - | 15.78 | - |
| | | 25 | 12 | - | 16.8 | - | 15.76 | - |
| | | 25 | 25 | - | 16.8 | - | 15.75 | - |
| | | 50 | 0 | - | 16.8 | - | 15.74 | - |
| | 16QAM | 1 | 0 | - | 16.8 | - | 15.83 | - |
| | | 1 | 24 | - | 16.8 | - | 15.76 | - |
| | | 1 | 49 | - | 16.8 | - | 15.88 | - |
| | | 25 | 0 | - | 16.8 | - | 15.80 | - |
| | | 25 | 12 | - | 16.8 | - | 15.78 | - |
| | | 25 | 25 | - | 16.8 | - | 15.69 | - |
| | | 50 | 0 | - | 16.8 | - | 15.80 | - |
| | 64QAM | 1 | 0 | - | 16.8 | - | 15.80 | - |
| | | 1 | 24 | - | 16.8 | - | 15.88 | - |
| | | 1 | 49 | - | 16.8 | - | 15.95 | - |
| | | 25 | 0 | - | 16.8 | - | 15.77 | - |
| | | 25 | 12 | - | 16.8 | - | 15.75 | - |
| | | 25 | 25 | - | 16.8 | - | 15.63 | - |
| | | 50 | 0 | - | 16.8 | - | 15.73 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20425 | 20525 | 20625 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 826.5 | 836.5 | 846.5 |
| 5 | QPSK | 1 | 0 | - | 16.8 | 15.79 | 15.75 | 15.82 |
| | | 1 | 12 | - | 16.8 | 15.81 | 15.87 | 15.98 |
| | | 1 | 24 | - | 16.8 | 15.98 | 15.77 | 15.79 |
| | | 12 | 0 | - | 16.8 | 15.76 | 15.84 | 15.80 |
| | | 12 | 6 | - | 16.8 | 15.78 | 15.81 | 15.84 |
| | | 12 | 13 | - | 16.8 | 15.82 | 15.78 | 15.79 |
| | | 25 | 0 | - | 16.8 | 15.72 | 15.81 | 15.83 |
| | 16QAM | 1 | 0 | - | 16.8 | 15.76 | 16.02 | 16.04 |
| | | 1 | 12 | - | 16.8 | 15.92 | 16.12 | 16.07 |
| | | 1 | 24 | - | 16.8 | 16.04 | 15.99 | 15.91 |
| | | 12 | 0 | - | 16.8 | 15.76 | 15.81 | 15.85 |
| | | 12 | 6 | - | 16.8 | 15.78 | 15.81 | 15.90 |
| | | 12 | 13 | - | 16.8 | 15.86 | 15.80 | 15.89 |
| | | 25 | 0 | - | 16.8 | 15.72 | 15.74 | 15.85 |
| | 64QAM | 1 | 0 | - | 16.8 | 15.59 | 16.07 | 16.05 |
| | | 1 | 12 | - | 16.8 | 15.90 | 15.90 | 16.00 |
| | | 1 | 24 | - | 16.8 | 15.87 | 15.82 | 15.83 |
| | | 12 | 0 | - | 16.8 | 15.82 | 15.83 | 15.89 |
| | | 12 | 6 | - | 16.8 | 15.76 | 15.84 | 15.88 |
| | | 12 | 13 | - | 16.8 | 15.75 | 15.77 | 15.81 |
| | | 25 | 0 | - | 16.8 | 15.76 | 15.77 | 15.81 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20415 | 20525 | 20635 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 825.5 | 836.5 | 847.5 |
| 3 | QPSK | 1 | 0 | - | 16.8 | 15.70 | 15.80 | 15.81 |
| | | 1 | 7 | - | 16.8 | 15.90 | 15.79 | 15.98 |
| | | 1 | 14 | - | 16.8 | 15.72 | 15.65 | 15.79 |
| | | 8 | 0 | - | 16.8 | 15.75 | 15.84 | 15.80 |
| | | 8 | 4 | - | 16.8 | 15.79 | 15.85 | 15.84 |
| | | 8 | 7 | - | 16.8 | 15.76 | 15.79 | 15.79 |
| | | 15 | 0 | - | 16.8 | 15.79 | 15.74 | 15.83 |
| | 16QAM | 1 | 0 | - | 16.8 | 15.74 | 15.93 | 16.04 |
| | | 1 | 7 | - | 16.8 | 16.05 | 16.00 | 16.07 |
| | | 1 | 14 | - | 16.8 | 16.00 | 15.83 | 15.91 |
| | | 8 | 0 | - | 16.8 | 15.85 | 15.85 | 15.85 |
| | | 8 | 4 | - | 16.8 | 15.79 | 15.77 | 15.90 |
| | | 8 | 7 | - | 16.8 | 15.76 | 15.78 | 15.89 |
| | | 15 | 0 | - | 16.8 | 15.75 | 15.89 | 15.85 |
| | 64QAM | 1 | 0 | - | 16.8 | 15.99 | 15.95 | 16.05 |
| | | 1 | 7 | - | 16.8 | 16.02 | 15.83 | 16.00 |
| | | 1 | 14 | - | 16.8 | 15.89 | 15.99 | 15.83 |
| | | 8 | 0 | - | 16.8 | 15.76 | 15.76 | 15.89 |
| | | 8 | 4 | - | 16.8 | 15.84 | 15.88 | 15.88 |
| | | 8 | 7 | - | 16.8 | 15.71 | 15.78 | 15.81 |
| | | 15 | 0 | - | 16.8 | 15.83 | 15.81 | 15.81 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 5 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20407 | 20525 | 20643 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 824.7 | 836.5 | 848.3 |
| 1.4 | QPSK | 1 | 0 | - | 16.8 | 15.36 | 15.51 | 15.54 |
| | | 1 | 2 | - | 16.8 | 15.41 | 15.50 | 15.39 |
| | | 1 | 5 | - | 16.8 | 15.24 | 15.47 | 15.18 |
| | | 3 | 0 | - | 16.8 | 15.36 | 15.44 | 15.35 |
| | | 3 | 1 | - | 16.8 | 15.35 | 15.48 | 15.41 |
| | | 3 | 3 | - | 16.8 | 15.33 | 15.54 | 15.39 |
| | | 6 | 0 | - | 16.8 | 15.34 | 15.46 | 15.22 |
| | 16QAM | 1 | 0 | - | 16.8 | 15.63 | 15.87 | 15.61 |
| | | 1 | 2 | - | 16.8 | 15.62 | 15.84 | 15.57 |
| | | 1 | 5 | - | 16.8 | 15.51 | 15.73 | 15.56 |
| | | 3 | 0 | - | 16.8 | 15.40 | 15.53 | 15.67 |
| | | 3 | 1 | - | 16.8 | 15.29 | 15.51 | 15.57 |
| | | 3 | 3 | - | 16.8 | 15.37 | 15.56 | 15.50 |
| | | 6 | 0 | - | 16.8 | 15.55 | 15.51 | 15.58 |
| | 64QAM | 1 | 0 | - | 16.8 | 15.44 | 15.68 | 15.54 |
| | | 1 | 2 | - | 16.8 | 15.17 | 15.77 | 15.67 |
| | | 1 | 5 | - | 16.8 | 15.24 | 15.55 | 15.51 |
| | | 3 | 0 | - | 16.8 | 15.39 | 15.65 | 15.47 |
| | | 3 | 1 | - | 16.8 | 15.33 | 15.68 | 15.68 |
| | | 3 | 3 | - | 16.8 | 15.29 | 15.59 | 15.57 |
| | | 6 | 0 | - | 16.8 | 15.23 | 15.52 | 15.49 |

### 12.3.5 LTE Band 7 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20850 | 21100 | 21350 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2510 | 2535 | 2560 |
| 20 | QPSK | 1 | 0 | 0 | 24.0 | 23.21 | 23.16 | 23.10 |
| | | 1 | 49 | 0 | 24.0 | 23.10 | 23.03 | 23.07 |
| | | 1 | 99 | 0 | 24.0 | 23.15 | 23.11 | 23.06 |
| | | 50 | 0 | 1 | 23.0 | 22.23 | 22.22 | 22.12 |
| | | 50 | 24 | 1 | 23.0 | 22.24 | 22.23 | 22.17 |
| | | 50 | 50 | 1 | 23.0 | 22.31 | 22.22 | 22.18 |
| | | 100 | 0 | 1 | 23.0 | 22.31 | 22.20 | 22.17 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.41 | 22.55 | 22.37 |
| | | 1 | 49 | 1 | 23.0 | 22.38 | 22.32 | 22.35 |
| | | 1 | 99 | 1 | 23.0 | 22.24 | 22.43 | 22.23 |
| | | 50 | 0 | 2 | 22.0 | 21.23 | 21.21 | 21.19 |
| | | 50 | 24 | 2 | 22.0 | 21.24 | 21.22 | 21.21 |
| | | 50 | 50 | 2 | 22.0 | 21.30 | 21.22 | 21.20 |
| | | 100 | 0 | 2 | 22.0 | 21.33 | 21.22 | 21.16 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.47 | 21.41 | 21.46 |
| | | 1 | 49 | 2 | 22.0 | 21.40 | 21.28 | 21.38 |
| | | 1 | 99 | 2 | 22.0 | 21.36 | 21.25 | 21.26 |
| | | 50 | 0 | 3 | 21.0 | 20.26 | 20.22 | 20.16 |
| | | 50 | 24 | 3 | 21.0 | 20.28 | 20.21 | 20.21 |
| | | 50 | 50 | 3 | 21.0 | 20.30 | 20.19 | 20.22 |
| | | 100 | 0 | 3 | 21.0 | 20.33 | 20.20 | 20.15 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20825 | 21100 | 21375 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2507.5 | 2535 | 2562.5 |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | 23.23 | 23.22 | 23.22 |
| | | 1 | 37 | 0 | 24.0 | 23.12 | 23.08 | 23.15 |
| | | 1 | 74 | 0 | 24.0 | 23.15 | 23.16 | 23.25 |
| | | 36 | 0 | 1 | 23.0 | 22.26 | 22.22 | 22.25 |
| | | 36 | 19 | 1 | 23.0 | 22.25 | 22.20 | 22.29 |
| | | 36 | 39 | 1 | 23.0 | 22.23 | 22.22 | 22.29 |
| | | 75 | 0 | 1 | 23.0 | 22.24 | 22.22 | 22.26 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.46 | 22.48 | 22.44 |
| | | 1 | 37 | 1 | 23.0 | 22.35 | 22.27 | 22.47 |
| | | 1 | 74 | 1 | 23.0 | 22.39 | 22.30 | 22.52 |
| | | 36 | 0 | 2 | 22.0 | 21.25 | 21.20 | 21.31 |
| | | 36 | 19 | 2 | 22.0 | 21.27 | 21.22 | 21.36 |
| | | 36 | 39 | 2 | 22.0 | 21.24 | 21.21 | 21.30 |
| | | 75 | 0 | 2 | 22.0 | 21.25 | 21.22 | 21.30 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.30 | 21.44 | 21.44 |
| | | 1 | 37 | 2 | 22.0 | 21.43 | 21.17 | 21.47 |
| | | 1 | 74 | 2 | 22.0 | 21.45 | 21.30 | 21.46 |
| | | 36 | 0 | 3 | 21.0 | 20.28 | 20.21 | 20.30 |
| | | 36 | 19 | 3 | 21.0 | 20.28 | 20.22 | 20.29 |
| | | 36 | 39 | 3 | 21.0 | 20.27 | 20.21 | 20.31 |
| | | 75 | 0 | 3 | 21.0 | 20.26 | 20.19 | 20.30 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20800 | 21100 | 21400 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2505 | 2535 | 2565 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 23.24 | 23.14 | 23.12 |
| | | 1 | 24 | 0 | 24.0 | 23.21 | 23.10 | 23.10 |
| | | 1 | 49 | 0 | 24.0 | 23.22 | 23.17 | 23.09 |
| | | 25 | 0 | 1 | 23.0 | 22.24 | 22.21 | 22.14 |
| | | 25 | 12 | 1 | 23.0 | 22.27 | 22.28 | 22.18 |
| | | 25 | 25 | 1 | 23.0 | 22.25 | 22.25 | 22.20 |
| | | 50 | 0 | 1 | 23.0 | 22.26 | 22.27 | 22.19 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.38 | 22.38 | 22.27 |
| | | 1 | 24 | 1 | 23.0 | 22.37 | 22.25 | 22.41 |
| | | 1 | 49 | 1 | 23.0 | 22.32 | 22.35 | 22.37 |
| | | 25 | 0 | 2 | 22.0 | 21.30 | 21.20 | 21.17 |
| | | 25 | 12 | 2 | 22.0 | 21.30 | 21.24 | 21.22 |
| | | 25 | 25 | 2 | 22.0 | 21.30 | 21.21 | 21.22 |
| | | 50 | 0 | 2 | 22.0 | 21.25 | 21.23 | 21.20 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.50 | 21.41 | 21.31 |
| | | 1 | 24 | 2 | 22.0 | 21.26 | 21.17 | 21.31 |
| | | 1 | 49 | 2 | 22.0 | 21.36 | 21.30 | 21.39 |
| | | 25 | 0 | 3 | 21.0 | 20.30 | 20.24 | 20.21 |
| | | 25 | 12 | 3 | 21.0 | 20.30 | 20.28 | 20.21 |
| | | 25 | 25 | 3 | 21.0 | 20.30 | 20.24 | 20.22 |
| | | 50 | 0 | 3 | 21.0 | 20.20 | 20.26 | 20.24 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20775 | 21100 | 21425 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2502.5 | 2535 | 2567.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.23 | 23.16 | 23.02 |
| | | 1 | 12 | 0 | 24.0 | 23.01 | 23.15 | 23.03 |
| | | 1 | 24 | 0 | 24.0 | 23.15 | 23.14 | 23.09 |
| | | 12 | 0 | 1 | 23.0 | 22.19 | 22.18 | 22.12 |
| | | 12 | 6 | 1 | 23.0 | 22.25 | 22.25 | 22.18 |
| | | 12 | 13 | 1 | 23.0 | 22.22 | 22.23 | 22.17 |
| | | 25 | 0 | 1 | 23.0 | 22.24 | 22.23 | 22.17 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.40 | 22.28 | 22.18 |
| | | 1 | 12 | 1 | 23.0 | 22.58 | 22.33 | 22.33 |
| | | 1 | 24 | 1 | 23.0 | 22.41 | 22.26 | 22.20 |
| | | 12 | 0 | 2 | 22.0 | 21.22 | 21.27 | 21.12 |
| | | 12 | 6 | 2 | 22.0 | 21.24 | 21.27 | 21.20 |
| | | 12 | 13 | 2 | 22.0 | 21.20 | 21.25 | 21.16 |
| | | 25 | 0 | 2 | 22.0 | 21.25 | 21.24 | 21.18 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.37 | 21.33 | 21.31 |
| | | 1 | 12 | 2 | 22.0 | 21.40 | 21.44 | 21.18 |
| | | 1 | 24 | 2 | 22.0 | 21.47 | 21.45 | 21.25 |
| | | 12 | 0 | 3 | 21.0 | 20.30 | 20.28 | 20.21 |
| | | 12 | 6 | 3 | 21.0 | 20.29 | 20.31 | 20.22 |
| | | 12 | 13 | 3 | 21.0 | 20.31 | 20.28 | 20.19 |
| | | 25 | 0 | 3 | 21.0 | 20.26 | 20.26 | 20.20 |

### 12.3.6 LTE Band 7 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20850 | 21100 | 21350 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2510 | 2535 | 2560 |
| 20 | QPSK | 1 | 0 | - | 16.0 | 15.32 | 15.28 | 15.24 |
| | | 1 | 49 | - | 16.0 | 15.10 | 15.16 | 15.12 |
| | | 1 | 99 | - | 16.0 | 15.13 | 15.22 | 15.11 |
| | | 50 | 0 | - | 16.0 | 15.21 | 15.21 | 15.10 |
| | | 50 | 24 | - | 16.0 | 15.22 | 15.24 | 15.15 |
| | | 50 | 50 | - | 16.0 | 15.28 | 15.23 | 15.17 |
| | | 100 | 0 | - | 16.0 | 15.22 | 15.15 | 15.03 |
| | 16QAM | 1 | 0 | - | 16.0 | 15.35 | 15.39 | 15.47 |
| | | 1 | 49 | - | 16.0 | 15.38 | 15.20 | 15.24 |
| | | 1 | 99 | - | 16.0 | 15.33 | 15.33 | 15.28 |
| | | 50 | 0 | - | 16.0 | 15.23 | 15.19 | 15.12 |
| | | 50 | 24 | - | 16.0 | 15.23 | 15.23 | 15.13 |
| | | 50 | 50 | - | 16.0 | 15.29 | 15.19 | 15.17 |
| | | 100 | 0 | - | 16.0 | 15.28 | 15.18 | 15.10 |
| | 64QAM | 1 | 0 | - | 16.0 | 15.37 | 15.30 | 15.20 |
| | | 1 | 49 | - | 16.0 | 15.27 | 15.19 | 15.26 |
| | | 1 | 99 | - | 16.0 | 15.35 | 15.36 | 15.19 |
| | | 50 | 0 | - | 16.0 | 15.24 | 15.18 | 15.12 |
| | | 50 | 24 | - | 16.0 | 15.23 | 15.22 | 15.14 |
| | | 50 | 50 | - | 16.0 | 15.29 | 15.18 | 15.17 |
| | | 100 | 0 | - | 16.0 | 15.30 | 15.20 | 15.12 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20825 | 21100 | 21375 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2507.5 | 2535 | 2562.5 |
| 15 | QPSK | 1 | 0 | - | 16.0 | 15.24 | 15.12 | 15.14 |
| | | 1 | 37 | - | 16.0 | 15.11 | 15.04 | 15.13 |
| | | 1 | 74 | - | 16.0 | 15.08 | 15.17 | 15.16 |
| | | 36 | 0 | - | 16.0 | 15.17 | 15.17 | 15.17 |
| | | 36 | 19 | - | 16.0 | 15.18 | 15.18 | 15.25 |
| | | 36 | 39 | - | 16.0 | 15.19 | 15.19 | 15.23 |
| | | 75 | 0 | - | 16.0 | 15.16 | 15.15 | 15.14 |
| | 16QAM | 1 | 0 | - | 16.0 | 15.52 | 15.46 | 15.40 |
| | | 1 | 37 | - | 16.0 | 15.21 | 15.32 | 15.37 |
| | | 1 | 74 | - | 16.0 | 15.46 | 15.14 | 15.51 |
| | | 36 | 0 | - | 16.0 | 15.17 | 15.18 | 15.23 |
| | | 36 | 19 | - | 16.0 | 15.18 | 15.19 | 15.22 |
| | | 36 | 39 | - | 16.0 | 15.21 | 15.14 | 15.22 |
| | | 75 | 0 | - | 16.0 | 15.22 | 15.18 | 15.22 |
| | 64QAM | 1 | 0 | - | 16.0 | 15.41 | 15.34 | 15.47 |
| | | 1 | 37 | - | 16.0 | 15.46 | 15.36 | 15.26 |
| | | 1 | 74 | - | 16.0 | 15.48 | 15.36 | 15.39 |
| | | 36 | 0 | - | 16.0 | 15.21 | 15.14 | 15.16 |
| | | 36 | 19 | - | 16.0 | 15.23 | 15.16 | 15.19 |
| | | 36 | 39 | - | 16.0 | 15.17 | 15.17 | 15.23 |
| | | 75 | 0 | - | 16.0 | 15.19 | 15.17 | 15.20 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20800 | 21100 | 21400 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2505 | 2535 | 2565 |
| 10 | QPSK | 1 | 0 | - | 16.0 | 15.19 | 15.13 | 15.06 |
| | | 1 | 24 | - | 16.0 | 15.09 | 15.10 | 15.05 |
| | | 1 | 49 | - | 16.0 | 15.20 | 15.16 | 15.08 |
| | | 25 | 0 | - | 16.0 | 15.20 | 15.16 | 15.11 |
| | | 25 | 12 | - | 16.0 | 15.21 | 15.19 | 15.13 |
| | | 25 | 25 | - | 16.0 | 15.17 | 15.18 | 15.15 |
| | | 50 | 0 | - | 16.0 | 15.20 | 15.15 | 15.05 |
| | 16QAM | 1 | 0 | - | 16.0 | 15.41 | 15.42 | 15.26 |
| | | 1 | 24 | - | 16.0 | 15.30 | 15.46 | 15.14 |
| | | 1 | 49 | - | 16.0 | 15.39 | 15.37 | 15.40 |
| | | 25 | 0 | - | 16.0 | 15.17 | 15.16 | 15.10 |
| | | 25 | 12 | - | 16.0 | 15.22 | 15.17 | 15.11 |
| | | 25 | 25 | - | 16.0 | 15.19 | 15.17 | 15.07 |
| | | 50 | 0 | - | 16.0 | 15.17 | 15.16 | 15.12 |
| | 64QAM | 1 | 0 | - | 16.0 | 15.50 | 15.37 | 15.50 |
| | | 1 | 24 | - | 16.0 | 15.29 | 15.42 | 15.38 |
| | | 1 | 49 | - | 16.0 | 15.47 | 15.16 | 15.42 |
| | | 25 | 0 | - | 16.0 | 15.25 | 15.13 | 15.07 |
| | | 25 | 12 | - | 16.0 | 15.25 | 15.15 | 15.11 |
| | | 25 | 25 | - | 16.0 | 15.22 | 15.17 | 15.11 |
| | | 50 | 0 | - | 16.0 | 15.23 | 15.14 | 15.14 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 7 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 20775 | 21100 | 21425 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 2502.5 | 2535 | 2567.5 |
| 5 | QPSK | 1 | 0 | - | 16.0 | 15.09 | 15.10 | 15.02 |
| | | 1 | 12 | - | 16.0 | 15.11 | 15.09 | 15.09 |
| | | 1 | 24 | - | 16.0 | 15.13 | 15.03 | 15.06 |
| | | 12 | 0 | - | 16.0 | 15.18 | 15.11 | 15.14 |
| | | 12 | 6 | - | 16.0 | 15.21 | 15.17 | 15.17 |
| | | 12 | 13 | - | 16.0 | 15.20 | 15.18 | 15.15 |
| | | 25 | 0 | - | 16.0 | 15.11 | 15.10 | 15.01 |
| | 16QAM | 1 | 0 | - | 16.0 | 15.28 | 15.19 | 15.21 |
| | | 1 | 12 | - | 16.0 | 15.20 | 15.42 | 15.31 |
| | | 1 | 24 | - | 16.0 | 15.34 | 15.36 | 15.41 |
| | | 12 | 0 | - | 16.0 | 15.17 | 15.15 | 15.11 |
| | | 12 | 6 | - | 16.0 | 15.18 | 15.18 | 15.13 |
| | | 12 | 13 | - | 16.0 | 15.19 | 15.17 | 15.18 |
| | | 25 | 0 | - | 16.0 | 15.21 | 15.13 | 15.10 |
| | 64QAM | 1 | 0 | - | 16.0 | 15.24 | 15.26 | 15.28 |
| | | 1 | 12 | - | 16.0 | 15.57 | 15.31 | 15.25 |
| | | 1 | 24 | - | 16.0 | 15.56 | 15.23 | 15.32 |
| | | 12 | 0 | - | 16.0 | 15.22 | 15.13 | 15.14 |
| | | 12 | 6 | - | 16.0 | 15.25 | 15.21 | 15.20 |
| | | 12 | 13 | - | 16.0 | 15.19 | 15.15 | 15.06 |
| | | 25 | 0 | - | 16.0 | 15.23 | 15.12 | 15.10 |

### 12.3.7 LTE Band 12 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23095 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 707.5 | - |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.32 | - |
| | | 1 | 24 | 0 | 24.0 | - | 23.37 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.15 | - |
| | | 25 | 0 | 1 | 23.0 | - | 22.49 | - |
| | | 25 | 12 | 1 | 23.0 | - | 22.46 | - |
| | | 25 | 25 | 1 | 23.0 | - | 22.41 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.44 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.52 | - |
| | | 1 | 24 | 1 | 23.0 | - | 22.59 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.31 | - |
| | | 25 | 0 | 2 | 22.0 | - | 21.48 | - |
| | | 25 | 12 | 2 | 22.0 | - | 21.49 | - |
| | | 25 | 25 | 2 | 22.0 | - | 21.44 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.43 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.61 | - |
| | | 1 | 24 | 2 | 22.0 | - | 21.86 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.77 | - |
| | | 25 | 0 | 3 | 21.0 | - | 20.47 | - |
| | | 25 | 12 | 3 | 21.0 | - | 20.47 | - |
| | | 25 | 25 | 3 | 21.0 | - | 20.37 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.45 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23035 | 23095 | 23155 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 701.5 | 707.5 | 713.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.13 | 23.40 | 23.13 |
| | | 1 | 12 | 0 | 24.0 | 23.39 | 23.38 | 23.39 |
| | | 1 | 24 | 0 | 24.0 | 23.32 | 23.28 | 23.23 |
| | | 12 | 0 | 1 | 23.0 | 22.43 | 22.47 | 22.36 |
| | | 12 | 6 | 1 | 23.0 | 22.44 | 22.48 | 22.48 |
| | | 12 | 13 | 1 | 23.0 | 22.40 | 22.43 | 22.41 |
| | | 25 | 0 | 1 | 23.0 | 22.42 | 22.43 | 22.37 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.47 | 22.61 | 22.49 |
| | | 1 | 12 | 1 | 23.0 | 22.67 | 22.38 | 22.79 |
| | | 1 | 24 | 1 | 23.0 | 22.46 | 22.64 | 22.56 |
| | | 12 | 0 | 2 | 22.0 | 21.40 | 21.55 | 21.36 |
| | | 12 | 6 | 2 | 22.0 | 21.47 | 21.52 | 21.48 |
| | | 12 | 13 | 2 | 22.0 | 21.36 | 21.48 | 21.42 |
| | | 25 | 0 | 2 | 22.0 | 21.43 | 21.45 | 21.35 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.61 | 21.50 | 21.63 |
| | | 1 | 12 | 2 | 22.0 | 21.68 | 21.74 | 21.54 |
| | | 1 | 24 | 2 | 22.0 | 21.39 | 21.61 | 21.68 |
| | | 12 | 0 | 3 | 21.0 | 20.42 | 20.50 | 20.41 |
| | | 12 | 6 | 3 | 21.0 | 20.49 | 20.52 | 20.56 |
| | | 12 | 13 | 3 | 21.0 | 20.48 | 20.44 | 20.49 |
| | | 25 | 0 | 3 | 21.0 | 20.41 | 20.46 | 20.35 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23025 | 23095 | 23165 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 700.5 | 707.5 | 714.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 23.17 | 23.40 | 23.33 |
| | | 1 | 7 | 0 | 24.0 | 23.37 | 23.53 | 23.35 |
| | | 1 | 14 | 0 | 24.0 | 23.22 | 23.30 | 23.22 |
| | | 8 | 0 | 1 | 23.0 | 22.39 | 22.51 | 22.48 |
| | | 8 | 4 | 1 | 23.0 | 22.45 | 22.56 | 22.49 |
| | | 8 | 7 | 1 | 23.0 | 22.46 | 22.44 | 22.50 |
| | | 15 | 0 | 1 | 23.0 | 22.39 | 22.53 | 22.48 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.58 | 22.55 | 22.53 |
| | | 1 | 7 | 1 | 23.0 | 22.58 | 22.69 | 22.72 |
| | | 1 | 14 | 1 | 23.0 | 22.65 | 22.60 | 22.55 |
| | | 8 | 0 | 2 | 22.0 | 21.41 | 21.60 | 21.61 |
| | | 8 | 4 | 2 | 22.0 | 21.49 | 21.71 | 21.73 |
| | | 8 | 7 | 2 | 22.0 | 21.60 | 21.62 | 21.54 |
| | | 15 | 0 | 2 | 22.0 | 21.53 | 21.57 | 21.55 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.67 | 21.42 | 21.59 |
| | | 1 | 7 | 2 | 22.0 | 21.76 | 21.76 | 21.61 |
| | | 1 | 14 | 2 | 22.0 | 21.65 | 21.72 | 21.58 |
| | | 8 | 0 | 3 | 21.0 | 20.51 | 20.62 | 20.67 |
| | | 8 | 4 | 3 | 21.0 | 20.60 | 20.61 | 20.58 |
| | | 8 | 7 | 3 | 21.0 | 20.59 | 20.60 | 20.66 |
| | | 15 | 0 | 3 | 21.0 | 20.58 | 20.65 | 20.60 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23017 | 23095 | 23173 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 699.7 | 707.5 | 715.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 23.11 | 23.17 | 22.84 |
| | | 1 | 2 | 0 | 24.0 | 22.98 | 23.02 | 23.05 |
| | | 1 | 5 | 0 | 24.0 | 22.85 | 23.04 | 22.96 |
| | | 3 | 0 | 0 | 24.0 | 22.85 | 23.06 | 22.94 |
| | | 3 | 1 | 0 | 24.0 | 23.07 | 23.23 | 23.12 |
| | | 3 | 3 | 0 | 24.0 | 22.87 | 23.08 | 23.01 |
| | | 6 | 0 | 1 | 23.0 | 22.01 | 22.20 | 22.11 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.39 | 22.44 | 22.19 |
| | | 1 | 2 | 1 | 23.0 | 22.27 | 22.35 | 22.17 |
| | | 1 | 5 | 1 | 23.0 | 22.11 | 22.21 | 22.08 |
| | | 3 | 0 | 1 | 23.0 | 22.01 | 22.21 | 22.00 |
| | | 3 | 1 | 1 | 23.0 | 22.11 | 22.32 | 22.18 |
| | | 3 | 3 | 1 | 23.0 | 21.82 | 22.16 | 22.07 |
| | | 6 | 0 | 2 | 22.0 | 21.18 | 21.29 | 21.19 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.04 | 21.31 | 21.09 |
| | | 1 | 2 | 2 | 22.0 | 21.04 | 21.36 | 21.20 |
| | | 1 | 5 | 2 | 22.0 | 21.06 | 21.29 | 21.20 |
| | | 3 | 0 | 2 | 22.0 | 21.07 | 21.24 | 21.12 |
| | | 3 | 1 | 2 | 22.0 | 21.23 | 21.28 | 21.27 |
| | | 3 | 3 | 2 | 22.0 | 21.18 | 21.14 | 21.21 |
| | | 6 | 0 | 3 | 21.0 | 20.05 | 20.19 | 20.06 |

### 12.3.8 LTE Band 12 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23095 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 707.5 | - |
| 10 | QPSK | 1 | 0 | - | 18.4 | - | 17.80 | - |
| | | 1 | 24 | - | 18.4 | - | 17.86 | - |
| | | 1 | 49 | - | 18.4 | - | 17.73 | - |
| | | 25 | 0 | - | 18.4 | - | 17.79 | - |
| | | 25 | 12 | - | 18.4 | - | 17.77 | - |
| | | 25 | 25 | - | 18.4 | - | 17.70 | - |
| | | 50 | 0 | - | 18.4 | - | 17.70 | - |
| | 16QAM | 1 | 0 | - | 18.4 | - | 17.96 | - |
| | | 1 | 24 | - | 18.4 | - | 17.99 | - |
| | | 1 | 49 | - | 18.4 | - | 17.85 | - |
| | | 25 | 0 | - | 18.4 | - | 17.80 | - |
| | | 25 | 12 | - | 18.4 | - | 17.76 | - |
| | | 25 | 25 | - | 18.4 | - | 17.71 | - |
| | | 50 | 0 | - | 18.4 | - | 17.77 | - |
| | 64QAM | 1 | 0 | - | 18.4 | - | 17.91 | - |
| | | 1 | 24 | - | 18.4 | - | 17.90 | - |
| | | 1 | 49 | - | 18.4 | - | 17.80 | - |
| | | 25 | 0 | - | 18.4 | - | 17.85 | - |
| | | 25 | 12 | - | 18.4 | - | 17.70 | - |
| | | 25 | 25 | - | 18.4 | - | 17.73 | - |
| | | 50 | 0 | - | 18.4 | - | 17.73 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23035 | 23095 | 23155 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 701.5 | 707.5 | 713.5 |
| 5 | QPSK | 1 | 0 | - | 18.4 | 17.72 | 17.76 | 17.96 |
| | | 1 | 12 | - | 18.4 | 17.97 | 17.87 | 17.76 |
| | | 1 | 24 | - | 18.4 | 17.86 | 17.79 | 17.89 |
| | | 12 | 0 | - | 18.4 | 17.86 | 17.86 | 17.74 |
| | | 12 | 6 | - | 18.4 | 17.88 | 17.85 | 17.92 |
| | | 12 | 13 | - | 18.4 | 17.79 | 17.82 | 17.83 |
| | | 25 | 0 | - | 18.4 | 17.82 | 17.81 | 17.74 |
| | 16QAM | 1 | 0 | - | 18.4 | 17.99 | 17.99 | 18.11 |
| | | 1 | 12 | - | 18.4 | 18.07 | 18.02 | 18.00 |
| | | 1 | 24 | - | 18.4 | 18.02 | 17.97 | 17.95 |
| | | 12 | 0 | - | 18.4 | 17.83 | 17.92 | 17.76 |
| | | 12 | 6 | - | 18.4 | 17.85 | 17.90 | 18.00 |
| | | 12 | 13 | - | 18.4 | 17.82 | 17.86 | 17.87 |
| | | 25 | 0 | - | 18.4 | 17.82 | 17.83 | 17.74 |
| | 64QAM | 1 | 0 | - | 18.4 | 17.64 | 17.88 | 18.00 |
| | | 1 | 12 | - | 18.4 | 17.87 | 17.84 | 18.00 |
| | | 1 | 24 | - | 18.4 | 17.89 | 17.91 | 18.02 |
| | | 12 | 0 | - | 18.4 | 17.86 | 17.89 | 17.83 |
| | | 12 | 6 | - | 18.4 | 17.90 | 17.97 | 17.91 |
| | | 12 | 13 | - | 18.4 | 17.80 | 17.84 | 17.85 |
| | | 25 | 0 | - | 18.4 | 17.91 | 17.91 | 17.80 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23025 | 23095 | 23165 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 700.5 | 707.5 | 714.5 |
| 3 | QPSK | 1 | 0 | - | 18.4 | 17.80 | 17.84 | 17.89 |
| | | 1 | 7 | - | 18.4 | 17.86 | 17.95 | 17.90 |
| | | 1 | 14 | - | 18.4 | 17.84 | 17.82 | 17.69 |
| | | 8 | 0 | - | 18.4 | 17.80 | 17.84 | 17.87 |
| | | 8 | 4 | - | 18.4 | 17.78 | 17.88 | 17.89 |
| | | 8 | 7 | - | 18.4 | 17.86 | 17.80 | 17.84 |
| | | 15 | 0 | - | 18.4 | 17.79 | 17.82 | 17.87 |
| | 16QAM | 1 | 0 | - | 18.4 | 17.81 | 18.25 | 18.13 |
| | | 1 | 7 | - | 18.4 | 18.02 | 18.25 | 18.06 |
| | | 1 | 14 | - | 18.4 | 18.16 | 18.09 | 18.16 |
| | | 8 | 0 | - | 18.4 | 17.85 | 17.91 | 17.91 |
| | | 8 | 4 | - | 18.4 | 17.78 | 17.95 | 17.89 |
| | | 8 | 7 | - | 18.4 | 17.93 | 17.90 | 17.89 |
| | | 15 | 0 | - | 18.4 | 17.92 | 17.83 | 17.87 |
| | 64QAM | 1 | 0 | - | 18.4 | 17.92 | 17.96 | 18.22 |
| | | 1 | 7 | - | 18.4 | 18.11 | 18.12 | 17.95 |
| | | 1 | 14 | - | 18.4 | 17.80 | 18.13 | 18.18 |
| | | 8 | 0 | - | 18.4 | 17.81 | 17.86 | 17.87 |
| | | 8 | 4 | - | 18.4 | 17.78 | 17.95 | 17.92 |
| | | 8 | 7 | - | 18.4 | 17.82 | 17.87 | 17.90 |
| | | 15 | 0 | - | 18.4 | 17.81 | 17.87 | 17.73 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 12 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23017 | 23095 | 23173 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 699.7 | 707.5 | 715.3 |
| 1.4 | QPSK | 1 | 0 | - | 18.4 | 17.48 | 17.50 | 17.61 |
| | | 1 | 2 | - | 18.4 | 17.64 | 17.59 | 17.41 |
| | | 1 | 5 | - | 18.4 | 17.27 | 17.64 | 17.45 |
| | | 3 | 0 | - | 18.4 | 17.45 | 17.63 | 17.60 |
| | | 3 | 1 | - | 18.4 | 17.46 | 17.50 | 17.55 |
| | | 3 | 3 | - | 18.4 | 17.30 | 17.51 | 17.34 |
| | | 6 | 0 | - | 18.4 | 17.31 | 17.54 | 17.44 |
| | 16QAM | 1 | 0 | - | 18.4 | 17.89 | 17.91 | 17.68 |
| | | 1 | 2 | - | 18.4 | 17.73 | 17.70 | 17.68 |
| | | 1 | 5 | - | 18.4 | 17.76 | 17.71 | 17.74 |
| | | 3 | 0 | - | 18.4 | 17.45 | 17.47 | 17.44 |
| | | 3 | 1 | - | 18.4 | 17.32 | 17.51 | 17.58 |
| | | 3 | 3 | - | 18.4 | 17.42 | 17.64 | 17.45 |
| | | 6 | 0 | - | 18.4 | 17.42 | 17.45 | 17.68 |
| | 64QAM | 1 | 0 | - | 18.4 | 17.55 | 17.81 | 17.76 |
| | | 1 | 2 | - | 18.4 | 17.69 | 17.75 | 17.72 |
| | | 1 | 5 | - | 18.4 | 17.57 | 17.64 | 17.54 |
| | | 3 | 0 | - | 18.4 | 17.50 | 17.70 | 17.56 |
| | | 3 | 1 | - | 18.4 | 17.44 | 17.76 | 17.49 |
| | | 3 | 3 | - | 18.4 | 17.64 | 17.69 | 17.59 |
| | | 6 | 0 | - | 18.4 | 17.37 | 17.39 | 17.54 |

### 12.3.9 LTE Band 13 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 13 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23230 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 782 | - |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.43 | - |
| | | 1 | 24 | 0 | 24.0 | - | 23.06 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.32 | - |
| | | 25 | 0 | 1 | 23.0 | - | 22.41 | - |
| | | 25 | 12 | 1 | 23.0 | - | 22.40 | - |
| | | 25 | 25 | 1 | 23.0 | - | 22.33 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.38 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.48 | - |
| | | 1 | 24 | 1 | 23.0 | - | 22.25 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.22 | - |
| | | 25 | 0 | 2 | 22.0 | - | 21.41 | - |
| | | 25 | 12 | 2 | 22.0 | - | 21.40 | - |
| | | 25 | 25 | 2 | 22.0 | - | 21.32 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.35 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.50 | - |
| | | 1 | 24 | 2 | 22.0 | - | 21.48 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.53 | - |
| | | 25 | 0 | 3 | 21.0 | - | 20.37 | - |
| | | 25 | 12 | 3 | 21.0 | - | 20.42 | - |
| | | 25 | 25 | 3 | 21.0 | - | 20.30 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.41 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 13 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23205 | 23230 | 23255 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 779.5 | 782 | 784.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.27 | 23.35 | 23.27 |
| | | 1 | 12 | 0 | 24.0 | 23.23 | 23.04 | 23.33 |
| | | 1 | 24 | 0 | 24.0 | 23.16 | 23.22 | 23.24 |
| | | 12 | 0 | 1 | 23.0 | 22.40 | 22.38 | 22.31 |
| | | 12 | 6 | 1 | 23.0 | 22.43 | 22.35 | 22.33 |
| | | 12 | 13 | 1 | 23.0 | 22.32 | 22.30 | 22.38 |
| | | 25 | 0 | 1 | 23.0 | 22.41 | 22.36 | 22.31 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.37 | 22.58 | 22.47 |
| | | 1 | 12 | 1 | 23.0 | 22.30 | 22.44 | 22.47 |
| | | 1 | 24 | 1 | 23.0 | 22.20 | 22.31 | 22.47 |
| | | 12 | 0 | 2 | 22.0 | 21.38 | 21.36 | 21.25 |
| | | 12 | 6 | 2 | 22.0 | 21.47 | 21.36 | 21.37 |
| | | 12 | 13 | 2 | 22.0 | 21.38 | 21.34 | 21.34 |
| | | 25 | 0 | 2 | 22.0 | 21.41 | 21.29 | 21.28 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.46 | 21.58 | 21.50 |
| | | 1 | 12 | 2 | 22.0 | 21.75 | 21.21 | 21.58 |
| | | 1 | 24 | 2 | 22.0 | 21.31 | 21.30 | 21.61 |
| | | 12 | 0 | 3 | 21.0 | 20.43 | 20.37 | 20.37 |
| | | 12 | 6 | 3 | 21.0 | 20.44 | 20.39 | 20.39 |
| | | 12 | 13 | 3 | 21.0 | 20.31 | 20.31 | 20.39 |
| | | 25 | 0 | 3 | 21.0 | 20.36 | 20.30 | 20.32 |

### 12.3.10 LTE Band 13 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 13 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23230 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 782 | - |
| 10 | QPSK | 1 | 0 | - | 18.1 | - | 17.74 | - |
| | | 1 | 24 | - | 18.1 | - | 17.64 | - |
| | | 1 | 49 | - | 18.1 | - | 17.54 | - |
| | | 25 | 0 | - | 18.1 | - | 17.45 | - |
| | | 25 | 12 | - | 18.1 | - | 17.42 | - |
| | | 25 | 25 | - | 18.1 | - | 17.33 | - |
| | | 50 | 0 | - | 18.1 | - | 17.40 | - |
| | 16QAM | 1 | 0 | - | 18.1 | - | 17.34 | - |
| | | 1 | 24 | - | 18.1 | - | 17.50 | - |
| | | 1 | 49 | - | 18.1 | - | 17.60 | - |
| | | 25 | 0 | - | 18.1 | - | 17.43 | - |
| | | 25 | 12 | - | 18.1 | - | 17.41 | - |
| | | 25 | 25 | - | 18.1 | - | 17.34 | - |
| | | 50 | 0 | - | 18.1 | - | 17.41 | - |
| | 64QAM | 1 | 0 | - | 18.1 | - | 17.49 | - |
| | | 1 | 24 | - | 18.1 | - | 17.51 | - |
| | | 1 | 49 | - | 18.1 | - | 17.60 | - |
| | | 25 | 0 | - | 18.1 | - | 17.42 | - |
| | | 25 | 12 | - | 18.1 | - | 17.38 | - |
| | | 25 | 25 | - | 18.1 | - | 17.37 | - |
| | | 50 | 0 | - | 18.1 | - | 17.42 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 13 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23205 | 23230 | 23255 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 779.5 | 782 | 784.5 |
| 5 | QPSK | 1 | 0 | - | 18.1 | 17.43 | 17.45 | 17.45 |
| | | 1 | 12 | - | 18.1 | 17.46 | 17.30 | 17.53 |
| | | 1 | 24 | - | 18.1 | 17.40 | 17.42 | 17.37 |
| | | 12 | 0 | - | 18.1 | 17.50 | 17.46 | 17.41 |
| | | 12 | 6 | - | 18.1 | 17.55 | 17.49 | 17.46 |
| | | 12 | 13 | - | 18.1 | 17.46 | 17.37 | 17.47 |
| | | 25 | 0 | - | 18.1 | 17.44 | 17.45 | 17.40 |
| | 16QAM | 1 | 0 | - | 18.1 | 17.70 | 17.65 | 17.64 |
| | | 1 | 12 | - | 18.1 | 17.66 | 17.54 | 17.73 |
| | | 1 | 24 | - | 18.1 | 17.44 | 17.62 | 17.87 |
| | | 12 | 0 | - | 18.1 | 17.55 | 17.50 | 17.45 |
| | | 12 | 6 | - | 18.1 | 17.54 | 17.47 | 17.45 |
| | | 12 | 13 | - | 18.1 | 17.51 | 17.42 | 17.42 |
| | | 25 | 0 | - | 18.1 | 17.45 | 17.48 | 17.39 |
| | 64QAM | 1 | 0 | - | 18.1 | 17.72 | 17.45 | 17.44 |
| | | 1 | 12 | - | 18.1 | 17.50 | 17.49 | 17.74 |
| | | 1 | 24 | - | 18.1 | 17.56 | 17.75 | 17.69 |
| | | 12 | 0 | - | 18.1 | 17.45 | 17.44 | 17.47 |
| | | 12 | 6 | - | 18.1 | 17.58 | 17.49 | 17.41 |
| | | 12 | 13 | - | 18.1 | 17.56 | 17.40 | 17.55 |
| | | 25 | 0 | - | 18.1 | 17.48 | 17.44 | 17.40 |

### 12.3.11 LTE Band 14 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 14 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23330 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 793 | - |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.39 | - |
| | | 1 | 24 | 0 | 24.0 | - | 23.16 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.01 | - |
| | | 25 | 0 | 1 | 23.0 | - | 22.30 | - |
| | | 25 | 12 | 1 | 23.0 | - | 22.28 | - |
| | | 25 | 25 | 1 | 23.0 | - | 22.18 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.25 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.83 | - |
| | | 1 | 24 | 1 | 23.0 | - | 22.23 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.43 | - |
| | | 25 | 0 | 2 | 22.0 | - | 21.26 | - |
| | | 25 | 12 | 2 | 22.0 | - | 21.33 | - |
| | | 25 | 25 | 2 | 22.0 | - | 21.20 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.24 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.37 | - |
| | | 1 | 24 | 2 | 22.0 | - | 21.42 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.62 | - |
| | | 25 | 0 | 3 | 21.0 | - | 20.29 | - |
| | | 25 | 12 | 3 | 21.0 | - | 20.27 | - |
| | | 25 | 25 | 3 | 21.0 | - | 20.19 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.22 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 14 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23305 | 23330 | 23355 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 790.5 | 793 | 795.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.20 | 23.01 | 23.26 |
| | | 1 | 12 | 0 | 24.0 | 23.23 | 23.06 | 23.40 |
| | | 1 | 24 | 0 | 24.0 | 23.18 | 22.95 | 23.11 |
| | | 12 | 0 | 1 | 23.0 | 22.26 | 22.22 | 22.28 |
| | | 12 | 6 | 1 | 23.0 | 22.25 | 22.24 | 22.31 |
| | | 12 | 13 | 1 | 23.0 | 22.22 | 22.20 | 22.25 |
| | | 25 | 0 | 1 | 23.0 | 22.25 | 22.24 | 22.30 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.26 | 22.20 | 22.47 |
| | | 1 | 12 | 1 | 23.0 | 22.45 | 22.51 | 22.47 |
| | | 1 | 24 | 1 | 23.0 | 22.49 | 22.49 | 22.49 |
| | | 12 | 0 | 2 | 22.0 | 21.24 | 21.22 | 21.40 |
| | | 12 | 6 | 2 | 22.0 | 21.26 | 21.32 | 21.31 |
| | | 12 | 13 | 2 | 22.0 | 21.22 | 21.25 | 21.31 |
| | | 25 | 0 | 2 | 22.0 | 21.24 | 21.22 | 21.33 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.32 | 21.24 | 21.63 |
| | | 1 | 12 | 2 | 22.0 | 21.48 | 21.66 | 21.39 |
| | | 1 | 24 | 2 | 22.0 | 21.60 | 21.53 | 21.40 |
| | | 12 | 0 | 3 | 21.0 | 20.24 | 20.22 | 20.32 |
| | | 12 | 6 | 3 | 21.0 | 20.28 | 20.30 | 20.26 |
| | | 12 | 13 | 3 | 21.0 | 20.22 | 20.21 | 20.24 |
| | | 25 | 0 | 3 | 21.0 | 20.30 | 20.26 | 20.26 |

### 12.3.12 LTE Band 14 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 14 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 23330 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 793 | - |
| 10 | QPSK | 1 | 0 | - | 17.4 | - | 16.59 | - |
| | | 1 | 24 | - | 17.4 | - | 16.54 | - |
| | | 1 | 49 | - | 17.4 | - | 16.64 | - |
| | | 25 | 0 | - | 17.4 | - | 16.52 | - |
| | | 25 | 12 | - | 17.4 | - | 16.51 | - |
| | | 25 | 25 | - | 17.4 | - | 16.45 | - |
| | | 50 | 0 | - | 17.4 | - | 16.23 | - |
| | 16QAM | 1 | 0 | - | 17.4 | - | 16.80 | - |
| | | 1 | 24 | - | 17.4 | - | 16.97 | - |
| | | 1 | 49 | - | 17.4 | - | 16.61 | - |
| | | 25 | 0 | - | 17.4 | - | 16.54 | - |
| | | 25 | 12 | - | 17.4 | - | 16.55 | - |
| | | 25 | 25 | - | 17.4 | - | 16.45 | - |
| | | 50 | 0 | - | 17.4 | - | 16.47 | - |
| | 64QAM | 1 | 0 | - | 17.4 | - | 16.83 | - |
| | | 1 | 24 | - | 17.4 | - | 16.74 | - |
| | | 1 | 49 | - | 17.4 | - | 16.48 | - |
| | | 25 | 0 | - | 17.4 | - | 16.54 | - |
| | | 25 | 12 | - | 17.4 | - | 16.60 | - |
| | | 25 | 25 | - | 17.4 | - | 16.47 | - |
| | | 50 | 0 | - | 17.4 | - | 16.51 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 14 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 23305 | 23330 | 23355 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 790.5 | 793 | 795.5 |
| 5 | QPSK | 1 | 0 | - | 17.4 | 16.70 | 16.74 | 16.73 |
| | | 1 | 12 | - | 17.4 | 16.79 | 16.66 | 16.74 |
| | | 1 | 24 | - | 17.4 | 16.45 | 16.64 | 16.65 |
| | | 12 | 0 | - | 17.4 | 16.68 | 16.67 | 16.74 |
| | | 12 | 6 | - | 17.4 | 16.72 | 16.68 | 16.70 |
| | | 12 | 13 | - | 17.4 | 16.65 | 16.56 | 16.65 |
| | | 25 | 0 | - | 17.4 | 16.23 | 16.24 | 16.31 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.88 | 17.08 | 16.89 |
| | | 1 | 12 | - | 17.4 | 17.24 | 17.15 | 16.82 |
| | | 1 | 24 | - | 17.4 | 16.86 | 16.89 | 16.90 |
| | | 12 | 0 | - | 17.4 | 16.71 | 16.74 | 16.78 |
| | | 12 | 6 | - | 17.4 | 16.76 | 16.78 | 16.77 |
| | | 12 | 13 | - | 17.4 | 16.68 | 16.64 | 16.61 |
| | | 25 | 0 | - | 17.4 | 16.67 | 16.63 | 16.72 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.69 | 16.71 | 17.03 |
| | | 1 | 12 | - | 17.4 | 16.86 | 16.85 | 16.76 |
| | | 1 | 24 | - | 17.4 | 16.57 | 16.63 | 16.80 |
| | | 12 | 0 | - | 17.4 | 16.69 | 16.68 | 16.74 |
| | | 12 | 6 | - | 17.4 | 16.78 | 16.74 | 16.70 |
| | | 12 | 13 | - | 17.4 | 16.65 | 16.72 | 16.68 |
| | | 25 | 0 | - | 17.4 | 16.67 | 16.64 | 16.73 |

### 12.3.13 LTE Band 25 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26140 | 26365 | 26590 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1860 | 1882.5 | 1905 |
| 20 | QPSK | 1 | 0 | 0 | 24.0 | 22.80 | 22.98 | 22.71 |
| | | 1 | 49 | 0 | 24.0 | 22.74 | 22.75 | 22.79 |
| | | 1 | 99 | 0 | 24.0 | 22.68 | 22.76 | 22.65 |
| | | 50 | 0 | 1 | 23.0 | 21.77 | 21.85 | 21.71 |
| | | 50 | 24 | 1 | 23.0 | 21.76 | 21.81 | 21.84 |
| | | 50 | 50 | 1 | 23.0 | 21.82 | 21.74 | 21.75 |
| | | 100 | 0 | 1 | 23.0 | 21.80 | 21.78 | 21.76 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.39 | 22.04 | 21.99 |
| | | 1 | 49 | 1 | 23.0 | 22.04 | 22.11 | 22.02 |
| | | 1 | 99 | 1 | 23.0 | 21.96 | 22.11 | 21.82 |
| | | 50 | 0 | 2 | 22.0 | 20.85 | 20.94 | 20.79 |
| | | 50 | 24 | 2 | 22.0 | 20.79 | 20.88 | 20.90 |
| | | 50 | 50 | 2 | 22.0 | 20.84 | 20.76 | 20.82 |
| | | 100 | 0 | 2 | 22.0 | 20.91 | 20.85 | 20.89 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.31 | 21.21 | 21.11 |
| | | 1 | 49 | 2 | 22.0 | 21.37 | 21.14 | 21.17 |
| | | 1 | 99 | 2 | 22.0 | 20.99 | 21.40 | 21.00 |
| | | 50 | 0 | 3 | 21.0 | 19.85 | 19.93 | 19.79 |
| | | 50 | 24 | 3 | 21.0 | 19.82 | 19.90 | 19.92 |
| | | 50 | 50 | 3 | 21.0 | 19.89 | 19.84 | 19.84 |
| | | 100 | 0 | 3 | 21.0 | 19.98 | 19.86 | 19.75 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26115 | 26365 | 26615 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1857.5 | 1882.5 | 1907.5 |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | 22.88 | 22.91 | 22.76 |
| | | 1 | 37 | 0 | 24.0 | 22.83 | 22.81 | 22.68 |
| | | 1 | 74 | 0 | 24.0 | 22.74 | 22.78 | 22.61 |
| | | 36 | 0 | 1 | 23.0 | 21.90 | 21.84 | 21.73 |
| | | 36 | 19 | 1 | 23.0 | 21.89 | 21.86 | 21.71 |
| | | 36 | 39 | 1 | 23.0 | 21.83 | 21.79 | 21.64 |
| | | 75 | 0 | 1 | 23.0 | 21.82 | 21.81 | 21.69 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.14 | 22.29 | 21.93 |
| | | 1 | 37 | 1 | 23.0 | 22.17 | 22.22 | 21.95 |
| | | 1 | 74 | 1 | 23.0 | 22.11 | 22.47 | 21.73 |
| | | 36 | 0 | 2 | 22.0 | 20.97 | 20.92 | 20.84 |
| | | 36 | 19 | 2 | 22.0 | 20.98 | 20.93 | 20.86 |
| | | 36 | 39 | 2 | 22.0 | 20.88 | 20.87 | 20.75 |
| | | 75 | 0 | 2 | 22.0 | 20.93 | 20.89 | 20.78 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.21 | 21.50 | 20.92 |
| | | 1 | 37 | 2 | 22.0 | 21.17 | 21.12 | 21.19 |
| | | 1 | 74 | 2 | 22.0 | 21.12 | 21.16 | 21.06 |
| | | 36 | 0 | 3 | 21.0 | 19.97 | 19.92 | 19.82 |
| | | 36 | 19 | 3 | 21.0 | 19.99 | 19.90 | 19.83 |
| | | 36 | 39 | 3 | 21.0 | 19.90 | 19.89 | 19.80 |
| | | 75 | 0 | 3 | 21.0 | 19.92 | 19.93 | 19.78 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26090 | 26365 | 26640 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1855 | 1882.5 | 1910 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 22.81 | 22.81 | 22.71 |
| | | 1 | 24 | 0 | 24.0 | 22.80 | 22.75 | 22.74 |
| | | 1 | 49 | 0 | 24.0 | 22.76 | 22.91 | 22.73 |
| | | 25 | 0 | 1 | 23.0 | 21.80 | 21.80 | 21.70 |
| | | 25 | 12 | 1 | 23.0 | 21.84 | 21.81 | 21.69 |
| | | 25 | 25 | 1 | 23.0 | 21.81 | 21.75 | 21.73 |
| | | 50 | 0 | 1 | 23.0 | 21.80 | 21.77 | 21.65 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 21.98 | 22.37 | 21.95 |
| | | 1 | 24 | 1 | 23.0 | 22.18 | 22.22 | 22.29 |
| | | 1 | 49 | 1 | 23.0 | 21.77 | 22.02 | 21.86 |
| | | 25 | 0 | 2 | 22.0 | 20.88 | 20.84 | 20.77 |
| | | 25 | 12 | 2 | 22.0 | 20.92 | 20.91 | 20.77 |
| | | 25 | 25 | 2 | 22.0 | 20.88 | 20.94 | 20.81 |
| | | 50 | 0 | 2 | 22.0 | 20.87 | 20.83 | 20.74 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.17 | 21.07 | 21.22 |
| | | 1 | 24 | 2 | 22.0 | 21.06 | 21.09 | 21.02 |
| | | 1 | 49 | 2 | 22.0 | 21.21 | 21.32 | 20.87 |
| | | 25 | 0 | 3 | 21.0 | 19.92 | 19.93 | 19.86 |
| | | 25 | 12 | 3 | 21.0 | 19.98 | 19.92 | 19.77 |
| | | 25 | 25 | 3 | 21.0 | 19.91 | 19.94 | 19.87 |
| | | 50 | 0 | 3 | 21.0 | 19.91 | 19.87 | 19.75 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26065 | 26365 | 26665 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1852.5 | 1882.5 | 1912.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 22.73 | 22.83 | 22.64 |
| | | 1 | 12 | 0 | 24.0 | 22.84 | 22.77 | 22.66 |
| | | 1 | 24 | 0 | 24.0 | 22.86 | 22.81 | 22.59 |
| | | 12 | 0 | 1 | 23.0 | 21.85 | 21.84 | 21.76 |
| | | 12 | 6 | 1 | 23.0 | 21.86 | 21.89 | 21.79 |
| | | 12 | 13 | 1 | 23.0 | 21.84 | 21.85 | 21.73 |
| | | 25 | 0 | 1 | 23.0 | 21.82 | 21.83 | 21.76 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.25 | 22.01 | 22.22 |
| | | 1 | 12 | 1 | 23.0 | 22.33 | 22.34 | 22.12 |
| | | 1 | 24 | 1 | 23.0 | 22.34 | 22.50 | 22.05 |
| | | 12 | 0 | 2 | 22.0 | 20.98 | 21.00 | 20.87 |
| | | 12 | 6 | 2 | 22.0 | 21.03 | 21.04 | 20.91 |
| | | 12 | 13 | 2 | 22.0 | 21.01 | 20.92 | 20.79 |
| | | 25 | 0 | 2 | 22.0 | 20.88 | 20.91 | 20.83 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.24 | 21.39 | 21.07 |
| | | 1 | 12 | 2 | 22.0 | 21.20 | 21.28 | 21.09 |
| | | 1 | 24 | 2 | 22.0 | 21.04 | 21.49 | 20.89 |
| | | 12 | 0 | 3 | 21.0 | 19.93 | 20.07 | 19.88 |
| | | 12 | 6 | 3 | 21.0 | 19.98 | 20.03 | 19.88 |
| | | 12 | 13 | 3 | 21.0 | 20.06 | 20.00 | 19.84 |
| | | 25 | 0 | 3 | 21.0 | 19.90 | 19.88 | 19.87 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26055 | 26365 | 26675 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1851.5 | 1882.5 | 1913.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 22.73 | 22.70 | 22.67 |
| | | 1 | 7 | 0 | 24.0 | 23.02 | 22.95 | 22.78 |
| | | 1 | 14 | 0 | 24.0 | 22.88 | 22.84 | 22.68 |
| | | 8 | 0 | 1 | 23.0 | 21.84 | 21.80 | 21.70 |
| | | 8 | 4 | 1 | 23.0 | 21.89 | 21.86 | 21.74 |
| | | 8 | 7 | 1 | 23.0 | 21.86 | 21.83 | 21.75 |
| | | 15 | 0 | 1 | 23.0 | 21.81 | 21.78 | 21.70 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.21 | 21.95 | 21.96 |
| | | 1 | 7 | 1 | 23.0 | 22.29 | 22.48 | 22.03 |
| | | 1 | 14 | 1 | 23.0 | 22.04 | 21.96 | 21.79 |
| | | 8 | 0 | 2 | 22.0 | 21.00 | 20.89 | 20.78 |
| | | 8 | 4 | 2 | 22.0 | 20.95 | 20.92 | 20.89 |
| | | 8 | 7 | 2 | 22.0 | 20.92 | 20.93 | 20.79 |
| | | 15 | 0 | 2 | 22.0 | 20.88 | 20.89 | 20.84 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.20 | 21.05 | 21.21 |
| | | 1 | 7 | 2 | 22.0 | 21.40 | 21.18 | 21.15 |
| | | 1 | 14 | 2 | 22.0 | 21.20 | 20.94 | 21.05 |
| | | 8 | 0 | 3 | 21.0 | 19.98 | 20.04 | 19.86 |
| | | 8 | 4 | 3 | 21.0 | 20.01 | 20.02 | 19.84 |
| | | 8 | 7 | 3 | 21.0 | 19.98 | 20.04 | 19.84 |
| | | 15 | 0 | 3 | 21.0 | 19.97 | 19.87 | 19.88 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26047 | 26365 | 26683 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1850.7 | 1882.5 | 1914.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 22.86 | 22.70 | 22.70 |
| | | 1 | 2 | 0 | 24.0 | 22.81 | 22.87 | 22.65 |
| | | 1 | 5 | 0 | 24.0 | 22.71 | 22.66 | 22.61 |
| | | 3 | 0 | 0 | 24.0 | 22.74 | 22.65 | 22.63 |
| | | 3 | 1 | 0 | 24.0 | 22.73 | 22.76 | 22.62 |
| | | 3 | 3 | 0 | 24.0 | 22.78 | 22.67 | 22.61 |
| | | 6 | 0 | 1 | 23.0 | 21.70 | 21.66 | 21.67 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.21 | 22.02 | 21.86 |
| | | 1 | 2 | 1 | 23.0 | 21.95 | 22.07 | 21.86 |
| | | 1 | 5 | 1 | 23.0 | 22.22 | 22.20 | 21.96 |
| | | 3 | 0 | 1 | 23.0 | 22.03 | 21.92 | 21.78 |
| | | 3 | 1 | 1 | 23.0 | 22.19 | 22.08 | 21.79 |
| | | 3 | 3 | 1 | 23.0 | 22.08 | 21.96 | 21.93 |
| | | 6 | 0 | 2 | 22.0 | 20.86 | 20.77 | 20.86 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.52 | 21.04 | 20.91 |
| | | 1 | 2 | 2 | 22.0 | 21.37 | 21.30 | 20.78 |
| | | 1 | 5 | 2 | 22.0 | 21.08 | 21.14 | 20.89 |
| | | 3 | 0 | 2 | 22.0 | 20.90 | 21.08 | 20.74 |
| | | 3 | 1 | 2 | 22.0 | 21.02 | 20.85 | 20.97 |
| | | 3 | 3 | 2 | 22.0 | 20.89 | 20.84 | 20.84 |
| | | 6 | 0 | 3 | 21.0 | 19.90 | 19.66 | 19.85 |

### 12.3.14 LTE Band 25 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26140 | 26365 | 26590 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1860 | 1882.5 | 1905 |
| 20 | QPSK | 1 | 0 | - | 17.4 | 16.22 | 16.32 | 16.13 |
| | | 1 | 49 | - | 17.4 | 16.10 | 16.12 | 16.14 |
| | | 1 | 99 | - | 17.4 | 16.19 | 16.16 | 16.06 |
| | | 50 | 0 | - | 17.4 | 16.24 | 16.28 | 16.10 |
| | | 50 | 24 | - | 17.4 | 16.27 | 16.24 | 16.22 |
| | | 50 | 50 | - | 17.4 | 16.30 | 16.14 | 16.15 |
| | | 100 | 0 | - | 17.4 | 16.22 | 16.17 | 16.14 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.36 | 16.43 | 16.35 |
| | | 1 | 49 | - | 17.4 | 16.55 | 16.26 | 16.52 |
| | | 1 | 99 | - | 17.4 | 16.36 | 16.47 | 16.45 |
| | | 50 | 0 | - | 17.4 | 16.25 | 16.22 | 16.15 |
| | | 50 | 24 | - | 17.4 | 16.24 | 16.23 | 16.26 |
| | | 50 | 50 | - | 17.4 | 16.28 | 16.17 | 16.19 |
| | | 100 | 0 | - | 17.4 | 16.31 | 16.20 | 16.15 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.71 | 16.65 | 16.54 |
| | | 1 | 49 | - | 17.4 | 16.35 | 16.37 | 16.38 |
| | | 1 | 99 | - | 17.4 | 16.51 | 16.46 | 16.42 |
| | | 50 | 0 | - | 17.4 | 16.27 | 16.27 | 16.13 |
| | | 50 | 24 | - | 17.4 | 16.34 | 16.28 | 16.31 |
| | | 50 | 50 | - | 17.4 | 16.30 | 16.18 | 16.19 |
| | | 100 | 0 | - | 17.4 | 16.36 | 16.22 | 16.18 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26115 | 26365 | 26615 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1857.5 | 1882.5 | 1907.5 |
| 15 | QPSK | 1 | 0 | - | 17.4 | 16.32 | 16.17 | 16.16 |
| | | 1 | 37 | - | 17.4 | 16.17 | 16.12 | 16.07 |
| | | 1 | 74 | - | 17.4 | 16.13 | 16.11 | 16.08 |
| | | 36 | 0 | - | 17.4 | 16.24 | 16.18 | 16.09 |
| | | 36 | 19 | - | 17.4 | 16.26 | 16.17 | 16.13 |
| | | 36 | 39 | - | 17.4 | 16.19 | 16.09 | 16.06 |
| | | 75 | 0 | - | 17.4 | 16.21 | 16.11 | 16.08 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.60 | 16.67 | 16.37 |
| | | 1 | 37 | - | 17.4 | 16.61 | 16.18 | 16.20 |
| | | 1 | 74 | - | 17.4 | 16.26 | 15.99 | 16.35 |
| | | 36 | 0 | - | 17.4 | 16.31 | 16.20 | 16.14 |
| | | 36 | 19 | - | 17.4 | 16.25 | 16.22 | 16.17 |
| | | 36 | 39 | - | 17.4 | 16.24 | 16.10 | 16.10 |
| | | 75 | 0 | - | 17.4 | 16.26 | 16.19 | 16.13 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.69 | 16.27 | 16.50 |
| | | 1 | 37 | - | 17.4 | 16.41 | 16.35 | 16.35 |
| | | 1 | 74 | - | 17.4 | 16.35 | 16.51 | 16.26 |
| | | 36 | 0 | - | 17.4 | 16.32 | 16.25 | 16.21 |
| | | 36 | 19 | - | 17.4 | 16.39 | 16.22 | 16.20 |
| | | 36 | 39 | - | 17.4 | 16.27 | 16.17 | 16.06 |
| | | 75 | 0 | - | 17.4 | 16.25 | 16.15 | 16.11 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26090 | 26365 | 26640 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1855 | 1882.5 | 1910 |
| 10 | QPSK | 1 | 0 | - | 17.4 | 16.20 | 16.19 | 16.09 |
| | | 1 | 24 | - | 17.4 | 16.29 | 16.22 | 16.13 |
| | | 1 | 49 | - | 17.4 | 16.14 | 16.21 | 16.06 |
| | | 25 | 0 | - | 17.4 | 16.25 | 16.19 | 16.09 |
| | | 25 | 12 | - | 17.4 | 16.22 | 16.22 | 16.08 |
| | | 25 | 25 | - | 17.4 | 16.23 | 16.16 | 16.15 |
| | | 50 | 0 | - | 17.4 | 16.24 | 16.19 | 16.06 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.44 | 16.56 | 16.34 |
| | | 1 | 24 | - | 17.4 | 16.37 | 16.39 | 16.50 |
| | | 1 | 49 | - | 17.4 | 16.42 | 16.58 | 16.40 |
| | | 25 | 0 | - | 17.4 | 16.30 | 16.22 | 16.16 |
| | | 25 | 12 | - | 17.4 | 16.28 | 16.27 | 16.16 |
| | | 25 | 25 | - | 17.4 | 16.26 | 16.24 | 16.14 |
| | | 50 | 0 | - | 17.4 | 16.27 | 16.21 | 16.10 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.58 | 16.59 | 16.09 |
| | | 1 | 24 | - | 17.4 | 16.57 | 16.29 | 16.48 |
| | | 1 | 49 | - | 17.4 | 16.35 | 16.66 | 16.18 |
| | | 25 | 0 | - | 17.4 | 16.23 | 16.25 | 16.16 |
| | | 25 | 12 | - | 17.4 | 16.36 | 16.21 | 16.12 |
| | | 25 | 25 | - | 17.4 | 16.32 | 16.26 | 16.11 |
| | | 50 | 0 | - | 17.4 | 16.29 | 16.24 | 16.07 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26065 | 26365 | 26665 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1852.5 | 1882.5 | 1912.5 |
| 5 | QPSK | 1 | 0 | - | 17.4 | 16.19 | 16.20 | 16.10 |
| | | 1 | 12 | - | 17.4 | 16.30 | 16.13 | 16.08 |
| | | 1 | 24 | - | 17.4 | 16.26 | 16.14 | 16.00 |
| | | 12 | 0 | - | 17.4 | 16.24 | 16.21 | 16.14 |
| | | 12 | 6 | - | 17.4 | 16.27 | 16.24 | 16.15 |
| | | 12 | 13 | - | 17.4 | 16.23 | 16.20 | 16.09 |
| | | 25 | 0 | - | 17.4 | 16.23 | 16.17 | 16.10 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.37 | 16.15 | 16.26 |
| | | 1 | 12 | - | 17.4 | 16.32 | 16.52 | 16.34 |
| | | 1 | 24 | - | 17.4 | 16.49 | 16.36 | 16.39 |
| | | 12 | 0 | - | 17.4 | 16.30 | 16.22 | 16.21 |
| | | 12 | 6 | - | 17.4 | 16.30 | 16.29 | 16.21 |
| | | 12 | 13 | - | 17.4 | 16.31 | 16.28 | 16.20 |
| | | 25 | 0 | - | 17.4 | 16.22 | 16.21 | 16.13 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.65 | 16.58 | 16.43 |
| | | 1 | 12 | - | 17.4 | 16.68 | 16.42 | 16.41 |
| | | 1 | 24 | - | 17.4 | 16.45 | 16.42 | 16.17 |
| | | 12 | 0 | - | 17.4 | 16.26 | 16.29 | 16.20 |
| | | 12 | 6 | - | 17.4 | 16.22 | 16.25 | 16.22 |
| | | 12 | 13 | - | 17.4 | 16.34 | 16.21 | 16.15 |
| | | 25 | 0 | - | 17.4 | 16.27 | 16.24 | 16.16 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26055 | 26365 | 26675 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1851.5 | 1882.5 | 1913.5 |
| 3 | QPSK | 1 | 0 | - | 17.4 | 16.20 | 16.10 | 16.08 |
| | | 1 | 7 | - | 17.4 | 16.34 | 16.18 | 16.24 |
| | | 1 | 14 | - | 17.4 | 16.22 | 16.06 | 16.11 |
| | | 8 | 0 | - | 17.4 | 16.26 | 16.18 | 16.10 |
| | | 8 | 4 | - | 17.4 | 16.25 | 16.21 | 16.15 |
| | | 8 | 7 | - | 17.4 | 16.22 | 16.16 | 16.12 |
| | | 15 | 0 | - | 17.4 | 16.19 | 16.17 | 16.12 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.29 | 16.53 | 16.26 |
| | | 1 | 7 | - | 17.4 | 16.43 | 16.58 | 16.27 |
| | | 1 | 14 | - | 17.4 | 16.55 | 16.44 | 16.43 |
| | | 8 | 0 | - | 17.4 | 16.23 | 16.07 | 16.14 |
| | | 8 | 4 | - | 17.4 | 16.25 | 16.20 | 16.15 |
| | | 8 | 7 | - | 17.4 | 16.20 | 16.22 | 16.14 |
| | | 15 | 0 | - | 17.4 | 16.28 | 16.22 | 16.10 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.63 | 16.21 | 16.40 |
| | | 1 | 7 | - | 17.4 | 16.56 | 16.51 | 16.43 |
| | | 1 | 14 | - | 17.4 | 16.20 | 16.52 | 16.38 |
| | | 8 | 0 | - | 17.4 | 16.33 | 16.23 | 16.12 |
| | | 8 | 4 | - | 17.4 | 16.33 | 16.27 | 16.17 |
| | | 8 | 7 | - | 17.4 | 16.35 | 16.21 | 16.23 |
| | | 15 | 0 | - | 17.4 | 16.30 | 16.20 | 16.14 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 25 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26047 | 26365 | 26683 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1850.7 | 1882.5 | 1914.3 |
| 1.4 | QPSK | 1 | 0 | - | 17.4 | 16.13 | 16.12 | 16.08 |
| | | 1 | 2 | - | 17.4 | 16.14 | 16.10 | 16.05 |
| | | 1 | 5 | - | 17.4 | 16.18 | 16.04 | 15.96 |
| | | 3 | 0 | - | 17.4 | 16.16 | 16.03 | 16.02 |
| | | 3 | 1 | - | 17.4 | 16.19 | 16.09 | 16.06 |
| | | 3 | 3 | - | 17.4 | 16.12 | 16.10 | 16.04 |
| | | 6 | 0 | - | 17.4 | 16.12 | 16.09 | 16.05 |
| | 16QAM | 1 | 0 | - | 17.4 | 16.63 | 16.52 | 16.41 |
| | | 1 | 2 | - | 17.4 | 16.50 | 16.44 | 16.18 |
| | | 1 | 5 | - | 17.4 | 16.60 | 16.48 | 16.25 |
| | | 3 | 0 | - | 17.4 | 16.33 | 16.22 | 16.23 |
| | | 3 | 1 | - | 17.4 | 16.41 | 16.11 | 16.35 |
| | | 3 | 3 | - | 17.4 | 16.31 | 16.35 | 16.28 |
| | | 6 | 0 | - | 17.4 | 16.10 | 16.07 | 16.07 |
| | 64QAM | 1 | 0 | - | 17.4 | 16.53 | 16.52 | 16.37 |
| | | 1 | 2 | - | 17.4 | 16.56 | 16.54 | 16.37 |
| | | 1 | 5 | - | 17.4 | 16.46 | 16.20 | 16.24 |
| | | 3 | 0 | - | 17.4 | 16.40 | 16.29 | 16.00 |
| | | 3 | 1 | - | 17.4 | 16.38 | 16.43 | 16.12 |
| | | 3 | 3 | - | 17.4 | 16.34 | 16.09 | 16.20 |
| | | 6 | 0 | - | 17.4 | 16.30 | 16.15 | 16.11 |

### 12.3.15 LTE Band 26 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 26865 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 831.5 | - |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.25 | - |
| | | 1 | 37 | 0 | 24.0 | - | 23.11 | - |
| | | 1 | 74 | 0 | 24.0 | - | 22.97 | - |
| | | 36 | 0 | 1 | 23.0 | - | 22.29 | - |
| | | 36 | 19 | 1 | 23.0 | - | 22.27 | - |
| | | 36 | 39 | 1 | 23.0 | - | 22.19 | - |
| | | 75 | 0 | 1 | 23.0 | - | 22.26 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.64 | - |
| | | 1 | 37 | 1 | 23.0 | - | 22.63 | - |
| | | 1 | 74 | 1 | 23.0 | - | 22.34 | - |
| | | 36 | 0 | 2 | 22.0 | - | 21.33 | - |
| | | 36 | 19 | 2 | 22.0 | - | 21.23 | - |
| | | 36 | 39 | 2 | 22.0 | - | 21.20 | - |
| | | 75 | 0 | 2 | 22.0 | - | 21.23 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.57 | - |
| | | 1 | 37 | 2 | 22.0 | - | 21.61 | - |
| | | 1 | 74 | 2 | 22.0 | - | 21.25 | - |
| | | 36 | 0 | 3 | 21.0 | - | 20.39 | - |
| | | 36 | 19 | 3 | 21.0 | - | 20.28 | - |
| | | 36 | 39 | 3 | 21.0 | - | 20.21 | - |
| | | 75 | 0 | 3 | 21.0 | - | 20.23 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26740 | 26865 | 26990 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 819 | 831.5 | 844 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 22.98 | 22.90 | 23.24 |
| | | 1 | 24 | 0 | 24.0 | 22.96 | 23.15 | 23.21 |
| | | 1 | 49 | 0 | 24.0 | 23.02 | 23.22 | 23.14 |
| | | 25 | 0 | 1 | 23.0 | 22.25 | 22.36 | 22.36 |
| | | 25 | 12 | 1 | 23.0 | 22.33 | 22.34 | 22.35 |
| | | 25 | 25 | 1 | 23.0 | 22.29 | 22.24 | 22.37 |
| | | 50 | 0 | 1 | 23.0 | 22.31 | 22.32 | 22.29 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.30 | 22.88 | 22.51 |
| | | 1 | 24 | 1 | 23.0 | 22.05 | 22.62 | 22.26 |
| | | 1 | 49 | 1 | 23.0 | 22.48 | 22.23 | 22.05 |
| | | 25 | 0 | 2 | 22.0 | 21.23 | 21.35 | 21.32 |
| | | 25 | 12 | 2 | 22.0 | 21.35 | 21.33 | 21.32 |
| | | 25 | 25 | 2 | 22.0 | 21.29 | 21.19 | 21.37 |
| | | 50 | 0 | 2 | 22.0 | 21.36 | 21.34 | 21.31 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.41 | 21.28 | 21.64 |
| | | 1 | 24 | 2 | 22.0 | 21.20 | 21.85 | 21.83 |
| | | 1 | 49 | 2 | 22.0 | 21.22 | 21.31 | 21.20 |
| | | 25 | 0 | 3 | 21.0 | 20.31 | 20.31 | 20.30 |
| | | 25 | 12 | 3 | 21.0 | 20.30 | 20.41 | 20.40 |
| | | 25 | 25 | 3 | 21.0 | 20.33 | 20.27 | 20.33 |
| | | 50 | 0 | 3 | 21.0 | 20.30 | 20.25 | 20.25 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26715 | 26865 | 27015 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 816.5 | 831.5 | 846.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.07 | 23.24 | 23.09 |
| | | 1 | 12 | 0 | 24.0 | 23.13 | 23.23 | 23.17 |
| | | 1 | 24 | 0 | 24.0 | 23.22 | 23.15 | 23.16 |
| | | 12 | 0 | 1 | 23.0 | 22.24 | 22.32 | 22.35 |
| | | 12 | 6 | 1 | 23.0 | 22.29 | 22.38 | 22.34 |
| | | 12 | 13 | 1 | 23.0 | 22.22 | 22.27 | 22.31 |
| | | 25 | 0 | 1 | 23.0 | 22.24 | 22.31 | 22.32 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.38 | 22.69 | 22.48 |
| | | 1 | 12 | 1 | 23.0 | 22.32 | 22.66 | 22.46 |
| | | 1 | 24 | 1 | 23.0 | 22.39 | 22.51 | 22.29 |
| | | 12 | 0 | 2 | 22.0 | 21.30 | 21.38 | 21.34 |
| | | 12 | 6 | 2 | 22.0 | 21.34 | 21.37 | 21.28 |
| | | 12 | 13 | 2 | 22.0 | 21.31 | 21.25 | 21.27 |
| | | 25 | 0 | 2 | 22.0 | 21.31 | 21.36 | 21.35 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.49 | 21.58 | 21.56 |
| | | 1 | 12 | 2 | 22.0 | 21.52 | 21.54 | 21.40 |
| | | 1 | 24 | 2 | 22.0 | 21.41 | 21.50 | 21.43 |
| | | 12 | 0 | 3 | 21.0 | 20.21 | 20.39 | 20.36 |
| | | 12 | 6 | 3 | 21.0 | 20.26 | 20.38 | 20.41 |
| | | 12 | 13 | 3 | 21.0 | 20.20 | 20.20 | 20.28 |
| | | 25 | 0 | 3 | 21.0 | 20.25 | 20.33 | 20.35 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26705 | 26865 | 27025 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 815.5 | 831.5 | 847.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 23.19 | 23.24 | 23.16 |
| | | 1 | 7 | 0 | 24.0 | 23.18 | 23.23 | 23.21 |
| | | 1 | 14 | 0 | 24.0 | 23.05 | 23.22 | 23.15 |
| | | 8 | 0 | 1 | 23.0 | 22.24 | 22.37 | 22.30 |
| | | 8 | 4 | 1 | 23.0 | 22.31 | 22.34 | 22.33 |
| | | 8 | 7 | 1 | 23.0 | 22.36 | 22.35 | 22.23 |
| | | 15 | 0 | 1 | 23.0 | 22.33 | 22.36 | 22.32 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.51 | 22.55 | 22.49 |
| | | 1 | 7 | 1 | 23.0 | 22.61 | 22.52 | 22.51 |
| | | 1 | 14 | 1 | 23.0 | 22.48 | 22.56 | 22.12 |
| | | 8 | 0 | 2 | 22.0 | 21.41 | 21.50 | 21.34 |
| | | 8 | 4 | 2 | 22.0 | 21.35 | 21.53 | 21.32 |
| | | 8 | 7 | 2 | 22.0 | 21.29 | 21.42 | 21.28 |
| | | 15 | 0 | 2 | 22.0 | 21.37 | 21.42 | 21.35 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.61 | 21.42 | 21.45 |
| | | 1 | 7 | 2 | 22.0 | 21.44 | 21.76 | 21.51 |
| | | 1 | 14 | 2 | 22.0 | 21.39 | 21.47 | 21.29 |
| | | 8 | 0 | 3 | 21.0 | 20.37 | 20.49 | 20.26 |
| | | 8 | 4 | 3 | 21.0 | 20.40 | 20.40 | 20.29 |
| | | 8 | 7 | 3 | 21.0 | 20.37 | 20.52 | 20.29 |
| | | 15 | 0 | 3 | 21.0 | 20.40 | 20.43 | 20.34 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26697 | 26865 | 27033 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 814.7 | 831.5 | 848.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 23.10 | 23.24 | 23.17 |
| | | 1 | 2 | 0 | 24.0 | 23.07 | 23.23 | 23.13 |
| | | 1 | 5 | 0 | 24.0 | 23.01 | 23.20 | 23.06 |
| | | 3 | 0 | 0 | 24.0 | 23.03 | 23.23 | 23.18 |
| | | 3 | 1 | 0 | 24.0 | 23.08 | 23.22 | 23.22 |
| | | 3 | 3 | 0 | 24.0 | 23.01 | 23.20 | 23.13 |
| | | 6 | 0 | 1 | 23.0 | 22.11 | 22.23 | 22.28 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.42 | 22.51 | 22.31 |
| | | 1 | 2 | 1 | 23.0 | 22.51 | 22.54 | 22.30 |
| | | 1 | 5 | 1 | 23.0 | 22.39 | 22.40 | 22.19 |
| | | 3 | 0 | 1 | 23.0 | 22.12 | 22.32 | 22.18 |
| | | 3 | 1 | 1 | 23.0 | 22.15 | 22.36 | 22.22 |
| | | 3 | 3 | 1 | 23.0 | 22.13 | 22.31 | 22.11 |
| | | 6 | 0 | 2 | 22.0 | 21.16 | 21.27 | 21.23 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.44 | 21.56 | 21.40 |
| | | 1 | 2 | 2 | 22.0 | 21.31 | 21.56 | 21.28 |
| | | 1 | 5 | 2 | 22.0 | 21.22 | 21.53 | 21.15 |
| | | 3 | 0 | 2 | 22.0 | 21.18 | 21.43 | 21.28 |
| | | 3 | 1 | 2 | 22.0 | 21.21 | 21.28 | 21.28 |
| | | 3 | 3 | 2 | 22.0 | 21.18 | 21.30 | 21.17 |
| | | 6 | 0 | 3 | 21.0 | 20.19 | 20.27 | 20.30 |

### 12.3.16 LTE Band 26 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 26865 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 831.5 | - |
| 15 | QPSK | 1 | 0 | - | 17.1 | - | 16.42 | - |
| | | 1 | 37 | - | 17.1 | - | 16.22 | - |
| | | 1 | 74 | - | 17.1 | - | 16.10 | - |
| | | 36 | 0 | - | 17.1 | - | 16.33 | - |
| | | 36 | 19 | - | 17.1 | - | 16.26 | - |
| | | 36 | 39 | - | 17.1 | - | 16.21 | - |
| | | 75 | 0 | - | 17.1 | - | 16.13 | - |
| | 16QAM | 1 | 0 | - | 17.1 | - | 16.18 | - |
| | | 1 | 37 | - | 17.1 | - | 16.05 | - |
| | | 1 | 74 | - | 17.1 | - | 16.33 | - |
| | | 36 | 0 | - | 17.1 | - | 16.33 | - |
| | | 36 | 19 | - | 17.1 | - | 16.25 | - |
| | | 36 | 39 | - | 17.1 | - | 16.20 | - |
| | | 75 | 0 | - | 17.1 | - | 16.24 | - |
| | 64QAM | 1 | 0 | - | 17.1 | - | 16.37 | - |
| | | 1 | 37 | - | 17.1 | - | 16.21 | - |
| | | 1 | 74 | - | 17.1 | - | 16.53 | - |
| | | 36 | 0 | - | 17.1 | - | 16.37 | - |
| | | 36 | 19 | - | 17.1 | - | 16.20 | - |
| | | 36 | 39 | - | 17.1 | - | 16.24 | - |
| | | 75 | 0 | - | 17.1 | - | 16.23 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26740 | 26865 | 26990 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 819 | 831.5 | 844 |
| 10 | QPSK | 1 | 0 | - | 17.1 | 16.08 | 16.36 | 16.36 |
| | | 1 | 24 | - | 17.1 | 16.41 | 16.35 | 16.13 |
| | | 1 | 49 | - | 17.1 | 16.19 | 16.39 | 16.19 |
| | | 25 | 0 | - | 17.1 | 16.33 | 16.44 | 16.33 |
| | | 25 | 12 | - | 17.1 | 16.43 | 16.41 | 16.38 |
| | | 25 | 25 | - | 17.1 | 16.36 | 16.37 | 16.41 |
| | | 50 | 0 | - | 17.1 | 16.40 | 16.39 | 16.29 |
| | 16QAM | 1 | 0 | - | 17.1 | 16.35 | 16.24 | 16.21 |
| | | 1 | 24 | - | 17.1 | 16.31 | 16.44 | 16.31 |
| | | 1 | 49 | - | 17.1 | 16.39 | 16.53 | 16.34 |
| | | 25 | 0 | - | 17.1 | 16.36 | 16.41 | 16.34 |
| | | 25 | 12 | - | 17.1 | 16.44 | 16.44 | 16.42 |
| | | 25 | 25 | - | 17.1 | 16.35 | 16.38 | 16.41 |
| | | 50 | 0 | - | 17.1 | 16.39 | 16.43 | 16.41 |
| | 64QAM | 1 | 0 | - | 17.1 | 16.28 | 16.29 | 16.45 |
| | | 1 | 24 | - | 17.1 | 16.05 | 16.27 | 16.35 |
| | | 1 | 49 | - | 17.1 | 16.33 | 16.73 | 16.17 |
| | | 25 | 0 | - | 17.1 | 16.34 | 16.55 | 16.43 |
| | | 25 | 12 | - | 17.1 | 16.41 | 16.41 | 16.45 |
| | | 25 | 25 | - | 17.1 | 16.38 | 16.38 | 16.42 |
| | | 50 | 0 | - | 17.1 | 16.45 | 16.39 | 16.37 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26715 | 26865 | 27015 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 816.5 | 831.5 | 846.5 |
| 5 | QPSK | 1 | 0 | - | 17.1 | 16.26 | 16.24 | 16.22 |
| | | 1 | 12 | - | 17.1 | 16.41 | 16.12 | 16.18 |
| | | 1 | 24 | - | 17.1 | 16.30 | 16.34 | 16.21 |
| | | 12 | 0 | - | 17.1 | 16.33 | 16.42 | 16.33 |
| | | 12 | 6 | - | 17.1 | 16.35 | 16.41 | 16.41 |
| | | 12 | 13 | - | 17.1 | 16.30 | 16.36 | 16.39 |
| | | 25 | 0 | - | 17.1 | 16.35 | 16.32 | 16.20 |
| | 16QAM | 1 | 0 | - | 17.1 | 16.40 | 16.38 | 16.35 |
| | | 1 | 12 | - | 17.1 | 16.40 | 16.39 | 16.33 |
| | | 1 | 24 | - | 17.1 | 16.19 | 16.55 | 16.32 |
| | | 12 | 0 | - | 17.1 | 16.40 | 16.43 | 16.45 |
| | | 12 | 6 | - | 17.1 | 16.34 | 16.43 | 16.48 |
| | | 12 | 13 | - | 17.1 | 16.35 | 16.44 | 16.49 |
| | | 25 | 0 | - | 17.1 | 16.33 | 16.38 | 16.41 |
| | 64QAM | 1 | 0 | - | 17.1 | 16.32 | 16.34 | 16.62 |
| | | 1 | 12 | - | 17.1 | 16.32 | 16.39 | 16.42 |
| | | 1 | 24 | - | 17.1 | 16.34 | 16.36 | 16.30 |
| | | 12 | 0 | - | 17.1 | 16.28 | 16.36 | 16.50 |
| | | 12 | 6 | - | 17.1 | 16.36 | 16.35 | 16.42 |
| | | 12 | 13 | - | 17.1 | 16.37 | 16.36 | 16.36 |
| | | 25 | 0 | - | 17.1 | 16.23 | 16.37 | 16.40 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26705 | 26865 | 27025 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 815.5 | 831.5 | 847.5 |
| 3 | QPSK | 1 | 0 | - | 17.1 | 16.20 | 16.40 | 16.32 |
| | | 1 | 7 | - | 17.1 | 16.31 | 16.41 | 16.39 |
| | | 1 | 14 | - | 17.1 | 16.21 | 16.36 | 16.36 |
| | | 8 | 0 | - | 17.1 | 16.25 | 16.40 | 16.40 |
| | | 8 | 4 | - | 17.1 | 16.27 | 16.45 | 16.42 |
| | | 8 | 7 | - | 17.1 | 16.32 | 16.34 | 16.38 |
| | | 15 | 0 | - | 17.1 | 16.28 | 16.40 | 16.31 |
| | 16QAM | 1 | 0 | - | 17.1 | 16.34 | 16.31 | 16.26 |
| | | 1 | 7 | - | 17.1 | 16.39 | 16.34 | 16.31 |
| | | 1 | 14 | - | 17.1 | 16.39 | 16.64 | 16.40 |
| | | 8 | 0 | - | 17.1 | 16.27 | 16.34 | 16.40 |
| | | 8 | 4 | - | 17.1 | 16.36 | 16.30 | 16.41 |
| | | 8 | 7 | - | 17.1 | 16.36 | 16.45 | 16.45 |
| | | 15 | 0 | - | 17.1 | 16.35 | 16.41 | 16.46 |
| | 64QAM | 1 | 0 | - | 17.1 | 16.30 | 16.33 | 16.38 |
| | | 1 | 7 | - | 17.1 | 16.32 | 16.32 | 16.39 |
| | | 1 | 14 | - | 17.1 | 16.35 | 16.46 | 16.36 |
| | | 8 | 0 | - | 17.1 | 16.34 | 16.42 | 16.43 |
| | | 8 | 4 | - | 17.1 | 16.37 | 16.41 | 16.42 |
| | | 8 | 7 | - | 17.1 | 16.34 | 16.41 | 16.43 |
| | | 15 | 0 | - | 17.1 | 16.41 | 16.42 | 16.39 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 26 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 26697 | 26865 | 27033 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 814.7 | 831.5 | 848.3 |
| 1.4 | QPSK | 1 | 0 | - | 17.1 | 16.13 | 16.12 | 16.13 |
| | | 1 | 2 | - | 17.1 | 16.18 | 16.14 | 16.16 |
| | | 1 | 5 | - | 17.1 | 16.11 | 16.11 | 16.19 |
| | | 3 | 0 | - | 17.1 | 16.11 | 16.10 | 16.14 |
| | | 3 | 1 | - | 17.1 | 16.12 | 16.13 | 16.13 |
| | | 3 | 3 | - | 17.1 | 16.20 | 16.12 | 16.17 |
| | | 6 | 0 | - | 17.1 | 16.13 | 16.12 | 16.11 |
| | 16QAM | 1 | 0 | - | 17.1 | 16.23 | 16.41 | 16.28 |
| | | 1 | 2 | - | 17.1 | 16.20 | 16.33 | 16.23 |
| | | 1 | 5 | - | 17.1 | 16.19 | 16.33 | 16.32 |
| | | 3 | 0 | - | 17.1 | 16.13 | 16.14 | 16.18 |
| | | 3 | 1 | - | 17.1 | 16.13 | 16.12 | 16.16 |
| | | 3 | 3 | - | 17.1 | 16.12 | 16.15 | 16.10 |
| | | 6 | 0 | - | 17.1 | 16.13 | 16.17 | 16.12 |
| | 64QAM | 1 | 0 | - | 17.1 | 16.26 | 16.47 | 16.32 |
| | | 1 | 2 | - | 17.1 | 16.16 | 16.42 | 16.34 |
| | | 1 | 5 | - | 17.1 | 16.15 | 16.18 | 16.29 |
| | | 3 | 0 | - | 17.1 | 16.12 | 16.12 | 16.26 |
| | | 3 | 1 | - | 17.1 | 16.22 | 16.23 | 16.22 |
| | | 3 | 3 | - | 17.1 | 16.12 | 16.11 | 16.17 |
| | | 6 | 0 | - | 17.1 | 16.22 | 16.26 | 16.20 |

### 12.3.17 LTE Band 42/48 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42190 | 42715 | 55740 | 56115 | 56640 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3460 | 3512.5 | 3600 | 3637.5 | 3690 |
| 20 | QPSK | 1 | 0 | 0 | 19.0 | 18.36 | 18.82 | 18.67 | 18.74 | 18.41 |
| | | 1 | 49 | 0 | 19.0 | 18.37 | 18.78 | 18.66 | 18.64 | 18.35 |
| | | 1 | 99 | 0 | 19.0 | 18.64 | 18.80 | 18.77 | 18.70 | 18.48 |
| | | 50 | 0 | 1 | 18.0 | 17.45 | 17.87 | 17.66 | 17.64 | 17.36 |
| | | 50 | 24 | 1 | 18.0 | 17.51 | 17.89 | 17.73 | 17.69 | 17.42 |
| | | 50 | 50 | 1 | 18.0 | 17.66 | 17.90 | 17.74 | 17.71 | 17.41 |
| | | 100 | 0 | 1 | 18.0 | 17.59 | 17.89 | 17.69 | 17.66 | 17.37 |
| | 16QAM | 1 | 0 | 1 | 18.0 | 17.59 | 18.00 | 17.73 | 17.78 | 17.48 |
| | | 1 | 49 | 1 | 18.0 | 17.56 | 17.95 | 17.77 | 17.72 | 17.41 |
| | | 1 | 99 | 1 | 18.0 | 17.80 | 17.93 | 17.84 | 17.77 | 17.55 |
| | | 50 | 0 | 2 | 17.0 | 16.46 | 16.88 | 16.70 | 16.69 | 16.39 |
| | | 50 | 24 | 2 | 17.0 | 16.51 | 16.93 | 16.74 | 16.74 | 16.45 |
| | | 50 | 50 | 2 | 17.0 | 16.67 | 16.91 | 16.80 | 16.71 | 16.44 |
| | | 100 | 0 | 2 | 17.0 | 16.60 | 16.87 | 16.69 | 16.69 | 16.39 |
| | 64QAM | 1 | 0 | 2 | 17.0 | 16.50 | 17.00 | 16.83 | 16.91 | 16.56 |
| | | 1 | 49 | 2 | 17.0 | 16.49 | 16.90 | 16.80 | 16.74 | 16.53 |
| | | 1 | 99 | 2 | 17.0 | 16.71 | 16.92 | 16.93 | 16.80 | 16.54 |
| | | 50 | 0 | 3 | 16.0 | 15.45 | 15.87 | 15.71 | 15.69 | 15.36 |
| | | 50 | 24 | 3 | 16.0 | 15.54 | 15.91 | 15.73 | 15.69 | 15.41 |
| | | 50 | 50 | 3 | 16.0 | 15.68 | 15.88 | 15.74 | 15.70 | 15.43 |
| | | 100 | 0 | 3 | 16.0 | 15.61 | 15.88 | 15.70 | 15.65 | 15.38 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42165 | 42715 | 55740 | 56115 | 56665 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3457.5 | 3512.5 | 3600 | 3637.5 | 3692.5 |
| 15 | QPSK | 1 | 0 | 0 | 19.0 | 18.43 | 18.90 | 18.68 | 18.71 | 18.48 |
| | | 1 | 37 | 0 | 19.0 | 18.42 | 18.86 | 18.69 | 18.62 | 18.43 |
| | | 1 | 74 | 0 | 19.0 | 18.55 | 18.89 | 18.80 | 18.67 | 18.52 |
| | | 36 | 0 | 1 | 18.0 | 17.45 | 17.88 | 17.69 | 17.71 | 17.39 |
| | | 36 | 19 | 1 | 18.0 | 17.54 | 17.91 | 17.70 | 17.68 | 17.41 |
| | | 36 | 39 | 1 | 18.0 | 17.53 | 17.89 | 17.76 | 17.72 | 17.43 |
| | | 75 | 0 | 1 | 18.0 | 17.52 | 17.89 | 17.67 | 17.63 | 17.37 |
| | 16QAM | 1 | 0 | 1 | 18.0 | 17.56 | 17.78 | 17.85 | 17.90 | 17.29 |
| | | 1 | 37 | 1 | 18.0 | 17.55 | 17.71 | 17.83 | 17.82 | 17.25 |
| | | 1 | 74 | 1 | 18.0 | 17.69 | 17.76 | 17.99 | 17.86 | 17.38 |
| | | 36 | 0 | 2 | 17.0 | 16.45 | 16.86 | 16.73 | 16.75 | 16.37 |
| | | 36 | 19 | 2 | 17.0 | 16.55 | 16.89 | 16.77 | 16.74 | 16.43 |
| | | 36 | 39 | 2 | 17.0 | 16.53 | 16.92 | 16.77 | 16.75 | 16.41 |
| | | 75 | 0 | 2 | 17.0 | 16.53 | 16.86 | 16.75 | 16.68 | 16.36 |
| | 64QAM | 1 | 0 | 2 | 17.0 | 16.64 | 16.89 | 16.79 | 16.84 | 16.49 |
| | | 1 | 37 | 2 | 17.0 | 16.48 | 16.85 | 16.80 | 16.73 | 16.44 |
| | | 1 | 74 | 2 | 17.0 | 16.62 | 16.91 | 16.87 | 16.77 | 16.57 |
| | | 36 | 0 | 3 | 16.0 | 15.43 | 15.82 | 15.67 | 15.67 | 15.34 |
| | | 36 | 19 | 3 | 16.0 | 15.51 | 15.85 | 15.74 | 15.73 | 15.41 |
| | | 36 | 39 | 3 | 16.0 | 15.52 | 15.86 | 15.79 | 15.69 | 15.36 |
| | | 75 | 0 | 3 | 16.0 | 15.51 | 15.88 | 15.72 | 15.69 | 15.42 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42140 | 42715 | 55740 | 56115 | 56690 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3455 | 3512.5 | 3600 | 3637.5 | 3695 |
| 10 | QPSK | 1 | 0 | 0 | 19.0 | 18.28 | 18.86 | 18.74 | 18.66 | 18.42 |
| | | 1 | 24 | 0 | 19.0 | 18.29 | 18.85 | 18.77 | 18.65 | 18.40 |
| | | 1 | 49 | 0 | 19.0 | 18.33 | 18.84 | 18.79 | 18.64 | 18.43 |
| | | 25 | 0 | 1 | 18.0 | 17.39 | 17.90 | 17.73 | 17.69 | 17.40 |
| | | 25 | 12 | 1 | 18.0 | 17.42 | 17.93 | 17.76 | 17.71 | 17.43 |
| | | 25 | 25 | 1 | 18.0 | 17.40 | 17.91 | 17.71 | 17.66 | 17.41 |
| | | 50 | 0 | 1 | 18.0 | 17.41 | 17.89 | 17.68 | 17.66 | 17.38 |
| | 16QAM | 1 | 0 | 1 | 18.0 | 17.51 | 17.98 | 17.61 | 17.51 | 17.55 |
| | | 1 | 24 | 1 | 18.0 | 17.54 | 17.97 | 17.64 | 17.50 | 17.67 |
| | | 1 | 49 | 1 | 18.0 | 17.58 | 17.99 | 17.99 | 17.62 | 17.60 |
| | | 25 | 0 | 2 | 17.0 | 16.45 | 16.91 | 16.70 | 16.74 | 16.43 |
| | | 25 | 12 | 2 | 17.0 | 16.46 | 16.96 | 16.77 | 16.77 | 16.48 |
| | | 25 | 25 | 2 | 17.0 | 16.47 | 16.95 | 16.76 | 16.73 | 16.46 |
| | | 50 | 0 | 2 | 17.0 | 16.45 | 16.88 | 16.71 | 16.68 | 16.40 |
| | 64QAM | 1 | 0 | 2 | 17.0 | 16.50 | 17.00 | 16.76 | 16.89 | 16.76 |
| | | 1 | 24 | 2 | 17.0 | 16.50 | 17.00 | 16.79 | 16.89 | 16.77 |
| | | 1 | 49 | 2 | 17.0 | 16.50 | 17.00 | 16.84 | 16.88 | 16.79 |
| | | 25 | 0 | 3 | 16.0 | 15.36 | 15.87 | 15.71 | 15.74 | 15.38 |
| | | 25 | 12 | 3 | 16.0 | 15.41 | 15.90 | 15.74 | 15.73 | 15.40 |
| | | 25 | 25 | 3 | 16.0 | 15.42 | 15.89 | 15.75 | 15.71 | 15.39 |
| | | 50 | 0 | 3 | 16.0 | 15.40 | 15.88 | 15.66 | 15.65 | 15.37 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42115 | 42715 | 55740 | 56115 | 56715 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3452.5 | 3512.5 | 3600 | 3637.5 | 3697.5 |
| 5 | QPSK | 1 | 0 | 0 | 19.0 | 18.32 | 18.86 | 18.69 | 18.66 | 18.39 |
| | | 1 | 12 | 0 | 19.0 | 18.34 | 18.89 | 18.68 | 18.67 | 18.41 |
| | | 1 | 24 | 0 | 19.0 | 18.35 | 18.87 | 18.74 | 18.65 | 18.40 |
| | | 12 | 0 | 1 | 18.0 | 17.45 | 17.92 | 17.74 | 17.70 | 17.42 |
| | | 12 | 6 | 1 | 18.0 | 17.43 | 17.91 | 17.75 | 17.69 | 17.41 |
| | | 12 | 13 | 1 | 18.0 | 17.39 | 17.89 | 17.71 | 17.67 | 17.40 |
| | | 25 | 0 | 1 | 18.0 | 17.43 | 17.90 | 17.71 | 17.66 | 17.37 |
| | 16QAM | 1 | 0 | 1 | 18.0 | 17.51 | 17.92 | 17.90 | 17.80 | 17.53 |
| | | 1 | 12 | 1 | 18.0 | 17.56 | 17.96 | 17.93 | 17.78 | 17.51 |
| | | 1 | 24 | 1 | 18.0 | 17.56 | 17.97 | 17.93 | 17.68 | 17.50 |
| | | 12 | 0 | 2 | 17.0 | 16.43 | 16.94 | 16.78 | 16.74 | 16.48 |
| | | 12 | 6 | 2 | 17.0 | 16.44 | 16.97 | 16.81 | 16.75 | 16.47 |
| | | 12 | 13 | 2 | 17.0 | 16.42 | 16.96 | 16.78 | 16.69 | 16.43 |
| | | 25 | 0 | 2 | 17.0 | 16.49 | 16.93 | 16.75 | 16.68 | 16.41 |
| | 64QAM | 1 | 0 | 2 | 17.0 | 16.53 | 16.93 | 16.77 | 16.82 | 16.50 |
| | | 1 | 12 | 2 | 17.0 | 16.55 | 16.97 | 16.83 | 16.82 | 16.57 |
| | | 1 | 24 | 2 | 17.0 | 16.57 | 16.91 | 16.83 | 16.82 | 16.57 |
| | | 12 | 0 | 3 | 16.0 | 15.47 | 15.93 | 15.80 | 15.77 | 15.47 |
| | | 12 | 6 | 3 | 16.0 | 15.49 | 15.96 | 15.77 | 15.70 | 15.42 |
| | | 12 | 13 | 3 | 16.0 | 15.44 | 15.96 | 15.76 | 15.69 | 15.42 |
| | | 25 | 0 | 3 | 16.0 | 15.43 | 15.89 | 15.72 | 15.70 | 15.43 |

### 12.3.18 LTE Band 42/48 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42190 | 42715 | 55740 | 56115 | 56640 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3460 | 3512.5 | 3600 | 3637.5 | 3690 |
| 20 | QPSK | 1 | 0 | - | 11.0 | 10.37 | 10.91 | 10.62 | 10.70 | 10.38 |
| | | 1 | 49 | - | 11.0 | 10.34 | 10.78 | 10.65 | 10.59 | 10.28 |
| | | 1 | 99 | - | 11.0 | 10.51 | 10.80 | 10.77 | 10.64 | 10.41 |
| | | 50 | 0 | - | 11.0 | 10.41 | 10.89 | 10.67 | 10.68 | 10.38 |
| | | 50 | 24 | - | 11.0 | 10.47 | 10.91 | 10.73 | 10.67 | 10.43 |
| | | 50 | 50 | - | 11.0 | 10.59 | 10.92 | 10.77 | 10.69 | 10.42 |
| | | 100 | 0 | - | 11.0 | 10.50 | 10.90 | 10.69 | 10.68 | 10.40 |
| | 16QAM | 1 | 0 | - | 11.0 | 10.43 | 10.91 | 10.80 | 10.86 | 10.61 |
| | | 1 | 49 | - | 11.0 | 10.33 | 10.83 | 10.82 | 10.67 | 10.55 |
| | | 1 | 99 | - | 11.0 | 10.54 | 10.88 | 10.90 | 10.74 | 10.65 |
| | | 50 | 0 | - | 11.0 | 10.41 | 10.88 | 10.65 | 10.67 | 10.37 |
| | | 50 | 24 | - | 11.0 | 10.48 | 10.93 | 10.71 | 10.67 | 10.45 |
| | | 50 | 50 | - | 11.0 | 10.60 | 10.92 | 10.72 | 10.67 | 10.42 |
| | | 100 | 0 | - | 11.0 | 10.55 | 10.90 | 10.69 | 10.65 | 10.43 |
| | 64QAM | 1 | 0 | - | 11.0 | 10.42 | 10.99 | 10.74 | 10.81 | 10.61 |
| | | 1 | 49 | - | 11.0 | 10.42 | 10.87 | 10.73 | 10.73 | 10.55 |
| | | 1 | 99 | - | 11.0 | 10.53 | 10.90 | 10.84 | 10.69 | 10.57 |
| | | 50 | 0 | - | 11.0 | 10.43 | 10.87 | 10.69 | 10.71 | 10.36 |
| | | 50 | 24 | - | 11.0 | 10.46 | 10.90 | 10.75 | 10.70 | 10.42 |
| | | 50 | 50 | - | 11.0 | 10.58 | 10.89 | 10.75 | 10.70 | 10.41 |
| | | 100 | 0 | - | 11.0 | 10.54 | 10.86 | 10.72 | 10.67 | 10.42 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42165 | 42715 | 55740 | 56115 | 56665 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3457.5 | 3512.5 | 3600 | 3637.5 | 3692.5 |
| 15 | QPSK | 1 | 0 | - | 11.0 | 10.46 | 10.91 | 10.66 | 10.71 | 10.37 |
| | | 1 | 37 | - | 11.0 | 10.42 | 10.81 | 10.63 | 10.70 | 10.31 |
| | | 1 | 74 | - | 11.0 | 10.58 | 10.88 | 10.75 | 10.81 | 10.44 |
| | | 36 | 0 | - | 11.0 | 10.46 | 10.84 | 10.66 | 10.62 | 10.34 |
| | | 36 | 19 | - | 11.0 | 10.52 | 10.87 | 10.69 | 10.70 | 10.38 |
| | | 36 | 39 | - | 11.0 | 10.59 | 10.88 | 10.76 | 10.71 | 10.43 |
| | | 75 | 0 | - | 11.0 | 10.54 | 10.88 | 10.71 | 10.70 | 10.39 |
| | 16QAM | 1 | 0 | - | 11.0 | 10.60 | 11.00 | 10.80 | 10.56 | 10.51 |
| | | 1 | 37 | - | 11.0 | 10.61 | 10.94 | 10.79 | 10.54 | 10.49 |
| | | 1 | 74 | - | 11.0 | 10.73 | 10.99 | 10.93 | 10.68 | 10.58 |
| | | 36 | 0 | - | 11.0 | 10.46 | 10.86 | 10.64 | 10.64 | 10.32 |
| | | 36 | 19 | - | 11.0 | 10.53 | 10.87 | 10.73 | 10.67 | 10.38 |
| | | 36 | 39 | - | 11.0 | 10.55 | 10.92 | 10.77 | 10.71 | 10.44 |
| | | 75 | 0 | - | 11.0 | 10.55 | 10.90 | 10.70 | 10.65 | 10.39 |
| | 64QAM | 1 | 0 | - | 11.0 | 10.49 | 10.95 | 10.74 | 10.73 | 10.46 |
| | | 1 | 37 | - | 11.0 | 10.50 | 10.86 | 10.73 | 10.71 | 10.43 |
| | | 1 | 74 | - | 11.0 | 10.61 | 10.92 | 10.86 | 10.84 | 10.56 |
| | | 36 | 0 | - | 11.0 | 10.50 | 10.84 | 10.68 | 10.64 | 10.37 |
| | | 36 | 19 | - | 11.0 | 10.51 | 10.88 | 10.72 | 10.66 | 10.42 |
| | | 36 | 39 | - | 11.0 | 10.57 | 10.87 | 10.79 | 10.69 | 10.44 |
| | | 75 | 0 | - | 11.0 | 10.53 | 10.89 | 10.70 | 10.70 | 10.42 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42140 | 42715 | 55740 | 56115 | 56690 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3455 | 3512.5 | 3600 | 3637.5 | 3695 |
| 10 | QPSK | 1 | 0 | - | 11.0 | 10.40 | 10.88 | 10.68 | 10.70 | 10.42 |
| | | 1 | 24 | - | 11.0 | 10.39 | 10.90 | 10.73 | 10.68 | 10.41 |
| | | 1 | 49 | - | 11.0 | 10.42 | 10.91 | 10.71 | 10.65 | 10.43 |
| | | 25 | 0 | - | 11.0 | 10.42 | 10.93 | 10.70 | 10.70 | 10.41 |
| | | 25 | 12 | - | 11.0 | 10.46 | 10.92 | 10.72 | 10.69 | 10.40 |
| | | 25 | 25 | - | 11.0 | 10.47 | 10.89 | 10.74 | 10.67 | 10.38 |
| | | 50 | 0 | - | 11.0 | 10.41 | 10.90 | 10.72 | 10.70 | 10.40 |
| | 16QAM | 1 | 0 | - | 11.0 | 10.54 | 10.96 | 10.85 | 10.83 | 10.58 |
| | | 1 | 24 | - | 11.0 | 10.51 | 11.00 | 10.88 | 10.81 | 10.57 |
| | | 1 | 49 | - | 11.0 | 10.54 | 11.00 | 10.86 | 10.75 | 10.61 |
| | | 25 | 0 | - | 11.0 | 10.44 | 10.90 | 10.72 | 10.72 | 10.40 |
| | | 25 | 12 | - | 11.0 | 10.49 | 10.95 | 10.74 | 10.70 | 10.46 |
| | | 25 | 25 | - | 11.0 | 10.46 | 10.94 | 10.75 | 10.65 | 10.42 |
| | | 50 | 0 | - | 11.0 | 10.43 | 10.89 | 10.67 | 10.67 | 10.40 |
| | 64QAM | 1 | 0 | - | 11.0 | 10.42 | 10.96 | 10.76 | 10.76 | 10.48 |
| | | 1 | 24 | - | 11.0 | 10.47 | 10.94 | 10.86 | 10.76 | 10.51 |
| | | 1 | 49 | - | 11.0 | 10.51 | 10.92 | 10.84 | 10.74 | 10.52 |
| | | 25 | 0 | - | 11.0 | 10.41 | 10.89 | 10.72 | 10.73 | 10.46 |
| | | 25 | 12 | - | 11.0 | 10.46 | 10.91 | 10.76 | 10.72 | 10.44 |
| | | 25 | 25 | - | 11.0 | 10.45 | 10.89 | 10.75 | 10.66 | 10.44 |
| | | 50 | 0 | - | 11.0 | 10.41 | 10.87 | 10.71 | 10.67 | 10.39 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42/48 | | | | | | UL Ch # | | | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 42115 | 42715 | 55740 | 56115 | 56715 |
| | | | | | | Freq(MHz) | | | | |
| | | | | | | 3452.5 | 3512.5 | 3600 | 3637.5 | 3697.5 |
| 5 | QPSK | 1 | 0 | - | 11.0 | 10.35 | 10.81 | 10.60 | 10.61 | 10.32 |
| | | 1 | 12 | - | 11.0 | 10.40 | 10.87 | 10.66 | 10.63 | 10.36 |
| | | 1 | 24 | - | 11.0 | 10.37 | 10.85 | 10.70 | 10.64 | 10.35 |
| | | 12 | 0 | - | 11.0 | 10.41 | 10.89 | 10.70 | 10.67 | 10.42 |
| | | 12 | 6 | - | 11.0 | 10.45 | 10.92 | 10.71 | 10.68 | 10.39 |
| | | 12 | 13 | - | 11.0 | 10.42 | 10.88 | 10.68 | 10.66 | 10.38 |
| | | 25 | 0 | - | 11.0 | 10.40 | 10.87 | 10.70 | 10.63 | 10.36 |
| | 16QAM | 1 | 0 | - | 11.0 | 10.52 | 10.99 | 10.81 | 10.75 | 10.45 |
| | | 1 | 12 | - | 11.0 | 10.54 | 11.00 | 10.71 | 10.86 | 10.47 |
| | | 1 | 24 | - | 11.0 | 10.53 | 10.99 | 10.81 | 10.71 | 10.50 |
| | | 12 | 0 | - | 11.0 | 10.45 | 10.92 | 10.71 | 10.67 | 10.38 |
| | | 12 | 6 | - | 11.0 | 10.43 | 10.90 | 10.72 | 10.69 | 10.43 |
| | | 12 | 13 | - | 11.0 | 10.41 | 10.87 | 10.73 | 10.63 | 10.42 |
| | | 25 | 0 | - | 11.0 | 10.43 | 10.92 | 10.71 | 10.67 | 10.39 |
| | 64QAM | 1 | 0 | - | 11.0 | 10.45 | 10.91 | 10.73 | 10.71 | 10.41 |
| | | 1 | 12 | - | 11.0 | 10.43 | 10.91 | 10.75 | 10.72 | 10.47 |
| | | 1 | 24 | - | 11.0 | 10.47 | 10.90 | 10.75 | 10.67 | 10.45 |
| | | 12 | 0 | - | 11.0 | 10.40 | 10.88 | 10.74 | 10.71 | 10.46 |
| | | 12 | 6 | - | 11.0 | 10.44 | 10.93 | 10.74 | 10.72 | 10.46 |
| | | 12 | 13 | - | 11.0 | 10.42 | 10.91 | 10.74 | 10.67 | 10.45 |
| | | 25 | 0 | - | 11.0 | 10.41 | 10.87 | 10.75 | 10.70 | 10.39 |

### 12.3.19 LTE Band 66 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132072 | 132322 | 132572 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1720 | 1745 | 1770 |
| 20 | QPSK | 1 | 0 | 0 | 24.0 | 23.25 | 23.17 | 23.08 |
| | | 1 | 49 | 0 | 24.0 | 23.27 | 23.18 | 23.21 |
| | | 1 | 99 | 0 | 24.0 | 23.13 | 23.07 | 23.04 |
| | | 50 | 0 | 1 | 23.0 | 22.33 | 22.08 | 21.97 |
| | | 50 | 24 | 1 | 23.0 | 22.35 | 22.11 | 21.98 |
| | | 50 | 50 | 1 | 23.0 | 22.28 | 22.06 | 21.90 |
| | | 100 | 0 | 1 | 23.0 | 22.32 | 22.08 | 21.91 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.60 | 22.52 | 22.30 |
| | | 1 | 49 | 1 | 23.0 | 22.40 | 22.29 | 22.31 |
| | | 1 | 99 | 1 | 23.0 | 22.64 | 22.67 | 22.20 |
| | | 50 | 0 | 2 | 22.0 | 21.33 | 21.10 | 20.86 |
| | | 50 | 24 | 2 | 22.0 | 21.34 | 21.16 | 20.85 |
| | | 50 | 50 | 2 | 22.0 | 21.28 | 21.04 | 20.78 |
| | | 100 | 0 | 2 | 22.0 | 21.30 | 21.14 | 20.82 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.46 | 21.42 | 21.24 |
| | | 1 | 49 | 2 | 22.0 | 21.50 | 21.30 | 21.14 |
| | | 1 | 99 | 2 | 22.0 | 21.75 | 21.16 | 21.09 |
| | | 50 | 0 | 3 | 21.0 | 20.35 | 20.16 | 19.91 |
| | | 50 | 24 | 3 | 21.0 | 20.38 | 20.13 | 19.84 |
| | | 50 | 50 | 3 | 21.0 | 20.30 | 20.10 | 19.81 |
| | | 100 | 0 | 3 | 21.0 | 20.34 | 20.14 | 19.83 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132047 | 132322 | 132597 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1717.5 | 1745 | 1772.5 |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | 23.31 | 23.21 | 22.77 |
| | | 1 | 37 | 0 | 24.0 | 23.24 | 23.22 | 22.70 |
| | | 1 | 74 | 0 | 24.0 | 23.41 | 23.00 | 22.62 |
| | | 36 | 0 | 1 | 23.0 | 22.35 | 22.11 | 21.91 |
| | | 36 | 19 | 1 | 23.0 | 22.34 | 22.14 | 21.89 |
| | | 36 | 39 | 1 | 23.0 | 22.30 | 22.10 | 21.86 |
| | | 75 | 0 | 1 | 23.0 | 22.33 | 22.13 | 21.91 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.72 | 22.89 | 22.21 |
| | | 1 | 37 | 1 | 23.0 | 22.62 | 22.28 | 21.90 |
| | | 1 | 74 | 1 | 23.0 | 22.63 | 22.64 | 22.14 |
| | | 36 | 0 | 2 | 22.0 | 21.29 | 21.19 | 20.93 |
| | | 36 | 19 | 2 | 22.0 | 21.37 | 21.17 | 20.95 |
| | | 36 | 39 | 2 | 22.0 | 21.32 | 21.19 | 20.88 |
| | | 75 | 0 | 2 | 22.0 | 21.38 | 21.12 | 20.81 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.62 | 21.23 | 20.87 |
| | | 1 | 37 | 2 | 22.0 | 21.36 | 21.55 | 20.81 |
| | | 1 | 74 | 2 | 22.0 | 20.91 | 21.53 | 20.76 |
| | | 36 | 0 | 3 | 21.0 | 20.36 | 20.17 | 19.83 |
| | | 36 | 19 | 3 | 21.0 | 20.36 | 20.19 | 19.85 |
| | | 36 | 39 | 3 | 21.0 | 20.30 | 20.15 | 19.78 |
| | | 75 | 0 | 3 | 21.0 | 20.35 | 20.16 | 19.84 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132022 | 132322 | 132622 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1715 | 1745 | 1775 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 23.12 | 23.01 | 22.94 |
| | | 1 | 24 | 0 | 24.0 | 23.27 | 22.98 | 22.99 |
| | | 1 | 49 | 0 | 24.0 | 23.37 | 22.89 | 22.96 |
| | | 25 | 0 | 1 | 23.0 | 22.35 | 22.11 | 21.91 |
| | | 25 | 12 | 1 | 23.0 | 22.42 | 22.16 | 21.90 |
| | | 25 | 25 | 1 | 23.0 | 22.36 | 22.07 | 21.89 |
| | | 50 | 0 | 1 | 23.0 | 22.38 | 22.12 | 21.91 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.80 | 22.72 | 21.99 |
| | | 1 | 24 | 1 | 23.0 | 22.74 | 22.48 | 22.20 |
| | | 1 | 49 | 1 | 23.0 | 22.82 | 22.17 | 22.31 |
| | | 25 | 0 | 2 | 22.0 | 21.38 | 21.18 | 20.79 |
| | | 25 | 12 | 2 | 22.0 | 21.42 | 21.23 | 20.83 |
| | | 25 | 25 | 2 | 22.0 | 21.37 | 21.10 | 20.79 |
| | | 50 | 0 | 2 | 22.0 | 21.36 | 21.20 | 20.84 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.46 | 21.44 | 21.04 |
| | | 1 | 24 | 2 | 22.0 | 21.31 | 21.55 | 20.91 |
| | | 1 | 49 | 2 | 22.0 | 21.28 | 21.29 | 21.09 |
| | | 25 | 0 | 3 | 21.0 | 20.37 | 20.22 | 19.77 |
| | | 25 | 12 | 3 | 21.0 | 20.35 | 20.24 | 19.83 |
| | | 25 | 25 | 3 | 21.0 | 20.35 | 20.15 | 19.80 |
| | | 50 | 0 | 3 | 21.0 | 20.48 | 20.19 | 19.80 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131997 | 132322 | 132647 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1712.5 | 1745 | 1777.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.24 | 23.06 | 22.80 |
| | | 1 | 12 | 0 | 24.0 | 23.27 | 22.99 | 22.82 |
| | | 1 | 24 | 0 | 24.0 | 23.29 | 22.95 | 22.87 |
| | | 12 | 0 | 1 | 23.0 | 22.35 | 22.12 | 21.85 |
| | | 12 | 6 | 1 | 23.0 | 22.37 | 22.13 | 21.88 |
| | | 12 | 13 | 1 | 23.0 | 22.36 | 22.11 | 21.86 |
| | | 25 | 0 | 1 | 23.0 | 22.36 | 22.12 | 21.86 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.41 | 22.40 | 22.14 |
| | | 1 | 12 | 1 | 23.0 | 22.69 | 22.61 | 22.16 |
| | | 1 | 24 | 1 | 23.0 | 22.41 | 22.36 | 22.00 |
| | | 12 | 0 | 2 | 22.0 | 21.35 | 21.25 | 20.94 |
| | | 12 | 6 | 2 | 22.0 | 21.45 | 21.18 | 20.92 |
| | | 12 | 13 | 2 | 22.0 | 21.40 | 21.24 | 20.91 |
| | | 25 | 0 | 2 | 22.0 | 21.37 | 21.22 | 20.87 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.27 | 21.30 | 20.88 |
| | | 1 | 12 | 2 | 22.0 | 21.47 | 21.47 | 21.08 |
| | | 1 | 24 | 2 | 22.0 | 21.38 | 21.34 | 20.94 |
| | | 12 | 0 | 3 | 21.0 | 20.33 | 20.22 | 19.87 |
| | | 12 | 6 | 3 | 21.0 | 20.44 | 20.27 | 19.87 |
| | | 12 | 13 | 3 | 21.0 | 20.38 | 20.25 | 19.79 |
| | | 25 | 0 | 3 | 21.0 | 20.40 | 20.15 | 19.83 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131987 | 132322 | 132657 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1711.5 | 1745 | 1778.5 |
| 3 | QPSK | 1 | 0 | 0 | 24.0 | 23.17 | 23.04 | 22.74 |
| | | 1 | 7 | 0 | 24.0 | 23.28 | 23.14 | 22.87 |
| | | 1 | 14 | 0 | 24.0 | 23.38 | 23.07 | 22.80 |
| | | 8 | 0 | 1 | 23.0 | 22.31 | 22.10 | 21.89 |
| | | 8 | 4 | 1 | 23.0 | 22.40 | 22.15 | 21.87 |
| | | 8 | 7 | 1 | 23.0 | 22.30 | 22.08 | 21.88 |
| | | 15 | 0 | 1 | 23.0 | 22.33 | 22.12 | 21.88 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.20 | 22.24 | 22.09 |
| | | 1 | 7 | 1 | 23.0 | 22.66 | 22.54 | 22.23 |
| | | 1 | 14 | 1 | 23.0 | 22.69 | 22.10 | 22.03 |
| | | 8 | 0 | 2 | 22.0 | 21.45 | 21.26 | 20.87 |
| | | 8 | 4 | 2 | 22.0 | 21.43 | 21.27 | 20.86 |
| | | 8 | 7 | 2 | 22.0 | 21.43 | 21.24 | 20.86 |
| | | 15 | 0 | 2 | 22.0 | 21.38 | 21.21 | 20.82 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.48 | 21.25 | 20.77 |
| | | 1 | 7 | 2 | 22.0 | 21.53 | 21.49 | 21.22 |
| | | 1 | 14 | 2 | 22.0 | 21.55 | 21.50 | 20.90 |
| | | 8 | 0 | 3 | 21.0 | 20.40 | 20.16 | 19.82 |
| | | 8 | 4 | 3 | 21.0 | 20.47 | 20.24 | 19.86 |
| | | 8 | 7 | 3 | 21.0 | 20.44 | 20.28 | 19.86 |
| | | 15 | 0 | 3 | 21.0 | 20.40 | 20.23 | 19.77 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131979 | 132322 | 132665 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1710.7 | 1745 | 1779.3 |
| 1.4 | QPSK | 1 | 0 | 0 | 24.0 | 23.32 | 23.02 | 22.79 |
| | | 1 | 2 | 0 | 24.0 | 23.26 | 23.10 | 22.78 |
| | | 1 | 5 | 0 | 24.0 | 23.24 | 22.95 | 22.77 |
| | | 3 | 0 | 0 | 24.0 | 23.27 | 22.99 | 22.75 |
| | | 3 | 1 | 0 | 24.0 | 23.32 | 23.05 | 22.80 |
| | | 3 | 3 | 0 | 24.0 | 23.28 | 23.00 | 22.74 |
| | | 6 | 0 | 1 | 23.0 | 22.35 | 22.08 | 21.81 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.52 | 22.61 | 22.07 |
| | | 1 | 2 | 1 | 23.0 | 22.69 | 22.43 | 22.10 |
| | | 1 | 5 | 1 | 23.0 | 22.55 | 22.29 | 21.93 |
| | | 3 | 0 | 1 | 23.0 | 22.23 | 22.15 | 21.77 |
| | | 3 | 1 | 1 | 23.0 | 22.38 | 22.17 | 21.78 |
| | | 3 | 3 | 1 | 23.0 | 22.36 | 22.10 | 21.70 |
| | | 6 | 0 | 2 | 22.0 | 21.36 | 21.23 | 20.78 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.70 | 21.37 | 20.91 |
| | | 1 | 2 | 2 | 22.0 | 21.66 | 21.48 | 20.80 |
| | | 1 | 5 | 2 | 22.0 | 21.46 | 21.42 | 20.77 |
| | | 3 | 0 | 2 | 22.0 | 21.37 | 21.21 | 20.85 |
| | | 3 | 1 | 2 | 22.0 | 21.48 | 21.36 | 20.86 |
| | | 3 | 3 | 2 | 22.0 | 21.46 | 21.19 | 20.76 |
| | | 6 | 0 | 3 | 21.0 | 20.41 | 20.17 | 19.71 |

### 12.3.20 LTE Band 66 DSI 1

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132072 | 132322 | 132572 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1720 | 1745 | 1770 |
| 20 | QPSK | 1 | 0 | - | 16.9 | 16.41 | 16.33 | 16.14 |
| | | 1 | 49 | - | 16.9 | 16.60 | 16.47 | 16.34 |
| | | 1 | 99 | - | 16.9 | 16.26 | 16.45 | 16.16 |
| | | 50 | 0 | - | 16.9 | 16.25 | 16.04 | 15.91 |
| | | 50 | 24 | - | 16.9 | 16.29 | 16.17 | 15.96 |
| | | 50 | 50 | - | 16.9 | 16.15 | 16.00 | 15.84 |
| | | 100 | 0 | - | 16.9 | 16.11 | 15.92 | 15.86 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.56 | 16.17 | 16.05 |
| | | 1 | 49 | - | 16.9 | 16.48 | 16.28 | 16.32 |
| | | 1 | 99 | - | 16.9 | 16.48 | 15.64 | 15.70 |
| | | 50 | 0 | - | 16.9 | 16.18 | 15.97 | 15.82 |
| | | 50 | 24 | - | 16.9 | 16.21 | 15.99 | 15.84 |
| | | 50 | 50 | - | 16.9 | 16.16 | 15.92 | 15.75 |
| | | 100 | 0 | - | 16.9 | 16.14 | 15.97 | 15.78 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.49 | 16.46 | 16.10 |
| | | 1 | 49 | - | 16.9 | 16.27 | 16.25 | 15.58 |
| | | 1 | 99 | - | 16.9 | 16.09 | 15.89 | 15.99 |
| | | 50 | 0 | - | 16.9 | 16.18 | 16.00 | 15.82 |
| | | 50 | 24 | - | 16.9 | 16.22 | 15.99 | 15.76 |
| | | 50 | 50 | - | 16.9 | 16.13 | 15.88 | 15.74 |
| | | 100 | 0 | - | 16.9 | 16.13 | 15.96 | 15.77 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132047 | 132322 | 132597 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1717.5 | 1745 | 1772.5 |
| 15 | QPSK | 1 | 0 | - | 16.9 | 16.50 | 16.18 | 16.07 |
| | | 1 | 37 | - | 16.9 | 16.53 | 16.09 | 16.02 |
| | | 1 | 74 | - | 16.9 | 16.45 | 16.16 | 15.83 |
| | | 36 | 0 | - | 16.9 | 16.28 | 16.04 | 15.73 |
| | | 36 | 19 | - | 16.9 | 16.16 | 15.97 | 15.84 |
| | | 36 | 39 | - | 16.9 | 16.18 | 15.94 | 15.74 |
| | | 75 | 0 | - | 16.9 | 16.16 | 15.92 | 15.71 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.37 | 16.54 | 16.06 |
| | | 1 | 37 | - | 16.9 | 16.23 | 16.16 | 15.95 |
| | | 1 | 74 | - | 16.9 | 16.61 | 15.96 | 16.05 |
| | | 36 | 0 | - | 16.9 | 16.18 | 15.94 | 15.74 |
| | | 36 | 19 | - | 16.9 | 16.15 | 16.05 | 15.68 |
| | | 36 | 39 | - | 16.9 | 16.14 | 15.89 | 15.75 |
| | | 75 | 0 | - | 16.9 | 16.13 | 15.97 | 15.74 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.29 | 16.01 | 16.05 |
| | | 1 | 37 | - | 16.9 | 16.40 | 16.10 | 15.83 |
| | | 1 | 74 | - | 16.9 | 16.39 | 16.02 | 15.96 |
| | | 36 | 0 | - | 16.9 | 16.15 | 16.01 | 15.79 |
| | | 36 | 19 | - | 16.9 | 16.22 | 15.91 | 15.71 |
| | | 36 | 39 | - | 16.9 | 16.16 | 16.06 | 15.69 |
| | | 75 | 0 | - | 16.9 | 16.21 | 15.99 | 15.74 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 132022 | 132322 | 132622 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1715 | 1745 | 1775 |
| 10 | QPSK | 1 | 0 | - | 16.9 | 16.29 | 16.22 | 15.96 |
| | | 1 | 24 | - | 16.9 | 16.19 | 15.97 | 16.03 |
| | | 1 | 49 | - | 16.9 | 16.12 | 16.13 | 15.83 |
| | | 25 | 0 | - | 16.9 | 16.12 | 15.93 | 15.77 |
| | | 25 | 12 | - | 16.9 | 16.13 | 15.96 | 15.76 |
| | | 25 | 25 | - | 16.9 | 16.08 | 15.92 | 15.73 |
| | | 50 | 0 | - | 16.9 | 16.08 | 15.94 | 15.75 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.10 | 16.05 | 15.89 |
| | | 1 | 24 | - | 16.9 | 16.18 | 16.12 | 16.02 |
| | | 1 | 49 | - | 16.9 | 16.17 | 16.00 | 15.98 |
| | | 25 | 0 | - | 16.9 | 16.10 | 16.05 | 15.76 |
| | | 25 | 12 | - | 16.9 | 16.09 | 16.01 | 15.76 |
| | | 25 | 25 | - | 16.9 | 16.02 | 15.94 | 15.78 |
| | | 50 | 0 | - | 16.9 | 16.06 | 15.95 | 15.71 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.16 | 16.10 | 15.83 |
| | | 1 | 24 | - | 16.9 | 16.27 | 16.16 | 15.92 |
| | | 1 | 49 | - | 16.9 | 16.10 | 16.09 | 15.69 |
| | | 25 | 0 | - | 16.9 | 16.03 | 16.05 | 15.77 |
| | | 25 | 12 | - | 16.9 | 16.02 | 16.01 | 15.86 |
| | | 25 | 25 | - | 16.9 | 16.04 | 16.00 | 15.75 |
| | | 50 | 0 | - | 16.9 | 15.97 | 15.98 | 15.79 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131997 | 132322 | 132647 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1712.5 | 1745 | 1777.5 |
| 5 | QPSK | 1 | 0 | - | 16.9 | 16.13 | 16.10 | 15.90 |
| | | 1 | 12 | - | 16.9 | 16.28 | 16.22 | 16.00 |
| | | 1 | 24 | - | 16.9 | 16.08 | 16.15 | 15.88 |
| | | 12 | 0 | - | 16.9 | 16.06 | 15.96 | 15.72 |
| | | 12 | 6 | - | 16.9 | 16.16 | 15.98 | 15.73 |
| | | 12 | 13 | - | 16.9 | 16.12 | 15.95 | 15.66 |
| | | 25 | 0 | - | 16.9 | 16.15 | 15.91 | 15.68 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.07 | 16.03 | 15.93 |
| | | 1 | 12 | - | 16.9 | 16.25 | 16.11 | 15.98 |
| | | 1 | 24 | - | 16.9 | 16.11 | 16.02 | 15.82 |
| | | 12 | 0 | - | 16.9 | 16.02 | 15.98 | 15.81 |
| | | 12 | 6 | - | 16.9 | 16.08 | 16.06 | 15.74 |
| | | 12 | 13 | - | 16.9 | 16.02 | 16.02 | 15.74 |
| | | 25 | 0 | - | 16.9 | 16.04 | 15.97 | 15.72 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.07 | 15.93 | 15.97 |
| | | 1 | 12 | - | 16.9 | 15.92 | 16.10 | 15.76 |
| | | 1 | 24 | - | 16.9 | 16.14 | 15.84 | 15.95 |
| | | 12 | 0 | - | 16.9 | 16.01 | 16.00 | 15.65 |
| | | 12 | 6 | - | 16.9 | 16.11 | 16.09 | 15.78 |
| | | 12 | 13 | - | 16.9 | 15.98 | 16.00 | 15.64 |
| | | 25 | 0 | - | 16.9 | 15.95 | 15.98 | 15.71 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131987 | 132322 | 132657 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1711.5 | 1745 | 1778.5 |
| 3 | QPSK | 1 | 0 | - | 16.9 | 16.26 | 16.16 | 15.82 |
| | | 1 | 7 | - | 16.9 | 16.35 | 16.14 | 15.94 |
| | | 1 | 14 | - | 16.9 | 16.17 | 16.05 | 15.85 |
| | | 8 | 0 | - | 16.9 | 16.17 | 15.92 | 15.81 |
| | | 8 | 4 | - | 16.9 | 16.24 | 16.00 | 15.74 |
| | | 8 | 7 | - | 16.9 | 16.16 | 15.97 | 15.71 |
| | | 15 | 0 | - | 16.9 | 16.21 | 15.91 | 15.66 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.13 | 16.06 | 15.84 |
| | | 1 | 7 | - | 16.9 | 16.26 | 16.14 | 15.81 |
| | | 1 | 14 | - | 16.9 | 16.19 | 16.03 | 15.77 |
| | | 8 | 0 | - | 16.9 | 16.05 | 16.09 | 15.79 |
| | | 8 | 4 | - | 16.9 | 16.10 | 16.13 | 15.78 |
| | | 8 | 7 | - | 16.9 | 16.02 | 16.05 | 15.79 |
| | | 15 | 0 | - | 16.9 | 16.02 | 15.96 | 15.75 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.17 | 16.13 | 15.85 |
| | | 1 | 7 | - | 16.9 | 16.15 | 16.16 | 15.91 |
| | | 1 | 14 | - | 16.9 | 16.10 | 16.02 | 15.74 |
| | | 8 | 0 | - | 16.9 | 16.04 | 16.14 | 15.79 |
| | | 8 | 4 | - | 16.9 | 16.10 | 16.10 | 15.76 |
| | | 8 | 7 | - | 16.9 | 16.05 | 16.02 | 15.71 |
| | | 15 | 0 | - | 16.9 | 16.08 | 15.99 | 15.75 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 66 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 131979 | 132322 | 132665 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 1710.7 | 1745 | 1779.3 |
| 1.4 | QPSK | 1 | 0 | - | 16.9 | 16.22 | 15.99 | 15.79 |
| | | 1 | 2 | - | 16.9 | 16.29 | 15.95 | 15.76 |
| | | 1 | 5 | - | 16.9 | 16.17 | 15.86 | 15.64 |
| | | 3 | 0 | - | 16.9 | 16.12 | 15.66 | 15.38 |
| | | 3 | 1 | - | 16.9 | 16.18 | 15.73 | 15.28 |
| | | 3 | 3 | - | 16.9 | 16.15 | 15.50 | 15.34 |
| | | 6 | 0 | - | 16.9 | 16.13 | 15.65 | 15.21 |
| | 16QAM | 1 | 0 | - | 16.9 | 16.18 | 15.91 | 15.59 |
| | | 1 | 2 | - | 16.9 | 16.11 | 15.89 | 15.66 |
| | | 1 | 5 | - | 16.9 | 16.03 | 15.84 | 15.46 |
| | | 3 | 0 | - | 16.9 | 16.06 | 15.74 | 15.45 |
| | | 3 | 1 | - | 16.9 | 16.03 | 15.79 | 15.51 |
| | | 3 | 3 | - | 16.9 | 15.99 | 15.57 | 15.53 |
| | | 6 | 0 | - | 16.9 | 16.03 | 15.77 | 15.37 |
| | 64QAM | 1 | 0 | - | 16.9 | 16.14 | 15.95 | 15.61 |
| | | 1 | 2 | - | 16.9 | 16.11 | 15.96 | 15.69 |
| | | 1 | 5 | - | 16.9 | 16.02 | 15.84 | 15.72 |
| | | 3 | 0 | - | 16.9 | 16.04 | 15.77 | 15.63 |
| | | 3 | 1 | - | 16.9 | 16.07 | 15.92 | 15.64 |
| | | 3 | 3 | - | 16.9 | 15.91 | 15.85 | 15.65 |
| | | 6 | 0 | - | 16.9 | 16.03 | 15.79 | 15.46 |

### 12.3.21 LTE Band 71 DSI 0

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 133297 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 680.5 | - |
| 20 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.35 | - |
| | | 1 | 49 | 0 | 24.0 | - | 23.13 | - |
| | | 1 | 99 | 0 | 24.0 | - | 23.30 | - |
| | | 50 | 0 | 1 | 23.0 | - | 22.26 | - |
| | | 50 | 24 | 1 | 23.0 | - | 22.34 | - |
| | | 50 | 50 | 1 | 23.0 | - | 22.36 | - |
| | | 100 | 0 | 1 | 23.0 | - | 22.29 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.54 | - |
| | | 1 | 49 | 1 | 23.0 | - | 22.40 | - |
| | | 1 | 99 | 1 | 23.0 | - | 22.47 | - |
| | | 50 | 0 | 2 | 22.0 | - | 21.27 | - |
| | | 50 | 24 | 2 | 22.0 | - | 21.34 | - |
| | | 50 | 50 | 2 | 22.0 | - | 21.34 | - |
| | | 100 | 0 | 2 | 22.0 | - | 21.29 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.70 | - |
| | | 1 | 49 | 2 | 22.0 | - | 21.56 | - |
| | | 1 | 99 | 2 | 22.0 | - | 21.89 | - |
| | | 50 | 0 | 3 | 21.0 | - | 20.29 | - |
| | | 50 | 24 | 3 | 21.0 | - | 20.38 | - |
| | | 50 | 50 | 3 | 21.0 | - | 20.31 | - |
| | | 100 | 0 | 3 | 21.0 | - | 20.28 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 133297 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 680.5 | - |
| 15 | QPSK | 1 | 0 | 0 | 24.0 | - | 23.16 | - |
| | | 1 | 37 | 0 | 24.0 | - | 23.07 | - |
| | | 1 | 74 | 0 | 24.0 | - | 23.60 | - |
| | | 36 | 0 | 1 | 23.0 | - | 22.33 | - |
| | | 36 | 19 | 1 | 23.0 | - | 22.27 | - |
| | | 36 | 39 | 1 | 23.0 | - | 22.23 | - |
| | | 75 | 0 | 1 | 23.0 | - | 22.29 | - |
| | 16QAM | 1 | 0 | 1 | 23.0 | - | 22.63 | - |
| | | 1 | 37 | 1 | 23.0 | - | 22.39 | - |
| | | 1 | 74 | 1 | 23.0 | - | 22.45 | - |
| | | 36 | 0 | 2 | 22.0 | - | 21.32 | - |
| | | 36 | 19 | 2 | 22.0 | - | 21.29 | - |
| | | 36 | 39 | 2 | 22.0 | - | 21.29 | - |
| | | 75 | 0 | 2 | 22.0 | - | 21.25 | - |
| | 64QAM | 1 | 0 | 2 | 22.0 | - | 21.30 | - |
| | | 1 | 37 | 2 | 22.0 | - | 21.51 | - |
| | | 1 | 74 | 2 | 22.0 | - | 21.77 | - |
| | | 36 | 0 | 3 | 21.0 | - | 20.34 | - |
| | | 36 | 19 | 3 | 21.0 | - | 20.32 | - |
| | | 36 | 39 | 3 | 21.0 | - | 20.21 | - |
| | | 75 | 0 | 3 | 21.0 | - | 20.28 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 133172 | 133297 | 133422 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 668 | 680.5 | 693 |
| 10 | QPSK | 1 | 0 | 0 | 24.0 | 23.60 | 23.34 | 23.40 |
| | | 1 | 24 | 0 | 24.0 | 23.19 | 23.20 | 23.38 |
| | | 1 | 49 | 0 | 24.0 | 23.03 | 23.31 | 23.36 |
| | | 25 | 0 | 1 | 23.0 | 22.27 | 22.34 | 22.37 |
| | | 25 | 12 | 1 | 23.0 | 22.19 | 22.31 | 22.46 |
| | | 25 | 25 | 1 | 23.0 | 22.26 | 22.29 | 22.40 |
| | | 50 | 0 | 1 | 23.0 | 22.18 | 22.30 | 22.45 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.37 | 22.56 | 22.64 |
| | | 1 | 24 | 1 | 23.0 | 22.17 | 22.35 | 22.46 |
| | | 1 | 49 | 1 | 23.0 | 22.23 | 22.80 | 22.76 |
| | | 25 | 0 | 2 | 22.0 | 21.23 | 21.33 | 21.34 |
| | | 25 | 12 | 2 | 22.0 | 21.21 | 21.34 | 21.43 |
| | | 25 | 25 | 2 | 22.0 | 21.22 | 21.26 | 21.38 |
| | | 50 | 0 | 2 | 22.0 | 21.14 | 21.34 | 21.43 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.18 | 21.39 | 21.54 |
| | | 1 | 24 | 2 | 22.0 | 21.10 | 21.35 | 21.69 |
| | | 1 | 49 | 2 | 22.0 | 21.17 | 21.56 | 21.49 |
| | | 25 | 0 | 3 | 21.0 | 20.15 | 20.37 | 20.33 |
| | | 25 | 12 | 3 | 21.0 | 20.16 | 20.30 | 20.48 |
| | | 25 | 25 | 3 | 21.0 | 20.16 | 20.30 | 20.39 |
| | | 50 | 0 | 3 | 21.0 | 20.15 | 20.35 | 20.41 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 133147 | 133297 | 133447 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 665.5 | 680.5 | 695.5 |
| 5 | QPSK | 1 | 0 | 0 | 24.0 | 23.32 | 23.29 | 23.31 |
| | | 1 | 12 | 0 | 24.0 | 23.13 | 23.34 | 23.34 |
| | | 1 | 24 | 0 | 24.0 | 23.11 | 23.33 | 23.43 |
| | | 12 | 0 | 1 | 23.0 | 22.22 | 22.27 | 22.39 |
| | | 12 | 6 | 1 | 23.0 | 22.24 | 22.33 | 22.49 |
| | | 12 | 13 | 1 | 23.0 | 22.26 | 22.25 | 22.47 |
| | | 25 | 0 | 1 | 23.0 | 22.19 | 22.29 | 22.37 |
| | 16QAM | 1 | 0 | 1 | 23.0 | 22.18 | 22.56 | 22.76 |
| | | 1 | 12 | 1 | 23.0 | 22.29 | 22.53 | 22.59 |
| | | 1 | 24 | 1 | 23.0 | 22.20 | 22.55 | 22.27 |
| | | 12 | 0 | 2 | 22.0 | 21.17 | 21.32 | 21.43 |
| | | 12 | 6 | 2 | 22.0 | 21.14 | 21.29 | 21.56 |
| | | 12 | 13 | 2 | 22.0 | 21.15 | 21.27 | 21.47 |
| | | 25 | 0 | 2 | 22.0 | 21.17 | 21.29 | 21.35 |
| | 64QAM | 1 | 0 | 2 | 22.0 | 21.13 | 21.56 | 21.68 |
| | | 1 | 12 | 2 | 22.0 | 21.45 | 21.66 | 21.60 |
| | | 1 | 24 | 2 | 22.0 | 21.52 | 21.58 | 21.68 |
| | | 12 | 0 | 3 | 21.0 | 20.09 | 20.33 | 20.47 |
| | | 12 | 6 | 3 | 21.0 | 20.16 | 20.34 | 20.57 |
| | | 12 | 13 | 3 | 21.0 | 20.23 | 20.39 | 20.47 |
| | | 25 | 0 | 3 | 21.0 | 20.20 | 20.35 | 20.37 |

### 12.3.22 LTE Band 71 DSI 1

| 71 | | | | | | UL Ch # | | |
|---|---|---|---|---|---|---|---|---|
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 133297 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 680.5 | - |
| 20 | QPSK | 1 | 0 | - | 18.1 | - | 17.39 | - |
| | | 1 | 49 | - | 18.1 | - | 17.17 | - |
| | | 1 | 99 | - | 18.1 | - | 17.22 | - |
| | | 50 | 0 | - | 18.1 | - | 17.22 | - |
| | | 50 | 24 | - | 18.1 | - | 17.28 | - |
| | | 50 | 50 | - | 18.1 | - | 17.30 | - |
| | | 100 | 0 | - | 18.1 | - | 17.24 | - |
| | 16QAM | 1 | 0 | - | 18.1 | - | 17.37 | - |
| | | 1 | 49 | - | 18.1 | - | 17.41 | - |
| | | 1 | 99 | - | 18.1 | - | 17.50 | - |
| | | 50 | 0 | - | 18.1 | - | 17.22 | - |
| | | 50 | 24 | - | 18.1 | - | 17.32 | - |
| | | 50 | 50 | - | 18.1 | - | 17.28 | - |
| | | 100 | 0 | - | 18.1 | - | 17.27 | - |
| | 64QAM | 1 | 0 | - | 18.1 | - | 17.61 | - |
| | | 1 | 49 | - | 18.1 | - | 17.39 | - |
| | | 1 | 99 | - | 18.1 | - | 17.36 | - |
| | | 50 | 0 | - | 18.1 | - | 17.25 | - |
| | | 50 | 24 | - | 18.1 | - | 17.25 | - |
| | | 50 | 50 | - | 18.1 | - | 17.32 | - |
| | | 100 | 0 | - | 18.1 | - | 17.26 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | - | 133297 | - |
| | | | | | | Freq(MHz) | | |
| | | | | | | - | 680.5 | - |
| 15 | QPSK | 1 | 0 | - | 18.1 | - | 17.68 | - |
| | | 1 | 37 | - | 18.1 | - | 17.53 | - |
| | | 1 | 74 | - | 18.1 | - | 17.45 | - |
| | | 36 | 0 | - | 18.1 | - | 17.45 | - |
| | | 36 | 19 | - | 18.1 | - | 17.37 | - |
| | | 36 | 39 | - | 18.1 | - | 17.33 | - |
| | | 75 | 0 | - | 18.1 | - | 17.40 | - |
| | 16QAM | 1 | 0 | - | 18.1 | - | 17.64 | - |
| | | 1 | 37 | - | 18.1 | - | 17.58 | - |
| | | 1 | 74 | - | 18.1 | - | 17.86 | - |
| | | 36 | 0 | - | 18.1 | - | 17.45 | - |
| | | 36 | 19 | - | 18.1 | - | 17.42 | - |
| | | 36 | 39 | - | 18.1 | - | 17.32 | - |
| | | 75 | 0 | - | 18.1 | - | 17.40 | - |
| | 64QAM | 1 | 0 | - | 18.1 | - | 17.51 | - |
| | | 1 | 37 | - | 18.1 | - | 17.71 | - |
| | | 1 | 74 | - | 18.1 | - | 17.50 | - |
| | | 36 | 0 | - | 18.1 | - | 17.41 | - |
| | | 36 | 19 | - | 18.1 | - | 17.47 | - |
| | | 36 | 39 | - | 18.1 | - | 17.29 | - |
| | | 75 | 0 | - | 18.1 | - | 17.33 | - |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 133172 | 133297 | 133422 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 668 | 680.5 | 693 |
| 10 | QPSK | 1 | 0 | - | 18.1 | 17.30 | 17.65 | 17.65 |
| | | 1 | 24 | - | 18.1 | 17.12 | 17.45 | 17.37 |
| | | 1 | 49 | - | 18.1 | 17.40 | 17.51 | 17.46 |
| | | 25 | 0 | - | 18.1 | 17.30 | 17.45 | 17.50 |
| | | 25 | 12 | - | 18.1 | 17.26 | 17.44 | 17.60 |
| | | 25 | 25 | - | 18.1 | 17.35 | 17.39 | 17.53 |
| | | 50 | 0 | - | 18.1 | 17.28 | 17.40 | 17.53 |
| | 16QAM | 1 | 0 | - | 18.1 | 17.53 | 17.76 | 17.70 |
| | | 1 | 24 | - | 18.1 | 17.32 | 17.47 | 17.60 |
| | | 1 | 49 | - | 18.1 | 17.66 | 17.74 | 17.78 |
| | | 25 | 0 | - | 18.1 | 17.28 | 17.42 | 17.53 |
| | | 25 | 12 | - | 18.1 | 17.30 | 17.45 | 17.53 |
| | | 25 | 25 | - | 18.1 | 17.35 | 17.39 | 17.49 |
| | | 50 | 0 | - | 18.1 | 17.27 | 17.36 | 17.56 |
| | 64QAM | 1 | 0 | - | 18.1 | 17.62 | 17.43 | 17.84 |
| | | 1 | 24 | - | 18.1 | 17.59 | 17.75 | 17.64 |
| | | 1 | 49 | - | 18.1 | 17.67 | 17.59 | 17.31 |
| | | 25 | 0 | - | 18.1 | 17.39 | 17.48 | 17.47 |
| | | 25 | 12 | - | 18.1 | 17.30 | 17.48 | 17.53 |
| | | 25 | 25 | - | 18.1 | 17.34 | 17.32 | 17.49 |
| | | 50 | 0 | - | 18.1 | 17.29 | 17.47 | 17.52 |

| Band | | | | | | Meas. Pwr Avg (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| 71 | | | | | | UL Ch # | | |
| BW (MHz) | Modu-lation | UL RB Allocation | UL RB Start | Target MPR | Tune-up Limit (dBm) | 133147 | 133297 | 133447 |
| | | | | | | Freq(MHz) | | |
| | | | | | | 665.5 | 680.5 | 695.5 |
| 5 | QPSK | 1 | 0 | - | 18.1 | 17.52 | 17.49 | 17.71 |
| | | 1 | 12 | - | 18.1 | 17.43 | 17.44 | 17.48 |
| | | 1 | 24 | - | 18.1 | 17.40 | 17.40 | 17.49 |
| | | 12 | 0 | - | 18.1 | 17.47 | 17.52 | 17.57 |
| | | 12 | 6 | - | 18.1 | 17.42 | 17.42 | 17.65 |
| | | 12 | 13 | - | 18.1 | 17.30 | 17.38 | 17.59 |
| | | 25 | 0 | - | 18.1 | 17.28 | 17.43 | 17.54 |
| | 16QAM | 1 | 0 | - | 18.1 | 17.38 | 17.66 | 17.60 |
| | | 1 | 12 | - | 18.1 | 17.65 | 17.49 | 17.61 |
| | | 1 | 24 | - | 18.1 | 17.42 | 17.60 | 17.68 |
| | | 12 | 0 | - | 18.1 | 17.32 | 17.40 | 17.55 |
| | | 12 | 6 | - | 18.1 | 17.27 | 17.45 | 17.69 |
| | | 12 | 13 | - | 18.1 | 17.25 | 17.52 | 17.52 |
| | | 25 | 0 | - | 18.1 | 17.33 | 17.39 | 17.52 |
| | 64QAM | 1 | 0 | - | 18.1 | 17.34 | 17.54 | 17.69 |
| | | 1 | 12 | - | 18.1 | 17.44 | 17.56 | 17.61 |
| | | 1 | 24 | - | 18.1 | 17.32 | 17.61 | 17.55 |
| | | 12 | 0 | - | 18.1 | 17.25 | 17.44 | 17.52 |
| | | 12 | 6 | - | 18.1 | 17.20 | 17.45 | 17.33 |
| | | 12 | 13 | - | 18.1 | 17.36 | 17.39 | 17.65 |
| | | 25 | 0 | - | 18.1 | 17.38 | 17.45 | 17.50 |

## 12.4 LTE CA

### 12.4.1 SAR test exclusion for DL CA (for FCC)

The configurations that require power measurements as described in Section 12.1.4 "LTE DLCA Test Reduction Methodology" are highlighted in yellow in the table below. Only yellow highlighted cells need power measurement.

| Index | 2CC | | Completely Covered by Measurement Superset |
|---|---|---|---|
| 2CC#1 | CA_2A-71A | | 3CC#1, 3CC#2, 3CC#3 |
| 2CC#2 | CA_2A-66A | | 3CC#1, 3CC#4, 3CC#5, 3CC#6, 3CC#7 |
| 2CC#3 | CA_2A-48A | | 3CC#11, 3CC#12 |
| 2CC#4 | CA_2A-29A | | 3CC#14 |
| 2CC#5 | CA_2A-14A | | 3CC#4, 3CC#16 |
| 2CC#6 | CA_2A-13A | | 3CC#5, 3CC#11, 3CC#17, 3CC#18 |
| 2CC#7 | CA_2A-12A | | 3CC#5, 3CC#19, 3CC#20, 3CC#21, 3CC#22 |
| 2CC#8 | CA_2A-7A | | 3CC#20, 3CC#25 |
| 2CC#10 | CA_2A-4A | | 3CC#2, 3CC#21, 3CC#28, 3CC#17 |
| 2CC#11 | CA_2A-2A | | 3CC#3, 3CC#14, 3CC#16, 3CC#18, 3CC#22, 3CC#29 |
| 2CC#12 | CA_2C | | 3CC#10, 3CC#15, 3CC#24, 3CC#31 |
| 2CC#13 | CA_4A-71A | | 3CC#2, 3CC#32 |
| 2CC#14 | CA_4A-48A | | No |
| 2CC#15 | CA_4A-29A | B29 SCC only | No |
| 2CC#16 | CA_4A-13A | | 3CC#17, 3CC#34 |
| 2CC#17 | CA_4A-12A | | 3CC#21, 3CC#35, 3CC#36, 3CC#37 |
| 2CC#18 | CA_4A-7A | | 3CC#36, 3CC#39, 3CC#40 |
| 2CC#19 | CA_4A-5A | | 3CC#28, 3CC#43 |
| 2CC#20 | CA_4A-4A | | 3CC#32, 3CC#34, 3CC#37, 3CC#40, 3CC#43 |
| 2CC#21 | CA_5A-66A | | 3CC#45, 3CC#46, 3CC#47, 3CC#7 |
| 2CC#22 | CA_5A-48A | | 3CC#12, 3CC#46 |
| 2CC#23 | CA_5A-25A | | No |
| 2CC#24 | CA_5A-7A | | 3CC#52 |
| 2CC#25 | CA_5A-5A | | 3CC#47 |
| 2CC#26 | CA_5B | | 3CC#30, 3CC#44, 3CC#50 |
| 2CC#27 | CA_7A-42A | | No |
| 2CC#28 | CA_7A-12A | | 3CC#20, 3CC#36 |
| 2CC#29 | CA_7A-7A | | 3CC#25, 3CC#39, 3CC#52 |
| 2CC#30 | CA_7C | | 3CC#41, 3CC#53, 3CC#26 |
| 2CC#31 | CA_7B | | 3CC#27, 3CC#42, 3CC#54 |
| 2CC#32 | CA_12A-66A | | 3CC#55, 3CC#6 |
| 2CC#33 | CA_12A-25A | | No |
| 2CC#34 | CA_12A-12A | | 3CC#19, 3CC#35 |
| 2CC#35 | CA_12B | | 3CC#23, 3CC#38 |
| 2CC#36 | CA_13A-66A | | 3CC#58, 3CC#59, 3CC#5 |
| 2CC#37 | CA_13A-48A | | 3CC#11, 3CC#59 |
| 2CC#38 | CA_14A-66A | | 3CC#4, 3CC#63 |
| 2CC#39 | CA_25A-26A | | 3CC#64 |
| 2CC#40 | CA_25A-25A | | 3CC#64 |
| 2CC#41 | CA_29A-66A | B29 SCC only | No |
| 2CC#42 | CA_42C | | No |
| 2CC#43 | CA_48A-66A | | 3CC#46, 3CC#59, 3CC#66 |
| 2CC#44 | CA_48C | | 3CC#13, 3CC#33, 3CC#51, 3CC#62, 3CC#69 |
| 2CC#45 | CA_66A-71A | | 3CC#1, 3CC#71 |
| 2CC#46 | CA_66A-66A | | 3CC#45, 3CC#55, 3CC#58, 3CC#63, 3CC#66, 3CC#71 |
| 2CC#47 | CA_66C | | 3CC#8, 3CC#48, 3CC#56, 3CC#60, 3CC#67, 3CC#72, 3CC#74 |
| 2CC#48 | CA_66B | | 3CC#9, 3CC#49, 3CC#57, 3CC#61, 3CC#68, 3CC#73, 3CC#75 |

| Index | 3CC | Restriction | Completely Covered by Measurement Superset |
|---|---|---|---|
| 3CC#1 | CA_2A-66A-71A | | |
| 3CC#2 | CA_2A-4A-71A | | |
| 3CC#3 | CA_2A-2A-71A | | |
| 3CC#4 | CA_2A-14A-66A | | |
| 3CC#5 | CA_2A-13A-66A | | |
| 3CC#6 | CA_2A-12A-66A | | |
| 3CC#7 | CA_2A-5A-66A | | |
| 3CC#8 | CA_2A-66C | | |
| 3CC#9 | CA_2A-66B | | |
| 3CC#10 | CA_2C-66A | | |
| 3CC#11 | CA_2A-13A-48A | | |
| 3CC#12 | CA_2A-5A-48A | | |
| 3CC#13 | CA_2A-48C | | |
| 3CC#14 | CA_2A-2A-29A | B29 SCC only | |
| 3CC#15 | CA_2C-29A | B29 SCC only | |
| 3CC#16 | CA_2A-2A-14A | | |
| 3CC#17 | CA_2A-4A-13A | | |
| 3CC#18 | CA_2A-2A-13A | | |
| 3CC#19 | CA_2A-12A-12A | | |
| 3CC#20 | CA_2A-7A-12A | | |
| 3CC#21 | CA_2A-4A-12A | | |
| 3CC#22 | CA_2A-2A-12A | | |
| 3CC#23 | CA_2A-12B | | |
| 3CC#24 | CA_2C-12A | | |
| 3CC#25 | CA_2A-7A-7A | | |
| 3CC#26 | CA_2A-7C | | |
| 3CC#27 | CA_2A-7B | | |
| 3CC#28 | CA_2A-4A-5A | | |
| 3CC#29 | CA_2A-2A-5A | | |
| 3CC#30 | CA_2A-5B | | |
| 3CC#31 | CA_2C-5A | | |
| 3CC#32 | CA_4A-4A-71A | | |
| 3CC#33 | CA_4A-48C | | |
| 3CC#34 | CA_4A-4A-13A | | |
| 3CC#35 | CA_4A-12A-12A | | |

| Index | 3CC | Restriction | Completely Covered by Measurement Superset |
|---|---|---|---|
| 3CC#36 | CA_4A-7A-12A | | |
| 3CC#37 | CA_4A-4A-12A | | |
| 3CC#38 | CA_4A-12B | | |
| 3CC#39 | CA_4A-7A-7A | | |
| 3CC#40 | CA_4A-4A-7A | | |
| 3CC#41 | CA_4A-7C | | |
| 3CC#42 | CA_4A-7B | | |
| 3CC#43 | CA_4A-4A-5A | | |
| 3CC#44 | CA_4A-5B | | |
| 3CC#45 | CA_5A-66A-66A | | |
| 3CC#46 | CA_5A-48A-66A | | |
| 3CC#47 | CA_5A-5A-66A | | |
| 3CC#48 | CA_5A-66C | | |
| 3CC#49 | CA_5A-66B | | |
| 3CC#50 | CA_5B-66A | | |
| 3CC#51 | CA_5A-48C | | |
| 3CC#52 | CA_5A-7A-7A | | |
| 3CC#53 | CA_5A-7C | | |
| 3CC#54 | CA_5A-7B | | |
| 3CC#55 | CA_12A-66A-66A | | |
| 3CC#56 | CA_12A-66C | | |
| 3CC#57 | CA_12A-66B | | |
| 3CC#58 | CA_13A-66A-66A | | |
| 3CC#59 | CA_13A-48A-66A | | |
| 3CC#60 | CA_13A-66C | | |
| 3CC#61 | CA_13A-66B | | |
| 3CC#62 | CA_13A-48C | | |
| 3CC#63 | CA_14A-66A-66A | | |
| 3CC#64 | CA_25A-25A-26A | | |
| 3CC#65 | CA_42D | | |
| 3CC#66 | CA_48A-66A-66A | | |
| 3CC#67 | CA_48A-66C | | |
| 3CC#68 | CA_48A-66B | | |
| 3CC#69 | CA_48C-66A | | |
| 3CC#70 | CA_48D | | |
| 3CC#71 | CA_66A-66A-71A | | |
| 3CC#72 | CA_66C-71A | | |
| 3CC#73 | CA_66B-71A | | |
| 3CC#74 | CA_66A-66C | | |
| 3CC#75 | CA_66A-66B | | |
| 3CC#76 | CA_66D | | |

### 12.4.2 DL CA power measurement

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only.

All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

Conducted power was evaluated as described in Sections 12.1.4 “General PCC and SCC configuration selection procedure:” and “Downlink CA with Downlink 2x2 MIMO RF Conducted Powers:”

### 12.4.2.1 LTE Band 2 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 3CC#1 | CA_2A-66A-71A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 66 | 20 | 66786 | 2145 | 71 | 20 | 68761 | 634.5 | 22.66 | 22.67 | 22.67 | -0.01 | 0.00 |
| 3CC#2 | CA_2A-4A-71A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 4 | 20 | 2175 | 2132.5 | 71 | 20 | 68761 | 634.5 | 22.66 | 22.64 | 22.67 | -0.01 | -0.03 |
| 3CC#3 | CA_2A-2A-71A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 71 | 20 | 68761 | 634.5 | 22.63 | 22.64 | 22.67 | -0.04 | -0.03 |
| 3CC#4 | CA_2A-14A-66A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 14 | 10 | 5330 | 763 | 66 | 20 | 66786 | 2145 | 22.65 | 22.70 | 22.67 | -0.02 | 0.03 |
| 3CC#5 | CA_2A-13A-66A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 13 | 10 | 5230 | 751 | 66 | 20 | 66786 | 2145 | 22.65 | 22.64 | 22.67 | -0.02 | -0.03 |
| 3CC#6 | CA_2A-12A-66A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 12 | 10 | 5095 | 737.5 | 66 | 20 | 66786 | 2145 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#7 | CA_2A-5A-66A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 5 | 10 | 2525 | 881.5 | 66 | 20 | 66786 | 2145 | 22.67 | 22.64 | 22.67 | 0.00 | -0.03 |
| 3CC#8 | CA_2A-66C | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 66 | 20 | 66786 | 2145 | 66 | 20 | 66588 | 2125.2 | 22.61 | 22.71 | 22.67 | -0.06 | 0.04 |
| 3CC#9 | CA_2A-66B | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 66 | 10 | 66786 | 2145 | 66 | 10 | 66687 | 2135.1 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#10 | CA_2C-66A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 702 | 1940.2 | 66 | 20 | 66786 | 2145 | 22.63 | 22.64 | 22.67 | -0.04 | -0.03 |
| 3CC#11 | CA_2A-13A-48A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 13 | 10 | 5230 | 751 | 48 | 20 | 55990 | 3625 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#12 | CA_2A-5A-48A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 5 | 10 | 2525 | 881.5 | 48 | 20 | 55990 | 3625 | 22.62 | 22.64 | 22.67 | -0.05 | -0.03 |
| 3CC#13 | CA_2A-48C | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 48 | 20 | 55990 | 3625 | 48 | 20 | 56188 | 3644.8 | 22.64 | 22.64 | 22.67 | -0.03 | -0.03 |
| 3CC#14 | CA_2A-2A-29A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 29 | 10 | 9715 | 722.5 | 22.64 | 22.62 | 22.67 | -0.03 | -0.05 |
| 3CC#15 | CA_2C-29A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 702 | 1940.2 | 29 | 10 | 9715 | 722.5 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#16 | CA_2A-2A-14A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 14 | 10 | 5330 | 763 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#17 | CA_2A-4A-13A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 4 | 20 | 2175 | 2132.5 | 13 | 10 | 5230 | 751 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#18 | CA_2A-2A-13A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 13 | 10 | 5230 | 751 | 22.65 | 22.64 | 22.67 | -0.02 | -0.03 |
| 3CC#19 | CA_2A-12A-12A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 12 | 5 | 5035 | 731.5 | 12 | 5 | 5155 | 743.5 | 22.64 | 22.68 | 22.67 | -0.03 | 0.01 |
| 3CC#20 | CA_2A-7A-12A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 7 | 20 | 3100 | 2655 | 12 | 10 | 5095 | 737.5 | 22.67 | 22.65 | 22.67 | 0.00 | -0.02 |
| 3CC#21 | CA_2A-4A-12A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 4 | 20 | 2175 | 2132.5 | 12 | 10 | 5095 | 737.5 | 22.66 | 22.67 | 22.67 | -0.01 | 0.00 |
| 3CC#22 | CA_2A-2A-12A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 12 | 10 | 5095 | 737.5 | 22.64 | 22.67 | 22.67 | -0.03 | 0.00 |
| 3CC#23 | CA_2A-12B | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 12 | 5 | 5095 | 737.5 | 12 | 5 | 5047 | 732.7 | 22.65 | 22.67 | 22.67 | -0.02 | 0.00 |
| 3CC#24 | CA_2C-12A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 702 | 1940.2 | 12 | 10 | 5095 | 737.5 | 22.66 | 22.66 | 22.67 | -0.01 | -0.01 |
| 3CC#25 | CA_2A-7A-7A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 7 | 20 | 2850 | 2630 | 7 | 20 | 3350 | 2680 | 22.64 | 22.65 | 22.67 | -0.03 | -0.02 |
| 3CC#26 | CA_2A-7C | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 7 | 20 | 3100 | 2655 | 7 | 20 | 2902 | 2635.2 | 22.65 | 22.65 | 22.67 | -0.02 | -0.02 |
| 3CC#27 | CA_2A-7B | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 7 | 15 | 3100 | 2655 | 7 | 5 | 3007 | 2645.7 | 22.65 | 22.66 | 22.67 | -0.02 | -0.01 |
| 3CC#28 | CA_2A-4A-5A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 4 | 20 | 2175 | 2132.5 | 5 | 10 | 2525 | 881.5 | 22.63 | 22.65 | 22.67 | -0.04 | -0.02 |
| 3CC#29 | CA_2A-2A-5A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 700 | 1940 | 5 | 10 | 2525 | 881.5 | 22.66 | 22.65 | 22.67 | -0.01 | -0.02 |
| 3CC#30 | CA_2A-5B | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 5 | 5 | 2525 | 881.5 | 5 | 10 | 2453 | 874.3 | 22.65 | 22.66 | 22.67 | -0.02 | -0.01 |
| 3CC#31 | CA_2C-5A | 2 | 20 | 18900 | 1880 | QPSK | 1 | 0 | 900 | 1960 | 2 | 20 | 702 | 1940.2 | 5 | 10 | 2525 | 881.5 | 22.64 | 22.65 | 22.67 | -0.03 | -0.02 |

### 12.4.2.2 LTE Band 4 as PCC

| Index | Combination | PCC | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#14 | CA_4A-48A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 48 | 20 | 55990 | 3625 | - | - | - | - | 23.54 | 23.53 | 23.55 | -0.01 | -0.02 |
| 2CC#15 | CA_4A-29A | 4 | 10 | 20175 | 1732.5 | QPSK | 1 | 0 | 2175 | 2132.5 | 29 | 10 | 9715 | 722.5 | - | - | - | - | 23.34 | 23.34 | 23.34 | 0.00 | 0.00 |
| 3CC#32 | CA_4A-4A-71A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 4 | 10 | 2000 | 2115 | 71 | 20 | 68761 | 634.5 | 23.54 | 23.52 | 23.55 | -0.01 | -0.03 |
| 3CC#33 | CA_4A-48C | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 48 | 20 | 55990 | 3625 | 48 | 20 | 55792 | 3605.2 | 23.51 | 23.52 | 23.55 | -0.04 | -0.03 |
| 3CC#34 | CA_4A-4A-13A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 4 | 10 | 2000 | 2115 | 13 | 10 | 5230 | 751 | 23.51 | 23.52 | 23.55 | -0.04 | -0.03 |
| 3CC#35 | CA_4A-12A-12A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 12 | 5 | 5095 | 737.5 | 12 | 5 | 5035 | 731.5 | 23.53 | 23.54 | 23.55 | -0.02 | -0.01 |
| 3CC#36 | CA_4A-7A-12A | 4 | 10 | 20175 | 1732.5 | QPSK | 1 | 0 | 2175 | 2132.5 | 7 | 20 | 3100 | 2655 | 12 | 10 | 5095 | 737.5 | 23.31 | 23.32 | 23.34 | -0.03 | -0.02 |
| 3CC#37 | CA_4A-4A-12A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 4 | 10 | 2000 | 2115 | 12 | 10 | 5095 | 737.5 | 23.52 | 23.53 | 23.55 | -0.03 | -0.02 |
| 3CC#38 | CA_4A-12B | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 0 | 2175 | 2132.5 | 12 | 5 | 5095 | 737.5 | 12 | 5 | 5047 | 732.7 | 23.56 | 23.55 | 23.55 | 0.01 | 0.00 |
| 3CC#39 | CA_4A-7A-7A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 7 | 20 | 3100 | 2655 | 7 | 20 | 2850 | 2630 | 23.48 | 23.49 | 23.55 | -0.07 | -0.06 |
| 3CC#40 | CA_4A-4A-7A | 4 | 10 | 20175 | 1732.5 | QPSK | 1 | 0 | 2175 | 2132.5 | 4 | 10 | 2000 | 2115 | 7 | 20 | 3100 | 2655 | 23.31 | 23.31 | 23.34 | -0.03 | -0.03 |
| 3CC#41 | CA_4A-7C | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 7 | 20 | 3100 | 2655 | 7 | 20 | 2902 | 2635.2 | 23.50 | 23.49 | 23.55 | -0.05 | -0.06 |
| 3CC#42 | CA_4A-7B | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 7 | 15 | 3100 | 2655 | 7 | 5 | 3007 | 2645.7 | 23.49 | 23.50 | 23.55 | -0.06 | -0.05 |
| 3CC#43 | CA_4A-4A-5A | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 4 | 10 | 2000 | 2115 | 5 | 5 | 2525 | 881.5 | 23.53 | 23.53 | 23.55 | -0.02 | -0.02 |
| 3CC#44 | CA_4A-5B | 4 | 20 | 20175 | 1732.5 | QPSK | 1 | 99 | 2175 | 2132.5 | 5 | 5 | 2525 | 881.5 | 5 | 10 | 2453 | 874.3 | 23.53 | 23.54 | 23.55 | -0.02 | -0.01 |

### 12.4.2.3 LTE Band 5 as PCC

| Index | Combination | PCC | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#23 | CA_5A-25A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 25 | 20 | 8365 | 1962.5 | - | - | - | - | 23.67 | 23.67 | 23.67 | 0.00 | 0.00 |
| 3CC#45 | CA_5A-66A-66A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 66 | 20 | 66786 | 2145 | 66 | 20 | 66536 | 2120 | 23.65 | 23.65 | 23.67 | -0.02 | -0.02 |
| 3CC#46 | CA_5A-48A-66A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 48 | 20 | 56640 | 3690 | 66 | 20 | 66786 | 2145 | 23.66 | 23.65 | 23.67 | -0.01 | -0.02 |
| 3CC#47 | CA_5A-5A-66A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 5 | 5 | 2425 | 871.5 | 66 | 20 | 66786 | 2145 | 23.65 | 23.65 | 23.67 | -0.02 | -0.02 |
| 3CC#48 | CA_5A-66C | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 66 | 20 | 66786 | 2145 | 66 | 20 | 66588 | 2125.2 | 23.65 | 23.68 | 23.67 | -0.02 | 0.01 |
| 3CC#49 | CA_5A-66B | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 66 | 10 | 66786 | 2145 | 66 | 10 | 66687 | 2135.1 | 23.65 | 23.67 | 23.67 | -0.02 | 0.00 |
| 3CC#50 | CA_5B-66A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 5 | 5 | 2453 | 874.3 | 66 | 20 | 66786 | 2145 | 23.67 | 23.66 | 23.67 | 0.00 | -0.01 |
| 3CC#51 | CA_5A-48C | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 48 | 20 | 55990 | 3625 | 48 | 20 | 55792 | 3605.2 | 23.67 | 23.66 | 23.67 | 0.00 | -0.01 |
| 3CC#52 | CA_5A-7A-7A | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 7 | 20 | 2850 | 2630 | 7 | 20 | 3350 | 2680 | 23.66 | 23.66 | 23.67 | -0.01 | -0.01 |
| 3CC#53 | CA_5A-7C | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 7 | 20 | 3100 | 2655 | 7 | 20 | 2902 | 2635.2 | 23.67 | 23.67 | 23.67 | 0.00 | 0.00 |
| 3CC#54 | CA_5A-7B | 5 | 10 | 20525 | 836.5 | QPSK | 1 | 0 | 2525 | 881.5 | 7 | 10 | 3100 | 2655 | 7 | 10 | 3001 | 2645.1 | 23.67 | 23.64 | 23.67 | 0.00 | -0.03 |

### 12.4.2.4 LTE Band 7 as PCC

| Index | Combination | PCC | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#27 | CA_7A-42A | 7 | 15 | 21375 | 2562.5 | QPSK | 1 | 74 | 3375 | 2682.5 | 42 | 20 | 42840 | 3525 | - | - | - | - | 23.25 | 23.24 | 23.25 | 0.00 | -0.01 |

### 12.4.2.5 LTE Band 12 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#33 | CA_12A-25A | 12 | 5 | 23095 | 707.5 | QPSK | 1 | 0 | 5095 | 737.5 | 25 | 20 | 8365 | 1962.5 | - | - | - | - | 23.40 | 23.40 | 23.40 | 0.00 | 0.00 |
| 3CC#55 | CA_12A-66A-66A | 12 | 5 | 23095 | 707.5 | QPSK | 1 | 0 | 5095 | 737.5 | 66 | 20 | 66536 | 2120 | 66 | 20 | 67236 | 2190 | 23.40 | 23.40 | 23.40 | 0.00 | 0.00 |
| 3CC#56 | CA_12A-66C | 12 | 5 | 23095 | 707.5 | QPSK | 1 | 0 | 5095 | 737.5 | 66 | 20 | 66786 | 2145 | 66 | 20 | 66588 | 2125.2 | 23.39 | 23.40 | 23.40 | -0.01 | 0.00 |
| 3CC#57 | CA_12A-66B | 12 | 5 | 23095 | 707.5 | QPSK | 1 | 0 | 5095 | 737.5 | 66 | 10 | 66786 | 2145 | 66 | 10 | 66687 | 2135.1 | 23.40 | 23.40 | 23.40 | 0.00 | 0.00 |

### 12.4.2.6 LTE Band 13 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 3CC#58 | CA_13A-66A-66A | 13 | 10 | 23230 | 782 | QPSK | 1 | 0 | 5230 | 751 | 66 | 20 | 66536 | 2120 | 66 | 20 | 67236 | 2190 | 23.41 | 23.43 | 23.43 | -0.02 | 0.00 |
| 3CC#59 | CA_13A-48A-66A | 13 | 10 | 23230 | 782 | QPSK | 1 | 0 | 5230 | 751 | 48 | 20 | 55990 | 3625 | 66 | 20 | 66786 | 2145 | 23.43 | 23.40 | 23.43 | 0.00 | -0.03 |
| 3CC#60 | CA_13A-66C | 13 | 10 | 23230 | 782 | QPSK | 1 | 0 | 5230 | 751 | 66 | 20 | 66786 | 2145 | 66 | 20 | 66588 | 2125.2 | 23.42 | 23.42 | 23.43 | -0.01 | -0.01 |
| 3CC#61 | CA_13A-66B | 13 | 10 | 23230 | 782 | QPSK | 1 | 0 | 5230 | 751 | 66 | 10 | 66786 | 2145 | 66 | 10 | 66687 | 2135.1 | 23.43 | 23.41 | 23.43 | 0.00 | -0.02 |
| 3CC#62 | CA_13A-48C | 13 | 10 | 23230 | 782 | QPSK | 1 | 0 | 5230 | 751 | 48 | 20 | 55990 | 3625 | 48 | 20 | 55792 | 3605.2 | 23.40 | 23.40 | 23.43 | -0.03 | -0.03 |

### 12.4.2.7 LTE Band 14 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 3CC#63 | CA_14A-66A-66A | 14 | 10 | 23330 | 793 | QPSK | 1 | 0 | 5330 | 763 | 66 | 20 | 66536 | 2120 | 66 | 20 | 67236 | 2190 | 23.38 | 23.39 | 23.39 | -0.01 | 0.00 |

### 12.4.2.8 LTE Band 25 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 3CC#64 | CA_25A-25A-26A | 25 | 20 | 26365 | 1882.5 | QPSK | 1 | 0 | 8365 | 1962.5 | 25 | 20 | 8140 | 1940 | 26 | 5 | 8865 | 876.5 | 22.97 | 22.98 | 22.98 | -0.01 | 0.00 |

### 12.4.2.9 LTE Band 42 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#42 | CA_42C | 42 | 15 | 42715 | 3512.5 | QPSK | 1 | 0 | 42715 | 3512.5 | 42 | 20 | 42544 | 3495.4 | - | - | - | - | 18.81 | 18.81 | 18.82 | -0.01 | -0.01 |
| 3CC#65 | CA_42D | 42 | 15 | 42715 | 3512.5 | QPSK | 1 | 0 | 42715 | 3512.5 | 42 | 20 | 42544 | 3495.4 | 42 | 20 | 42346 | 3475.6 | 18.81 | 18.82 | 18.82 | -0.01 | 0.00 |

### 12.4.2.10 LTE Band 48 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 3CC#70 | CA_48D | 48 | 15 | 55740 | 3600 | QPSK | 1 | 74 | 55740 | 3600 | 48 | 20 | 55569 | 3582.9 | 48 | 20 | 55371 | 3563.1 | 18.76 | 18.75 | 18.8 | -0.04 | -0.05 |

### 12.4.2.11 LTE Band 66 as PCC

| Index | Combination | PCC | | | | | | | | | SCC 1 | | | | SCC 2 | | | | Power [dBm] | | | Delta [dB] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | DL CA Enabled | | Single Carrier | | |
| | | Band | BW [MHz] | UL Ch. | UL Freq. [MHz] | Mod. | UL#RB / Offset | | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | Band | BW [MHz] | DL Ch | DL Freq. [MHz] | PCC DL SISO | PCC DL 2x2 MIMO | | PCC DL SISO | PCC DL 2x2 MIMO |
| 2CC#41 | CA_29A-66A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 29 | 10 | 9715 | 722.5 | - | - | - | - | 23.39 | 23.39 | 23.41 | -0.02 | -0.02 |
| 3CC#71 | CA_66A-66A-71A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 67236 | 2190 | 71 | 20 | 68761 | 634.5 | 23.39 | 23.39 | 23.41 | -0.02 | -0.02 |
| 3CC#72 | CA_66C-71A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 66682 | 2134.6 | 71 | 20 | 68761 | 634.5 | 23.40 | 23.39 | 23.41 | -0.01 | -0.02 |
| 3CC#73 | CA_66B-71A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 5 | 66786 | 2145 | 71 | 20 | 68761 | 634.5 | 23.42 | 23.42 | 23.41 | 0.01 | 0.01 |
| 3CC#74 | CA_66A-66C | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 67236 | 2190 | 66 | 20 | 67038 | 2170.2 | 23.40 | 23.40 | 23.41 | -0.01 | -0.01 |
| 3CC#75 | CA_66A-66B | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 10 | 66786 | 2145 | 66 | 10 | 66687 | 2135.1 | 23.41 | 23.40 | 23.41 | 0.00 | -0.01 |
| 3CC#76 | CA_66D | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 66682 | 2134.6 | 66 | 20 | 66880 | 2154.4 | 23.41 | 23.41 | 23.41 | 0.00 | 0.00 |
| 3CC#66 | CA_48A-66A-66A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 67236 | 2190 | 48 | 20 | 55773 | 3625 | 23.39 | 23.40 | 23.41 | -0.02 | -0.01 |
| 3CC#67 | CA_48A-66C | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 20 | 66682 | 2134.6 | 48 | 20 | 55773 | 3625 | 23.40 | 23.40 | 23.41 | -0.01 | -0.01 |
| 3CC#68 | CA_48A-66B | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 66 | 5 | 66604 | 2126.8 | 48 | 20 | 55773 | 3625 | 23.42 | 23.41 | 23.41 | 0.01 | 0.00 |
| 3CC#69 | CA_48C-66A | 66 | 15 | 132047 | 1717.5 | QPSK | 1 | 74 | 66511 | 2117.5 | 48 | 20 | 55990 | 3625 | 48 | 20 | 55792 | 3605.2 | 23.41 | 23.41 | 23.41 | 0.00 | 0.00 |

## SECTION 13: Dielectric Property

### 13.1 Dielectric Property for SAR

The dielectric parameters were checked prior to assessment using the DAK dielectric probe kit.

+/- 5 % tolerances are required for εr and σ and below table is the target value of the simulated tissue liquid.

For SAR measurement systems that have implemented the SAR error compensation algorithms documented in IEEE Std 1528-2013 or IEC/IEEE 62209-1528, to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, the tolerance for εr and σ may be relaxed to ± 10%.

The dielectric parameters are linearly interpolated between the closest pair of target frequencies to determine the applicable dielectric parameters corresponding to the device test frequency.

Tissue dielectric parameters are typically re-measured every three to four days or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

Measured value is rounded off on the test plot data, so some differences might be observed.

Table standard parameters on the KDB 865664 D01

| Target Frequency | Head | | Body | |
|---|---|---|---|---|
| (MHz) | $\varepsilon_r$ | $\sigma$ (S/m) | $\varepsilon_r$ | $\sigma$ (S/m) |
| 150 | 52.3 | 0.76 | 61.9 | 0.80 |
| 300 | 45.3 | 0.87 | 58.2 | 0.92 |
| 450 | 43.5 | 0.87 | 56.7 | 0.94 |
| 835 | 41.5 | 0.90 | 55.2 | 0.97 |
| 900 | 41.5 | 0.97 | 55.0 | 1.05 |
| 915 | 41.5 | 0.98 | 55.0 | 1.06 |
| 1450 | 40.5 | 1.20 | 54.0 | 1.30 |
| 1610 | 40.3 | 1.29 | 53.8 | 1.40 |
| 1800 – 2000 | 40.0 | 1.40 | 53.3 | 1.52 |
| 2450 | 39.2 | 1.80 | 52.7 | 1.95 |
| 3000 | 38.5 | 2.40 | 52.0 | 2.73 |
| 5800 | 35.3 | 5.27 | 48.2 | 6.00 |

($\varepsilon_r$ = relative permittivity, $\sigma$ = conductivity and $\rho$ = 1000 kg/m$^3$)

The dielectric parameters are linearly interpolated between the closest pair of target frequencies to determine the applicable dielectric parameters corresponding to the device test frequency.

## 13.2 Dielectric Property result

| Date | Tem | Humidity | Frequency | Permittivity | | | Conductivity | | | Note tolerance | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Measured | Target | Delta | Measured | Target | Delta | | |
| | [deg. C] | [RH %] | [MHz] | ε' | ε' | [%] | σ [S/m] | σ [S/m] | [%] | | |
| 2024/4/12 | 23.0 | 50 | 735 | 41.43 | 41.98 | -1.30 | 0.88 | 0.89 | -1.52 | 5% | |
| 2024/4/12 | 23.0 | 50 | 835 | 41.06 | 41.50 | -1.07 | 0.91 | 0.90 | 1.02 | 5% | SPC |
| 2024/4/12 | 23.0 | 50 | 935 | 40.84 | 41.44 | -1.44 | 0.94 | 0.98 | -4.05 | 5% | |
| 2024/4/15 | 23.0 | 46 | 1650 | 38.30 | 40.20 | -4.90 | 1.30 | 1.31 | -1.40 | 5% | |
| 2024/4/15 | 23.0 | 46 | 1750 | 38.00 | 40.10 | -5.00 | 1.35 | 1.37 | -1.80 | 5% | SPC |
| 2024/4/15 | 23.0 | 46 | 1850 | 37.90 | 40.00 | -5.20 | 1.40 | 1.40 | -0.30 | 10% | |
| 2024/4/16 | 23.0 | 46 | 1650 | 37.37 | 40.21 | -7.07 | 1.26 | 1.31 | -4.46 | 10% | |
| 2024/4/16 | 23.0 | 46 | 1750 | 37.26 | 40.07 | -7.01 | 1.31 | 1.37 | -4.52 | 10% | SPC |
| 2024/4/16 | 23.0 | 46 | 1850 | 37.06 | 40.00 | -7.35 | 1.36 | 1.40 | -2.97 | 10% | |
| 2024/4/17 | 23.0 | 40 | 1650 | 38.00 | 40.21 | -5.51 | 1.23 | 1.31 | -6.26 | 10% | |
| 2024/4/17 | 23.0 | 40 | 1750 | 37.84 | 40.07 | -5.57 | 1.28 | 1.37 | -6.54 | 10% | SPC |
| 2024/4/17 | 23.0 | 40 | 1850 | 37.68 | 40.00 | -5.79 | 1.33 | 1.40 | -5.05 | 10% | |
| 2024/4/17 | 23.0 | 40 | 1950 | 37.57 | 40.00 | -6.06 | 1.38 | 1.40 | -1.54 | 10% | SPC |
| 2024/4/17 | 23.0 | 40 | 2050 | 37.42 | 39.90 | -6.21 | 1.44 | 1.45 | -0.58 | 10% | |
| 2024/4/18 | 23.0 | 40 | 650 | 40.87 | 42.43 | -3.69 | 0.85 | 0.88 | -3.32 | 5% | |
| 2024/4/18 | 23.0 | 40 | 750 | 40.55 | 41.90 | -3.23 | 0.88 | 0.89 | -0.64 | 5% | SPC |
| 2024/4/18 | 23.0 | 40 | 850 | 40.18 | 41.50 | -3.18 | 0.92 | 0.92 | 0.15 | 5% | |
| 2024/4/18 | 23.0 | 40 | 735 | 40.59 | 41.98 | -3.31 | 0.88 | 0.89 | -1.04 | 5% | |
| 2024/4/18 | 23.0 | 40 | 835 | 40.22 | 41.50 | -3.09 | 0.91 | 0.90 | 1.40 | 5% | SPC |
| 2024/4/18 | 23.0 | 40 | 935 | 39.97 | 41.44 | -3.53 | 0.95 | 0.98 | -3.63 | 5% | |
| 2024/4/19 | 23.0 | 40 | 650 | 40.70 | 42.43 | -4.08 | 0.85 | 0.88 | -4.23 | 5% | |
| 2024/4/19 | 23.0 | 40 | 735 | 40.50 | 41.98 | -3.53 | 0.87 | 0.89 | -2.18 | 5% | |
| 2024/4/19 | 23.0 | 40 | 750 | 40.46 | 41.90 | -3.43 | 0.87 | 0.89 | -1.77 | 5% | SPC |
| 2024/4/19 | 23.0 | 40 | 835 | 40.15 | 41.50 | -3.25 | 0.90 | 0.90 | 0.19 | 5% | SPC |
| 2024/4/19 | 23.0 | 40 | 850 | 40.11 | 41.50 | -3.35 | 0.91 | 0.92 | -1.04 | 5% | |
| 2024/4/19 | 23.0 | 40 | 935 | 39.93 | 41.44 | -3.64 | 0.94 | 0.98 | -4.89 | 5% | |
| 2024/4/21 | 23.0 | 40 | 650 | 42.69 | 42.43 | 0.60 | 0.86 | 0.88 | -2.60 | 5% | |
| 2024/4/21 | 23.0 | 40 | 735 | 42.43 | 41.98 | 1.07 | 0.89 | 0.89 | -0.34 | 5% | |
| 2024/4/21 | 23.0 | 40 | 750 | 42.40 | 41.90 | 1.19 | 0.89 | 0.89 | 0.03 | 5% | SPC |
| 2024/4/21 | 23.0 | 40 | 835 | 42.09 | 41.50 | 1.42 | 0.92 | 0.90 | 2.01 | 5% | SPC |
| 2024/4/21 | 23.0 | 40 | 850 | 42.05 | 41.50 | 1.33 | 0.92 | 0.92 | 0.72 | 5% | |
| 2024/4/21 | 23.0 | 40 | 935 | 41.90 | 41.44 | 1.11 | 0.95 | 0.98 | -3.34 | 5% | |
| 2024/4/22 | 22.0 | 49 | 650 | 43.43 | 42.43 | 2.35 | 0.88 | 0.88 | -0.39 | 5% | |
| 2024/4/22 | 22.0 | 49 | 735 | 43.20 | 41.98 | 2.91 | 0.91 | 0.89 | 2.05 | 5% | |
| 2024/4/22 | 22.0 | 49 | 750 | 43.17 | 41.90 | 3.03 | 0.91 | 0.89 | 2.46 | 5% | SPC |
| 2024/4/22 | 22.0 | 49 | 835 | 42.83 | 41.50 | 3.21 | 0.94 | 0.90 | 4.58 | 5% | SPC |
| 2024/4/22 | 22.0 | 49 | 850 | 42.79 | 41.50 | 3.12 | 0.95 | 0.92 | 3.24 | 5% | |
| 2024/4/22 | 22.0 | 49 | 935 | 42.63 | 41.44 | 2.87 | 0.98 | 0.98 | -0.65 | 5% | |
| 2024/4/23 | 22.0 | 45 | 650 | 42.84 | 42.43 | 0.95 | 0.87 | 0.88 | -1.90 | 5% | |
| 2024/4/23 | 22.0 | 45 | 735 | 42.59 | 41.98 | 1.44 | 0.89 | 0.89 | 0.59 | 5% | |
| 2024/4/23 | 22.0 | 45 | 750 | 42.54 | 41.90 | 1.52 | 0.90 | 0.89 | 0.97 | 5% | SPC |
| 2024/4/23 | 22.0 | 45 | 835 | 42.25 | 41.50 | 1.80 | 0.93 | 0.90 | 3.04 | 5% | SPC |
| 2024/4/23 | 22.0 | 45 | 850 | 42.21 | 41.50 | 1.70 | 0.93 | 0.92 | 1.84 | 5% | |
| 2024/4/23 | 22.0 | 45 | 935 | 42.02 | 41.44 | 1.40 | 0.96 | 0.98 | -2.16 | 5% | |
| 2024/4/23 | 22.5 | 52 | 1800 | 39.70 | 40.00 | -0.70 | 1.34 | 1.40 | -4.10 | 5% | |
| 2024/4/23 | 22.5 | 52 | 1900 | 39.60 | 40.00 | -1.10 | 1.40 | 1.40 | -0.20 | 5% | SPC |
| 2024/4/23 | 22.5 | 52 | 2000 | 39.40 | 40.00 | -1.50 | 1.45 | 1.40 | 3.60 | 5% | |
| 2024/4/24 | 22.0 | 42 | 2500 | 39.20 | 39.13 | 0.17 | 1.84 | 1.85 | -0.97 | 5% | |
| 2024/4/24 | 22.0 | 42 | 2600 | 39.04 | 39.00 | 0.11 | 1.91 | 1.96 | -2.61 | 5% | SPC |
| 2024/4/24 | 22.0 | 40 | 650 | 41.89 | 42.43 | -1.27 | 0.86 | 0.88 | -2.63 | 5% | |
| 2024/4/24 | 22.0 | 40 | 735 | 41.51 | 41.98 | -1.13 | 0.89 | 0.89 | 0.30 | 5% | |
| 2024/4/24 | 22.0 | 40 | 750 | 41.45 | 41.90 | -1.09 | 0.90 | 0.89 | 0.77 | 5% | SPC |
| 2024/4/24 | 22.0 | 40 | 835 | 41.02 | 41.50 | -1.15 | 0.93 | 0.90 | 3.27 | 5% | SPC |
| 2024/4/24 | 22.0 | 40 | 850 | 40.97 | 41.50 | -1.28 | 0.94 | 0.92 | 2.07 | 5% | |
| 2024/4/24 | 22.0 | 40 | 935 | 40.66 | 41.44 | -1.87 | 0.97 | 0.98 | -1.56 | 5% | |
| 2024/4/25 | 24.0 | 53 | 3400 | 38.60 | 38.00 | 1.60 | 2.58 | 2.81 | -8.00 | 10% | |
| 2024/4/25 | 24.0 | 53 | 3500 | 38.50 | 37.90 | 1.50 | 2.67 | 2.91 | -8.20 | 10% | SPC |
| 2024/4/25 | 24.0 | 53 | 3600 | 38.40 | 37.80 | 1.50 | 2.75 | 3.01 | -8.70 | 10% | |
| 2024/4/25 | 22.0 | 53 | 650 | 40.70 | 42.40 | -4.00 | 0.86 | 0.88 | -2.70 | 5% | |
| 2024/4/25 | 22.0 | 53 | 750 | 40.40 | 41.90 | -3.70 | 0.89 | 0.89 | 0.20 | 5% | SPC |
| 2024/4/25 | 22.0 | 53 | 850 | 40.00 | 41.50 | -3.70 | 0.93 | 0.92 | 1.30 | 5% | |
| 2024/4/25 | 22.0 | 53 | 735 | 40.40 | 42.00 | -3.80 | 0.89 | 0.89 | -0.20 | 5% | |
| 2024/4/25 | 22.0 | 53 | 835 | 40.00 | 41.50 | -3.60 | 0.92 | 0.90 | 2.50 | 5% | SPC |
| 2024/4/25 | 22.0 | 53 | 935 | 39.70 | 41.40 | -4.20 | 0.96 | 0.98 | -2.60 | 5% | |
| 2024/4/26 | 22.0 | 50 | 3400 | 38.20 | 38.00 | 0.40 | 2.57 | 2.81 | -8.40 | 10% | |
| 2024/4/26 | 22.0 | 50 | 3500 | 38.00 | 37.90 | 0.30 | 2.66 | 2.91 | -8.70 | 10% | SPC |
| 2024/4/26 | 22.0 | 50 | 3600 | 37.90 | 37.80 | 0.30 | 2.74 | 3.01 | -9.10 | 10% | |
| 2024/4/29 | 22.0 | 63 | 1650 | 40.30 | 40.20 | 0.20 | 1.31 | 1.31 | 0.00 | 5% | |
| 2024/4/29 | 22.0 | 63 | 1750 | 40.10 | 40.10 | 0.10 | 1.37 | 1.37 | -0.10 | 5% | SPC |
| 2024/4/29 | 22.0 | 63 | 1850 | 39.90 | 40.00 | -0.30 | 1.43 | 1.40 | 2.00 | 5% | |
| 2024/4/29 | 22.0 | 63 | 1800 | 40.00 | 40.00 | 0.00 | 1.40 | 1.40 | 0.00 | 5% | |
| 2024/4/29 | 22.0 | 63 | 1900 | 39.80 | 40.00 | -0.50 | 1.46 | 1.40 | 3.90 | 5% | SPC |
| 2024/4/29 | 22.0 | 63 | 1925 | 39.80 | 40.00 | -0.50 | 1.47 | 1.40 | 4.70 | 5% | |
| 2024/4/30 | 22.5 | 63 | 2500 | 39.20 | 39.10 | 0.20 | 1.94 | 1.85 | 4.60 | 5% | |
| 2024/4/30 | 22.5 | 63 | 2600 | 39.10 | 39.00 | 0.20 | 2.01 | 1.96 | 2.30 | 5% | SPC |
| 2024/4/30 | 22.5 | 63 | 2700 | 38.90 | 38.90 | 0.10 | 2.08 | 2.07 | 0.70 | 5% | |

## SECTION 14: System Check confirmation

The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm ± 0.5 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm ± 0.5 cm for measurements > 3 GHz.
The DASY system with an E-Field Probe was used for the measurements.
The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom).
The standard measuring distance was 10 mm (above 1 GHz to 6 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
The coarse grid with a grid spacing of 15 mm (below 2 GHz), 12 mm (2 GHz to 4 GHz) and 10 mm (4 GHz to 6 GHz) was aligned with the dipole.
Around this point found in the coarse grid, a volume of 30 mm x 30 mm x 30 mm or more was assessed by measuring 7 x 7 x 7 points at least for below 3 GHz, a volume of 28 mm x 28 mm x 34 mm or more was assessed by measuring 8 x 8 x 8(ratio step method) points at least for 3 GHz to 5 GHz and a volume of 28 mm x 28 mm x 24 mm or more was assessed by measuring 8 x 8 x 8(ratio step method) points at least for 5 GHz to 6 GHz.
Distance between probe sensors and phantom surface was set to 1.4 mm.
The dipole input power (forward power) was 100 mW or 250 mW.
The results are normalized to 1 W input power.

All SAR measurement is performed within 24 hours after the system check are measured.

The target (reference) SAR values can be obtained from the calibration certificate of system validation dipoles (Refer to Appendix). The target SAR values are SAR measured value in the calibration certificate scaled to 1 W.

| Room | Conditions | | | | Meas value 250mW (100mW for >=3GHz | | Meas value Normalized to 1W | | Daily Reference value of regulation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Data | Frequency [MHz] | Temp [deg.C] | Humid [% RH] | 1g [w/kg] | 10g [w/kg] | 1g [w/kg] | 10g [w/kg] | 1g [w/kg] | 10g [w/kg] | [%] | [%] |
| SAR1 | 4/12 | 835 | 23 | 50 | 2.47 | 1.59 | 9.88 | 6.36 | 9.84 | 6.44 | 0.41 | -1.24 |
| SAR1 | 4/15 | 1750 | 23 | 46 | 8.38 | 4.41 | 33.52 | 17.64 | 36.76 | 19.36 | -8.81 | -8.88 |
| SAR1 | 4/16 | 1750 | 23 | 46 | 8.55 | 4.50 | 34.20 | 18.00 | 36.76 | 19.36 | -6.96 | -7.02 |
| SAR1 | 4/17 | 1750 | 23 | 40 | 8.40 | 4.41 | 33.60 | 17.64 | 36.76 | 19.36 | -8.60 | -8.88 |
| SAR1 | 4/17 | 1950 | 23 | 40 | 9.84 | 5.04 | 39.36 | 20.16 | 42.80 | 21.76 | -8.04 | -7.35 |
| SAR1 | 4/18 | 750 | 23 | 40 | 2.26 | 1.47 | 9.04 | 5.88 | 8.68 | 5.64 | 4.15 | 4.26 |
| SAR1 | 4/18 | 835 | 23 | 40 | 2.56 | 1.66 | 10.24 | 6.64 | 9.84 | 6.44 | 4.07 | 3.11 |
| SAR1 | 4/19 | 750 | 23 | 40 | 2.16 | 1.42 | 8.64 | 5.68 | 8.68 | 5.64 | -0.46 | 0.71 |
| SAR1 | 4/19 | 835 | 23 | 40 | 2.59 | 1.68 | 10.36 | 6.72 | 9.84 | 6.44 | 5.28 | 4.35 |
| SAR1 | 4/21 | 750 | 23 | 40 | 2.27 | 1.47 | 9.08 | 5.88 | 8.68 | 5.64 | 4.61 | 4.26 |
| SAR1 | 4/21 | 835 | 23 | 40 | 2.62 | 1.69 | 10.48 | 6.76 | 9.84 | 6.44 | 6.50 | 4.97 |
| SAR1 | 4/22 | 750 | 22 | 49 | 2.33 | 1.52 | 9.32 | 6.08 | 8.68 | 5.64 | 7.37 | 7.80 |
| SAR1 | 4/22 | 835 | 22 | 49 | 2.58 | 1.65 | 10.32 | 6.60 | 9.84 | 6.44 | 4.88 | 2.48 |
| SAR1 | 4/23 | 750 | 22 | 45 | 2.22 | 1.44 | 8.88 | 5.76 | 8.68 | 5.64 | 2.30 | 2.13 |
| SAR1 | 4/23 | 835 | 22 | 45 | 2.55 | 1.65 | 10.20 | 6.60 | 9.84 | 6.44 | 3.66 | 2.48 |
| SAR3 | 4/23 | 1900 | 22.5 | 52 | 9.91 | 5.17 | 39.64 | 20.68 | 39.56 | 20.52 | 0.20 | 0.78 |
| SAR1 | 4/24 | 2600 | 22 | 42 | 14.60 | 6.60 | 58.40 | 26.40 | 58.00 | 25.52 | 0.69 | 3.45 |
| SAR1 | 4/24 | 750 | 24 | 48 | 2.21 | 1.44 | 8.84 | 5.76 | 8.68 | 5.64 | 1.84 | 2.13 |
| SAR1 | 4/24 | 835 | 22 | 40 | 2.54 | 1.64 | 10.16 | 6.56 | 9.84 | 6.44 | 3.25 | 1.86 |
| SAR2 | 4/25 | 3500 | 22 | 40 | 6.60 | 2.50 | 66.00 | 25.00 | 66.20 | 25.10 | -0.30 | -0.40 |
| SAR1 | 4/25 | 750 | 24 | 53 | 2.24 | 1.47 | 8.96 | 5.88 | 8.68 | 5.64 | 3.23 | 4.26 |
| SAR1 | 4/25 | 835 | 22 | 52 | 2.44 | 1.60 | 9.76 | 6.40 | 9.84 | 6.44 | -0.81 | -0.62 |
| SAR2 | 4/26 | 3500 | 22 | 52 | 6.62 | 2.50 | 66.20 | 25.00 | 66.20 | 25.10 | 0.00 | -0.40 |
| SAR1 | 4/29 | 1750 | 22 | 50 | 9.36 | 4.95 | 37.44 | 19.80 | 36.76 | 19.36 | 1.85 | 2.27 |
| SAR1 | 4/29 | 1900 | 22 | 60 | 10.30 | 5.31 | 41.20 | 21.24 | 39.56 | 20.52 | 4.15 | 3.51 |
| SAR1 | 4/30 | 2600 | 22 | 60 | 13.60 | 6.07 | 54.40 | 24.28 | 58.00 | 25.52 | -6.21 | -4.86 |

## SECTION 15: Measured and Reported (Scaled) SAR Results

### 15.1 SAR evaluation procedure

**The evaluation was performed with the following procedure:**

**Step 1:** Measurement of the E-field at a fixed location above the ear point or central position of flat phantom was used as a reference value for assessing the power drop.

**Step 2:** The SAR distribution at the exposed side of head or body position was measured at a distance of each device from the inner surface of the shell. The area covered the entire dimension of the antenna of EUT and the horizontal grid spacing was 15 mm x 15 mm, 12 mm x 12 mm or 10 mm x 10 mm. Based on these data, the area of the maximum absorption was determined by spline interpolation.

**Step 3:** Around this point found in the Step 2 (area scan), a volume of 30 mm x 30 mm x 30 mm or more was assessed by measuring 7 x 7 x 7 points at least for below 3 GHz and a volume of 28 mm x 28 mm x 22.5 mm or more was assessed by measuring 8 x 8 x 6(ratio step method (*1)) points at least for 5 GHz band.

And for any secondary peaks found in the Step2 which are within 2 dB of maximum peak and not with this Step3 (Zoom scan) is repeated. On the basis of this data set, the spatial peak SAR value was evaluated under the following procedure:

(1). The data at the surface were extrapolated, since the center of the dipoles is 1 mm (EX3DV4) away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.3 mm. The extrapolation was based on a least square algorithm [4]. A polynomial of the fourth order was calculated through the points in z-axes.
This polynomial was then used to evaluate the points between the surface and the probe tip.

(2). The maximum interpolated value was searched with a straightforward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1 g or 10 g) were computed by the 3D-Spline interpolation algorithm. The 3D-Spline is composed of three one-dimensional splines with the “Not a knot"-condition (in x, y and z-directions) [4], [5]. The volume was integrated with the trapezoidal-algorithm. One thousand points (10 x 10 x 10) were interpolated to calculate the average.

(3). All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

***1. Ratio step method parameters used;**
**The first measurement point: 2 mm from the phantom surface, the initial grid separation: 2mm, subsequent graded grid ratio: 1.5**
**These parameters comply with the requirement of the KDB 865664D01.**

**Step 4**: Re-measurement of the E-field at the same location as in Step 1.
Confirmation after SAR testing
It was checked that the power drift [W] is within +/-5 %.The verification of power drift during the SAR test is that DASY5 system calculates the power drift by measuring the e-filed at the same location at beginning and the end of the scan measurement for each test position.

DASY5/6 system calculation Power drift value[dB] =20log(Ea)/(Eb)
Before SAR testing : Eb[V/m]
After SAR testing : Ea[V/m]

Limit of power drift[W] =+/-5 %
X[dB]=10log[P]=10log(1.05/1)=10log(1.05)-10log(1)=0.212 dB

from E-filed relations with power.
p=E^2/η=E^2/
Therefore, The correlation of power and the E-filed
XdB=10log(P)=10log(E)^2=20log(E)

Therefore,
The calculated power drift of DASY5 System must be the less than +/-0.212 dB.

Step size.

| | | | ≤ 3 GHz | > 3 GHz |
|---|---|---|---|---|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | | | 5 mm □ 1 mm | ⅓·δ·ln(2) mm □ 0.5 mm |
| Maximum probe angle from probe axis to phantomsurface normal at the measurement location | | | 30□ □ 1□ | 20□ □ 1□ |
| Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$ | | | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm | 3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 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 ≤ the corresponding x or y dimension of the test device withat least one measurement point on the test device. | |
| Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$ | | | ≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm* | 3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm* |
| Maximum zoom scan spatial resolution, normal to phantom surface | uniform grid: $\Delta z_{Zoom}(n)$ | | ≤ 5 mm | 3– 4 GHz: ≤ 4 mm<br>4– 5 GHz: ≤ 3 mm<br>5– 6 GHz: ≤ 2 mm |
| | gradedgrid | $\Delta z_{Zoom}(1)$: between 1st two points closestto phantom surface | ≤ 4 mm | 3 – 4 GHz: ≤ 3 mm<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm |
| | | $\Delta z_{Zoom}(n>1)$: between subsequentpoints | ≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm | |
| Minimum zoomscan volume | x, y, z | | ≥ 30 mm | 3 – 4 GHz: ≥ 28 mm<br>4 – 5 GHz: ≥ 25 mm<br>5 – 6 GHz: ≥ 22 mm |

Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std1528-2013 for details.
* When zoom scan is required and the ***reported*** SAR from the *area scan based 1-g SAR estimation* procedures ofKDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 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.

### 15.1.1 KDB 447498 D04 (General RF Exposure Guidance):

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ✧ ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ✧ ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ✧ ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

- When reported SAR value is exceed 1.2W/kg(if any), device holder perturbation verification is required; however, since distance between device holder and antenna of EUT is enough, it was not conducted.
- Reported SAR= Measured SAR [W/kg] · Scaled factor
  * Scaled factor = Maximum tune-up tolerance limit [mW] / Measured power [mW]
- Maximum tune-up tolerance limit is by the specification from a customer.

Note: Measured value is rounded round off to three decimal places

### 15.1.2 KDB 941225 D01 (SAR test for 3G device):

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≦1/4 dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ration of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≦ 1.2 W/kg, SAR measurement is not required for the secondary mode.

### 15.1.3 KDB 941225 D01 (SAR for LTE Devices):

SAR test reduction is applied using the following criteria:

- Beginning with QPSK modulation at the largest channel bandwidth, testing for 1 RB allocation configurations is initially performed for the channel/RB offset combination with the highest output power among 1 RB allocation configurations.
  - o When the reported SAR for the initial measurement is < 0.8 W/kg, no further assessment is required for 1 RB allocation configurations.
  - o When the reported SAR for the initial measurement is > 0.8 W/kg, the remaining channels are evaluated using the RB offset with the highest output power within the respective channels.
  - o For all reported SAR that is > 1.45 W/kg, SAR, SAR is required for the remaining RB offset configurations of the same channel.
- The same procedures apply to QPSK 50 % RB allocation configurations at the largest channel bandwidth.
- Testing for 100 % RB allocation configurations at the largest channel bandwidth is performed for the channel, across low, mid and high, with the highest output power, when the highest reported SAR for either 1 RB or 50 % RB is ≥ 0.8 W/kg, or when the maximum output power among 100 % RB allocation configurations is greater than the maximum output power among either 1 RB or 50 % RB allocation configurations.
  - o Testing for the remaining channels in 100 % RB allocation configurations is required only when reported SAR for the initial 100 % RB allocation configuration is > 1.45 W/kg.
- Testing for higher order modulations (16-QAM or 64-QAM) is required only when the highest reported SAR for QPSK is > 1.45 W/Kg or if its output power is more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is required only when the highest reported SAR for the highest channel bandwidth is > 1.45 W/Kg or if its output power is more than 0.5 dB higher than that of the highest channel bandwidth.

## 15.2 SAR result (WWAN Part)

### 15.2.1 WCDMA Band 2

| RF Exposure Conditions | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | 0 | 0 | Edge1 | 9262 | 1852.4 | 24.0 | 23.11 | | | |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.517 | 0.619 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | | | |
| | | 0 | Edge3 | 9262 | 1852.4 | 24.0 | 23.11 | | | |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.277 | 0.331 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | | | |
| | | 19 | Edge4 | 9262 | 1852.4 | 24.0 | 23.11 | | | |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.579 | 0.693 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | | | |
| | | 9 | Rear | 9262 | 1852.4 | 24.0 | 23.11 | | | |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.493 | 0.590 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | | | |
| | | 0 | Rea tilt Edge 1 side | 9262 | 1852.4 | 24.0 | 23.11 | | | |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.646 | 0.773 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | | | |
| | | 9 | Rea tilt Edge 4 side | 9262 | 1852.4 | 24.0 | 23.11 | 0.686 | **0.842** | W2-1 |
| | | | | 9400 | 1880.0 | 24.0 | 23.22 | 0.682 | 0.816 | |
| | | | | 9538 | 1907.6 | 24.0 | 23.29 | 0.661 | 0.778 | |
| Standalone | 1 | 0 | Edge4 | 9262 | 1852.4 | 17.7 | 16.85 | | | |
| | | | | 9400 | 1880.0 | 17.7 | 16.96 | 0.562 | **0.666** | W2-2 |
| | | | | 9538 | 1907.6 | 17.7 | 17.03 | | | |
| | | 0 | Rea tilt Edge 4 side | 9262 | 1852.4 | 17.7 | 16.85 | | | |
| | | | | 9400 | 1880.0 | 17.7 | 16.96 | 0.544 | 0.645 | |
| | | | | 9538 | 1907.6 | 17.7 | 17.03 | | | |
| | | 0 | Rear | 9262 | 1852.4 | 17.7 | 16.85 | | | |
| | | | | 9400 | 1880.0 | 17.7 | 16.96 | 0.335 | 0.397 | |
| | | | | 9538 | 1907.6 | 17.7 | 17.03 | | | |

### 15.2.2 WCDMA Band 4

| RF Exposure Conditions | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | 0 | 0 | Edge1 | 1312 | 1712.4 | 23.2 | 23.03 | | | |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.211 | 0.213 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | | | |
| | | 0 | Edge3 | 1312 | 1712.4 | 23.2 | 23.03 | | | |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.271 | 0.274 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | | | |
| | | 19 | Edge4 | 1312 | 1712.4 | 23.2 | 23.03 | 0.812 | 0.844 | |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.890 | 0.900 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | 0.812 | 0.886 | |
| | | 9 | Rear | 1312 | 1712.4 | 23.2 | 23.03 | | | |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.578 | 0.585 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | | | |
| | | 0 | Rea tilt Edge 1 side | 1312 | 1712.4 | 23.2 | 23.03 | | | |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.770 | 0.779 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | | | |
| | | 9 | Rea tilt Edge 4 side | 1312 | 1712.4 | 23.2 | 23.03 | 0.988 | **1.027** | W4-1 |
| | | | | 1413 | 1732.6 | 23.2 | 23.15 | 0.966 | 0.977 | |
| | | | | 1513 | 1752.6 | 23.2 | 22.82 | 0.885 | 0.966 | |
| Standalone | 1 | 0 | Edge4 | 1312 | 1712.4 | 16.8 | 15.89 | | | |
| | | | | 1413 | 1732.6 | 16.8 | 15.92 | 0.571 | **0.699** | W4-2 |
| | | | | 1513 | 1752.6 | 16.8 | 15.58 | | | |
| | | 0 | Rea tilt Edge 4 side | 1312 | 1712.4 | 16.8 | 15.89 | | | |
| | | | | 1413 | 1732.6 | 16.8 | 15.92 | 0.484 | 0.593 | |
| | | | | 1513 | 1752.6 | 16.8 | 15.58 | | | |
| | | 0 | Rear | 1312 | 1712.4 | 16.8 | 15.89 | | | |
| | | | | 1413 | 1732.6 | 16.8 | 15.92 | 0.321 | 0.393 | |
| | | | | 1513 | 1752.6 | 16.8 | 15.58 | | | |

### 15.2.3 WCDMA Band 5

| RF Exposure Conditions | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | 0 | 0 | Edge1 | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.193 | 0.206 | |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| | | 0 | Edge3 | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.036 | 0.038 | |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| | | 19 | Edge4 | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.448 | 0.479 | |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| | | 9 | Rear | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.543 | 0.580 | |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| | | 0 | Rea tilt Edge 1 side | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.660 | 0.706 | |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| | | 9 | Rea tilt Edge 4 side | 4132 | 826.4 | 24.0 | 23.66 | | | |
| | | | | 4183 | 836.6 | 24.0 | 23.71 | 0.711 | **0.760** | W5-1 |
| | | | | 4233 | 846.6 | 24.0 | 23.65 | | | |
| Standalone | 1 | 0 | Edge4 | 4132 | 826.4 | 17.3 | 16.92 | 0.720 | 0.786 | |
| | | | | 4183 | 836.6 | 17.3 | 16.99 | 0.777 | **0.834** | W5-2 |
| | | | | 4233 | 846.6 | 17.3 | 16.89 | 0.747 | 0.821 | |
| | | 0 | Rea tilt Edge 4 side | 4132 | 826.4 | 17.3 | 16.92 | | | |
| | | | | 4183 | 836.6 | 17.3 | 16.99 | 0.429 | 0.461 | |
| | | | | 4233 | 846.6 | 17.3 | 16.89 | | | |
| | | 0 | Rear | 4132 | 826.4 | 17.3 | 16.92 | | | |
| | | | | 4183 | 836.6 | 17.3 | 16.99 | 0.291 | 0.313 | |
| | | | | 4233 | 846.6 | 17.3 | 16.89 | | | |

## 15.2.4 LTE Band 4

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.173 | 0.192 | |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.150 | 0.179 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | | | |
| | | | 0 | Edge3 | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.292 | 0.324 | |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.192 | 0.229 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | | | |
| | | | 19 | Edge4 | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.804 | **0.892** | L4-1 |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.634 | 0.757 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | 0.635 | 0.762 | |
| | | | 9 | Rear | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.532 | 0.590 | |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.430 | 0.513 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | | | |
| | | | 0 | Rea tilt Edge 1 side | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.663 | 0.735 | |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.557 | 0.665 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | | | |
| | | | 9 | Rea tilt Edge 4 side | 20175 | 1732.5 | 1 | 99 | 24.0 | 23.55 | 0.799 | 0.886 | |
| | | | | | | | 50 | 0 | 23.0 | 22.23 | 0.673 | 0.804 | |
| | | | | | | | 100 | 0 | 23.0 | 22.21 | 0.662 | 0.794 | |
| Standalone | QPSK | 1 | 0 | Edge4 | 20175 | 1732.5 | 1 | 99 | 17.5 | 16.81 | 0.615 | 0.721 | |
| | | | | | | | 50 | 0 | 17.5 | 16.75 | 0.627 | **0.745** | L4-2 |
| | | | | | | | 100 | 0 | 17.5 | 16.70 | | | |
| | | | 0 | Rea tilt Edge 4 side | 20175 | 1732.5 | 1 | 99 | 17.5 | 16.81 | 0.513 | 0.601 | |
| | | | | | | | 50 | 0 | 17.5 | 16.75 | 0.535 | 0.636 | |
| | | | | | | | 100 | 0 | 17.5 | 16.70 | | | |
| | | | 0 | Rear | 20175 | 1732.5 | 1 | 99 | 17.5 | 16.81 | 0.337 | 0.395 | |
| | | | | | | | 50 | 0 | 17.5 | 16.75 | 0.350 | 0.416 | |
| | | | | | | | 100 | 0 | 17.5 | 16.70 | | | |

## 15.2.5 LTE Band 5

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.182 | 0.196 | |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.148 | 0.159 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| | | | 0 | Edge3 | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.030 | 0.032 | |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.023 | 0.025 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| | | | 19 | Edge4 | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.414 | 0.447 | |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.327 | 0.350 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| | | | 9 | Rear | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.420 | 0.453 | |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.419 | 0.449 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| | | | 0 | Rea tilt Edge 1 side | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.666 | 0.719 | |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.542 | 0.581 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| | | | 9 | Rea tilt Edge 4 side | 20525 | 836.5 | 1 | 0 | 24.0 | 23.67 | 0.676 | **0.729** | L5-1 |
| | | | | | | | 25 | 0 | 23.0 | 22.70 | 0.552 | 0.591 | |
| | | | | | | | 50 | 0 | 23.0 | 22.64 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 20525 | 836.5 | 1 | 0 | 16.8 | 15.98 | 0.665 | 0.803 | |
| | | | | | | | 25 | 0 | 16.8 | 15.78 | 0.675 | **0.854** | L5-2 |
| | | | | | | | 50 | 0 | 16.8 | 15.74 | 0.651 | 0.831 | |
| | | | 0 | Rea tilt Edge 4 side | 20525 | 836.5 | 1 | 0 | 16.8 | 15.98 | 0.339 | 0.409 | |
| | | | | | | | 25 | 0 | 16.8 | 15.78 | 0.371 | 0.469 | |
| | | | | | | | 50 | 0 | 16.8 | 15.74 | | | |
| | | | 0 | Rear | 20525 | 836.5 | 1 | 0 | 16.8 | 15.98 | 0.258 | 0.312 | |
| | | | | | | | 25 | 0 | 16.8 | 15.78 | 0.258 | 0.326 | |
| | | | | | | | 50 | 0 | 16.8 | 15.74 | | | |

## 15.2.6 LTE Band 7

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.280 | 0.336 | |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.246 | 0.288 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |
| | | | 0 | Edge3 | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.122 | 0.146 | |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.096 | 0.113 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |
| | | | 19 | Edge4 | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.470 | 0.564 | |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.397 | 0.465 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |
| | | | 9 | Rear | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.418 | 0.501 | |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.373 | 0.437 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |
| | | | 0 | Rear tilt Edge 1 side | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.605 | **0.726** | L7-1 |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.545 | 0.639 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |
| | | | 9 | Rear tilt Edge 4 side | 20850 | 2510.0 | 1 | 99 | 24.0 | 23.21 | 0.510 | 0.612 | |
| | | | | | | | 50 | 50 | 23.0 | 22.31 | 0.419 | 0.491 | |
| | | | | | | | 100 | 0 | 23.0 | 22.31 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 24.0 | 23.16 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.23 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.20 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 24.0 | 23.10 | | | |
| | | | | | | | 50 | 50 | 23.0 | 22.18 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.17 | | | |

## LTE Band 7(Continued)

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 1 | 0 | Edge4 | 20850 | 2510.0 | 1 | 0 | 16.0 | 15.32 | 0.464 | 0.543 | |
| | | | | | | | 50 | 50 | 16.0 | 15.28 | 0.495 | **0.584** | L7-2 |
| | | | | | | | 100 | 0 | 16.0 | 15.22 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 16.0 | 15.28 | | | |
| | | | | | | | 50 | 24 | 16.0 | 15.24 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.15 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 16.0 | 15.24 | | | |
| | | | | | | | 50 | 50 | 16.0 | 15.17 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.03 | | | |
| | | | 0 | Rear tilt Edge 4 side | 20850 | 2510.0 | 1 | 0 | 16.0 | 15.32 | 0.281 | 0.329 | |
| | | | | | | | 50 | 50 | 16.0 | 15.28 | 0.307 | 0.362 | |
| | | | | | | | 100 | 0 | 16.0 | 15.22 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 16.0 | 15.28 | | | |
| | | | | | | | 50 | 24 | 16.0 | 15.24 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.15 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 16.0 | 15.24 | | | |
| | | | | | | | 50 | 50 | 16.0 | 15.17 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.03 | | | |
| | | | 0 | Rear | 20850 | 2510.0 | 1 | 0 | 16.0 | 15.32 | 0.210 | 0.246 | |
| | | | | | | | 50 | 50 | 16.0 | 15.28 | 0.232 | 0.274 | |
| | | | | | | | 100 | 0 | 16.0 | 15.22 | | | |
| | | | | | 21100 | 2535.0 | 1 | 0 | 16.0 | 15.28 | | | |
| | | | | | | | 50 | 24 | 16.0 | 15.24 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.15 | | | |
| | | | | | 21350 | 2560.0 | 1 | 0 | 16.0 | 15.24 | | | |
| | | | | | | | 50 | 50 | 16.0 | 15.17 | | | |
| | | | | | | | 100 | 0 | 16.0 | 15.03 | | | |

## 15.2.7 LTE Band 12

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.312 | 0.361 | |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.238 | 0.268 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| | | | 0 | Edge3 | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.006 | 0.007 | |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.013 | 0.015 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| | | | 19 | Edge4 | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.165 | 0.191 | |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.134 | 0.151 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| | | | 9 | Rear | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.273 | 0.316 | |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.221 | 0.249 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| | | | 0 | Rea tilt Edge 1 side | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.374 | **0.432** | L12-1 |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.295 | 0.332 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| | | | 9 | Rea tilt Edge 4 side | 23095 | 707.5 | 1 | 24 | 24.0 | 23.37 | 0.332 | 0.384 | |
| | | | | | | | 25 | 0 | 23.0 | 22.49 | 0.265 | 0.298 | |
| | | | | | | | 50 | 0 | 23.0 | 22.44 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 23095 | 707.5 | 1 | 24 | 18.4 | 17.86 | 0.669 | 0.758 | |
| | | | | | | | 25 | 0 | 18.4 | 17.79 | 0.697 | **0.802** | L12-2 |
| | | | | | | | 50 | 0 | 18.4 | 17.70 | 0.660 | 0.775 | |
| | | | 0 | Rea tilt Edge 4 side | 23095 | 707.5 | 1 | 24 | 18.4 | 17.86 | 0.329 | 0.373 | |
| | | | | | | | 25 | 0 | 18.4 | 17.79 | 0.325 | 0.374 | |
| | | | | | | | 50 | 0 | 18.4 | 17.70 | | | |
| | | | 0 | Rear | 23095 | 707.5 | 1 | 24 | 18.4 | 17.86 | 0.184 | 0.208 | |
| | | | | | | | 25 | 0 | 18.4 | 17.79 | 0.185 | 0.213 | |
| | | | | | | | 50 | 0 | 18.4 | 17.70 | | | |

## 15.2.8 LTE Band 13

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.250 | 0.285 | |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.174 | 0.199 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| | | | 0 | Edge3 | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.026 | 0.030 | |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.022 | 0.025 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| | | | 19 | Edge4 | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.317 | 0.361 | |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.227 | 0.260 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| | | | 9 | Rear | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.458 | 0.522 | |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.382 | 0.438 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| | | | 0 | Rea tilt Edge 1 side | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.595 | **0.678** | L13-1 |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.473 | 0.542 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| | | | 9 | Rea tilt Edge 4 side | 23230 | 782.0 | 1 | 0 | 24.0 | 23.43 | 0.588 | 0.670 | |
| | | | | | | | 25 | 0 | 23.0 | 22.41 | 0.465 | 0.533 | |
| | | | | | | | 50 | 0 | 23.0 | 22.38 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 23230 | 782.0 | 1 | 0 | 18.1 | 17.74 | 0.832 | 0.904 | |
| | | | | | | | 25 | 0 | 18.1 | 17.45 | 0.840 | **0.976** | L13-2 |
| | | | | | | | 50 | 0 | 18.1 | 17.40 | 0.775 | 0.911 | |
| | | | 0 | Rea tilt Edge 4 side | 23230 | 782.0 | 1 | 0 | 18.1 | 17.74 | 0.400 | 0.435 | |
| | | | | | | | 25 | 0 | 18.1 | 17.45 | 0.403 | 0.468 | |
| | | | | | | | 50 | 0 | 18.1 | 17.40 | | | |
| | | | 0 | Rear | 23230 | 782.0 | 1 | 0 | 18.1 | 17.74 | 0.280 | 0.304 | |
| | | | | | | | 25 | 0 | 18.1 | 17.45 | 0.284 | 0.330 | |
| | | | | | | | 50 | 0 | 18.1 | 17.40 | | | |

## 15.2.9 LTE Band 14

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.236 | 0.272 | |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.190 | 0.223 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| | | | 0 | Edge3 | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.027 | 0.031 | |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.026 | 0.031 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| | | | 19 | Edge4 | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.307 | 0.353 | |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.240 | 0.282 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| | | | 9 | Rear | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.436 | 0.502 | |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.390 | 0.458 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| | | | 0 | Rea tilt Edge 1 side | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.606 | **0.697** | L14-1 |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.489 | 0.575 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| | | | 9 | Rea tilt Edge 4 side | 23330 | 793.0 | 1 | 0 | 24.0 | 23.39 | 0.605 | 0.696 | |
| | | | | | | | 25 | 0 | 23.0 | 22.30 | 0.488 | 0.573 | |
| | | | | | | | 50 | 0 | 23.0 | 22.25 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 23330 | 793.0 | 1 | 0 | 17.4 | 16.59 | 0.715 | 0.862 | |
| | | | | | | | 25 | 0 | 17.4 | 16.52 | 0.726 | 0.889 | |
| | | | | | | | 50 | 0 | 17.4 | 16.23 | 0.696 | **0.911** | L14-2 |
| | | | 0 | Rea tilt Edge 4 side | 23330 | 793.0 | 1 | 0 | 17.4 | 16.59 | 0.352 | 0.424 | |
| | | | | | | | 25 | 0 | 17.4 | 16.52 | 0.358 | 0.438 | |
| | | | | | | | 50 | 0 | 17.4 | 16.23 | | | |
| | | | 0 | Rear | 23330 | 793.0 | 1 | 0 | 17.4 | 16.59 | 0.242 | 0.292 | |
| | | | | | | | 25 | 0 | 17.4 | 16.52 | 0.244 | 0.299 | |
| | | | | | | | 50 | 0 | 17.4 | 16.23 | | | |

## 15.2.10 LTE Band 25

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | | | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.535 | 0.677 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.436 | 0.568 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |
| | | | 0 | Edge3 | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | | | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.181 | 0.229 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.140 | 0.182 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |
| | | | 19 | Edge4 | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | | | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.550 | 0.696 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.435 | 0.567 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |
| | | | 9 | Rear | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | | | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.441 | 0.558 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.358 | 0.467 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |
| | | | 0 | Rear tilt Edge 1 side | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | 0.641 | 0.845 | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | 0.531 | 0.697 | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | 0.526 | 0.693 | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.651 | 0.823 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.533 | 0.695 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | 0.652 | **0.861** | L25-1 |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | 0.525 | 0.686 | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |
| | | | 9 | Rear tilt Edge 4 side | 26140 | 1860.0 | 1 | 0 | 24.0 | 22.80 | | | |
| | | | | | | | 50 | 50 | 23.0 | 21.82 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.80 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 24.0 | 22.98 | 0.632 | 0.799 | |
| | | | | | | | 50 | 0 | 23.0 | 21.85 | 0.513 | 0.669 | |
| | | | | | | | 100 | 0 | 23.0 | 21.78 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 24.0 | 22.79 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.84 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.76 | | | |

## LTE Band 25(Continued)

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 1 | 0 | Edge4 | 26140 | 1860.0 | 1 | 0 | 17.4 | 16.22 | | | |
| | | | | | | | 50 | 50 | 17.4 | 16.30 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.22 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 17.4 | 16.32 | 0.508 | 0.651 | |
| | | | | | | | 50 | 0 | 17.4 | 16.28 | 0.509 | 0.659 | |
| | | | | | | | 100 | 0 | 17.4 | 16.17 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 17.4 | 16.14 | | | |
| | | | | | | | 50 | 24 | 17.4 | 16.22 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.14 | | | |
| | | | 0 | Rear tilt Edge 4 side | 26140 | 1860.0 | 1 | 0 | 17.4 | 16.22 | | | |
| | | | | | | | 50 | 50 | 17.4 | 16.30 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.22 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 17.4 | 16.32 | 0.525 | 0.673 | |
| | | | | | | | 50 | 0 | 17.4 | 16.28 | 0.524 | **0.678** | L25-2 |
| | | | | | | | 100 | 0 | 17.4 | 16.17 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 17.4 | 16.14 | | | |
| | | | | | | | 50 | 24 | 17.4 | 16.22 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.14 | | | |
| | | | 0 | Rear | 26140 | 1860.0 | 1 | 0 | 17.4 | 16.22 | | | |
| | | | | | | | 50 | 50 | 17.4 | 16.30 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.22 | | | |
| | | | | | 26365 | 1882.5 | 1 | 0 | 17.4 | 16.32 | 0.289 | 0.371 | |
| | | | | | | | 50 | 0 | 17.4 | 16.28 | 0.287 | 0.371 | |
| | | | | | | | 100 | 0 | 17.4 | 16.17 | | | |
| | | | | | 26590 | 1905.0 | 1 | 49 | 17.4 | 16.14 | | | |
| | | | | | | | 50 | 24 | 17.4 | 16.22 | | | |
| | | | | | | | 100 | 0 | 17.4 | 16.14 | | | |

## 15.2.11 LTE Band 26

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.203 | 0.241 | |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.165 | 0.194 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| | | | 0 | Edge3 | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.022 | 0.026 | |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.022 | 0.026 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| | | | 19 | Edge4 | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.412 | 0.490 | |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.348 | 0.410 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| | | | 9 | Rear | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.520 | 0.618 | |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.429 | 0.505 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| | | | 0 | Rea tilt Edge 1 side | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.664 | **0.789** | L26-1 |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.560 | 0.659 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| | | | 9 | Rea tilt Edge 4 side | 26865 | 831.5 | 1 | 0 | 24.0 | 23.25 | 0.641 | 0.762 | |
| | | | | | | | 36 | 0 | 23.0 | 22.29 | 0.550 | 0.648 | |
| | | | | | | | 75 | 0 | 23.0 | 22.26 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 26865 | 831.5 | 1 | 0 | 17.1 | 16.42 | 0.741 | 0.867 | |
| | | | | | | | 36 | 0 | 17.1 | 16.33 | 0.772 | 0.922 | |
| | | | | | | | 75 | 0 | 17.1 | 16.13 | 0.739 | **0.924** | L26-2 |
| | | | 0 | Rea tilt Edge 4 side | 26865 | 831.5 | 1 | 0 | 17.1 | 16.42 | 0.379 | 0.443 | |
| | | | | | | | 36 | 0 | 17.1 | 16.33 | 0.401 | 0.479 | |
| | | | | | | | 75 | 0 | 17.1 | 16.13 | | | |
| | | | 0 | Rear | 26865 | 831.5 | 1 | 0 | 17.1 | 16.42 | 0.262 | 0.306 | |
| | | | | | | | 36 | 0 | 17.1 | 16.33 | 0.278 | 0.332 | |
| | | | | | | | 75 | 0 | 17.1 | 16.13 | | | |

## 15.2.12 LTE Band 42 / 48

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.054 | 0.056 | |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.032 | 0.033 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |
| | | | 0 | Edge3 | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.040 | 0.042 | |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.030 | 0.031 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |
| | | | 19 | Edge4 | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.275 | **0.287** | L42L48-1 |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.241 | 0.247 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |
| | | | 9 | Rear | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.090 | 0.094 | |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.071 | 0.073 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |
| | | | 0 | Rear tilt Edge 1 side | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.142 | 0.148 | |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.117 | 0.120 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |
| | | | 9 | Rear tilt Edge 4 side | 42190 | 3460.0 | 1 | 99 | 19.00 | 18.64 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.66 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.59 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 19.00 | 18.82 | 0.164 | 0.171 | |
| | | | | | | | 50 | 50 | 18.00 | 17.90 | 0.135 | 0.138 | |
| | | | | | | | 100 | 0 | 18.00 | 17.89 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 19.00 | 18.77 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.74 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 19.00 | 18.74 | | | |
| | | | | | | | 50 | 50 | 18.00 | 17.71 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.66 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 19.00 | 18.48 | | | |
| | | | | | | | 50 | 24 | 18.00 | 17.42 | | | |
| | | | | | | | 100 | 0 | 18.00 | 17.37 | | | |

## LTE Band 42 / 48(Continued)

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 1 | 0 | Edge4 | 42190 | 3460.0 | 1 | 99 | 11.00 | 10.51 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.59 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.50 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 11.00 | 10.91 | 0.367 | 0.375 | |
| | | | | | | | 50 | 50 | 11.00 | 10.92 | 0.388 | **0.395** | L42L48-2 |
| | | | | | | | 100 | 0 | 11.00 | 10.90 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 11.00 | 10.77 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.77 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 11.00 | 10.70 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.69 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.68 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 11.00 | 10.41 | | | |
| | | | | | | | 50 | 24 | 11.00 | 10.43 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.40 | | | |
| | | | 0 | Rear tilt Edge 4 side | 42190 | 3460.0 | 1 | 99 | 11.00 | 10.51 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.59 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.50 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 11.00 | 10.91 | 0.092 | 0.094 | |
| | | | | | | | 50 | 50 | 11.00 | 10.92 | 0.095 | 0.097 | |
| | | | | | | | 100 | 0 | 11.00 | 10.90 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 11.00 | 10.77 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.77 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 11.00 | 10.70 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.69 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.68 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 11.00 | 10.41 | | | |
| | | | | | | | 50 | 24 | 11.00 | 10.43 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.40 | | | |
| | | | 0 | Rear | 42190 | 3460.0 | 1 | 99 | 11.00 | 10.51 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.59 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.50 | | | |
| | | | | | 42715 | 3512.5 | 1 | 0 | 11.00 | 10.91 | 0.043 | 0.044 | |
| | | | | | | | 50 | 50 | 11.00 | 10.92 | 0.044 | 0.045 | |
| | | | | | | | 100 | 0 | 11.00 | 10.90 | | | |
| | | | | | 55740 | 3600.0 | 1 | 99 | 11.00 | 10.77 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.77 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.69 | | | |
| | | | | | 56115 | 3637.5 | 1 | 0 | 11.00 | 10.70 | | | |
| | | | | | | | 50 | 50 | 11.00 | 10.69 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.68 | | | |
| | | | | | 56640 | 3690.0 | 1 | 99 | 11.00 | 10.41 | | | |
| | | | | | | | 50 | 24 | 11.00 | 10.43 | | | |
| | | | | | | | 100 | 0 | 11.00 | 10.40 | | | |

## 15.2.13 LTE Band 66

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.226 | 0.267 | |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.171 | 0.199 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |
| | | | 0 | Edge3 | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.243 | 0.287 | |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.190 | 0.221 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |
| | | | 19 | Edge4 | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.779 | 0.922 | |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.629 | 0.731 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | 0.623 | 0.729 | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | 0.768 | 0.928 | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | 0.677 | 0.831 | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | 0.738 | 0.885 | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | 0.600 | 0.759 | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |
| | | | 9 | Rear | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.548 | 0.648 | |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.427 | 0.496 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | | | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | | | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | | | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | | | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |
| | | | 0 | Rear tilt Edge 1 side | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.689 | 0.815 | |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.549 | 0.638 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | 0.550 | 0.643 | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | 0.669 | 0.808 | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | 0.547 | 0.671 | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | 0.621 | 0.745 | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | 0.501 | 0.634 | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |
| | | | 9 | Rear tilt Edge 4 side | 132072 | 1720.0 | 1 | 49 | 24.0 | 23.27 | 0.798 | **0.944** | L66-1 |
| | | | | | | | 50 | 24 | 23.0 | 22.35 | 0.721 | 0.837 | |
| | | | | | | | 100 | 0 | 23.0 | 22.32 | 0.728 | 0.852 | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 24.0 | 23.18 | 0.754 | 0.911 | |
| | | | | | | | 50 | 24 | 23.0 | 22.11 | 0.691 | 0.848 | |
| | | | | | | | 100 | 0 | 23.0 | 22.08 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 24.0 | 23.21 | 0.753 | 0.903 | |
| | | | | | | | 50 | 24 | 23.0 | 21.98 | 0.613 | 0.775 | |
| | | | | | | | 100 | 0 | 23.0 | 21.91 | | | |

## LTE Band 66(Continued)

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 1 | 0 | Edge4 | 132072 | 1720.0 | 1 | 49 | 16.9 | 16.60 | 0.554 | 0.594 | |
| | | | | | | | 50 | 24 | 16.9 | 16.29 | 0.563 | **0.648** | L66-2 |
| | | | | | | | 100 | 0 | 16.9 | 16.11 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 16.9 | 16.47 | | | |
| | | | | | | | 50 | 24 | 16.9 | 16.17 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.92 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 16.9 | 16.34 | | | |
| | | | | | | | 50 | 24 | 16.9 | 15.96 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.86 | | | |
| | | | 0 | Rear tilt Edge 4 side | 132072 | 1720.0 | 1 | 49 | 16.9 | 16.60 | 0.471 | 0.505 | |
| | | | | | | | 50 | 24 | 16.9 | 16.29 | 0.471 | 0.542 | |
| | | | | | | | 100 | 0 | 16.9 | 16.11 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 16.9 | 16.47 | | | |
| | | | | | | | 50 | 24 | 16.9 | 16.17 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.92 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 16.9 | 16.34 | | | |
| | | | | | | | 50 | 24 | 16.9 | 15.96 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.86 | | | |
| | | | 0 | Rear | 132072 | 1720.0 | 1 | 49 | 16.9 | 16.60 | 0.301 | 0.323 | |
| | | | | | | | 50 | 24 | 16.9 | 16.29 | 0.303 | 0.349 | |
| | | | | | | | 100 | 0 | 16.9 | 16.11 | | | |
| | | | | | 132322 | 1745.0 | 1 | 49 | 16.9 | 16.47 | | | |
| | | | | | | | 50 | 24 | 16.9 | 16.17 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.92 | | | |
| | | | | | 132572 | 1770.0 | 1 | 49 | 16.9 | 16.34 | | | |
| | | | | | | | 50 | 24 | 16.9 | 15.96 | | | |
| | | | | | | | 100 | 0 | 16.9 | 15.86 | | | |

## 15.2.14 LTE Band 71

| RF Exposure Conditions | Mode | DSI | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offest | Power (dBm) | | 1-g SAR (W/kg) | | Plot No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Tune-up Limit | Meas. | Meas. | Scaled | |
| Standalone | QPSK | 0 | 0 | Edge1 | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.225 | 0.261 | |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.213 | 0.247 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| | | | 0 | Edge3 | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.013 | 0.015 | |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.008 | 0.009 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| | | | 19 | Edge4 | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.251 | 0.292 | |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.232 | 0.269 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| | | | 9 | Rear | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.330 | 0.383 | |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.310 | 0.359 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| | | | 0 | Rea tilt Edge 1 side | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.433 | **0.503** | L71-1 |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.373 | 0.432 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| | | | 9 | Rea tilt Edge 4 side | 133297 | 680.5 | 1 | 0 | 24.0 | 23.35 | 0.399 | 0.463 | |
| | | | | | | | 50 | 50 | 23.0 | 22.36 | 0.379 | 0.439 | |
| | | | | | | | 100 | 0 | 23.0 | 22.29 | | | |
| Standalone | QPSK | 1 | 0 | Edge4 | 133297 | 680.5 | 1 | 0 | 18.1 | 17.39 | 0.604 | **0.711** | L71-2 |
| | | | | | | | 50 | 50 | 18.1 | 17.30 | 0.539 | 0.648 | |
| | | | | | | | 100 | 0 | 18.1 | 17.24 | | | |
| | | | 0 | Rea tilt Edge 4 side | 133297 | 680.5 | 1 | 0 | 18.1 | 17.39 | 0.314 | 0.370 | |
| | | | | | | | 50 | 50 | 18.1 | 17.30 | 0.353 | 0.424 | |
| | | | | | | | 100 | 0 | 18.1 | 17.24 | | | |
| | | | 0 | Rear | 133297 | 680.5 | 1 | 0 | 18.1 | 17.39 | 0.192 | 0.226 | |
| | | | | | | | 50 | 50 | 18.1 | 17.30 | 0.228 | 0.274 | |
| | | | | | | | 100 | 0 | 18.1 | 17.24 | | | |

## 15.3 Repeated measurement

According to KDB 865664 D01.
1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10 % from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

| RAT | Band | DSI | Test Position | Dist. (mm) | Mod | Ch #. | Freq. (MHz) | UL RB Allocation | UL RB Start | Power (dBm) Tune-up limit | Power (dBm) Meas. | 1-g SAR (W/kg) Meas. 1st | 1-g SAR (W/kg) Meas. 2nd | Ratio | Plot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WCDMA | 4 | 0 | Edge4 | 19 | Rel 99 | 1413 | 1732.6 | NA | NA | 23.20 | 23.03 | 0.988 | 0.970 | -1.86% | RP1 |
| LTE | 4 | 0 | Edge4 | 19 | QPSK | 20175 | 1732.5 | 1 | 99 | 24.00 | 23.55 | 0.804 | 0.786 | -2.29% | RP2 |
| LTE | 13 | 1 | Edge4 | 0 | QPSK | 23230 | 782 | 25 | 0 | 18.10 | 17.45 | 0.840 | 0.835 | -0.60% | RP3 |

## SECTION 16: Simultaneous transmission SAR test exclusion considerations

### 16.1 Sum and SPLSR

KDB 447498 D04 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

**Sum of SAR**

To qualify for simultaneous transmission SAR test exclusion based on sum of SAR, the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit, then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met. When a pair of the summation is above 1.58 W/kg for 1g SAR, then SAR to Peak Location Ratio (SPLSR) is performed, as conservative even though applicable limit is 1.6 W/kg. finally sum of SAR value is convert to TER, see next section.
Simultaneous transmission for ENDC mode is treated on part2 test report.

**SAR to Peak Location Ratio (SPLSR)**

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

$SAR_1$ is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

$SAR_2$ is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

***Ri*** is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine $SAR_1$.or $SAR_2$. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

Note

- WLAN, BT and RFID value is form FCCID: ACJ9TGWL23C.

## 16.1.1 Sum of the SAR for WWAN & WLAN & BT & RFID

### 16.1.1.1 WCDMA Band 2

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | WCDMA B2 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.619 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 1.219 | 1.023 | 1.328 | 1.342 | 1.258 |
| Edge3 | 0.331 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.331 | 0.331 | 0.331 | 0.331 | 0.331 |
| Edge4 | 0.693 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.746 | 0.735 | 0.725 | 0.704 | 0.705 |
| Edge4 Reduction | 0.666 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.719 | 0.708 | 0.698 | 0.677 | 0.678 |
| Rear | 0.590 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.184 | 0.829 | 1.241 | 1.200 | 1.219 |
| Rear Reduction | 0.397 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.991 | 0.636 | 1.048 | 1.007 | 1.026 |
| Rear tilt(Edge1) | 0.773 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.840*** | 1.135 | ***1.985*** | ***1.934*** | ***1.847*** |
| Rear tilt(Edge4) | 0.842 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.898 | 0.888 | 0.944 | 0.977 | 0.968 |
| Rear tilt(Edge4) Reduction | 0.645 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.701 | 0.691 | 0.747 | 0.780 | 0.771 |

### 16.1.1.2 WCDMA Band 4

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | WCDMA B4 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.213 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.813 | 0.617 | 0.922 | 0.936 | 0.852 |
| Edge3 | 0.274 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.274 | 0.274 | 0.274 | 0.274 | 0.274 |
| Edge4 | 0.900 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.953 | 0.942 | 0.932 | 0.911 | 0.912 |
| Edge4 Reduction | 0.699 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.752 | 0.741 | 0.731 | 0.710 | 0.711 |
| Rear | 0.585 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.179 | 0.824 | 1.236 | 1.195 | 1.214 |
| Rear Reduction | 0.393 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.987 | 0.632 | 1.044 | 1.003 | 1.022 |
| Rear tilt(Edge1) | 0.779 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.846*** | 1.141 | ***1.991*** | ***1.940*** | ***1.853*** |
| Rear tilt(Edge4) | 1.027 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 1.083 | 1.073 | 1.129 | 1.162 | 1.153 |
| Rear tilt(Edge4) Reduction | 0.593 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.649 | 0.639 | 0.695 | 0.728 | 0.719 |

### 16.1.1.3 WCDMA Band 5

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | WCDMA B5 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.206 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.806 | 0.610 | 0.915 | 0.929 | 0.845 |
| Edge3 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.038 | 0.038 | 0.038 | 0.038 | 0.038 |
| Edge4 | 0.479 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.532 | 0.521 | 0.511 | 0.490 | 0.491 |
| Edge4 Reduction | 0.834 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.887 | 0.876 | 0.866 | 0.845 | 0.846 |
| Rear | 0.580 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.174 | 0.819 | 1.231 | 1.190 | 1.209 |
| Rear Reduction | 0.313 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.907 | 0.552 | 0.964 | 0.923 | 0.942 |
| Rear tilt(Edge1) | 0.706 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.773*** | 1.068 | ***1.918*** | ***1.867*** | ***1.780*** |
| Rear tilt(Edge4) | 0.760 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.816 | 0.806 | 0.862 | 0.895 | 0.886 |
| Rear tilt(Edge4) Reduction | 0.461 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.517 | 0.507 | 0.563 | 0.596 | 0.587 |

## 16.1.1.4 LTE Band 4

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B4 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.192 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.792 | 0.596 | 0.901 | 0.915 | 0.831 |
| Edge3 | 0.324 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 |
| Edge4 | 0.892 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.945 | 0.934 | 0.924 | 0.903 | 0.904 |
| Edge4 Reduction | 0.745 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.798 | 0.787 | 0.777 | 0.756 | 0.757 |
| Rear | 0.590 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.184 | 0.829 | 1.241 | 1.200 | 1.219 |
| Rear Reduction | 0.416 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.010 | 0.655 | 1.067 | 1.026 | 1.045 |
| Rear tilt(Edge1) | 0.735 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.802*** | 1.097 | ***1.947*** | ***1.896*** | ***1.809*** |
| Rear tilt(Edge4) | 0.886 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.942 | 0.932 | 0.988 | 1.021 | 1.012 |
| Rear tilt(Edge4) Reduction | 0.636 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.692 | 0.682 | 0.738 | 0.771 | 0.762 |

## 16.1.1.5 LTE Band 5

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B5 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.196 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.796 | 0.600 | 0.905 | 0.919 | 0.835 |
| Edge3 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.032 | 0.032 | 0.032 | 0.032 | 0.032 |
| Edge4 | 0.447 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.500 | 0.489 | 0.479 | 0.458 | 0.459 |
| Edge4 Reduction | 0.854 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.907 | 0.896 | 0.886 | 0.865 | 0.866 |
| Rear | 0.453 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.047 | 0.692 | 1.104 | 1.063 | 1.082 |
| Rear Reduction | 0.326 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.920 | 0.565 | 0.977 | 0.936 | 0.955 |
| Rear tilt(Edge1) | 0.719 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.786*** | 1.081 | ***1.931*** | ***1.880*** | ***1.793*** |
| Rear tilt(Edge4) | 0.729 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.785 | 0.775 | 0.831 | 0.864 | 0.855 |
| Rear tilt(Edge4) Reduction | 0.469 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.525 | 0.515 | 0.571 | 0.604 | 0.595 |

## 16.1.1.6 LTE Band 7

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B7 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.336 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.936 | 0.740 | 1.045 | 1.059 | 0.975 |
| Edge3 | 0.146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.146 | 0.146 | 0.146 | 0.146 | 0.146 |
| Edge4 | 0.564 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.617 | 0.606 | 0.596 | 0.575 | 0.576 |
| Edge4 Reduction | 0.584 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.637 | 0.626 | 0.616 | 0.595 | 0.596 |
| Rear | 0.501 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.095 | 0.740 | 1.152 | 1.111 | 1.130 |
| Rear Reduction | 0.274 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.868 | 0.513 | 0.925 | 0.884 | 0.903 |
| Rear tilt(Edge1) | 0.726 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.793*** | 1.088 | ***1.938*** | ***1.887*** | ***1.800*** |
| Rear tilt(Edge4) | 0.612 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.668 | 0.658 | 0.714 | 0.747 | 0.738 |
| Rear tilt(Edge4) Reduction | 0.362 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.418 | 0.408 | 0.464 | 0.497 | 0.488 |

## 16.1.1.7 LTE Band 12

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B12 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.361 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.961 | 0.765 | 1.070 | 1.084 | 1.000 |
| Edge3 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |
| Edge4 | 0.191 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.244 | 0.233 | 0.223 | 0.202 | 0.203 |
| Edge4 Reduction | 0.802 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.855 | 0.844 | 0.834 | 0.813 | 0.814 |
| Rear | 0.316 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.910 | 0.555 | 0.967 | 0.926 | 0.945 |
| Rear Reduction | 0.213 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.807 | 0.452 | 0.864 | 0.823 | 0.842 |
| Rear tilt(Edge1) | 0.432 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | 1.499 | 0.794 | ***1.644*** | 1.593 | 1.506 |
| Rear tilt(Edge4) | 0.384 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.440 | 0.430 | 0.486 | 0.519 | 0.510 |
| Rear tilt(Edge4) Reduction | 0.374 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.430 | 0.420 | 0.476 | 0.509 | 0.500 |

## 16.1.1.8 LTE Band 13

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B13 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.285 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.885 | 0.689 | 0.994 | 1.008 | 0.924 |
| Edge3 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.030 | 0.030 | 0.030 | 0.030 | 0.030 |
| Edge4 | 0.361 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.414 | 0.403 | 0.393 | 0.372 | 0.373 |
| Edge4 Reduction | 0.976 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.029 | 1.018 | 1.008 | 0.987 | 0.988 |
| Rear | 0.522 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.116 | 0.761 | 1.173 | 1.132 | 1.151 |
| Rear Reduction | 0.330 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.924 | 0.569 | 0.981 | 0.940 | 0.959 |
| Rear tilt(Edge1) | 0.678 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.745*** | 1.040 | ***1.890*** | ***1.839*** | ***1.752*** |
| Rear tilt(Edge4) | 0.670 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.726 | 0.716 | 0.772 | 0.805 | 0.796 |
| Rear tilt(Edge4) Reduction | 0.468 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.524 | 0.514 | 0.570 | 0.603 | 0.594 |

## 16.1.1.9 LTE Band 14

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B14 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.272 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.872 | 0.676 | 0.981 | 0.995 | 0.911 |
| Edge3 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.031 | 0.031 | 0.031 | 0.031 | 0.031 |
| Edge4 | 0.353 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.406 | 0.395 | 0.385 | 0.364 | 0.365 |
| Edge4 Reduction | 0.911 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.964 | 0.953 | 0.943 | 0.922 | 0.923 |
| Rear | 0.502 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.096 | 0.741 | 1.153 | 1.112 | 1.131 |
| Rear Reduction | 0.299 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.893 | 0.538 | 0.950 | 0.909 | 0.928 |
| Rear tilt(Edge1) | 0.697 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.764*** | 1.059 | ***1.909*** | ***1.858*** | ***1.771*** |
| Rear tilt(Edge4) | 0.696 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.752 | 0.742 | 0.798 | 0.831 | 0.822 |
| Rear tilt(Edge4) Reduction | 0.438 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.494 | 0.484 | 0.540 | 0.573 | 0.564 |

## 16.1.1.10 LTE Band 25

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B25 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.677 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 1.277 | 1.081 | 1.386 | 1.400 | 1.316 |
| Edge3 | 0.229 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.229 | 0.229 | 0.229 | 0.229 | 0.229 |
| Edge4 | 0.696 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.749 | 0.738 | 0.728 | 0.707 | 0.708 |
| Edge4 Reduction | 0.659 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.712 | 0.701 | 0.691 | 0.670 | 0.671 |
| Rear | 0.558 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.152 | 0.797 | 1.209 | 1.168 | 1.187 |
| Rear Reduction | 0.371 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.965 | 0.610 | 1.022 | 0.981 | 1.000 |
| Rear tilt(Edge1) | 0.861 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.928*** | 1.223 | ***2.073*** | ***2.022*** | ***1.935*** |
| Rear tilt(Edge4) | 0.799 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.855 | 0.845 | 0.901 | 0.934 | 0.925 |
| Rear tilt(Edge4) Reduction | 0.678 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.734 | 0.724 | 0.780 | 0.813 | 0.804 |

## 16.1.1.11 LTE Band 26

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B26 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.241 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.841 | 0.645 | 0.950 | 0.964 | 0.880 |
| Edge3 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.026 | 0.026 | 0.026 | 0.026 | 0.026 |
| Edge4 | 0.490 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.543 | 0.532 | 0.522 | 0.501 | 0.502 |
| Edge4 Reduction | 0.924 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.977 | 0.966 | 0.956 | 0.935 | 0.936 |
| Rear | 0.618 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.212 | 0.857 | 1.269 | 1.228 | 1.247 |
| Rear Reduction | 0.332 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.926 | 0.571 | 0.983 | 0.942 | 0.961 |
| Rear tilt(Edge1) | 0.789 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.856*** | 1.151 | ***2.001*** | ***1.950*** | ***1.863*** |
| Rear tilt(Edge4) | 0.762 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.818 | 0.808 | 0.864 | 0.897 | 0.888 |
| Rear tilt(Edge4) Reduction | 0.479 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.535 | 0.525 | 0.581 | 0.614 | 0.605 |

## 16.1.1.12 LTE Band 42 / 48

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B42/B48 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.056 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.656 | 0.460 | 0.765 | 0.779 | 0.695 |
| Edge3 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.042 | 0.042 | 0.042 | 0.042 | 0.042 |
| Edge4 | 0.287 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.340 | 0.329 | 0.319 | 0.298 | 0.299 |
| Edge4 Reduction | 0.395 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.448 | 0.437 | 0.427 | 0.406 | 0.407 |
| Rear | 0.094 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.688 | 0.333 | 0.745 | 0.704 | 0.723 |
| Rear Reduction | 0.045 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.639 | 0.284 | 0.696 | 0.655 | 0.674 |
| Rear tilt(Edge1) | 0.148 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | 1.215 | 0.510 | 1.360 | 1.309 | 1.222 |
| Rear tilt(Edge4) | 0.171 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.227 | 0.217 | 0.273 | 0.306 | 0.297 |
| Rear tilt(Edge4) Reduction | 0.097 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.153 | 0.143 | 0.199 | 0.232 | 0.223 |

## 16.1.1.13 LTE Band 66

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B66 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.267 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.867 | 0.671 | 0.976 | 0.990 | 0.906 |
| Edge3 | 0.287 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.287 | 0.287 | 0.287 | 0.287 | 0.287 |
| Edge4 | 0.928 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.981 | 0.970 | 0.960 | 0.939 | 0.940 |
| Edge4 Reduction | 0.648 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.701 | 0.690 | 0.680 | 0.659 | 0.660 |
| Rear | 0.648 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 1.242 | 0.887 | 1.299 | 1.258 | 1.277 |
| Rear Reduction | 0.349 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.943 | 0.588 | 1.000 | 0.959 | 0.978 |
| Rear tilt(Edge1) | 0.815 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | ***1.882*** | 1.177 | ***2.027*** | ***1.976*** | ***1.889*** |
| Rear tilt(Edge4) | 0.944 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 1.000 | 0.990 | 1.046 | 1.079 | 1.070 |
| Rear tilt(Edge4) Reduction | 0.542 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.598 | 0.588 | 0.644 | 0.677 | 0.668 |

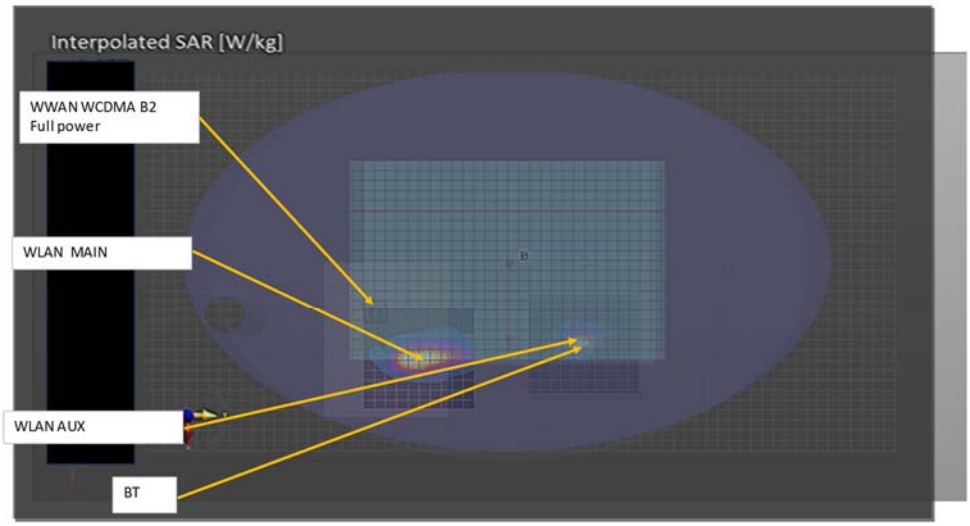
## 16.1.1.14 LTE Band 71

| | Mode | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 1+2+3+11 | 1+2+10+11 | 1+4+7+10+11 | 1+5+8+10+11 | 1+6+9+10+11 |
| | LTE B71 | WLAN Main 2.4 GHz | WLAN Aux 2.4 GHz | WLAN Main 5 GHz (U-NII-2a) | WLAN Main 5 GHz (U-NII-2c) | WLAN Main 5 GHz (U-NII-3) | WLAN Aux 5 GHz (U-NII-2a) | WLAN Aux 5 GHz (U-NII-2c) | WLAN Aux 5 GHz (U-NII-3) | BT | RFID | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) | Sum of SAR [W/kg](1g) |
| Edge1 | 0.261 | 0.380 | 0.220 | 0.578 | 0.609 | 0.509 | 0.107 | 0.090 | 0.106 | 0.024 | 0.000 | 0.861 | 0.665 | 0.970 | 0.984 | 0.900 |
| Edge3 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |
| Edge4 | 0.292 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.345 | 0.334 | 0.324 | 0.303 | 0.304 |
| Edge4 Reduction | 0.711 | 0.042 | 0.011 | 0.032 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.764 | 0.753 | 0.743 | 0.722 | 0.723 |
| Rear | 0.383 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.977 | 0.622 | 1.034 | 0.993 | 1.012 |
| Rear Reduction | 0.274 | 0.093 | 0.468 | 0.147 | 0.185 | 0.165 | 0.358 | 0.279 | 0.318 | 0.113 | 0.033 | 0.868 | 0.513 | 0.925 | 0.884 | 0.903 |
| Rear tilt(Edge1) | 0.503 | 0.227 | 0.840 | 0.290 | 0.336 | 0.228 | 0.787 | 0.690 | 0.711 | 0.135 | 0.000 | 1.570 | 0.865 | ***1.715*** | ***1.664*** | 1.577 |
| Rear tilt(Edge4) | 0.463 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.519 | 0.509 | 0.565 | 0.598 | 0.589 |
| Rear tilt(Edge4) Reduction | 0.424 | 0.046 | 0.010 | 0.071 | 0.109 | 0.096 | 0.031 | 0.026 | 0.030 | 0.000 | 0.000 | 0.480 | 0.470 | 0.526 | 0.559 | 0.550 |

## 16.2 SPLSR

RFID is not considered because no SAR values were detected.

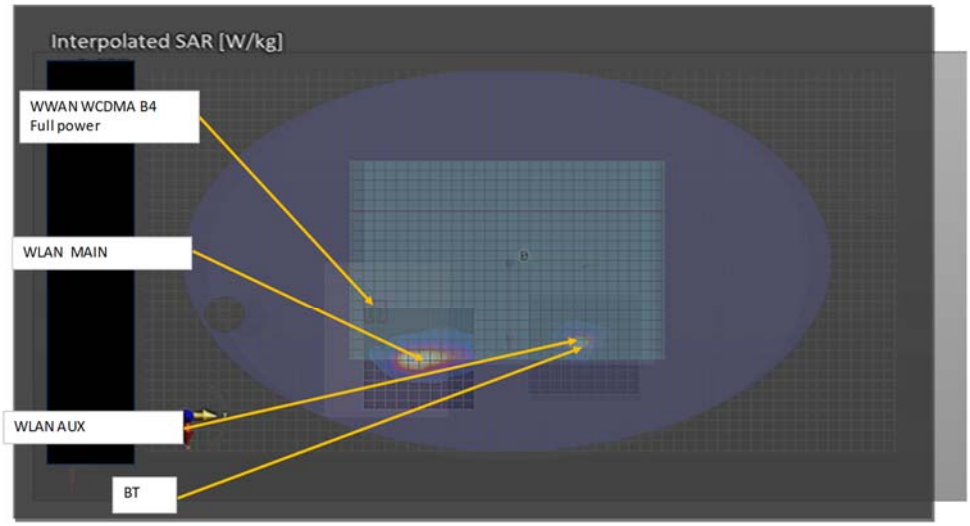
### 16.2.1.1 WCDMA B2




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B2 | MAIN | 1 | 50 | -131.5 | -174 | 0.773 | No1+No2 | 1.000 | 65.598 | 0.015 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.613 | 203.181 | 0.010 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B2 | MAIN | 1 | 50 | -131.5 | -174 | 0.773 | No1+No2 | 1.063 | 57.149 | 0.019 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.695 | 204.062 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.695 | 203.548 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B2 | MAIN | 1 | 50 | -131.5 | -174 | 0.773 | No1+No2 | 1.109 | 69.345 | 0.017 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.598 | 208.791 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.598 | 203.548 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B2 | MAIN | 1 | 50 | -131.5 | -174 | 0.773 | No1+No2 | 1.001 | 57.896 | 0.017 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.619 | 208.686 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.619 | 203.548 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

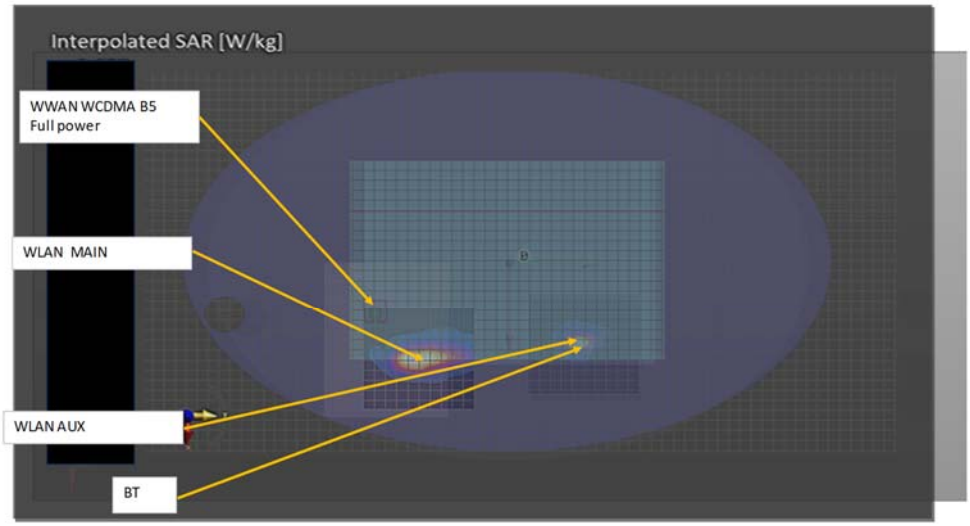
### 16.2.1.2 WCDMA B4




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B4 | MAIN | 1 | 34.8 | -133.3 | -177 | 0.779 | No1+No2 | 1.006 | 78.712 | 0.013 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.619 | 207.960 | 0.010 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B4 | MAIN | 1 | 34.8 | -133.3 | -177 | 0.779 | No1+No2 | 1.069 | 68.705 | 0.016 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.701 | 209.249 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.701 | 208.301 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B4 | MAIN | 1 | 34.8 | -133.3 | -177 | 0.779 | No1+No2 | 1.115 | 82.718 | 0.014 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.604 | 213.297 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.604 | 208.301 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B4 | MAIN | 1 | 34.8 | -133.3 | -177 | 0.779 | No1+No2 | 1.007 | 70.156 | 0.014 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.625 | 213.577 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.625 | 208.301 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

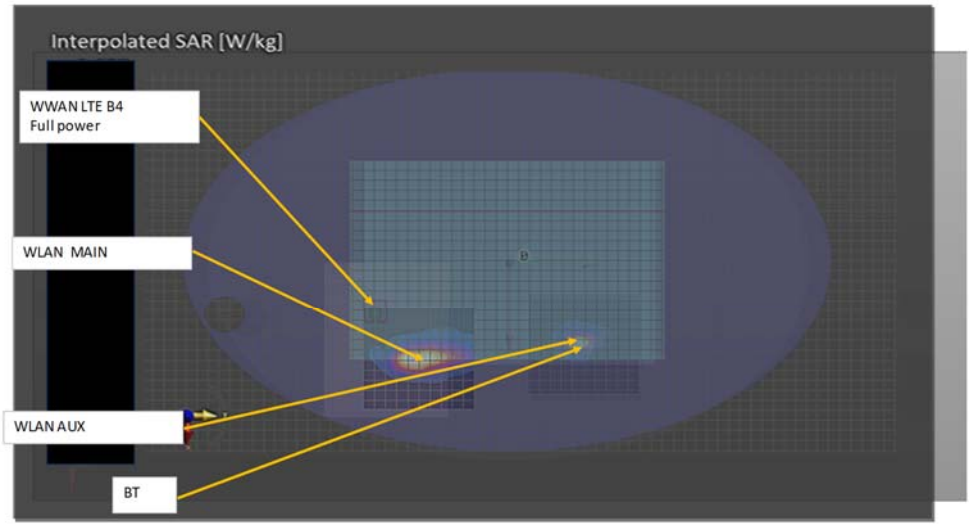
### 16.2.1.3 WCDMA B5




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B5 | MAIN | 1 | 48.3 | -133.4 | -174.1 | 0.706 | No1+No2 | 0.933 | 68.131 | 0.013 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.546 | 205.336 | 0.009 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B5 | MAIN | 1 | 48.3 | -133.4 | -174.1 | 0.706 | No1+No2 | 0.996 | 59.685 | 0.017 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.628 | 206.257 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.628 | 205.703 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B5 | MAIN | 1 | 48.3 | -133.4 | -174.1 | 0.706 | No1+No2 | 1.042 | 71.852 | 0.015 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.531 | 210.924 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.531 | 205.703 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| WCDMA B5 | MAIN | 1 | 48.3 | -133.4 | -174.1 | 0.706 | No1+No2 | 0.934 | 60.437 | 0.015 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.552 | 210.854 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.552 | 205.703 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

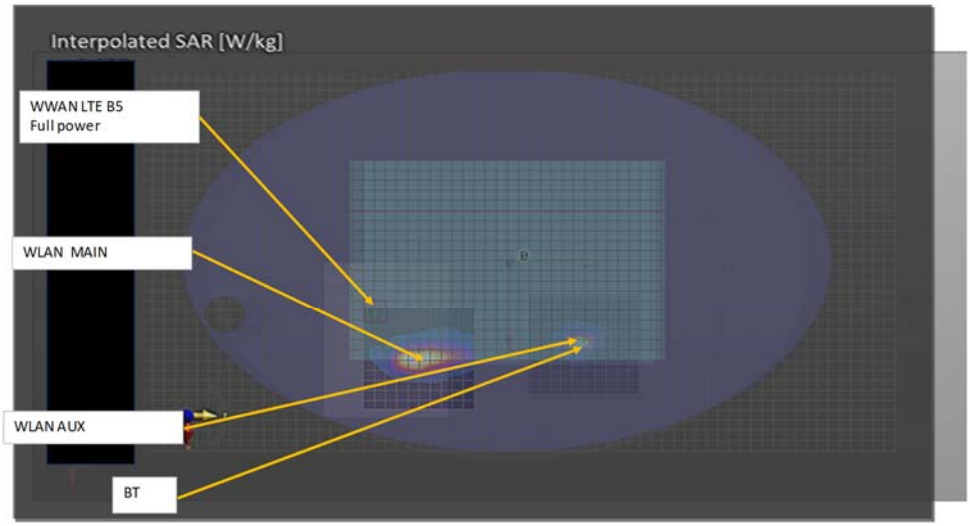
### 16.2.1.4 LTE B4




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 4 | MAIN | 1 | 33.9 | -133.3 | -177 | 0.735 | No1+No2 | 0.962 | 79.449 | 0.012 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.575 | 208.170 | 0.009 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 4 | MAIN | 1 | 33.9 | -133.3 | -177 | 0.735 | No1+No2 | 1.025 | 69.366 | 0.015 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.657 | 209.486 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.657 | 208.512 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 4 | MAIN | 1 | 33.9 | -133.3 | -177 | 0.735 | No1+No2 | 1.071 | 83.477 | 0.013 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.560 | 213.493 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.560 | 208.512 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 4 | MAIN | 1 | 33.9 | -133.3 | -177 | 0.735 | No1+No2 | 0.963 | 70.856 | 0.013 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.581 | 213.796 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.581 | 208.512 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

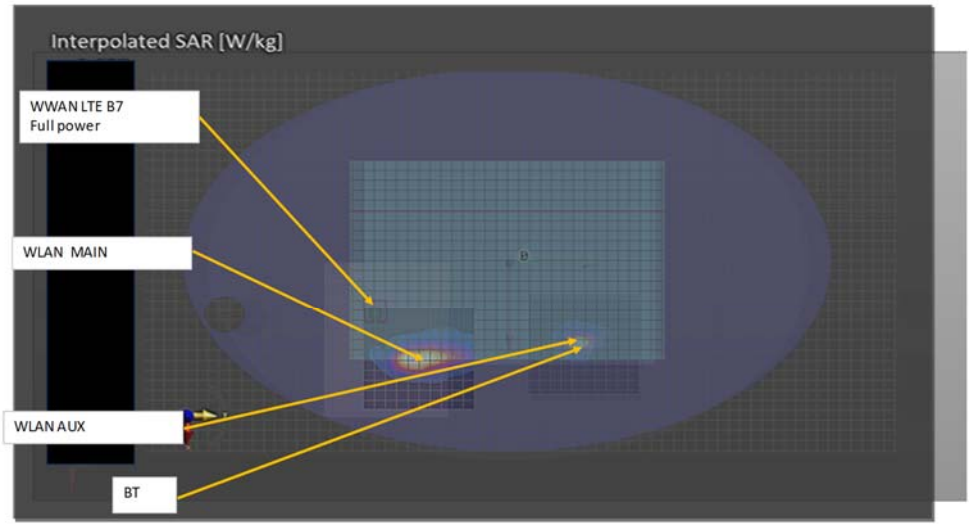
### 16.2.1.5 LTE B5




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 5 | MAIN | 1 | 46.8 | -136.2 | -180.6 | 0.719 | No1+No2 | 0.946 | 71.429 | 0.013 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.559 | 208.453 | 0.009 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 5 | MAIN | 1 | 46.8 | -136.2 | -180.6 | 0.719 | No1+No2 | 1.009 | 62.849 | 0.016 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.641 | 209.313 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.641 | 208.730 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 5 | MAIN | 1 | 46.8 | -136.2 | -180.6 | 0.719 | No1+No2 | 1.055 | 74.810 | 0.014 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.544 | 213.934 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.544 | 208.730 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 5 | MAIN | 1 | 46.8 | -136.2 | -180.6 | 0.719 | No1+No2 | 0.947 | 63.550 | 0.015 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.565 | 213.891 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.565 | 208.730 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

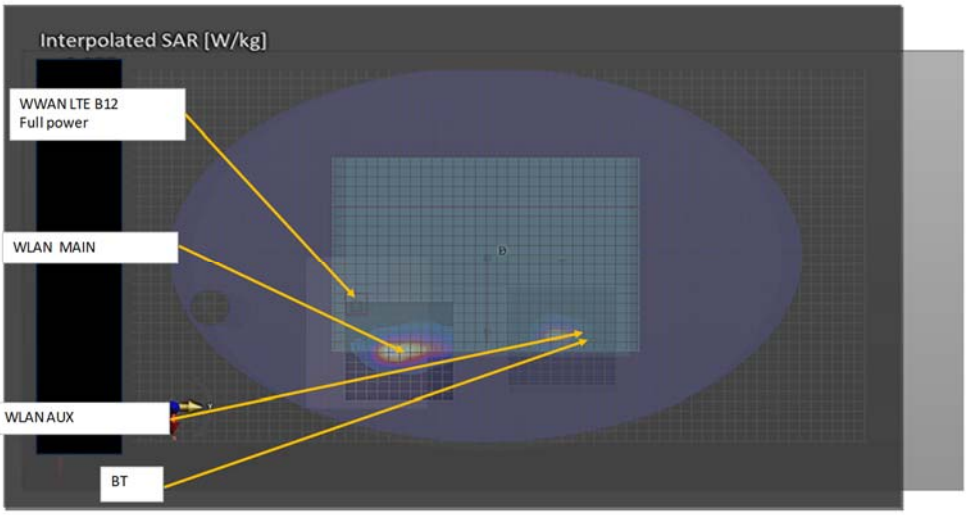
### 16.2.1.6 LTE B7




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 7 | MAIN | 1 | 39.4 | -132.4 | -177 | 0.726 | No1+No2 | 0.953 | 74.461 | 0.012 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.566 | 206.065 | 0.010 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 7 | MAIN | 1 | 39.4 | -132.4 | -177 | 0.726 | No1+No2 | 1.016 | 64.771 | 0.016 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.648 | 207.223 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.648 | 206.401 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 7 | MAIN | 1 | 39.4 | -132.4 | -177 | 0.726 | No1+No2 | 1.062 | 78.380 | 0.014 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.551 | 211.472 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.551 | 206.401 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 7 | MAIN | 1 | 39.4 | -132.4 | -177 | 0.726 | No1+No2 | 0.954 | 66.058 | 0.014 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.572 | 211.639 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.572 | 206.401 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

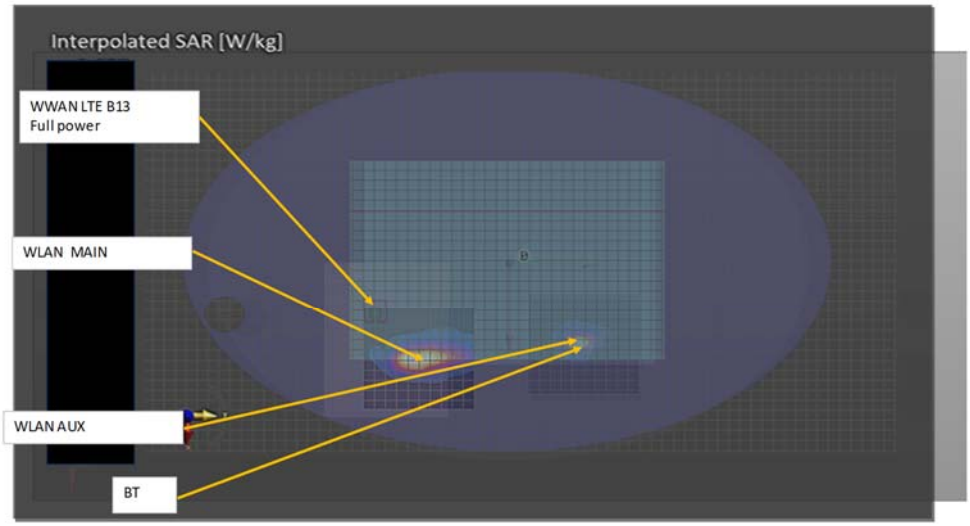
### 16.2.1.7 LTE B12




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combination | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 12 | MAIN | 1 | 67.7 | -120.5 | -180.3 | 0.432 | No1+No2 | 0.722 | 38.336 | 0.016 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.354 | 190.469 | 0.008 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.354 | 190.460 | 0.008 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |

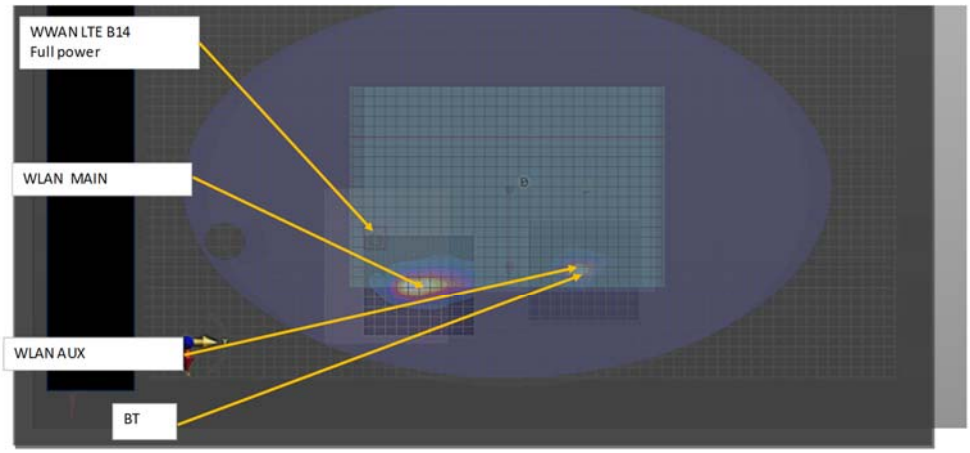
### 16.2.1.8 LTE B13




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 13 | MAIN | 1 | 51.2 | -132.1 | -180.6 | 0.678 | No1+No2 | 0.905 | 65.443 | 0.013 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.518 | 203.687 | 0.009 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 13 | MAIN | 1 | 51.2 | -132.1 | -180.6 | 0.678 | No1+No2 | 0.968 | 56.934 | 0.017 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.600 | 204.433 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.600 | 203.958 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 13 | MAIN | 1 | 51.2 | -132.1 | -180.6 | 0.678 | No1+No2 | 1.014 | 68.815 | 0.015 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.503 | 209.221 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.503 | 203.958 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 13 | MAIN | 1 | 51.2 | -132.1 | -180.6 | 0.678 | No1+No2 | 0.906 | 57.572 | 0.015 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.524 | 209.082 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.524 | 203.958 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

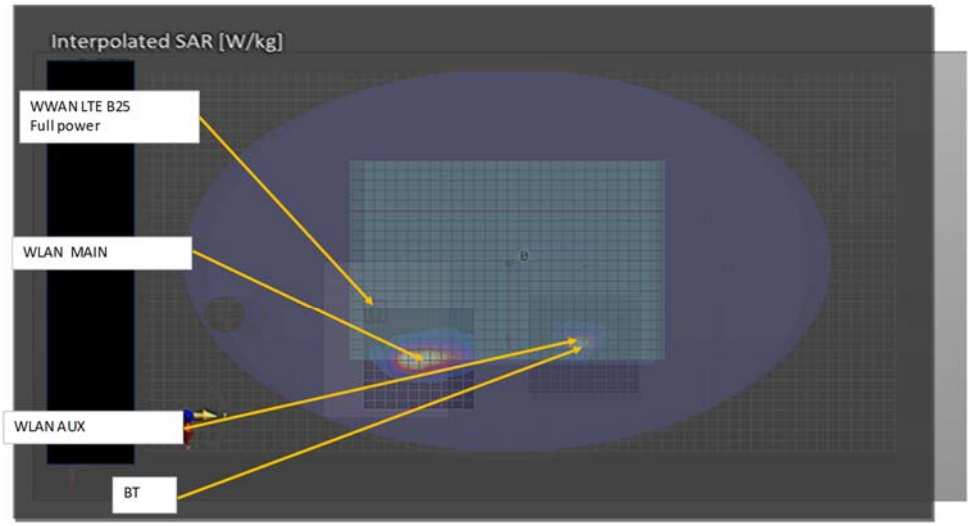
### 16.2.1.9 LTE B14




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 14 | MAIN | 1 | 50.3 | -131.4 | -180.6 | 0.697 | No1+No2 | 0.924 | 65.640 | 0.014 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.537 | 203.138 | 0.009 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 14 | MAIN | 1 | 50.3 | -131.4 | -180.6 | 0.697 | No1+No2 | 0.987 | 56.921 | 0.017 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.619 | 203.916 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.619 | 203.411 | 0.010 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 14 | MAIN | 1 | 50.3 | -131.4 | -180.6 | 0.697 | No1+No2 | 1.033 | 69.077 | 0.015 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.522 | 208.658 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.522 | 203.411 | 0.009 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 14 | MAIN | 1 | 50.3 | -131.4 | -180.6 | 0.697 | No1+No2 | 0.925 | 57.654 | 0.015 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.543 | 208.545 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.543 | 203.411 | 0.009 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

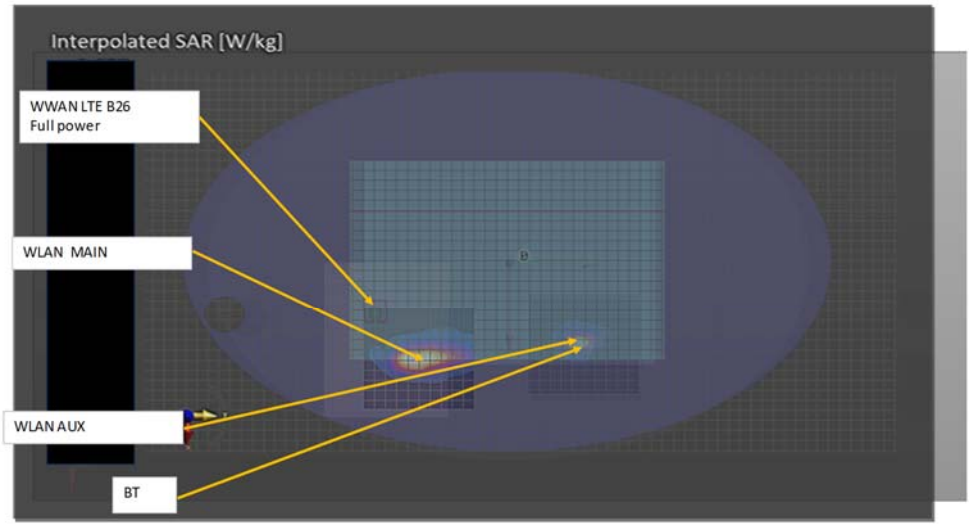
### 16.2.1.10 LTE B25




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 25 | MAIN | 1 | 35.3 | -132.8 | -177 | 0.861 | No1+No2 | 1.088 | 78.016 | 0.015 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.701 | 207.358 | 0.011 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 25 | MAIN | 1 | 35.3 | -132.8 | -177 | 0.861 | No1+No2 | 1.151 | 67.998 | 0.018 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.783 | 208.636 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.783 | 207.699 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 25 | MAIN | 1 | 35.3 | -132.8 | -177 | 0.861 | No1+No2 | 1.197 | 82.027 | 0.016 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.686 | 212.702 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.686 | 207.699 | 0.011 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 25 | MAIN | 1 | 35.3 | -132.8 | -177 | 0.861 | No1+No2 | 1.089 | 69.453 | 0.016 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.707 | 212.972 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.707 | 207.699 | 0.011 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

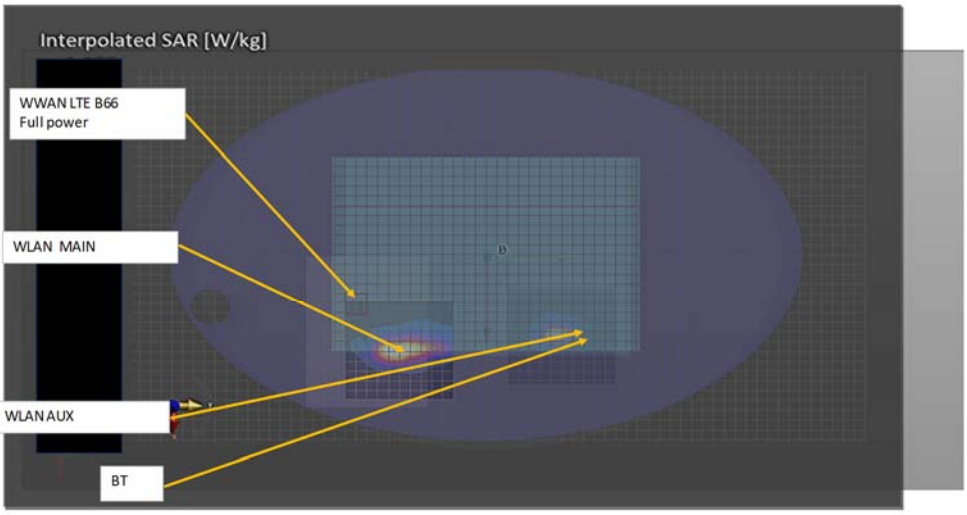
### 16.2.1.11 LTE B26




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combinatio | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 26 | MAIN | 1 | 45.8 | -137.2 | -180.4 | 0.789 | No1+No2 | 1.016 | 72.818 | 0.014 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.629 | 209.606 | 0.010 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 26 | MAIN | 1 | 45.8 | -137.2 | -180.4 | 0.789 | No1+No2 | 1.079 | 64.238 | 0.017 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.711 | 210.493 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.711 | 209.887 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 26 | MAIN | 1 | 45.8 | -137.2 | -180.4 | 0.789 | No1+No2 | 1.125 | 76.207 | 0.016 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.614 | 215.078 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.614 | 209.887 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 26 | MAIN | 1 | 45.8 | -137.2 | -180.4 | 0.789 | No1+No2 | 1.017 | 64.949 | 0.016 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.635 | 215.056 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.635 | 209.887 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

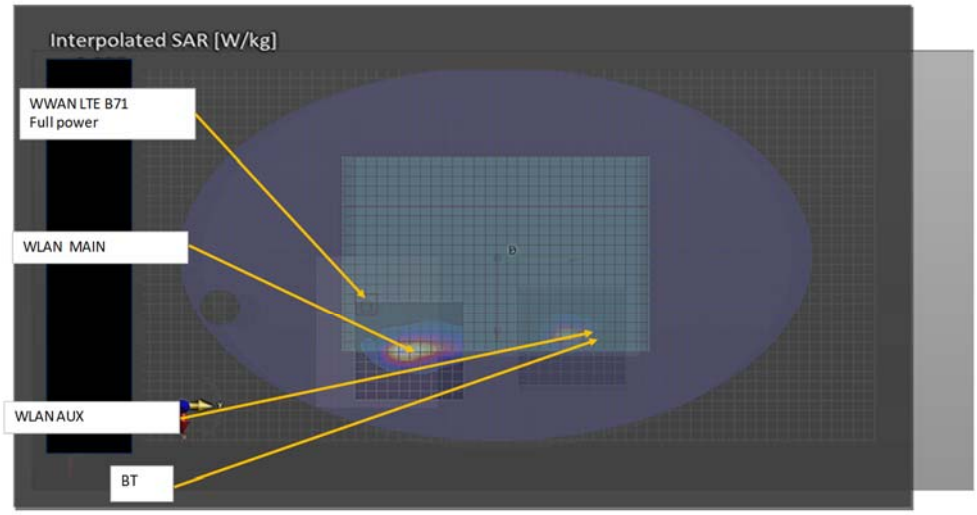
### 16.2.1.12 LTE B66




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combination | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 66 | MAIN | 1 | 33 | -134.8 | -177 | 0.815 | No1+No2 | 1.042 | 81.046 | 0.013 | No |
| WLAN2.4 GHz | MAIN | 2 | 99.1 | -88 | -174 | 0.227 | No1+No3 | 1.655 | 209.840 | 0.010 | No |
| WLAN2.4 GHz | AUX | 3 | 82.9 | 69 | -174.1 | 0.840 | No2+No3 | 1.067 | 157.834 | 0.007 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 66 | MAIN | 1 | 33 | -134.8 | -177 | 0.815 | No1+No2 | 1.105 | 71.044 | 0.016 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.737 | 211.171 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.737 | 210.183 | 0.011 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 66 | MAIN | 1 | 33 | -134.8 | -177 | 0.815 | No1+No2 | 1.151 | 85.044 | 0.015 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.640 | 215.154 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.640 | 210.183 | 0.010 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 66 | MAIN | 1 | 33 | -134.8 | -177 | 0.815 | No1+No2 | 1.043 | 72.499 | 0.015 | No |
| WLAN5 GHz (U-NII-3) | MAIN | 2 | 89.2 | -89 | -177 | 0.228 | No1+No3 | 1.661 | 215.471 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(WLAN side) | AUX | 3 | 86.2 | 74 | -177 | 0.846 | No1+No4 | 1.661 | 210.183 | 0.010 | No |
| WLAN5 GHz (U-NII-3)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.846 | No2+No3 | 1.074 | 163.028 | 0.007 | No |
| | | | | | | | No2+No4 | 1.074 | 158.414 | 0.007 | No |

### 16.2.1.13 LTE B71




※Plot shows only worst-case scenario.

| Mode | Ant | No | X (mm) | Y (mm) | Z (mm) | Scaled | Combination | Σ 1-g SAR (W/kg) | Calculated distance (mm) | SPLSR (≤ 0.04) | Volume Scan (Yes/No) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 71 | MAIN | 1 | 68.8 | -117.9 | -180.3 | 0.503 | No1+No2 | 0.793 | 35.532 | 0.020 | No |
| WLAN5 GHz (U-NII-2a) | MAIN | 2 | 85.1 | -86.5 | -177 | 0.290 | No1+No3 | 1.425 | 187.763 | 0.009 | No |
| WLAN5 GHz (U-NII-2a)+BT(WLAN side) | AUX | 3 | 89.4 | 68.7 | -177 | 0.922 | No1+No4 | 1.425 | 187.782 | 0.009 | No |
| WLAN5 GHz (U-NII-2a)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.922 | No2+No3 | 1.212 | 155.260 | 0.009 | No |
| | | | | | | | No2+No4 | 1.212 | 155.812 | 0.009 | No |
| WWAN + WLAN Main + WLAN AUX + RFID | | | | | | | | | | | |
| LTE Band 71 | MAIN | 1 | 68.8 | -117.9 | -180.3 | 0.503 | No1+No2 | 0.839 | 46.225 | 0.017 | No |
| WLAN5 GHz (U-NII-2c) | MAIN | 2 | 104.4 | -88.6 | -177 | 0.336 | No1+No3 | 1.328 | 193.295 | 0.008 | No |
| WLAN5 GHz (U-NII-2c)+BT(WLAN side) | AUX | 3 | 80.7 | 75 | -177 | 0.825 | No1+No4 | 1.328 | 187.782 | 0.008 | No |
| WLAN5 GHz (U-NII-2c)+BT(BT side) | AUX | 4 | 83.2 | 69.3 | -177 | 0.825 | No2+No3 | 1.161 | 165.308 | 0.008 | No |
| | | | | | | | No2+No4 | 1.161 | 159.317 | 0.008 | No |

### 16.3 Total exposure ratio (TER)

Either SAR-based or MPE-based exemption may be considered for test exemption for fixed, mobile, or portable device exposure conditions; therefore, the contributions from each exemption in conjunction with the measured SAR (Evaluated$_k$ term) shall be used to determine exemption for simultaneous transmission according to Formula [repeated from § 1.1307(b)(3)(ii)(B)].

$$\sum_{i=1}^{a} \frac{Pi}{Pth,i} + \sum_{j=1}^{b} \frac{ERPj}{ERPth,j} + \sum_{k=1}^{c} \frac{Evaluatedk}{Exposure\ Limitk} \leq 1$$

Where:

*a*: number of fixed, mobile, or portable RF sources claiming exemption using the § 1.1307(b)(3)(i)(B) formula for Pth, including existing exempt transmitters and those being added.

*b*: number of fixed, mobile, or portable RF sources claiming exemption using the applicable § 1.1307(b)(3)(i)(C) Table 1 formula for Threshold ERP, including existing exempt transmitters and those being added.

*c*: number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance.

$P_i$: the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

$P_{th,i}$: the exemption threshold power (Pth) according to the § 1.1307(b)(3)(i)(B) formula for fixed, mobile, or portable RF source i. Also, The Pth is described at section “SAR Exposure Conditions”

$ERP_j$: the available maximum time-averaged power or the ERP, whichever is greater, of fixed, mobile, or portable RF source j.

$ERP_{th,j}$: exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π, according to the applicable § 1.1307(b)(3)(i)(C) Table 1 formula at the location in question.

$Evaluated_k$: the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation.

$Exposure\ Limit_k$: either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable sources, as applicable

Note
- ER: Exposure ratio
- WLAN, BT and RFID value is form FCCID: ACJ9TGWL23C.

## 16.4 TER calculation with WiFi 6E + WWAN

Ratio calculation:

- Sum of ratio (WWAN + BT + RFID) = SAR result (WWAN + RFID + BT) / (1.6 W / kg)
- Sum of ratio (WLAN main + WLAN aux) = (WLAN main ant PD result + WLAN aux ant PD result) / (1 mW / $cm^2$)

WWAN + RFID + BT

| Test Position | Highest SAR | Ratio | RFID SAR | Ratio | Aux BT | Ratio | Sum of ratio |
|---|---|---|---|---|---|---|---|
| Edge1 | 0.677 | 0.423 | 0.000 | 0.000 | 0.024 | 0.015 | 0.438 |
| Edge3 | 0.331 | 0.207 | 0.000 | 0.000 | 0.000 | 0.000 | 0.207 |
| Edge4 | 0.928 | 0.580 | 0.000 | 0.000 | 0.000 | 0.000 | 0.580 |
| Edge4 Reduction | 0.976 | 0.610 | 0.000 | 0.000 | 0.000 | 0.000 | 0.610 |
| Rear | 0.648 | 0.405 | 0.033 | 0.021 | 0.113 | 0.071 | 0.496 |
| Rear Reduction | 0.416 | 0.260 | 0.033 | 0.021 | 0.113 | 0.071 | 0.351 |
| Rear tilt (Edge 1 side) | 0.861 | 0.538 | 0.000 | 0.000 | 0.135 | 0.084 | 0.623 |
| Rear tilt (Edge 4 side) | 1.027 | 0.642 | 0.000 | 0.000 | 0.000 | 0.000 | 0.642 |
| Rear tilt (Edge 4 side) Reduction | 0.678 | 0.424 | 0.000 | 0.000 | 0.000 | 0.000 | 0.424 |

WLAN(6E) + WLAN(6E)

| TestPosition | Main ant | ratio | Aux ant | ratio | Sum of ratio |
|---|---|---|---|---|---|
| *Edge1* | *1.911* | 0.191 | *0.697* | 0.070 | 0.261 |
| Edge3 | 0.036 | 0.004 | 0.030 | 0.003 | 0.007 |
| Edge4 | 0.150 | 0.015 | 0.016 | 0.002 | 0.017 |
| Edge4 Reduction | 0.150 | 0.015 | 0.016 | 0.002 | 0.017 |
| *Rear* | *0.801* | 0.080 | *1.119* | 0.112 | 0.192 |
| *Rear Reduction* | *0.801* | 0.080 | *1.119* | 0.112 | 0.192 |
| *Rear tilt (Edge 1 side)* | *1.209* | 0.121 | *2.288* | 0.229 | 0.350 |
| Rear tilt (Edge 4 side) | 0.651 | 0.065 | 0.136 | 0.014 | 0.079 |
| Rear tilt (Edge 4 side) Reduction | 0.651 | 0.065 | 0.136 | 0.014 | 0.079 |

| TER |
|---|
| 0.699 |
| 0.213 |
| 0.597 |
| 0.627 |
| 0.688 |
| 0.543 |
| ***0.972*** |
| 0.721 |
| 0.502 |

## 16.5 Conclusion

Complied since all TER is less than 1.

## SECTION 17: Test instruments

For Output power measurement

| LIMS ID | Description | Manufacturer | Model | Serial | Last Cal Date | Interval |
|---|---|---|---|---|---|---|
| 141366 | Attenuator | Weinschel Associates | WA56-20 | 56200213 | 2023/05/18 | 12 |
| 208186 | Power Sensor | Rohde & Schwarz | NRP50S | 101418 | 2023/06/28 | 12 |
| 141569 | Thermo-Hygrometer | CUSTOM. Inc | CTH-201 | 3001 | 2023/07/18 | 12 |
| 196147 | Directional Coupler | Agilent Technologies | 87300B | MY39500119 | 2024/04/11 | 12 |
| 196372 | UXM 5G Wireless Test Platform | Keysight Technologies Inc | E7515B | MY59321679 | 2024/02/15 | 12 |

For SAR measurement (1/2)

| LIMS ID | Description | Manufacturer | Model | Serial | Last Cal Date | Interval |
|---|---|---|---|---|---|---|
| 141484 | Data Acquisition Electronics | Schmid & Partner Engineering AG | DAE4 | 1372 | 2024/03/12 | 12 |
| 141482 | Data Acquisition Electronics | Schmid & Partner Engineering AG | DAE4 | 509 | 2023/08/04 | 12 |
| 141597 | Dosimetric E-Field Probe | Schmid & Partner Engineering AG | EX3DV4 | 3825 | 2023/07/12 | 12 |
| 141479 | Dipole Antenna | Schmid&Partner Engineering AG | D2600V2 | 1030 | 2022/03/18 | 24 |
| 141480 | Dipole Antenna | Schmid&Partner Engineering AG | D750V3 | 1058 | 2021/05/11 | 36 |
| 151367 | Dipole Antenna | Schmid & Partner Engineering AG | D3500V2 | 1052 | 2022/12/14 | 24 |
| 168521 | cDASY6 Module SAR | Schmid & Partner Engineering AG | cDASY6 Module SAR | - | - | - |
| 141483 | Data Acquisition Electronics | Schmid & Partner Engineering AG | DAE4 | 1369 | 2023/05/23 | 12 |
| 141598 | Dosimetric E-Field Probe | Schmid & Partner Engineering AG | EX3DV4 | 3917 | 2023/05/23 | 12 |
| 142484 | Device holder | Schmid & Partner Engineering AG | Mounting device for transmitter | - | 2023/11/17 | 12 |
| 142488 | Device holder | Schmid & Partner Engineering AG | Mounting device for transmitter | - | 2023/11/17 | 12 |
| 142489 | Device holder | Schmid & Partner Engineering AG | Mounting device for transmitter | - | 2023/11/17 | 12 |
| 88581 | Thermo-Hygrometer | CUSTOM. Inc | CTH-201 | - | 2023/07/18 | 12 |
| 142247 | SAR robot | Schmid & Partner Engineering AG | TX60 Lspeag | F10/5E3LA1/A/01 | 2024/04/30 | 12 |
| 141573 | Digital thermometer | HANNA INSTRUMENTS | Checktemp 4 | - | 2023/07/18 | 12 |
| 142561 | Dual Directional Coupler | Keysight Technologies Inc | 778D | MY52180243 | - | - |
| 142248 | SAR robot | Schmid & Partner Engineering AG | TX60 Lspeag | F13/5PP1D1/A/01 | 2024/04/30 | 12 |
| 141570 | Thermo-Hygrometer | CUSTOM. Inc | CTH-201 | 3101 | 2023/07/18 | 12 |
| 141182 | Dielectric assessment software | Schmid & Partner Engineering AG | DAK | - | - | - |
| 173900 | Software for MA24106A | Anritsu Corporation | Anritsu PowerXpert | - | - | - |
| 141471 | Dielectric assessment kit | Schmid & Partner Engineering AG | DAKS-3.5 | 0008 | 2023/04/17 | 12 |
| 142313 | Attenuator | Telegrartner | J01156A0011 | 42294119 | - | - |
| 141551 | Vector Reflectometer | Copper Mountain Technologies | PLANAR R140 | 0030913 | 2023/04/13 | 12 |
| 141574 | Digital thermometer | LKM electronic | DTM3000 | - | 2023/07/18 | 12 |
| 141843 | Power sensor | Anritsu Corporation | MA24106A | 1026164 | 2024/03/15 | 12 |
| 141844 | Power sensor | Anritsu Corporation | MA24106A | 1031504 | 2024/03/15 | 12 |

For SAR measurement (2/2)

| LIMS ID | Description | Manufacturer | Model | Serial | Last Cal Date | Interval |
|---|---|---|---|---|---|---|
| 141875 | Pre Amplifier | R&K | R&K CGA020M602-2633R | B30550 | 2023/06/27 | 12 |
| 176484 | Head Simulating Liquid | Schmid & Partner Engineering AG | HBBL600-10000V6 | SL AAH U16 BC | - | - |
| 141181 | Dasy5 | Schmid & Partner Engineering AG | DASY5 | - | - | - |
| 142249 | SAR robot | Schmid & Partner Engineering AG | TX60 Lspeag | F13/5PP1A1/A/01 | 2024/04/30 | 12 |
| 141890 | Signal Generator | Keysight Technologies Inc | N5181A | MY47421098 | 2023/11/10 | 12 |
| 142559 | Dual Directional Coupler | Hewlett Packard | 772D | 2839A0016 | - | - |
| 142865 | Water, distilled | KISHIDA CHEMICAL Co.,Ltd. | 020-85566 | K70244M | - | - |
| 141963 | Dipole Antenna | Schmid&Partner Engineering AG | D835V2 | 4d149 | 2022/03/14 | 24 |
| 141964 | Dipole Antenna | Schmid&Partner Engineering AG | D1750V2 | 1089 | 2022/03/15 | 24 |
| 141965 | Dipole Antenna | Schmid&Partner Engineering AG | D1900V2 | 5d169 | 2022/03/15 | 24 |
| 141966 | Dipole Antenna | Schmid & Partner Engineering AG | D1950V3 | 1149 | 2022/04/14 | 24 |
| 141311 | Attenuator | Weinschel Associates | WA1-20-33 | 100131 | 2024/04/03 | 12 |
| 141808 | Dual Power Meter | Keysight Technologies Inc | E4419B | MY45102060 | 2023/08/25 | 12 |
| 221492 | Power sensor | Keysight Technologies Inc | E9300H | MY62080002 | 2023/08/25 | 12 |
| 221493 | Power Sensor | Anritsu Corporation | MA24118A | 2123074 | 2023/08/24 | 12 |
| 221497 | Power Sensor | Anritsu Corporation | MA24118A | 2123095 | 2023/08/24 | 12 |
| 141959 | Radio Communication Analyzer | Anritsu Corporation | MT8821C | 6201547850 | - | - |
| 173681 | Radio Communication Analyzer | Anritsu Corporation | MT8821C | 6261879781 | - | - |
| 244703 | Thermo-Hygrometer | A & D | AD-5648A | 1001 | 2024/01/25 | 12 |
| 244705 | Thermo-Hygrometer | A & D | AD-5648A | 1002 | 2024/01/25 | 12 |
| 244706 | Thermo-Hygrometer | A & D | AD-5648A | 1003 | 2024/01/25 | 12 |
| 142056 | 2mm Oval Flat Phantom | Schmid & Partner Engineering AG | QDOVA001BB | 1045 | 2023/05/10 | 12 |
| 142057 | 2mm Oval Flat Phantom | Schmid&Partner Engineering AG | QDOVA001BB | 1203 | 2023/05/10 | 12 |
| 142058 | 2mm Oval Flat Phantom | Schmid&Partner Engineering AG | QDOVA001BB | 1207 | 2023/05/10 | 12 |
| 141865 | Vector Reflectometer | Copper Mountain Technologies | PLANAR R140 | 0110614 | 2023/05/19 | 12 |
| 197379 | Dielectric assessment kit | Schmid & Partner Engineering AG | DAKS-3.5 | 1058 | 2023/05/22 | 12 |

**The expiration date of the calibration is the end of the expired month.**
**All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.**

**As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.**

**SAR room is checked before every testing and ambient noise is <0.012 W/kg**

**SECTION 18: Appendixes**

Refer to separated files for the following appendixes.

Appendix A: DUT and SAR Setup Photo

Appendix B: Antenna Dimensions & Separation Distances

Appendix C: Proximity Sensor Triggering

Appendix D: System check

Appendix E: SAR Measurement data

Appendix F: Calibration data

End of Report