# SAR Report

| | | |
|---|---|---|
| Applicant | : | unitech electronics co., ltd.. |
| Product Type | : | Rugged Handheld Computer |
| Trade Name | : | unitech |
| Model Number | : | EA630 |
| Applicable Standard | : | ANSI/IEEE C95.1 / IEEE Std. 1528-2013<br>47 CFR Part §2.1093<br>KDB 447498 D01 / KDB 865664 D01 / KDB 865664 D02<br>KDB 648474 D04 / KDB 248227 D01 / KDB 941225 D01<br>KDB 941225 D05 / KDB 941225 D06 |
| Received Date | : | May 11, 2020 |
| Test Period | : | May 18 ~ May 28, 2020 |
| Issued Date | : | Jun. 30, 2020 |

**Issued by**

Approved By : (Mark Duan)

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Taiwan Accreditation Foundation accreditation number: 1330
Test Firm MRA designation number: TW0010

***Note:***

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# Revision History

| Rev. | Issued Date | Revisions | Revised By |
|---|---|---|---|
| 00 | Jun. 02, 2020 | Initial Issue | Nicole Chu |
| 01 | Jun. 30, 2020 | P05 Add note 3<br>P06 Revised Frequency and BW<br>P16 & 72 Deleted Frequency 5610 MHz<br>P70 Add power<br>P242 Revised Report | Nicole Chu |
| | | | |
| | | | |

# Contents

# 1. General Information

## 1.1 Reference Applicable Standard

| Standard | Description | Version |
|---|---|---|
| ANSI/IEEE C95.1 | American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 KHz to 100 GHz, New York. | 1992 |
| IEEE 1528 | Specific Absorption Rate (SAR) in the Human Head From Wireless Communications Devices: Measurement Techniques. | 2013 |
| 47 CFR Part §2.1093 | Radiofrequency radiation exposure evaluation: portable devices. | - |
| KDB 447498 D01 | RF exposure procedures and equipment authorization policies for mobile and portable devices | v06 |
| KDB 865664 D01 | SAR measurement requirement for 100 MHz to 6 GHz. | v01r04 |
| KDB 865664 D02 | RF exposure compliance reporting and documentation considerations. | v01r02 |
| KDB 648474 D04 | SAR evaluation considerations for Wireless Handsets | v01r03 |
| KDB 248227 D01 | SAR guidance for IEEE 802.11 (Wi-Fi) transmitters | v02r02 |
| KDB 941225 D01 | 3G SAR Procedures | v03r01 |
| KDB 941225 D05 | SAR for LTE Devices | v02r05 |
| KDB 941225 D06 | Hotspot Mode SAR | v02r01 |

## 1.2 Test Site Environment

| Items | Required (IEEE 1528-2013) | Actual |
|---|---|---|
| Temperature (°C) | 18-25 | 21-23 |

## 2. Summary of Maximum Reported SAR Value

| Equipment Class | Mode | Highest Reported $_{1g}$ SAR (W/kg) | | | |
|---|---|---|---|---|---|
| | | Head standalone SAR $_{1g}$(W/kg) | Hotspot standalone SAR $_{1g}$(W/kg) | Body standalone SAR $_{1g}$(W/kg) | Extremity standalone SAR$_{10g}$ (W/kg) |
| Licensed | GSM850 | 0.04 | 0.05 | 0.05 | 0.00 |
| | GSM1900 | 0.45 | 0.39 | 0.39 | 0.00 |
| | WCDMA Band II | 0.81 | 0.87 | 0.87 | 0.00 |
| | WCDMA Band V | 0.10 | 0.12 | 0.12 | 0.00 |
| | LTE Band 2 | 0.74 | 0.71 | 0.71 | 0.00 |
| | LTE Band 4 | 0.32 | 0.57 | 0.57 | 0.00 |
| | LTE Band 5 | 0.08 | 0.13 | 0.13 | 0.00 |
| | LTE Band 7 | 0.08 | **1.06** | 0.72 | 0.00 |
| | LTE Band 12 | 0.04 | 0.09 | 0.09 | 0.00 |
| | LTE Band 17 | 0.06 | 0.11 | 0.11 | 0.00 |
| | LTE Band 40 | 0.17 | 0.77 | 0.60 | 0.00 |
| | LTE Band 38 / 41 | 0.13 | 0.75 | 0.53 | 0.00 |
| DTS | WLAN2.4GHz | 0.14 | 0.09 | 0.09 | 0.00 |
| U-NII | WLAN5GHz | 0.77 | 0.30 | 0.30 | 0.48 |
| DSS | Bluetooth | 0.07 | 0.05 | 0.05 | 0.00 |
| Highest Simultaneous Transmission Position | | Highest Simultaneous Transmission | | | |
| Right-Cheek | | 1.58 | - | - | --- |
| Side3 | | - | 1.06 | - | --- |
| Front | | - | - | 1.04 | --- |

NOTE: 1. The SAR limit (Head & Body: SAR1g 1.6 W/kg) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

2. Device supported frequency span for LTE B41 falls completely within the supports frequency span for LTE B38, and they have the same target power. SAR was only test for LTE B41.

2. For dual SIM operation, SIM1 and SIM2 shares the same antenna and module, it can't be transmitted simultaneously, so we only perform tests for one SIM.

# 3. Description of Equipment under Test (EUT)

| | | |
|---|---|---|
| Applicant | unitech electronics co., ltd..<br>5F., No.136, Lane 235, Pao-Chiao Rd., Hsin-Tien Dist, New Taipei City, Taiwan | |
| Manufacture | unitech electronics co., ltd.<br>5F., No.136, Lane 235, Pao-Chiao Rd., Hsin-Tien Dist, New Taipei City, Taiwan | |
| Product Type | Rugged Handheld Computer | |
| Trade Name | unitech | |
| Model Number | EA630 | |
| IMEI No. | IMEI 1: 355239110051120, IMEI 2: 355239115204005 | |
| FCC ID | HLEEA630BTNFL | |
| RF Function | Operate Bands | Operate Frequency (MHz) |
| | GSM/GPRS/EGPRS 850 | 824.2 - 848.8 |
| | GSM/GPRS/EGPRS 1900 | 1850.2 - 1909.8 |
| | WCDMA(RMC 12.2K) / HSDPA / HSUPA Band II | 1852.4 - 1907.6 |
| | WCDMA (RMC 12.2K) / HSDPA / HSUPA Band V | 826.4 - 846.6 |
| | LTE Band 2 (BW 1.4, 3, 5, 10, 15, 20 MHz) | 1850.0 - 1910.0 |
| | LTE Band 4 (BW 1.4, 3, 5, 10, 15, 20 MHz) | 1710.0 - 1754.9 |
| | LTE Band 5 (BW 1.4, 3, 5, 10 MHz) | 824.0 - 849.0 |
| | LTE Band 7 (BW 5, 10, 15, 20 MHz ) | 2500 - 2570 |
| | LTE Band 12 (BW 1.4, 3, 5, 10 MHz) | 699 - 716 |
| | LTE Band 17 (BW 5, 10 MHz) | 704.0 - 715.9 |
| | LTE Band 38 (BW 5, 10, 15, 20 MHz) | 2570 - 2620 |
| | LTE Band 40 (BW 5, 10 MHz) | 2300 - 2400 |
| | LTE Band 41 (BW 5, 10, 15, 20 MHz) | 2496 - 2690 |
| | IEEE 802.11b / 802.11g / 802.11n 2.4 GHz 20 MHz | 2412 - 2472 |
| | IEEE 802.11n 2.4 GHz 40 MHz | 2422 - 2462 |
| | IEEE 802.11a | 5180 - 5825 |
| | IEEE 802.11ac / 802.11n 5 GHz 20 MHz | 5180 - 5825 |
| | IEEE 802.11ac / 802.11n 5 GHz 40 MHz | 5190 - 5795 |
| | IEEE 802.11ac 80 MHz | 5210 - 5775 |
| | Bluetooth BR/EDR | 2402 - 2480 |
| | Bluetooth LE | 2402 - 2480 |
| | *GPRS Multi Class: 12 | |
| Antenna Type | PIFA Antenna | |
| Battery Option | Standard | |
| | Trade Name: ZhuHai CosMX Battery Co., Ltd.<br>Model: 1400-900057G<br>Spec: DC 3.85 V / 4000 mAh | |
| Device Category | Portable Device | |
| Application Type | Certification | |

Note:The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

# 4. Introduction

The A Test Lab Techno Corp. has performed measurements of the maximum potential exposure to the user.The test procedures, as described in American National Standards, Institute C95.1-1992〔1〕were employed and they specify the maximum exposure limit of 1.6 W/kg as averaged over any 1 gram of tissue for portable devices being used within 20 cm between user and EUT in the uncontrolled environment. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the equipment used are included within this test report.

## 4.1 SAR Definition

Specific Absorption Rate (SAR) is defined as 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 ($\rho$ ). The equation description is as below :

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

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

SAR measurement can be related to the electrical field in the tissue by

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

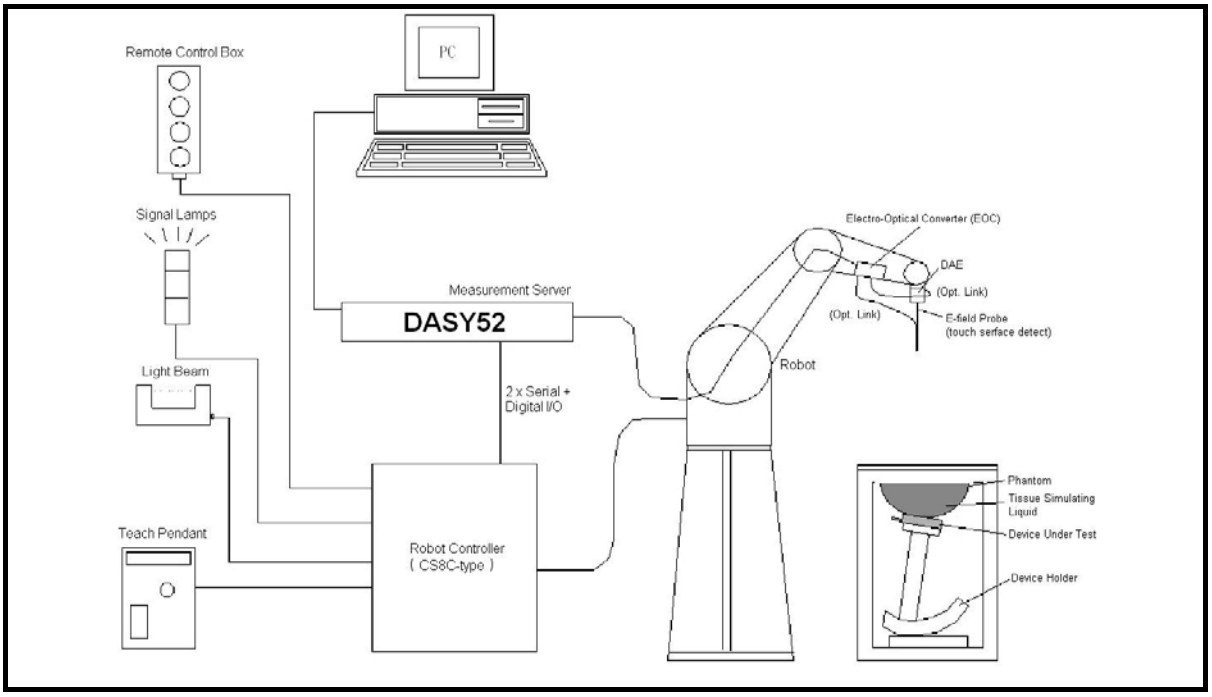
Where：

$\sigma$ = conductivity of the tissue (S/m)

$\rho$ = mass density of the tissue (kg/m3)

$E$ = RMS electric field strength (V/m)

# 5. SAR Measurement Setup




The DASY52 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli TX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
5. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
6. A computer operating Windows 7 or Windows 8.
7. DASY52 software.
8. Remote controls with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
9. The SAM twin phantom enabling testing left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. Validation dipole kits allowing validating the proper functioning of the system.

## 5.1 DASY E-Field Probe System

The SAR measurements were conducted with the dosimetric probe (manufactured by SPEAG), designed in the classical triangular configuration〔3〕and optimized for dosimetric evaluation. The probes is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multi-fiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY software reads the reflection during a software approach and looks for the maximum using a 2nd order fitting. The approach is stopped when reaching the maximum.

### 5.1.1 E-Field Probe Specification

| | |
|---|---|
| **Construction** | Symmetrical design with triangular core<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to organic solvents, e.g., DGBE) |
| **Frequency** | 10 MHz to > 6 GHz<br>Linearity: ± 0.2 dB (30 MHz to 6 GHz) |
| **Directivity** | ±0.3 dB in brain tissue (rotation around probe axis)<br>±0.5 dB in brain tissue (rotation normal probe axis) |
| **Dimensions** | Overall length: 337 mm (Tip: 20 mm)<br>Tip diameter: 2.5 mm (Body: 12 mm)<br>Typical distance from probe tip to dipole centers: 1 mm |
| **Calibration** | ISO/IEC 17025 calibration service available |

**EX3DV4 E-Field Probe**

**Probe setup on robot**

## 5.2 Data Acquisition Electronic (DAE) System

| | |
|---|---|
| **Model** | DAE4 |
| **Construction** | Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop. |
| **Measurement Range** | -100 to +300 mV (16 bit resolution and two range settings: 4 mV, 400 mV) |
| **Input Offset Voltage** | < 5 µV (with auto zero) |
| **Input Bias Current** | < 50 fA |
| **Dimensions** | 60 x 60 x 68 mm |

## 5.3 Robot

| | |
|---|---|
| **Positioner** | Stäubli Unimation Corp. |
| **Robot Model** | TX90XL |
| **Number of Axes** | 6 |
| **Norminal Load** | 5 kg |
| **Reach** | 1450 mm |
| **Repeatability** | ± 0.035 mm |

## 5.4 Measurement Server

| | |
|---|---|
| **Processor** | Stäubli Unimation Corp. |
| **I/O-board** | TX90XL |
| **Number of Axes** | Link to DAE4<br>16-bit A/D converter for surface detection system<br>Digital I/O interface<br>Serial link to robot<br>Direct emergency stop output for robot |

## 5.5 Device Holder

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

| | |
|---|---|
|  |  |
| Device Holder 1 | Device Holder 2 |

## 5.6 Phantom - SAM v4.0

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.

| | |
|---|---|
| **Shell Thickness** | 2 ±0.2 mm |
| **Filling Volume** | Approx. 25 liters |
| **Dimensions** | 1000×500 mm (L×W) |

Table 1. Specification of SAM v4.0

# 6. Tissue Simulating Liquids

**IEEE SCC-34/SC-2 in 1528 recommended Tissue Dielectric Parameters**

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in 1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in human head. Other head and body tissue parameters that have not been specified in 1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equation and extrapolated according to the head parameter specified in 1528.

| Target Frequency | Head | | Body | |
|---|---|---|---|---|
| (MHz) | εr | σ (S/m) | εr | σ (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 |
| ( εr = relative permittivity, σ = conductivity and ρ = 1000 kg/m3 ) | | | | |

Table 2. Tissue dielectric parameters for head and body phantoms

## 6.1 The composition of the tissue simulating liquid

| Ingredients (% by weight) | Frequency (MHz) | | | | | | | | | | | | Frequency (GHz) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 750 | | 835 | | 1750 | | 1900 | | 2450 | | 2600 | | 5 GHz | |
| Tissue Type | Head | Body | Head | Body | Head | Body | Head | Body | Head | Body | Head | Body | Head | Body |
| Water | 39.28 | 51.30 | 41.45 | 52.40 | 54.50 | 40.20 | 54.90 | 40.40 | 62.70 | 73.20 | 60.30 | 71.40 | 65.5 | 78.6 |
| Salt (NaCl) | 1.47 | 1.42 | 1.45 | 1.50 | 0.17 | 0.49 | 0.18 | 0.50 | 0.50 | 0.10 | 0.60 | 0.20 | 0.00 | 0.00 |
| Sugar | 58.15 | 46.18 | 56.00 | 45.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| HEC | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bactericide | 0.10 | 0.10 | 0.10 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Triton X-100 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.2 | 10.7 |
| DGBE | 0.00 | 0.00 | 0.00 | 0.00 | 45.33 | 59.31 | 44.92 | 59.10 | 36.80 | 26.70 | 39.10 | 28.40 | 0.00 | 0.00 |
| Dielectric Constant | 41.88 | 54.60 | 42.54 | 56.10 | 40.10 | 53.60 | 39.90 | 54.00 | 39.80 | 52.50 | 39.80 | 52.50 | 35.1~ 36.2 | 47.9~ 49.3 |
| Conductivity (S/m) | 0.90 | 0.97 | 0.91 | 0.95 | 1.39 | 1.49 | 1.42 | 1.45 | 1.88 | 1.78 | 1.88 | 1.78 | 4.45~ 5.48 | 5.07~ 6.23 |
| Diethylene Glycol Mono-hexlether | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.3 | 10.7 |

## 6.2 Liquid Parameters

1. The dielectric parameters of the liquids were verified prior to the SAR evaluation using an DAKS 3.5 Probe Kit.
2. The SAR testing with IEC tissue parameters as an alternative option to FCC Head and body parameters. We used head TSL for body SAR tests. There are some limitations though:

(a) The mixing and matching of head TSL and body TSL for body SAR testing in a single application are not permitted. For example, we cannot start testing body SAR with head TSL and then switch to testing Body SAR with Body TSL.

(b) The TSL used for body SAR testing can be changed via a Permissive Change. However, if the body SAR increases and the original Body SAR was > 1.2 W/kg, additional SAR measurements may be required.

| Tissue Temp (°C) | Head / Body | Frequency | Cond. | Perm. | target Cond. | target Perm. | σ (Delta) (%) | εr (Delta) (%) | Limit (%) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | σ | εr | σ | εr | | | | |
| 22.3 | Head | 824.2 MHz | 0.90 | 42.673 | 0.90 | 41.55 | -0.03 | 2.70 | ±5 | May. 18, 2020 |
| 22.3 | Head | 836.6 MHz | 0.91 | 42.519 | 0.90 | 41.50 | 0.94 | 2.45 | ±5 | May. 18, 2020 |
| 22.3 | Head | 848.8 MHz | 0.92 | 42.343 | 0.91 | 41.50 | 0.71 | 2.03 | ±5 | May. 18, 2020 |
| 22.3 | Head | 826.4 MHz | 0.90 | 42.650 | 0.90 | 41.54 | 0.21 | 2.67 | ±5 | May. 18, 2020 |
| 22.3 | Head | 836.4 MHz | 0.91 | 42.521 | 0.90 | 41.50 | 0.93 | 2.46 | ±5 | May. 18, 2020 |
| 22.3 | Head | 846.6 MHz | 0.92 | 42.373 | 0.91 | 41.50 | 0.84 | 2.10 | ±5 | May. 18, 2020 |
| 22.3 | Head | 829 MHz | 0.90 | 42.621 | 0.90 | 41.53 | 0.48 | 2.63 | ±5 | May. 18, 2020 |

| Tissue Temp (°C) | Head / Body | Frequency | Cond. σ | Perm. εr | target Cond. σ | target Perm. εr | σ (Delta) (%) | εr (Delta) (%) | Limit (%) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.3 | Head | 836.5 MHz | 0.91 | 42.519 | 0.90 | 41.50 | 0.94 | 2.45 | ±5 | May. 18, 2020 |
| 22.3 | Head | 844 MHz | 0.92 | 42.407 | 0.91 | 41.50 | 0.82 | 2.18 | ±5 | May. 18, 2020 |
| 22.3 | Head | 704 MHz | 0.86 | 42.707 | 0.89 | 42.15 | -3.47 | 1.32 | ±5 | May. 18, 2020 |
| 22.3 | Head | 707.5 MHz | 0.86 | 42.654 | 0.89 | 42.13 | -3.06 | 1.24 | ±5 | May. 18, 2020 |
| 22.3 | Head | 711 MHz | 0.86 | 42.603 | 0.89 | 42.11 | -2.67 | 1.17 | ±5 | May. 18, 2020 |
| 22.3 | Head | 709 MHz | 0.86 | 42.632 | 0.89 | 42.12 | -2.89 | 1.21 | ±5 | May. 18, 2020 |
| 22.3 | Head | 710 MHz | 0.86 | 42.618 | 0.89 | 42.11 | -2.78 | 1.21 | ±5 | May. 18, 2020 |
| 22.3 | Head | 711 MHz | 0.86 | 42.603 | 0.89 | 42.11 | -2.67 | 1.17 | ±5 | May. 18, 2020 |
| 22.5 | Head | 1850.2 MHz | 1.41 | 40.262 | 1.40 | 40.00 | 1.04 | 0.65 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1880 MHz | 1.44 | 40.132 | 1.40 | 40.00 | 2.95 | 0.33 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1909.8 MHz | 1.47 | 40.053 | 1.40 | 40.00 | 4.76 | 0.13 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1852.4 MHz | 1.41 | 40.261 | 1.40 | 40.00 | 1.05 | 0.65 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1880 MHz | 1.44 | 40.132 | 1.40 | 40.00 | 2.95 | 0.33 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1907.6 MHz | 1.46 | 40.059 | 1.40 | 40.00 | 4.64 | 0.15 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1860 MHz | 1.42 | 40.216 | 1.40 | 40.00 | 1.70 | 0.54 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1880 MHz | 1.44 | 40.132 | 1.40 | 40.00 | 2.95 | 0.33 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1900 MHz | 1.46 | 40.078 | 1.40 | 40.00 | 4.21 | 0.19 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1720 MHz | 1.31 | 40.693 | 1.35 | 40.11 | -3.40 | 1.45 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1732.5 MHz | 1.32 | 40.661 | 1.36 | 40.13 | -3.36 | 1.32 | ±5 | May. 20, 2020 |
| 22.5 | Head | 1745 MHz | 1.33 | 40.620 | 1.37 | 40.08 | -3.12 | 1.35 | ±5 | May. 20, 2020 |
| 22.6 | Head | 2510 MHz | 1.870 | 39.91 | 1.86 | 39.12 | 0.32 | 2.01 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2535 MHz | 1.90 | 39.877 | 1.89 | 39.09 | 0.53 | 2.01 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2560 MHz | 1.929 | 39.80 | 1.92 | 39.05 | 0.63 | 1.92 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2565MHz | 1.94 | 39.777 | 1.92 | 39.05 | 0.62 | 1.86 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2591MHz | 1.97 | 39.666 | 1.95 | 39.01 | 1.18 | 1.68 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2618MHz | 2.01 | 39.586 | 1.98 | 38.98 | 1.57 | 1.55 | ±5 | May. 21, 2020 |
| 22.6 | Head | 2645MHz | 2.04 | 39.498 | 2.01 | 38.94 | 1.64 | 1.43 | ±5 | May. 21, 2020 |
| 22.3 | Head | 2565MHz | 1.93 | 39.441 | 1.92 | 39.05 | 0.10 | 1.00 | ±5 | May. 22, 2020 |

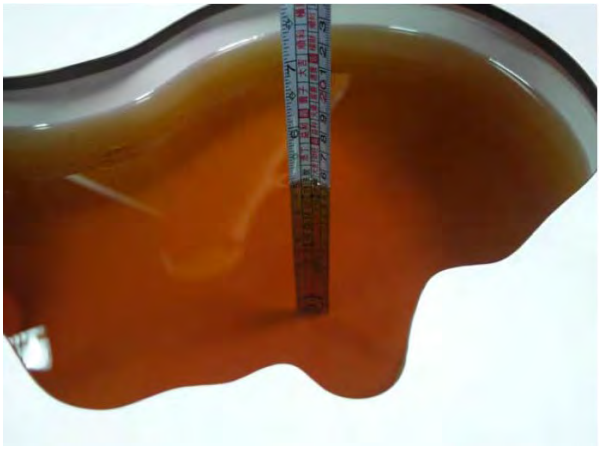
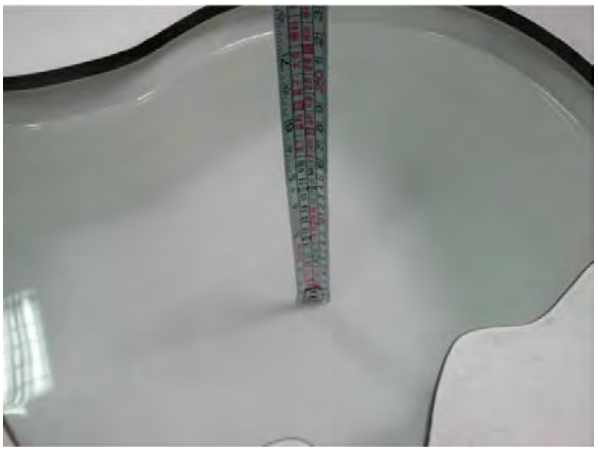
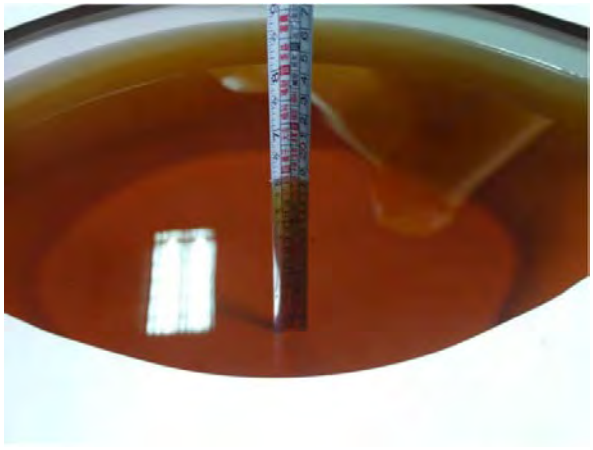
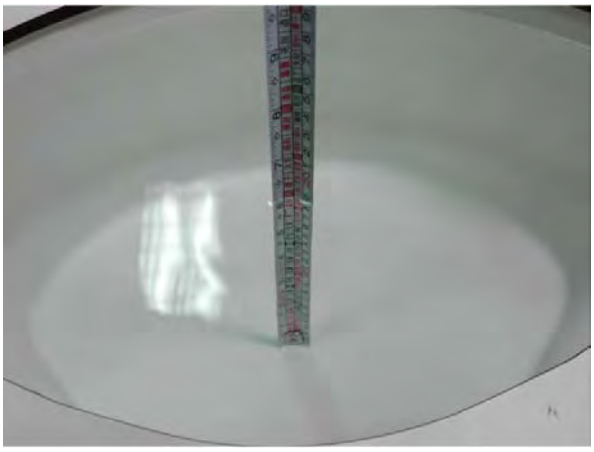
| Tissue Temp (°C) | Head / Body | Frequency | Cond. σ | Perm. εr | target Cond. σ | target Perm. εr | σ (Delta) (%) | εr (Delta) (%) | Limit (%) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.3 | Head | 2591MHz | 1.96 | 39.330 | 1.95 | 39.01 | 0.67 | 0.82 | ±5 | May. 22, 2020 |
| 22.3 | Head | 2618MHz | 2.00 | 39.250 | 1.98 | 38.98 | 1.01 | 0.69 | ±5 | May. 22, 2020 |
| 22.3 | Head | 2645MHz | 2.03 | 39.162 | 2.01 | 38.94 | 1.09 | 0.57 | ±5 | May. 22, 2020 |
| 22.3 | Head | 2510 MHz | 1.86 | 39.571 | 1.86 | 39.12 | -0.21 | 1.15 | ±5 | May. 22, 2020 |
| 22.3 | Head | 2535 MHz | 1.89 | 39.541 | 1.89 | 39.09 | 0.00 | 1.15 | ±5 | May. 22, 2020 |
| 22.3 | Head | 2560 MHz | 1.92 | 39.462 | 1.92 | 39.05 | 0.10 | 1.06 | ±5 | May. 22, 2020 |
| 22.4 | Head | 2412 MHz | 1.73 | 39.619 | 1.77 | 39.27 | -1.80 | 0.89 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2422 MHz | 1.75 | 39.582 | 1.78 | 39.25 | -1.63 | 0.85 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2437 MHz | 1.76 | 39.544 | 1.79 | 39.22 | -1.40 | 0.83 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2452 MHz | 1.78 | 39.509 | 1.80 | 39.20 | -1.16 | 0.79 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2462 MHz | 1.79 | 39.480 | 1.81 | 39.18 | -1.09 | 0.77 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2402 MHz | 1.722 | 39.66 | 1.76 | 39.28 | -1.97 | 0.97 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2441 MHz | 1.768 | 39.54 | 1.79 | 39.22 | -1.34 | 0.80 | ±5 | May. 23, 2020 |
| 22.4 | Head | 2480 MHz | 1.816 | 39.43 | 1.83 | 39.16 | -0.90 | 0.70 | ±5 | May. 23, 2020 |
| 22.2 | Head | 2310 MHz | 1.64 | 40.017 | 1.68 | 39.44 | -2.27 | 1.46 | ±5 | May. 24, 2020 |
| 22.2 | Head | 2355 MHz | 1.69 | 39.837 | 1.72 | 39.36 | -1.63 | 1.21 | ±5 | May. 24, 2020 |
| 22.6 | Head | 5180 MHz | 4.53 | 36.673 | 4.64 | 36.02 | -2.35 | 1.81 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5190 MHz | 4.54 | 36.653 | 4.65 | 36.01 | -2.32 | 1.78 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5200 MHz | 4.56 | 36.632 | 4.66 | 36.00 | -2.24 | 1.76 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5220 MHz | 4.58 | 36.599 | 4.68 | 35.98 | -2.06 | 1.72 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5230 MHz | 4.60 | 36.584 | 4.69 | 35.97 | -1.97 | 1.71 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5240 MHz | 4.61 | 36.567 | 4.70 | 35.96 | -1.91 | 1.69 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5250 MHz | 4.62 | 36.550 | 4.71 | 35.95 | -1.83 | 1.67 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5260 MHz | 4.64 | 36.534 | 4.72 | 35.94 | -1.74 | 1.65 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5270 MHz | 4.65 | 36.520 | 4.73 | 35.93 | -1.65 | 1.64 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5280 MHz | 4.67 | 36.509 | 4.74 | 35.92 | -1.55 | 1.64 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5290 MHz | 4.68 | 36.500 | 4.75 | 35.91 | -1.46 | 1.64 | ±5 | May. 25, 2020 |

| Tissue Temp (°C) | Head / Body | Frequency | Cond. σ | Perm. εr | target Cond. σ | target Perm. εr | σ (Delta) (%) | εr (Delta) (%) | Limit (%) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.6 | Head | 5300 MHz | 4.70 | 36.492 | 4.76 | 35.90 | -1.36 | 1.65 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5310 MHz | 4.71 | 36.483 | 4.77 | 35.89 | -1.26 | 1.65 | ±5 | May. 25, 2020 |
| 22.6 | Head | 5320 MHz | 4.72 | 36.476 | 4.78 | 35.88 | -1.17 | 1.66 | ±5 | May. 25, 2020 |
| 22.4 | Head | 5500 MHz | 5.00 | 36.726 | 4.97 | 35.65 | 0.65 | 3.02 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5510 MHz | 5.01 | 36.693 | 4.98 | 35.64 | 0.63 | 2.95 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5530 MHz | 5.03 | 36.622 | 5.00 | 35.61 | 0.66 | 2.84 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5550 MHz | 5.05 | 36.549 | 5.02 | 35.58 | 0.66 | 2.72 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5570 MHz | 5.08 | 36.478 | 5.04 | 35.55 | 0.76 | 2.61 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5580 MHz | 5.09 | 36.441 | 5.05 | 35.53 | 0.88 | 2.56 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5620 MHz | 5.16 | 36.320 | 5.09 | 35.48 | 1.40 | 2.37 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5630 MHz | 5.18 | 36.294 | 5.10 | 35.47 | 1.54 | 2.32 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5660 MHz | 5.23 | 36.224 | 5.13 | 35.44 | 1.90 | 2.21 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5670 MHz | 5.24 | 36.207 | 5.14 | 35.43 | 1.98 | 2.19 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5690 MHz | 5.27 | 36.177 | 5.16 | 35.41 | 2.04 | 2.17 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5700 MHz | 5.28 | 36.161 | 5.17 | 35.40 | 2.04 | 2.15 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5710 MHz | 5.28 | 36.144 | 5.18 | 35.39 | 2.02 | 2.13 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5720 MHz | 5.29 | 36.130 | 5.19 | 35.38 | 1.98 | 2.12 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5745 MHz | 5.31 | 36.091 | 5.22 | 35.36 | 1.73 | 2.07 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5755 MHz | 5.31 | 36.076 | 5.23 | 35.35 | 1.60 | 2.05 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5775 MHz | 5.31 | 36.051 | 5.25 | 35.33 | 1.28 | 2.04 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5785 MHz | 5.31 | 36.039 | 5.26 | 35.32 | 1.09 | 2.04 | ±5 | May. 26, 2020 |
| 22.4 | Head | 5795 MHz | 5.31 | 36.025 | 5.27 | 35.31 | 0.90 | 2.02 | ±5 | May. 26, 2020 |
| 22.6 | Head | 5260 MHz | 4.64 | 36.534 | 4.72 | 35.94 | -1.74 | 1.65 | ±5 | May. 25, 2020 |
| 22.4 | Head | 5825 MHz | 5.31 | 35.970 | 5.30 | 35.28 | 0.36 | 1.96 | ±5 | May. 26, 2020 |
| 22.6 | Head | 1720 MHz | 1.34 | 40.384 | 1.35 | 40.16 | -1.04 | 0.56 | ±5 | May. 27, 2020 |

| Tissue Temp (°C) | Head / Body | Frequency | Cond. σ | Perm. εr | target Cond. σ | target Perm. εr | σ (Delta) (%) | εr (Delta) (%) | Limit (%) | Date |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.6 | Head | 1732.5 MHz | 1.35 | 40.352 | 1.36 | 40.13 | -1.14 | 0.55 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1745 MHz | 1.36 | 40.312 | 1.37 | 40.09 | -1.11 | 0.55 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1850.2 MHz | 1.40 | 39.941 | 1.40 | 40.00 | -0.21 | -0.15 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1880 MHz | 1.42 | 39.811 | 1.40 | 40.00 | 1.68 | -0.47 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1909.8 MHz | 1.45 | 39.732 | 1.40 | 40.00 | 3.47 | -0.67 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1852.4 MHz | 1.40 | 39.940 | 1.40 | 40.00 | -0.20 | -0.15 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1880 MHz | 1.42 | 39.811 | 1.40 | 40.00 | 1.68 | -0.47 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1907.6 MHz | 1.45 | 39.738 | 1.40 | 40.00 | 3.35 | -0.66 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1860 MHz | 1.41 | 39.895 | 1.40 | 40.00 | 0.44 | -0.26 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1880 MHz | 1.42 | 39.811 | 1.40 | 40.00 | 1.68 | -0.47 | ±5 | May. 27, 2020 |
| 22.6 | Head | 1900 MHz | 1.44 | 39.757 | 1.40 | 40.00 | 2.93 | -0.61 | ±5 | May. 27, 2020 |
| 22.5 | Head | 824.2 MHz | 0.90 | 42.607 | 0.90 | 41.55 | -0.21 | 2.54 | ±5 | May. 28, 2020 |
| 22.5 | Head | 836.6 MHz | 0.91 | 42.453 | 0.90 | 41.50 | 0.76 | 2.30 | ±5 | May. 28, 2020 |
| 22.5 | Head | 848.8 MHz | 0.92 | 42.277 | 0.91 | 41.50 | 0.53 | 1.87 | ±5 | May. 28, 2020 |
| 22.5 | Head | 826.4 MHz | 0.90 | 42.584 | 0.90 | 41.54 | 0.03 | 2.51 | ±5 | May. 28, 2020 |
| 22.5 | Head | 836.4 MHz | 0.91 | 42.455 | 0.90 | 41.50 | 0.75 | 2.30 | ±5 | May. 28, 2020 |
| 22.5 | Head | 846.6 MHz | 0.92 | 42.307 | 0.91 | 41.50 | 0.66 | 1.94 | ±5 | May. 28, 2020 |
| 22.5 | Head | 829 MHz | 0.90 | 42.555 | 0.90 | 41.53 | 0.30 | 2.47 | ±5 | May. 28, 2020 |
| 22.5 | Head | 836.5 MHz | 0.91 | 42.453 | 0.90 | 41.50 | 0.76 | 2.30 | ±5 | May. 28, 2020 |
| 22.5 | Head | 844 MHz | 0.92 | 42.341 | 0.91 | 41.50 | 0.64 | 2.03 | ±5 | May. 28, 2020 |
| 22.5 | Head | 704 MHz | 0.86 | 42.631 | 0.89 | 42.15 | -3.60 | 1.14 | ±5 | May. 28, 2020 |
| 22.5 | Head | 707.5 MHz | 0.86 | 42.578 | 0.89 | 42.13 | -3.19 | 1.06 | ±5 | May. 28, 2020 |
| 22.5 | Head | 711 MHz | 0.86 | 42.527 | 0.89 | 42.11 | -2.80 | 0.99 | ±5 | May. 28, 2020 |
| 22.5 | Head | 709 MHz | 0.86 | 42.555 | 0.89 | 42.12 | -3.02 | 1.03 | ±5 | May. 28, 2020 |
| 22.5 | Head | 710 MHz | 0.86 | 42.542 | 0.89 | 42.11 | -2.91 | 1.03 | ±5 | May. 28, 2020 |
| 22.5 | Head | 711 MHz | 0.86 | 42.527 | 0.89 | 42.11 | -2.80 | 0.99 | ±5 | May. 28, 2020 |

## 6.3 Liquid Depth

According to KDB865664 ,the depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm with ≤ ± 0.5 cm variation for SAR measurements ≤ 3 GHz and ≥ 10.0 cm with ≤ ± 0.5 cm variation for measurements > 3 GHz.

| | |
|---|---|
|  |  |
| Liquid Height for Head SAR (Low Freq.) | Liquid Height for Head SAR (High Freq.) |
|  |  |
| Liquid Height for Body SAR (Low Freq.) | Liquid Height for Body SAR (High Freq.) |

# 7. SAR Testing with RF Transmitters

## 7.1 SAR Testing with GSM / GPRS / EGPRS

**<General requirements>**

1. The following procedures may be considered for each frequency band to determine SAR test reduction for devices operating in GSM/GPRS/EDGE modes to demonstrate RF exposure compliance. GSM voice mode transmits with 1 time slot.
2. GPRS and EDGE may transmit up to 4 time slots in the 8 time-slot frame according to the multislot class implemented in a device.
3. The SAR test reduction procedures for GSM/(E)GPRS devices may be considered in conjunction with the applicable SAR test reduction provisions in KDB Publication 447498 D01.
4. SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance.
5. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
6. The GMSK and 8-PSK EDGE configurations are considered separately for SAR compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

**<Setup >**

Configure the basestation to support GMSK and 8PSK call respectively, and set timeslot transmission for GMSK GSM/GPRS and 8PSK EDGE. Measure and record power outputs for both modulations, that test is applicable.

## 7.2 SAR Testing with WCDMA

**<General requirements>**

1. The default test configuration is to measure SAR with an established radio link between the handset and a communication test set using a 12.2 kbps RMC (reference measurement channel) configured in Test Loop Mode 1.
2. SAR must be measured according to these maximum output conditions and requirements in KDB Publication 447498 D01.
3. **Head SAR**:
   - SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.
4. **Body-Worn Accessory SAR**:
   - SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.
   - The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode.

**<Setup >**

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).

- Step1: set a Test Mode 1 loop back with a 12.2 kbps Reference Measurement Channel (RMC).
- Step 2: set and send continuously up power control commands to the device.
- Step 3: measure the power at the device antenna connector using the power meter with average detector and test SAR.

## 7.3 SAR Testing with LTE

**<General requirements>**

1. Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.
3. When the highest reported SAR for 1 RB and 50% RB allocation are > 0.8 W/kg, SAR is measured for the highest output power channel in 100%RB.
4. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.
5. The procedures required for 1 RB allocation are applied to measure the SAR for QPSK with 50% RB allocation.
6. For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
7. SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.
8. According to 5.3 of KDB 941225 D05, that about the test reduction for other channel bandwidth, if the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg, then SAR need to test.
9. 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; therefore, the requirement for H, M, and L channels may not fully apply.

**<FDD Setup >**

All SAR measurements for LTE were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements.Configure the basestation to support LTE tests in respect to the 3GPP 36.521-1,and set ch , RB allocation number ,RB allocation offset , and send continuously Up power control commands to the device.

MPR was enabled for this device. A-MPR was disabled for all SAR test measurements.

**<TDD Setup >**

All SAR measurements for LTE were performed using the Anritsu MT8820C. A closed loop power control setting allowed the UE to transmit at the maximum output power during the SAR measurements.Configure the basestation to support LTE tests in respect to the 3GPP 36.521-1,and set ch , TDD mode , RB allocation number ,RB allocation offset , and send continuously Up power control commands to the device.
MPR was enabled for this device. A-MPR was disabled for all SAR test measurements.
For 3GPP table 4.2.1 as below, support configurations and worst-case UpPTS information into the table.

**3GPP Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).**

| Special subframe configuration | Normal cyclic prefix in downlink | | | Extended cyclic prefix in downlink | | | EUT Support Special subframe | Worst case UpPTS |
|---|---|---|---|---|---|---|---|---|
| | DwPTS | UpPTS | | DwPTS | UpPTS | | | |
| | | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink | | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink | | |
| 0 | 6592×Ts | 2192×Ts | 2560×Ts | 7680×Ts | 2192×Ts | 2560×Ts | □ | □ |
| 1 | 19760×Ts | | | 20480×Ts | | | □ | □ |
| 2 | 21952×Ts | | | 23040×Ts | | | □ | □ |
| 3 | 24144×Ts | | | 25600×Ts | | | ■ | □ |
| 4 | 26336×Ts | | | 7680×Ts | 4384×Ts | 5120×Ts | ■ | □ |
| 5 | 6592×Ts | 4384×Ts | 5120×Ts | 20480×Ts | | | □ | □ |
| 6 | 19760×Ts | | | 23040×Ts | | | □ | □ |
| 7 | 21952×Ts | | | 12800×Ts | | | ■ | ■ |
| 8 | 24144×Ts | | | - | - | - | □ | □ |
| 9 | 13168×Ts | | | - | - | - | □ | □ |
| Duty cycle$_{(maximum)}$ | | | | | | | | 43.33 % |

**The EUT only supports the 40 % case, which is Table 4.2.2, configuration #1 below.**

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

**<Maximum power reduction (MPR) >**

Identify the LTE voice/data requirements in each operating mode and exposure condition with respect to head and body test configurations, antenna locations, handset flip-cover or slide positions, antenna diversity conditions etc.

The voice and data transmission:

- Data only device.

Identify if Maximum Power Reduction (MPR) is optional or mandatory, i.e. built-in by design:

- Maximum Power Reduction (MPR) is mandatory, i.e. built-in by design.
- A-MPR (additional MPR) must be disabled
- A-MPR was disabled during testing.

| Maximum Power Reduction (MPR) for Power Class 3 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Channel bandwidth / Transmission bandwidth configuration (RB) | | | | | | | |
| Modulation | 1.4 MHz | 3 MHz | 5 MHz | 10 MHz | 15 MHz | 20MHz | MPR (dB) |
| 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 |

## 7.4 LTE Frequency range and channel bandwidth

**Channel bandwidth support:**

| Band | BW (MHz) | | | | | |
|---|---|---|---|---|---|---|
| | 1.4 | 3 | 5 | 10 | 15 | 20 |
| LTE Band 2 | V | V | V | V | V | V |
| LTE Band 4 | V | V | V | V | V | V |
| LTE Band 5 | V | V | V | V | --- | --- |
| LTE Band 7 | --- | --- | V | V | V | V |
| LTE Band 12 | V | V | V | V | --- | --- |
| LTE Band 17 | --- | --- | V | V | --- | --- |
| LTE Band 38 | --- | --- | V | V | V | V |
| LTE Band 40 | --- | --- | V | V | --- | --- |
| LTE Band 41 | --- | --- | V | V | V | V |

| LTE Band | Bandwidth (MHz) | Test requency ID | $N_{UL}$ | Frequency of Uplink (MHz) |
|---|---|---|---|---|
| LTE Band 2 | 1.4 | Low Range | 18607 | 1850.7 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19193 | 1909.3 |
| | 3 | Low Range | 18615 | 1851.5 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19185 | 1908.5 |
| | 5 | Low Range | 18625 | 1852.5 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19175 | 1907.5 |
| | 10 | Low Range | 18650 | 1855.0 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19150 | 1905.0 |
| | 15 | Low Range | 18675 | 1857.5 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19125 | 1902.5 |
| | 20 | Low Range | 18700 | 1860.0 |
| | | Mid Range | 18900 | 1880.0 |
| | | High Range | 19100 | 1900.0 |

| LTE Band | Bandwidth (MHz) | Test requency ID | $N_{UL}$ | Frequency of Uplink (MHz) |
|---|---|---|---|---|
| LTE Band 4 | 1.4 | Low Range | 19957 | 1710.7 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20393 | 1754.3 |
| | 3 | Low Range | 19965 | 1711.5 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20385 | 1753.5 |
| | 5 | Low Range | 19975 | 1712.5 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20375 | 1752.5 |
| | 10 | Low Range | 20000 | 1715.0 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20350 | 1750.0 |
| | 15 | Low Range | 20025 | 1717.5 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20325 | 1747.5 |
| | 20 | Low Range | 20050 | 1720.0 |
| | | Mid Range | 20175 | 1732.5 |
| | | High Range | 20300 | 1745.0 |
| LTE Band 5 | 1.4 | Low Range | 20407 | 824.7 |
| | | Mid Range | 20525 | 836.5 |
| | | High Range | 20643 | 848.3 |
| | 3 | Low Range | 20415 | 825.5 |
| | | Mid Range | 20525 | 836.5 |
| | | High Range | 20635 | 847.5 |
| | 5 | Low Range | 20425 | 826.5 |
| | | Mid Range | 20525 | 836.5 |
| | | High Range | 20625 | 846.5 |
| | 10 | Low Range | 20450 | 829.0 |
| | | Mid Range | 20525 | 836.5 |
| | | High Range | 20600 | 844.0 |

| LTE Band | Bandwidth (MHz) | Test frequency ID | $N_{UL}$ | Frequency of Uplink (MHz) |
|---|---|---|---|---|
| LTE Band 7 | 5 | Low Range | 20775 | 2502.5 |
| | | Mid Range | 21100 | 2535.0 |
| | | High Range | 21425 | 2567.5 |
| | 10 | Low Range | 20800 | 2505.0 |
| | | Mid Range | 21100 | 2535.0 |
| | | High Range | 21400 | 2565.0 |
| | 15 | Low Range | 20825 | 2507.5 |
| | | Mid Range | 21100 | 2535.0 |
| | | High Range | 21375 | 2562.5 |
| | 20 | Low Range | 20850 | 2510.0 |
| | | Mid Range | 21100 | 2535.0 |
| | | High Range | 21350 | 2560.0 |
| LTE Band 12 | 1.4 | Low Range | 23017 | 699.7 |
| | | Mid Range | 23095 | 707.5 |
| | | High Range | 23173 | 715.3 |
| | 3 | Low Range | 23025 | 700.5 |
| | | Mid Range | 23095 | 707.5 |
| | | High Range | 23165 | 714.5 |
| | 5 | Low Range | 23035 | 701.5 |
| | | Mid Range | 23095 | 707.5 |
| | | High Range | 23155 | 713.5 |
| | 10 | Low Range | 23060 | 704.0 |
| | | Mid Range | 23095 | 707.5 |
| | | High Range | 23130 | 711.0 |
| LTE Band 17 | 5 | Low Range | 23755 | 706.5 |
| | | Mid Range | 23790 | 710.0 |
| | | High Range | 23825 | 713.5 |
| | 10 | Low Range | 23780 | 709.0 |
| | | Mid Range | 23790 | 710.0 |
| | | High Range | 23800 | 711.0 |

| LTE Band | Bandwidth (MHz) | Test requency ID | $N_{UL}$ | Frequency of Uplink (MHz) |
|---|---|---|---|---|
| LTE Band 38 | 5 | Low Range | 37775 | 2572.5 |
| | | Mid Range | 38000 | 2595.0 |
| | | High Range | 38225 | 2617.5 |
| | 10 | Low Range | 37800 | 2575.0 |
| | | Mid Range | 38000 | 2595.0 |
| | | High Range | 38200 | 2615.0 |
| | 15 | Low Range | 37825 | 2577.5 |
| | | Mid Range | 38000 | 2595.0 |
| | | High Range | 38175 | 2612.5 |
| | 20 | Low Range | 37850 | 2580.0 |
| | | Mid Range | 38000 | 2595.0 |
| | | High Range | 38150 | 2610.0 |
| LTE Band 40 | 5 | Low Range | 38725 | 2307.5 |
| | | Mid Range | 38750 | 2310.0 |
| | | High Range | 38775 | 2312.5 |
| | 10 | Mid Range | 38750 | 2310.0 |
| | 5 | Low Range | 39175 | 2352.5 |
| | | Mid Range | 39200 | 2355.0 |
| | | High Range | 39225 | 2357.5 |
| | 10 | Mid Range | 39200 | 2355.0 |
| LTE Band 41 | 5 | Low Range | 40265 | 2557.5 |
| | | Mid Range | 40585 | 2589.5 |
| | | Mid Range | 40905 | 2621.5 |
| | | High Range | 41215 | 2652.5 |
| | 10 | Low Range | 40290 | 2560.0 |
| | | Mid Range | 40590 | 2590.0 |
| | | Mid Range | 40890 | 2620.0 |
| | | High Range | 41190 | 2650.0 |
| | 15 | Low Range | 40315 | 2562.5 |
| | | Mid Range | 40590 | 2590.5 |
| | | Mid Range | 40885 | 2619.5 |
| | | High Range | 41165 | 2647.5 |
| | 20 | Low Range | 40340 | 2565.0 |
| | | Mid Range | 40600 | 2591.0 |
| | | Mid Range | 40870 | 2618.0 |
| | | High Range | 41140 | 2645.0 |

## 7.5 SAR Testing with 802.11 Wi-Fi

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the initial test position(s) by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The initial test position(s) is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the reported SAR for the initial test position is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- > 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions are tested.
  - For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
  - When it is unclear, all equivalent conditions must be tested.

- For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required test channels are considered.
  - The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

- When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.
- When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

## 7.6 Conducted Power

**< GSM / GPRS / EGPRS >**

| Band | Modulation | Test Mode | CH | | Frequency (MHz) | Source-Time Average (dBm) | | Average burst (dBm) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conducted power | Tune-up power | Conducted power | Tune-up power |
| GSM 850 | GMSK | 1Down1Up Duty factor 1/8 | Lowest | 128 | 824.2 | 23.64 | 23.97 | 32.67 | 33.00 |
| | | | Middle | 190 | 836.6 | 23.60 | 23.97 | 32.63 | 33.00 |
| | | | Highest | 251 | 848.8 | 23.51 | 23.97 | 32.54 | 33.00 |
| GPRS 850 Multi Class :12 Max Up:4 Max Down:4 Sum:5 | | 4Down1Up Duty factor 1/8 | Lowest | 128 | 824.2 | 23.44 | 23.47 | 32.47 | 32.50 |
| | | | Middle | 190 | 836.6 | 23.42 | 23.47 | 32.45 | 32.50 |
| | | | Highest | 251 | 848.8 | 23.31 | 23.47 | 32.34 | 32.50 |
| | | 3Down2Up Duty factor 2/8 | Lowest | 128 | 824.2 | 26.29 | 26.48 | 32.31 | 32.50 |
| | | | Middle | 190 | 836.6 | 26.27 | 26.48 | 32.29 | 32.50 |
| | | | Highest | 251 | 848.8 | 26.15 | 26.48 | 32.17 | 32.50 |
| | | 2Down3Up Duty factor 3/8 | Lowest | 128 | 824.2 | 27.86 | 28.24 | 32.12 | 32.50 |
| | | | Middle | 190 | 836.6 | 27.81 | 28.24 | 32.07 | 32.50 |
| | | | Highest | 251 | 848.8 | 27.74 | 28.24 | 32.00 | 32.50 |
| | | 1Down4Up Duty factor 4/8 | Lowest | 128 | 824.2 | 28.90 | 28.99 | 31.91 | 32.00 |
| | | | Middle | 190 | 836.6 | 28.84 | 28.99 | 31.85 | 32.00 |
| | | | Highest | 251 | 848.8 | 28.76 | 28.99 | 31.77 | 32.00 |
| EGPRS 850 Multi Class :12 Max Up:4 Max Down:4 Sum:5 | 8PSK | 4Down1Up Duty factor 1/8 | Lowest | 128 | 824.2 | 16.89 | 16.97 | 25.92 | 26.00 |
| | | | Middle | 190 | 836.6 | 16.91 | 16.97 | 25.94 | 26.00 |
| | | | Highest | 251 | 848.8 | 16.94 | 16.97 | 25.97 | 26.00 |
| | | 3Down2Up Duty factor 2/8 | Lowest | 128 | 824.2 | 19.68 | 19.98 | 25.70 | 26.00 |
| | | | Middle | 190 | 836.6 | 19.72 | 19.98 | 25.74 | 26.00 |
| | | | Highest | 251 | 848.8 | 19.73 | 19.98 | 25.75 | 26.00 |
| | | 2Down3Up Duty factor 3/8 | Lowest | 128 | 824.2 | 21.18 | 21.74 | 25.44 | 26.00 |
| | | | Middle | 190 | 836.6 | 21.25 | 21.74 | 25.51 | 26.00 |
| | | | Highest | 251 | 848.8 | 21.29 | 21.74 | 25.55 | 26.00 |
| | | 1Down4Up Duty factor 4/8 | Lowest | 128 | 824.2 | 22.21 | 22.49 | 25.22 | 25.50 |
| | | | Middle | 190 | 836.6 | 22.24 | 22.49 | 25.25 | 25.50 |
| | | | Highest | 251 | 848.8 | 22.26 | 22.49 | 25.27 | 25.50 |

Note: 1. Time Average power slot duty cycle factor calculate:

1up: Average burst power+10*LOG(1/8)

2up: Average burst power+10*LOG(2/8)

3up: Average burst power+10*LOG(3/8)

4up: Average burst power+10*LOG(4/8)

| Band | Modulation | Test Mode | CH | | Frequency (MHz) | Source-Time Average (dBm) | | Average burst (dBm) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Conducted power | Tune-up power | Conducted power | Tune-up power |
| PCS 1900 | GMSK | 1Down1Up Duty factor 1/8 | Lowest | 512 | 1850.2 | 21.53 | 21.97 | 30.56 | 31.00 |
| | | | Middle | 661 | 1880.0 | 21.46 | 21.97 | 30.49 | 31.00 |
| | | | Highest | 810 | 1909.8 | 21.30 | 21.97 | 30.33 | 31.00 |
| GPRS 1900 Multi Class :12 Max Up:4 Max Down:4 Sum:5 | | 4Down1Up Duty factor 1/8 | Lowest | 512 | 1850.2 | 21.34 | 21.47 | 30.37 | 30.50 |
| | | | Middle | 661 | 1880.0 | 21.27 | 21.47 | 30.30 | 30.50 |
| | | | Highest | 810 | 1909.8 | 21.11 | 21.47 | 30.14 | 30.50 |
| | | 3Down2Up Duty factor 2/8 | Lowest | 512 | 1850.2 | 24.14 | 24.48 | 30.16 | 30.50 |
| | | | Middle | 661 | 1880.0 | 24.07 | 24.48 | 30.09 | 30.50 |
| | | | Highest | 810 | 1909.8 | 23.91 | 24.48 | 29.93 | 30.50 |
| | | 2Down3Up Duty factor 3/8 | Lowest | 512 | 1850.2 | 25.72 | 25.74 | 29.98 | 30.00 |
| | | | Middle | 661 | 1880.0 | 25.65 | 25.74 | 29.91 | 30.00 |
| | | | Highest | 810 | 1909.8 | 25.49 | 25.74 | 29.75 | 30.00 |
| | | 1Down4Up Duty factor 4/8 | Lowest | 512 | 1850.2 | 26.78 | 26.99 | 29.79 | 30.00 |
| | | | Middle | 661 | 1880.0 | 26.71 | 26.99 | 29.72 | 30.00 |
| | | | Highest | 810 | 1909.8 | 26.55 | 26.99 | 29.56 | 30.00 |
| EGPRS 1900 Multi Class :12 Max Up:4 Max Down:4 Sum:5 | 8PSK | 4Down1Up Duty factor 1/8 | Lowest | 512 | 1850.2 | 16.81 | 16.97 | 25.84 | 26.00 |
| | | | Middle | 661 | 1880.0 | 16.67 | 16.97 | 25.70 | 26.00 |
| | | | Highest | 810 | 1909.8 | 16.56 | 16.97 | 25.59 | 26.00 |
| | | 3Down2Up Duty factor 2/8 | Lowest | 512 | 1850.2 | 19.61 | 19.98 | 25.63 | 26.00 |
| | | | Middle | 661 | 1880.0 | 19.46 | 19.98 | 25.48 | 26.00 |
| | | | Highest | 810 | 1909.8 | 19.34 | 19.98 | 25.36 | 26.00 |
| | | 2Down3Up Duty factor 3/8 | Lowest | 512 | 1850.2 | 21.11 | 21.24 | 25.37 | 25.50 |
| | | | Middle | 661 | 1880.0 | 20.98 | 21.24 | 25.24 | 25.50 |
| | | | Highest | 810 | 1909.8 | 20.86 | 21.24 | 25.12 | 25.50 |
| | | 1Down4Up Duty factor 4/8 | Lowest | 512 | 1850.2 | 22.13 | 22.49 | 25.14 | 25.50 |
| | | | Middle | 661 | 1880.0 | 22.00 | 22.49 | 25.01 | 25.50 |
| | | | Highest | 810 | 1909.8 | 21.88 | 22.49 | 24.89 | 25.50 |

Note: 1. Time Average power slot duty cycle factor calculate:
1up: Average burst power+10*LOG(1/8)
2up: Average burst power+10*LOG(2/8)
3up: Average burst power+10*LOG(3/8)
4up: Average burst power+10*LOG(4/8)

**< WCDMA / HSDPA / HSUPA >**

| Band | Modulation | Sub-test | CH | Frequency (MHz) | Average (dBm) | |
|---|---|---|---|---|---|---|
| | | | | | Conducted power | Tune-up power |
| WCDMA Band II (RMC12.2K) | QPSK | --- | Lowest | 1852.4 | 24.65 | 25.00 |
| | | | Middle | 1880.0 | 24.68 | 25.00 |
| | | | Highest | 1907.6 | 24.75 | 25.00 |
| HSDPA Band II | QPSK | 1 | Lowest | 1852.4 | 23.79 | 24.00 |
| | | | Middle | 1880.0 | 23.85 | 24.00 |
| | | | Highest | 1907.6 | 23.90 | 24.00 |
| | | 2 | Lowest | 1852.4 | 23.22 | 23.50 |
| | | | Middle | 1880.0 | 23.27 | 23.50 |
| | | | Highest | 1907.6 | 23.31 | 23.50 |
| | | 3 | Lowest | 1852.4 | 23.16 | 23.50 |
| | | | Middle | 1880.0 | 23.21 | 23.50 |
| | | | Highest | 1907.6 | 23.24 | 23.50 |
| | | 4 | Lowest | 1852.4 | 23.61 | 24.00 |
| | | | Middle | 1880.0 | 23.68 | 24.00 |
| | | | Highest | 1907.6 | 23.71 | 24.00 |
| HSDPA Band II | QPSK | 1 | Lowest | 1852.4 | 23.16 | 23.50 |
| | | | Middle | 1880.0 | 23.25 | 23.50 |
| | | | Highest | 1907.6 | 23.27 | 23.50 |
| | | 2 | Lowest | 1852.4 | 21.16 | 21.50 |
| | | | Middle | 1880.0 | 21.24 | 21.50 |
| | | | Highest | 1907.6 | 21.26 | 21.50 |
| | | 3 | Lowest | 1852.4 | 22.11 | 22.50 |
| | | | Middle | 1880.0 | 22.22 | 22.50 |
| | | | Highest | 1907.6 | 22.21 | 22.50 |
| | | 4 | Lowest | 1852.4 | 21.13 | 21.50 |
| | | | Middle | 1880.0 | 21.24 | 21.50 |
| | | | Highest | 1907.6 | 21.25 | 21.50 |
| | | 5 | Lowest | 1852.4 | 22.96 | 23.50 |
| | | | Middle | 1880.0 | 23.04 | 23.50 |
| | | | Highest | 1907.6 | 23.08 | 23.50 |

| Band | Modulation | Date Rate or Sub-test | CH | | Frequency (MHz) | Average (dBm) | |
|---|---|---|---|---|---|---|---|
| | | | | | | Conducted power | Tune-up power |
| WCDMA V | RMC12.2K | --- | Lowest | 4132 | 826.4 | 23.82 | 24.50 |
| | | | Middle | 4183 | 836.6 | 24.02 | 24.50 |
| | | | Highest | 4233 | 846.6 | 23.76 | 24.50 |
| HSDPA V | QPSK | 1 | Lowest | 4132 | 826.4 | 22.94 | 23.50 |
| | | | Middle | 4183 | 836.6 | 23.17 | 23.50 |
| | | | Highest | 4233 | 846.6 | 22.89 | 23.50 |
| | | 2 | Lowest | 4132 | 826.4 | 22.34 | 23.00 |
| | | | Middle | 4183 | 836.6 | 22.55 | 23.00 |
| | | | Highest | 4233 | 846.6 | 22.29 | 23.00 |
| | | 3 | Lowest | 4132 | 826.4 | 22.32 | 23.00 |
| | | | Middle | 4183 | 836.6 | 22.51 | 23.00 |
| | | | Highest | 4233 | 846.6 | 22.24 | 23.00 |
| | | 4 | Lowest | 4132 | 826.4 | 22.74 | 23.00 |
| | | | Middle | 4183 | 836.6 | 22.99 | 23.00 |
| | | | Highest | 4233 | 846.6 | 22.68 | 23.00 |
| HSUPA V | | 1 | Lowest | 4132 | 826.4 | 22.34 | 23.00 |
| | | | Middle | 4183 | 836.6 | 22.58 | 23.00 |
| | | | Highest | 4233 | 846.6 | 22.28 | 23.00 |
| | | 2 | Lowest | 4132 | 826.4 | 20.31 | 21.00 |
| | | | Middle | 4183 | 836.6 | 20.54 | 21.00 |
| | | | Highest | 4233 | 846.6 | 20.25 | 21.00 |
| | | 3 | Lowest | 4132 | 826.4 | 21.27 | 22.00 |
| | | | Middle | 4183 | 836.6 | 21.55 | 22.00 |
| | | | Highest | 4233 | 846.6 | 21.24 | 22.00 |
| | | 4 | Lowest | 4132 | 826.4 | 20.28 | 21.00 |
| | | | Middle | 4183 | 836.6 | 20.54 | 21.00 |
| | | | Highest | 4233 | 846.6 | 20.26 | 21.00 |
| | | 5 | Lowest | 4132 | 826.4 | 22.14 | 22.50 |
| | | | Middle | 4183 | 836.6 | 22.37 | 22.50 |
| | | | Highest | 4233 | 846.6 | 22.01 | 22.50 |

**< LTE >**

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 1.4MHz | QPSK | 18607 | 1850.7 | 1 | 0 | 23.69 | 24.00 |
| | | | | | 1 | 2 | 23.77 | 24.00 |
| | | | | | 1 | 5 | 23.68 | 24.00 |
| | | | | | 3 | 0 | 23.76 | 24.00 |
| | | | | | 3 | 1 | 23.80 | 24.00 |
| | | | | | 3 | 3 | 23.75 | 24.00 |
| | | | | | 6 | 0 | 22.80 | 23.00 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.77 | 24.00 |
| | | | | | 1 | 2 | 23.87 | 24.00 |
| | | | | | 1 | 5 | 23.78 | 24.00 |
| | | | | | 3 | 0 | 23.83 | 24.00 |
| | | | | | 3 | 1 | 23.88 | 24.00 |
| | | | | | 3 | 3 | 23.83 | 24.00 |
| | | | | | 6 | 0 | 22.86 | 23.00 |
| | | | 19193 | 1909.3 | 1 | 0 | 23.66 | 24.00 |
| | | | | | 1 | 2 | 23.75 | 24.00 |
| | | | | | 1 | 5 | 23.67 | 24.00 |
| | | | | | 3 | 0 | 23.70 | 24.00 |
| | | | | | 3 | 1 | 23.80 | 24.00 |
| | | | | | 3 | 3 | 23.74 | 24.00 |
| | | | | | 6 | 0 | 22.79 | 23.00 |
| | | 16QAM | 18607 | 1850.7 | 1 | 0 | 22.96 | 23.50 |
| | | | | | 1 | 2 | 23.06 | 23.50 |
| | | | | | 1 | 5 | 23.02 | 23.50 |
| | | | | | 3 | 0 | 22.93 | 23.50 |
| | | | | | 3 | 1 | 22.97 | 23.50 |
| | | | | | 3 | 3 | 22.92 | 23.50 |
| | | | | | 6 | 0 | 21.95 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.21 | 23.50 |
| | | | | | 1 | 2 | 23.21 | 23.50 |
| | | | | | 1 | 5 | 23.13 | 23.50 |
| | | | | | 3 | 0 | 23.05 | 23.50 |
| | | | | | 3 | 1 | 23.10 | 23.50 |
| | | | | | 3 | 3 | 23.04 | 23.50 |
| | | | | | 6 | 0 | 22.05 | 22.50 |
| | | | 19193 | 1909.3 | 1 | 0 | 22.90 | 23.50 |
| | | | | | 1 | 2 | 22.92 | 23.50 |
| | | | | | 1 | 5 | 22.85 | 23.50 |
| | | | | | 3 | 0 | 22.82 | 23.50 |
| | | | | | 3 | 1 | 22.87 | 23.50 |
| | | | | | 3 | 3 | 22.82 | 23.50 |
| | | | | | 6 | 0 | 21.89 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 3MHz | QPSK | 18615 | 1851.5 | 1 | 0 | 23.76 | 24.00 |
| | | | | | 1 | 7 | 23.91 | 24.00 |
| | | | | | 1 | 14 | 23.77 | 24.00 |
| | | | | | 8 | 0 | 22.88 | 23.00 |
| | | | | | 8 | 3 | 22.90 | 23.00 |
| | | | | | 8 | 7 | 22.86 | 23.00 |
| | | | | | 15 | 0 | 22.99 | 23.00 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.85 | 24.00 |
| | | | | | 1 | 7 | 23.97 | 24.00 |
| | | | | | 1 | 14 | 23.83 | 24.00 |
| | | | | | 8 | 0 | 22.94 | 23.00 |
| | | | | | 8 | 3 | 22.97 | 23.00 |
| | | | | | 8 | 7 | 22.92 | 23.00 |
| | | | | | 15 | 0 | 22.92 | 23.00 |
| | | | 19185 | 1908.5 | 1 | 0 | 23.74 | 24.00 |
| | | | | | 1 | 7 | 23.83 | 24.00 |
| | | | | | 1 | 14 | 23.72 | 24.00 |
| | | | | | 8 | 0 | 22.82 | 23.00 |
| | | | | | 8 | 3 | 22.88 | 23.00 |
| | | | | | 8 | 7 | 22.83 | 23.00 |
| | | | | | 15 | 0 | 22.86 | 23.00 |
| | | 16QAM | 18615 | 1851.5 | 1 | 0 | 23.08 | 23.50 |
| | | | | | 1 | 7 | 23.18 | 23.50 |
| | | | | | 1 | 14 | 23.07 | 23.50 |
| | | | | | 8 | 0 | 22.02 | 22.50 |
| | | | | | 8 | 3 | 22.05 | 22.50 |
| | | | | | 8 | 7 | 22.00 | 22.50 |
| | | | | | 15 | 0 | 22.04 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.21 | 23.50 |
| | | | | | 1 | 7 | 23.34 | 23.50 |
| | | | | | 1 | 14 | 23.22 | 23.50 |
| | | | | | 8 | 0 | 22.11 | 22.50 |
| | | | | | 8 | 3 | 22.14 | 22.50 |
| | | | | | 8 | 7 | 22.10 | 22.50 |
| | | | | | 15 | 0 | 21.98 | 22.50 |
| | | | 19185 | 1908.5 | 1 | 0 | 23.00 | 23.50 |
| | | | | | 1 | 7 | 23.09 | 23.50 |
| | | | | | 1 | 14 | 22.86 | 23.50 |
| | | | | | 8 | 0 | 21.94 | 22.50 |
| | | | | | 8 | 3 | 21.99 | 22.50 |
| | | | | | 8 | 7 | 21.94 | 22.50 |
| | | | | | 15 | 0 | 21.94 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 5MHz | QPSK | 18625 | 1852.5 | 1 | 0 | 23.79 | 24.00 |
| | | | | | 1 | 12 | 23.78 | 24.00 |
| | | | | | 1 | 24 | 23.74 | 24.00 |
| | | | | | 12 | 0 | 22.88 | 23.00 |
| | | | | | 12 | 6 | 22.93 | 23.00 |
| | | | | | 12 | 13 | 22.96 | 23.00 |
| | | | | | 25 | 0 | 22.98 | 23.00 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.90 | 24.00 |
| | | | | | 1 | 12 | 23.91 | 24.00 |
| | | | | | 1 | 24 | 23.86 | 24.00 |
| | | | | | 12 | 0 | 22.95 | 23.00 |
| | | | | | 12 | 6 | 22.98 | 23.00 |
| | | | | | 12 | 13 | 22.94 | 23.00 |
| | | | | | 25 | 0 | 22.94 | 23.00 |
| | | | 19175 | 1907.5 | 1 | 0 | 23.75 | 24.00 |
| | | | | | 1 | 12 | 23.74 | 24.00 |
| | | | | | 1 | 24 | 23.74 | 24.00 |
| | | | | | 12 | 0 | 22.84 | 23.00 |
| | | | | | 12 | 6 | 22.87 | 23.00 |
| | | | | | 12 | 13 | 22.84 | 23.00 |
| | | | | | 25 | 0 | 22.86 | 23.00 |
| | | 16QAM | 18625 | 1852.5 | 1 | 0 | 23.10 | 23.50 |
| | | | | | 1 | 12 | 23.09 | 23.50 |
| | | | | | 1 | 24 | 23.00 | 23.50 |
| | | | | | 12 | 0 | 22.13 | 22.50 |
| | | | | | 12 | 6 | 22.13 | 22.50 |
| | | | | | 12 | 13 | 22.10 | 22.50 |
| | | | | | 25 | 0 | 22.07 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.23 | 23.50 |
| | | | | | 1 | 12 | 23.25 | 23.50 |
| | | | | | 1 | 24 | 23.19 | 23.50 |
| | | | | | 12 | 0 | 22.14 | 22.50 |
| | | | | | 12 | 6 | 22.13 | 22.50 |
| | | | | | 12 | 13 | 22.09 | 22.50 |
| | | | | | 25 | 0 | 22.04 | 22.50 |
| | | | 19175 | 1907.5 | 1 | 0 | 22.99 | 23.50 |
| | | | | | 1 | 12 | 23.00 | 23.50 |
| | | | | | 1 | 24 | 22.91 | 23.50 |
| | | | | | 12 | 0 | 21.94 | 22.50 |
| | | | | | 12 | 6 | 21.96 | 22.50 |
| | | | | | 12 | 11 | 21.94 | 22.50 |
| | | | | | 25 | 0 | 21.92 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 10MHz | QPSK | 18650 | 1855.0 | 1 | 0 | 23.91 | 24.00 |
| | | | | | 1 | 24 | 23.85 | 24.00 |
| | | | | | 1 | 49 | 23.83 | 24.00 |
| | | | | | 25 | 0 | 23.03 | 23.50 |
| | | | | | 25 | 12 | 23.02 | 23.50 |
| | | | | | 25 | 25 | 22.98 | 23.50 |
| | | | | | 50 | 0 | 23.01 | 23.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 24.00 | 24.00 |
| | | | | | 1 | 24 | 23.95 | 24.00 |
| | | | | | 1 | 49 | 23.93 | 24.00 |
| | | | | | 25 | 0 | 22.98 | 23.50 |
| | | | | | 25 | 12 | 22.98 | 23.50 |
| | | | | | 25 | 25 | 22.94 | 23.50 |
| | | | | | 50 | 0 | 22.98 | 23.50 |
| | | | 19150 | 1905.0 | 1 | 0 | 23.82 | 24.00 |
| | | | | | 1 | 24 | 23.80 | 24.00 |
| | | | | | 1 | 49 | 23.73 | 24.00 |
| | | | | | 25 | 0 | 22.89 | 23.50 |
| | | | | | 25 | 12 | 22.92 | 23.50 |
| | | | | | 25 | 25 | 22.84 | 23.50 |
| | | | | | 50 | 0 | 22.87 | 23.50 |
| | | 16QAM | 18650 | 1855.0 | 1 | 0 | 23.35 | 23.50 |
| | | | | | 1 | 24 | 23.18 | 23.50 |
| | | | | | 1 | 49 | 23.14 | 23.50 |
| | | | | | 25 | 0 | 22.13 | 22.50 |
| | | | | | 25 | 12 | 22.10 | 22.50 |
| | | | | | 25 | 25 | 22.06 | 22.50 |
| | | | | | 50 | 0 | 22.09 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.32 | 23.50 |
| | | | | | 1 | 24 | 23.32 | 23.50 |
| | | | | | 1 | 49 | 23.24 | 23.50 |
| | | | | | 25 | 0 | 22.08 | 22.50 |
| | | | | | 25 | 12 | 22.09 | 22.50 |
| | | | | | 25 | 25 | 22.07 | 22.50 |
| | | | | | 50 | 0 | 22.07 | 22.50 |
| | | | 19150 | 1905.0 | 1 | 0 | 22.96 | 23.50 |
| | | | | | 1 | 24 | 23.01 | 23.50 |
| | | | | | 1 | 49 | 22.95 | 23.50 |
| | | | | | 25 | 0 | 21.94 | 22.50 |
| | | | | | 25 | 12 | 21.96 | 22.50 |
| | | | | | 25 | 25 | 21.94 | 22.50 |
| | | | | | 50 | 0 | 21.94 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 15MHz | QPSK | 18675 | 1857.5 | 1 | 0 | 23.82 | 24.00 |
| | | | | | 1 | 37 | 23.76 | 24.00 |
| | | | | | 1 | 74 | 23.70 | 24.00 |
| | | | | | 36 | 0 | 22.99 | 23.50 |
| | | | | | 36 | 19 | 23.01 | 23.50 |
| | | | | | 36 | 39 | 22.92 | 23.50 |
| | | | | | 75 | 0 | 22.98 | 23.00 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.90 | 24.00 |
| | | | | | 1 | 37 | 23.86 | 24.00 |
| | | | | | 1 | 74 | 23.81 | 24.00 |
| | | | | | 36 | 0 | 22.95 | 23.50 |
| | | | | | 36 | 19 | 22.97 | 23.50 |
| | | | | | 36 | 39 | 22.95 | 23.50 |
| | | | | | 75 | 0 | 22.94 | 23.00 |
| | | | 19125 | 1902.5 | 1 | 0 | 23.78 | 24.00 |
| | | | | | 1 | 37 | 23.73 | 24.00 |
| | | | | | 1 | 74 | 23.73 | 24.00 |
| | | | | | 36 | 0 | 22.85 | 23.50 |
| | | | | | 36 | 19 | 22.88 | 23.50 |
| | | | | | 36 | 39 | 22.84 | 23.50 |
| | | | | | 75 | 0 | 22.87 | 23.00 |
| | | 16QAM | 18675 | 1857.5 | 1 | 0 | 23.08 | 23.50 |
| | | | | | 1 | 37 | 23.02 | 23.50 |
| | | | | | 1 | 74 | 22.97 | 23.50 |
| | | | | | 36 | 0 | 22.05 | 22.50 |
| | | | | | 36 | 19 | 22.12 | 22.50 |
| | | | | | 36 | 39 | 22.01 | 22.50 |
| | | | | | 75 | 0 | 22.03 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.21 | 23.50 |
| | | | | | 1 | 37 | 23.23 | 23.50 |
| | | | | | 1 | 74 | 23.11 | 23.50 |
| | | | | | 36 | 0 | 22.09 | 22.50 |
| | | | | | 36 | 19 | 22.13 | 22.50 |
| | | | | | 36 | 39 | 22.08 | 22.50 |
| | | | | | 75 | 0 | 22.05 | 22.50 |
| | | | 19125 | 1902.5 | 1 | 0 | 22.96 | 23.50 |
| | | | | | 1 | 37 | 22.96 | 23.50 |
| | | | | | 1 | 74 | 22.94 | 23.50 |
| | | | | | 36 | 0 | 21.90 | 22.50 |
| | | | | | 36 | 19 | 21.94 | 22.50 |
| | | | | | 36 | 39 | 21.94 | 22.50 |
| | | | | | 75 | 0 | 21.92 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 2 | 20MHz | QPSK | 18700 | 1860.0 | 1 | 0 | 23.94 | 24.00 |
| | | | | | 1 | 49 | 23.89 | 24.00 |
| | | | | | 1 | 99 | 23.92 | 24.00 |
| | | | | | 50 | 0 | 23.01 | 23.50 |
| | | | | | 50 | 25 | 23.01 | 23.50 |
| | | | | | 50 | 50 | 23.03 | 23.50 |
| | | | | | 100 | 0 | 23.04 | 23.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.91 | 24.00 |
| | | | | | 1 | 49 | 23.91 | 24.00 |
| | | | | | 1 | 99 | 23.82 | 24.00 |
| | | | | | 50 | 0 | 22.95 | 23.50 |
| | | | | | 50 | 25 | 22.97 | 23.50 |
| | | | | | 50 | 50 | 22.93 | 23.50 |
| | | | | | 100 | 0 | 22.96 | 23.50 |
| | | | 19100 | 1900.0 | 1 | 0 | 23.77 | 24.00 |
| | | | | | 1 | 49 | 23.76 | 24.00 |
| | | | | | 1 | 99 | 23.71 | 24.00 |
| | | | | | 50 | 0 | 22.89 | 23.50 |
| | | | | | 50 | 25 | 22.89 | 23.50 |
| | | | | | 50 | 50 | 22.85 | 23.50 |
| | | | | | 100 | 0 | 22.89 | 23.50 |
| | | 16QAM | 18700 | 1860.0 | 1 | 0 | 23.22 | 23.50 |
| | | | | | 1 | 49 | 23.13 | 23.50 |
| | | | | | 1 | 99 | 23.22 | 23.50 |
| | | | | | 50 | 0 | 22.09 | 22.50 |
| | | | | | 50 | 25 | 22.09 | 22.50 |
| | | | | | 50 | 50 | 22.10 | 22.50 |
| | | | | | 100 | 0 | 22.11 | 22.50 |
| | | | 18900 | 1880.0 | 1 | 0 | 23.24 | 23.50 |
| | | | | | 1 | 49 | 23.25 | 23.50 |
| | | | | | 1 | 99 | 23.12 | 23.50 |
| | | | | | 50 | 0 | 22.08 | 22.50 |
| | | | | | 50 | 25 | 22.10 | 22.50 |
| | | | | | 50 | 50 | 22.05 | 22.50 |
| | | | | | 100 | 0 | 22.06 | 22.50 |
| | | | 19100 | 1900.0 | 1 | 0 | 23.12 | 23.50 |
| | | | | | 1 | 49 | 22.98 | 23.50 |
| | | | | | 1 | 99 | 22.96 | 23.50 |
| | | | | | 50 | 0 | 21.96 | 22.50 |
| | | | | | 50 | 25 | 21.94 | 22.50 |
| | | | | | 50 | 50 | 21.92 | 22.50 |
| | | | | | 100 | 0 | 21.92 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 1.4MHz | QPSK | 19957 | 1710.7 | 1 | 0 | 23.67 | 24.00 |
| | | | | | 1 | 2 | 23.76 | 24.00 |
| | | | | | 1 | 5 | 23.66 | 24.00 |
| | | | | | 3 | 0 | 23.74 | 24.00 |
| | | | | | 3 | 1 | 23.77 | 24.00 |
| | | | | | 3 | 3 | 23.78 | 24.00 |
| | | | | | 6 | 0 | 22.73 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.71 | 24.00 |
| | | | | | 1 | 2 | 23.81 | 24.00 |
| | | | | | 1 | 5 | 23.69 | 24.00 |
| | | | | | 3 | 0 | 23.75 | 24.00 |
| | | | | | 3 | 1 | 23.83 | 24.00 |
| | | | | | 3 | 3 | 23.78 | 24.00 |
| | | | | | 6 | 0 | 22.78 | 23.00 |
| | | | 20393 | 1754.3 | 1 | 0 | 23.66 | 24.00 |
| | | | | | 1 | 2 | 23.74 | 24.00 |
| | | | | | 1 | 5 | 23.68 | 24.00 |
| | | | | | 3 | 0 | 23.72 | 24.00 |
| | | | | | 3 | 1 | 23.78 | 24.00 |
| | | | | | 3 | 3 | 23.71 | 24.00 |
| | | | | | 6 | 0 | 22.72 | 23.00 |
| | | 16QAM | 19957 | 1710.7 | 1 | 0 | 22.91 | 23.50 |
| | | | | | 1 | 2 | 23.05 | 23.50 |
| | | | | | 1 | 5 | 22.96 | 23.50 |
| | | | | | 3 | 0 | 22.88 | 23.00 |
| | | | | | 3 | 1 | 22.93 | 23.00 |
| | | | | | 3 | 3 | 22.87 | 23.00 |
| | | | | | 6 | 0 | 21.89 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 22.91 | 23.50 |
| | | | | | 1 | 2 | 23.00 | 23.50 |
| | | | | | 1 | 5 | 22.95 | 23.50 |
| | | | | | 3 | 0 | 22.87 | 23.00 |
| | | | | | 3 | 1 | 22.94 | 23.00 |
| | | | | | 3 | 3 | 22.87 | 23.00 |
| | | | | | 6 | 0 | 21.91 | 22.00 |
| | | | 20393 | 1754.3 | 1 | 0 | 22.96 | 23.50 |
| | | | | | 1 | 2 | 23.02 | 23.50 |
| | | | | | 1 | 5 | 22.90 | 23.50 |
| | | | | | 3 | 0 | 22.84 | 23.00 |
| | | | | | 3 | 1 | 22.88 | 23.00 |
| | | | | | 3 | 3 | 22.88 | 23.00 |
| | | | | | 6 | 0 | 21.87 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 3MHz | QPSK | 19965 | 1711.5 | 1 | 0 | 23.70 | 24.00 |
| | | | | | 1 | 7 | 23.83 | 24.00 |
| | | | | | 1 | 14 | 23.66 | 24.00 |
| | | | | | 8 | 0 | 22.80 | 23.00 |
| | | | | | 8 | 3 | 22.80 | 23.00 |
| | | | | | 8 | 7 | 22.75 | 23.00 |
| | | | | | 15 | 0 | 22.77 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.77 | 24.00 |
| | | | | | 1 | 7 | 23.87 | 24.00 |
| | | | | | 1 | 14 | 23.71 | 24.00 |
| | | | | | 8 | 0 | 22.81 | 23.00 |
| | | | | | 8 | 3 | 22.86 | 23.00 |
| | | | | | 8 | 7 | 22.76 | 23.00 |
| | | | | | 15 | 0 | 22.83 | 23.00 |
| | | | 20385 | 1753.5 | 1 | 0 | 23.70 | 24.00 |
| | | | | | 1 | 7 | 23.80 | 24.00 |
| | | | | | 1 | 14 | 23.68 | 24.00 |
| | | | | | 8 | 0 | 22.76 | 23.00 |
| | | | | | 8 | 3 | 22.80 | 23.00 |
| | | | | | 8 | 7 | 22.73 | 23.00 |
| | | | | | 15 | 0 | 22.77 | 23.00 |
| | | 16QAM | 19965 | 1711.5 | 1 | 0 | 22.95 | 23.50 |
| | | | | | 1 | 7 | 23.10 | 23.50 |
| | | | | | 1 | 14 | 22.99 | 23.50 |
| | | | | | 8 | 0 | 21.89 | 22.00 |
| | | | | | 8 | 3 | 21.93 | 22.00 |
| | | | | | 8 | 7 | 21.90 | 22.00 |
| | | | | | 15 | 0 | 21.85 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.05 | 23.50 |
| | | | | | 1 | 7 | 23.08 | 23.50 |
| | | | | | 1 | 14 | 22.95 | 23.50 |
| | | | | | 8 | 0 | 21.92 | 22.00 |
| | | | | | 8 | 3 | 21.94 | 22.00 |
| | | | | | 8 | 7 | 21.92 | 22.00 |
| | | | | | 15 | 0 | 21.88 | 22.00 |
| | | | 20385 | 1753.5 | 1 | 0 | 22.97 | 23.50 |
| | | | | | 1 | 7 | 23.09 | 23.50 |
| | | | | | 1 | 14 | 22.94 | 23.50 |
| | | | | | 8 | 0 | 21.89 | 22.00 |
| | | | | | 8 | 3 | 21.93 | 22.00 |
| | | | | | 8 | 7 | 21.86 | 22.00 |
| | | | | | 15 | 0 | 21.83 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 5MHz | QPSK | 19975 | 1712.5 | 1 | 0 | 23.77 | 24.00 |
| | | | | | 1 | 12 | 23.75 | 24.00 |
| | | | | | 1 | 24 | 23.65 | 24.00 |
| | | | | | 12 | 0 | 22.73 | 23.00 |
| | | | | | 12 | 6 | 22.79 | 23.00 |
| | | | | | 12 | 13 | 22.73 | 23.00 |
| | | | | | 25 | 0 | 22.74 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.73 | 24.00 |
| | | | | | 1 | 12 | 23.73 | 24.00 |
| | | | | | 1 | 24 | 23.69 | 24.00 |
| | | | | | 12 | 0 | 22.78 | 23.00 |
| | | | | | 12 | 6 | 22.84 | 23.00 |
| | | | | | 12 | 13 | 22.77 | 23.00 |
| | | | | | 25 | 0 | 22.78 | 23.00 |
| | | | 20375 | 1752.5 | 1 | 0 | 23.71 | 24.00 |
| | | | | | 1 | 12 | 23.71 | 24.00 |
| | | | | | 1 | 24 | 23.64 | 24.00 |
| | | | | | 12 | 0 | 22.73 | 23.00 |
| | | | | | 12 | 6 | 22.80 | 23.00 |
| | | | | | 12 | 13 | 22.70 | 23.00 |
| | | | | | 25 | 0 | 22.73 | 23.00 |
| | | 16QAM | 19975 | 1712.5 | 1 | 0 | 22.99 | 23.50 |
| | | | | | 1 | 12 | 22.99 | 23.50 |
| | | | | | 1 | 24 | 22.95 | 23.50 |
| | | | | | 12 | 0 | 21.88 | 22.00 |
| | | | | | 12 | 6 | 21.90 | 22.00 |
| | | | | | 12 | 13 | 21.87 | 22.00 |
| | | | | | 25 | 0 | 21.84 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.07 | 23.50 |
| | | | | | 1 | 12 | 23.03 | 23.50 |
| | | | | | 1 | 24 | 22.98 | 23.50 |
| | | | | | 12 | 0 | 21.92 | 22.00 |
| | | | | | 12 | 6 | 21.94 | 22.00 |
| | | | | | 12 | 13 | 21.88 | 22.00 |
| | | | | | 25 | 0 | 21.88 | 22.00 |
| | | | 20375 | 1752.5 | 1 | 0 | 22.97 | 23.50 |
| | | | | | 1 | 12 | 22.96 | 23.50 |
| | | | | | 1 | 24 | 22.92 | 23.50 |
| | | | | | 12 | 0 | 21.87 | 22.00 |
| | | | | | 12 | 6 | 21.90 | 22.00 |
| | | | | | 12 | 11 | 21.83 | 22.00 |
| | | | | | 25 | 0 | 21.82 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 10MHz | QPSK | 20000 | 1715.0 | 1 | 0 | 23.72 | 24.00 |
| | | | | | 1 | 24 | 23.73 | 24.00 |
| | | | | | 1 | 49 | 23.69 | 24.00 |
| | | | | | 25 | 0 | 22.76 | 23.00 |
| | | | | | 25 | 12 | 22.75 | 23.00 |
| | | | | | 25 | 25 | 22.70 | 23.00 |
| | | | | | 50 | 0 | 22.76 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.83 | 24.00 |
| | | | | | 1 | 24 | 23.77 | 24.00 |
| | | | | | 1 | 49 | 23.69 | 24.00 |
| | | | | | 25 | 0 | 22.82 | 23.00 |
| | | | | | 25 | 12 | 22.81 | 23.00 |
| | | | | | 25 | 25 | 22.80 | 23.00 |
| | | | | | 50 | 0 | 22.80 | 23.00 |
| | | | 20350 | 1750.0 | 1 | 0 | 23.77 | 24.00 |
| | | | | | 1 | 24 | 23.75 | 24.00 |
| | | | | | 1 | 49 | 23.64 | 24.00 |
| | | | | | 25 | 0 | 22.77 | 23.00 |
| | | | | | 25 | 12 | 22.77 | 23.00 |
| | | | | | 25 | 25 | 22.73 | 23.00 |
| | | | | | 50 | 0 | 22.77 | 23.00 |
| | | 16QAM | 20000 | 1715.0 | 1 | 0 | 23.01 | 23.50 |
| | | | | | 1 | 24 | 23.01 | 23.50 |
| | | | | | 1 | 49 | 23.00 | 23.50 |
| | | | | | 25 | 0 | 21.87 | 22.00 |
| | | | | | 25 | 12 | 21.88 | 22.00 |
| | | | | | 25 | 25 | 21.82 | 22.00 |
| | | | | | 50 | 0 | 21.85 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.14 | 23.50 |
| | | | | | 1 | 24 | 23.07 | 23.50 |
| | | | | | 1 | 49 | 22.93 | 23.50 |
| | | | | | 25 | 0 | 21.93 | 22.00 |
| | | | | | 25 | 12 | 21.93 | 22.00 |
| | | | | | 25 | 25 | 21.85 | 22.00 |
| | | | | | 50 | 0 | 21.90 | 22.00 |
| | | | 20350 | 1750.0 | 1 | 0 | 23.01 | 23.50 |
| | | | | | 1 | 24 | 23.05 | 23.50 |
| | | | | | 1 | 49 | 22.90 | 23.50 |
| | | | | | 25 | 0 | 21.90 | 22.00 |
| | | | | | 25 | 12 | 21.87 | 22.00 |
| | | | | | 25 | 25 | 21.80 | 22.00 |
| | | | | | 50 | 0 | 21.84 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 15MHz | QPSK | 20025 | 1717.5 | 1 | 0 | 23.76 | 24.00 |
| | | | | | 1 | 37 | 23.72 | 24.00 |
| | | | | | 1 | 74 | 23.74 | 24.00 |
| | | | | | 36 | 0 | 22.80 | 23.00 |
| | | | | | 36 | 19 | 22.79 | 23.00 |
| | | | | | 36 | 39 | 22.84 | 23.00 |
| | | | | | 75 | 0 | 22.85 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.85 | 24.00 |
| | | | | | 1 | 37 | 23.74 | 24.00 |
| | | | | | 1 | 74 | 23.66 | 24.00 |
| | | | | | 36 | 0 | 22.84 | 23.00 |
| | | | | | 36 | 19 | 22.85 | 23.00 |
| | | | | | 36 | 39 | 22.76 | 23.00 |
| | | | | | 75 | 0 | 22.78 | 23.00 |
| | | | 20325 | 1747.5 | 1 | 0 | 23.80 | 24.00 |
| | | | | | 1 | 37 | 23.73 | 24.00 |
| | | | | | 1 | 74 | 23.63 | 24.00 |
| | | | | | 36 | 0 | 22.80 | 23.00 |
| | | | | | 36 | 19 | 22.80 | 23.00 |
| | | | | | 36 | 39 | 22.76 | 23.00 |
| | | | | | 75 | 0 | 22.79 | 23.00 |
| | | 16QAM | 20025 | 1717.5 | 1 | 0 | 23.02 | 23.50 |
| | | | | | 1 | 37 | 23.01 | 23.50 |
| | | | | | 1 | 74 | 23.06 | 23.50 |
| | | | | | 36 | 0 | 21.89 | 22.00 |
| | | | | | 36 | 19 | 21.93 | 22.00 |
| | | | | | 36 | 39 | 21.92 | 22.00 |
| | | | | | 75 | 0 | 21.94 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.19 | 23.50 |
| | | | | | 1 | 37 | 23.01 | 23.50 |
| | | | | | 1 | 74 | 22.88 | 23.50 |
| | | | | | 36 | 0 | 21.98 | 22.00 |
| | | | | | 36 | 19 | 21.92 | 22.00 |
| | | | | | 36 | 39 | 21.87 | 22.00 |
| | | | | | 75 | 0 | 21.88 | 22.00 |
| | | | 20325 | 1747.5 | 1 | 0 | 23.03 | 23.50 |
| | | | | | 1 | 37 | 23.01 | 23.50 |
| | | | | | 1 | 74 | 22.94 | 23.50 |
| | | | | | 36 | 0 | 21.92 | 22.00 |
| | | | | | 36 | 19 | 21.88 | 22.00 |
| | | | | | 36 | 39 | 21.83 | 22.00 |
| | | | | | 75 | 0 | 21.84 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 4 | 20MHz | QPSK | 20050 | 1720.0 | 1 | 0 | 23.74 | 24.00 |
| | | | | | 1 | 49 | 23.75 | 24.00 |
| | | | | | 1 | 99 | 23.70 | 24.00 |
| | | | | | 50 | 0 | 22.80 | 23.00 |
| | | | | | 50 | 25 | 22.87 | 23.00 |
| | | | | | 50 | 50 | 22.81 | 23.00 |
| | | | | | 100 | 0 | 22.84 | 23.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.78 | 24.00 |
| | | | | | 1 | 49 | 23.76 | 24.00 |
| | | | | | 1 | 99 | 23.65 | 24.00 |
| | | | | | 50 | 0 | 22.86 | 23.00 |
| | | | | | 50 | 25 | 22.85 | 23.00 |
| | | | | | 50 | 50 | 22.76 | 23.00 |
| | | | | | 100 | 0 | 22.83 | 23.00 |
| | | | 20300 | 1745.0 | 1 | 0 | 23.80 | 24.00 |
| | | | | | 1 | 49 | 23.75 | 24.00 |
| | | | | | 1 | 99 | 23.61 | 24.00 |
| | | | | | 50 | 0 | 22.84 | 23.00 |
| | | | | | 50 | 25 | 22.82 | 23.00 |
| | | | | | 50 | 50 | 22.73 | 23.00 |
| | | | | | 100 | 0 | 22.80 | 23.00 |
| | | 16QAM | 20050 | 1720.0 | 1 | 0 | 23.02 | 23.50 |
| | | | | | 1 | 49 | 23.04 | 23.50 |
| | | | | | 1 | 99 | 22.95 | 23.50 |
| | | | | | 50 | 0 | 21.90 | 22.00 |
| | | | | | 50 | 25 | 21.98 | 22.00 |
| | | | | | 50 | 50 | 21.89 | 22.00 |
| | | | | | 100 | 0 | 21.95 | 22.00 |
| | | | 20175 | 1732.5 | 1 | 0 | 23.07 | 23.50 |
| | | | | | 1 | 49 | 23.05 | 23.50 |
| | | | | | 1 | 99 | 22.88 | 23.50 |
| | | | | | 50 | 0 | 21.97 | 22.00 |
| | | | | | 50 | 25 | 21.93 | 22.00 |
| | | | | | 50 | 50 | 21.87 | 22.00 |
| | | | | | 100 | 0 | 21.90 | 22.00 |
| | | | 20300 | 1745.0 | 1 | 0 | 23.07 | 23.50 |
| | | | | | 1 | 49 | 23.05 | 23.50 |
| | | | | | 1 | 99 | 22.98 | 23.50 |
| | | | | | 50 | 0 | 21.90 | 22.00 |
| | | | | | 50 | 25 | 21.89 | 22.00 |
| | | | | | 50 | 50 | 21.82 | 22.00 |
| | | | | | 100 | 0 | 21.85 | 22.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 5 | 1.4MHz | QPSK | 20407 | 824.7 | 1 | 0 | 22.57 | 23.00 |
| | | | | | 1 | 2 | 22.65 | 23.00 |
| | | | | | 1 | 5 | 22.55 | 23.00 |
| | | | | | 3 | 0 | 22.60 | 23.00 |
| | | | | | 3 | 1 | 22.66 | 23.00 |
| | | | | | 3 | 3 | 22.61 | 23.00 |
| | | | | | 6 | 0 | 21.61 | 22.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.79 | 23.00 |
| | | | | | 1 | 2 | 22.85 | 23.00 |
| | | | | | 1 | 5 | 22.80 | 23.00 |
| | | | | | 3 | 0 | 22.84 | 23.00 |
| | | | | | 3 | 1 | 22.86 | 23.00 |
| | | | | | 3 | 3 | 22.82 | 23.00 |
| | | | | | 6 | 0 | 21.85 | 22.00 |
| | | | 20643 | 848.3 | 1 | 0 | 22.69 | 23.00 |
| | | | | | 1 | 2 | 22.76 | 23.00 |
| | | | | | 1 | 5 | 22.70 | 23.00 |
| | | | | | 3 | 0 | 22.76 | 23.00 |
| | | | | | 3 | 1 | 22.78 | 23.00 |
| | | | | | 3 | 3 | 22.75 | 23.00 |
| | | | | | 6 | 0 | 21.73 | 22.00 |
| | | 16QAM | 20407 | 824.7 | 1 | 0 | 21.78 | 22.50 |
| | | | | | 1 | 2 | 21.85 | 22.50 |
| | | | | | 1 | 5 | 21.76 | 22.50 |
| | | | | | 3 | 0 | 21.72 | 22.50 |
| | | | | | 3 | 1 | 21.77 | 22.50 |
| | | | | | 3 | 3 | 21.70 | 22.50 |
| | | | | | 6 | 0 | 20.70 | 21.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.13 | 22.50 |
| | | | | | 1 | 2 | 22.16 | 22.50 |
| | | | | | 1 | 5 | 22.08 | 22.50 |
| | | | | | 3 | 0 | 22.00 | 22.50 |
| | | | | | 3 | 1 | 22.05 | 22.50 |
| | | | | | 3 | 3 | 22.00 | 22.50 |
| | | | | | 6 | 0 | 20.96 | 21.00 |
| | | | 20643 | 848.3 | 1 | 0 | 21.89 | 22.50 |
| | | | | | 1 | 2 | 22.02 | 22.50 |
| | | | | | 1 | 5 | 21.93 | 22.50 |
| | | | | | 3 | 0 | 21.84 | 22.50 |
| | | | | | 3 | 1 | 21.81 | 22.50 |
| | | | | | 3 | 3 | 21.85 | 22.50 |
| | | | | | 6 | 0 | 20.81 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 5 | 3MHz | QPSK | 20415 | 825.5 | 1 | 0 | 22.60 | 23.00 |
| | | | | | 1 | 7 | 22.69 | 23.00 |
| | | | | | 1 | 14 | 22.67 | 23.00 |
| | | | | | 8 | 0 | 21.64 | 22.00 |
| | | | | | 8 | 3 | 21.65 | 22.00 |
| | | | | | 8 | 7 | 21.72 | 22.00 |
| | | | | | 15 | 0 | 21.78 | 22.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.84 | 23.00 |
| | | | | | 1 | 7 | 22.92 | 23.00 |
| | | | | | 1 | 14 | 22.82 | 23.00 |
| | | | | | 8 | 0 | 21.88 | 22.00 |
| | | | | | 8 | 3 | 21.88 | 22.00 |
| | | | | | 8 | 7 | 21.85 | 22.00 |
| | | | | | 15 | 0 | 21.88 | 22.00 |
| | | | 20635 | 847.5 | 1 | 0 | 22.68 | 23.00 |
| | | | | | 1 | 7 | 22.76 | 23.00 |
| | | | | | 1 | 14 | 22.64 | 23.00 |
| | | | | | 8 | 0 | 21.73 | 22.00 |
| | | | | | 8 | 3 | 21.74 | 22.00 |
| | | | | | 8 | 7 | 21.69 | 22.00 |
| | | | | | 15 | 0 | 21.76 | 22.00 |
| | | 16QAM | 20415 | 825.5 | 1 | 0 | 21.82 | 22.50 |
| | | | | | 1 | 7 | 21.87 | 22.50 |
| | | | | | 1 | 14 | 21.85 | 22.50 |
| | | | | | 8 | 0 | 20.73 | 21.50 |
| | | | | | 8 | 3 | 20.73 | 21.50 |
| | | | | | 8 | 7 | 20.79 | 21.50 |
| | | | | | 15 | 0 | 20.80 | 21.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.17 | 22.50 |
| | | | | | 1 | 7 | 22.23 | 22.50 |
| | | | | | 1 | 14 | 22.12 | 22.50 |
| | | | | | 8 | 0 | 21.00 | 21.50 |
| | | | | | 8 | 3 | 21.01 | 21.50 |
| | | | | | 8 | 7 | 21.00 | 21.50 |
| | | | | | 15 | 0 | 20.92 | 21.00 |
| | | | 20635 | 847.5 | 1 | 0 | 21.91 | 22.50 |
| | | | | | 1 | 7 | 21.98 | 22.50 |
| | | | | | 1 | 14 | 21.87 | 22.50 |
| | | | | | 8 | 0 | 20.78 | 21.50 |
| | | | | | 8 | 3 | 20.80 | 21.50 |
| | | | | | 8 | 7 | 20.79 | 21.50 |
| | | | | | 15 | 0 | 20.76 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 5 | 5MHz | QPSK | 20425 | 826.5 | 1 | 0 | 22.58 | 23.00 |
| | | | | | 1 | 12 | 22.66 | 23.00 |
| | | | | | 1 | 24 | 22.64 | 23.00 |
| | | | | | 12 | 0 | 21.73 | 22.00 |
| | | | | | 12 | 6 | 21.78 | 22.00 |
| | | | | | 12 | 13 | 21.71 | 22.00 |
| | | | | | 25 | 0 | 21.77 | 22.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.74 | 23.00 |
| | | | | | 1 | 12 | 22.83 | 23.00 |
| | | | | | 1 | 24 | 22.82 | 23.00 |
| | | | | | 12 | 0 | 21.88 | 22.00 |
| | | | | | 12 | 6 | 21.91 | 22.00 |
| | | | | | 12 | 13 | 21.84 | 22.00 |
| | | | | | 25 | 0 | 21.87 | 22.00 |
| | | | 20625 | 846.5 | 1 | 0 | 22.71 | 23.00 |
| | | | | | 1 | 12 | 22.67 | 23.00 |
| | | | | | 1 | 24 | 22.63 | 23.00 |
| | | | | | 12 | 0 | 21.74 | 22.00 |
| | | | | | 12 | 6 | 21.76 | 22.00 |
| | | | | | 12 | 13 | 21.72 | 22.00 |
| | | | | | 25 | 0 | 21.75 | 22.00 |
| | | 16QAM | 20425 | 826.5 | 1 | 0 | 21.83 | 22.50 |
| | | | | | 1 | 12 | 21.92 | 22.50 |
| | | | | | 1 | 24 | 21.93 | 22.50 |
| | | | | | 12 | 0 | 20.79 | 21.50 |
| | | | | | 12 | 6 | 20.83 | 21.50 |
| | | | | | 12 | 13 | 20.80 | 21.50 |
| | | | | | 25 | 0 | 20.78 | 21.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.08 | 22.50 |
| | | | | | 1 | 12 | 22.15 | 22.50 |
| | | | | | 1 | 24 | 22.12 | 22.50 |
| | | | | | 12 | 0 | 20.99 | 21.50 |
| | | | | | 12 | 6 | 21.03 | 21.50 |
| | | | | | 12 | 13 | 20.96 | 21.50 |
| | | | | | 25 | 0 | 20.97 | 21.00 |
| | | | 20625 | 846.5 | 1 | 0 | 21.89 | 22.50 |
| | | | | | 1 | 12 | 21.89 | 22.50 |
| | | | | | 1 | 24 | 21.85 | 22.50 |
| | | | | | 12 | 0 | 20.81 | 21.50 |
| | | | | | 12 | 6 | 20.82 | 21.50 |
| | | | | | 12 | 11 | 20.77 | 21.50 |
| | | | | | 25 | 0 | 20.78 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 5 | 10MHz | QPSK | 20450 | 829.0 | 1 | 0 | 22.59 | 23.00 |
| | | | | | 1 | 24 | 22.67 | 23.00 |
| | | | | | 1 | 49 | 22.72 | 23.00 |
| | | | | | 25 | 0 | 21.78 | 22.00 |
| | | | | | 25 | 12 | 21.89 | 22.00 |
| | | | | | 25 | 25 | 21.82 | 22.00 |
| | | | | | 50 | 0 | 21.83 | 22.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.76 | 23.00 |
| | | | | | 1 | 24 | 22.83 | 23.00 |
| | | | | | 1 | 49 | 22.76 | 23.00 |
| | | | | | 25 | 0 | 21.90 | 22.00 |
| | | | | | 25 | 12 | 21.91 | 22.00 |
| | | | | | 25 | 25 | 21.85 | 22.00 |
| | | | | | 50 | 0 | 21.85 | 22.00 |
| | | | 20600 | 844.0 | 1 | 0 | 22.82 | 23.00 |
| | | | | | 1 | 24 | 22.68 | 23.00 |
| | | | | | 1 | 49 | 22.59 | 23.00 |
| | | | | | 25 | 0 | 21.87 | 22.00 |
| | | | | | 25 | 12 | 21.88 | 22.00 |
| | | | | | 25 | 25 | 21.73 | 22.00 |
| | | | | | 50 | 0 | 21.84 | 22.00 |
| | | 16QAM | 20450 | 829.0 | 1 | 0 | 21.81 | 22.50 |
| | | | | | 1 | 24 | 21.98 | 22.50 |
| | | | | | 1 | 49 | 22.08 | 22.50 |
| | | | | | 25 | 0 | 20.82 | 21.00 |
| | | | | | 25 | 12 | 20.95 | 21.00 |
| | | | | | 25 | 25 | 20.89 | 21.00 |
| | | | | | 50 | 0 | 20.87 | 21.00 |
| | | | 20525 | 836.5 | 1 | 0 | 22.11 | 22.50 |
| | | | | | 1 | 24 | 22.19 | 22.50 |
| | | | | | 1 | 49 | 22.08 | 22.50 |
| | | | | | 25 | 0 | 20.97 | 21.00 |
| | | | | | 25 | 12 | 20.95 | 21.00 |
| | | | | | 25 | 25 | 20.89 | 21.00 |
| | | | | | 50 | 0 | 20.91 | 21.00 |
| | | | 20600 | 844.0 | 1 | 0 | 22.11 | 22.50 |
| | | | | | 1 | 24 | 21.90 | 22.50 |
| | | | | | 1 | 49 | 21.82 | 22.50 |
| | | | | | 25 | 0 | 20.95 | 21.00 |
| | | | | | 25 | 12 | 20.91 | 21.00 |
| | | | | | 25 | 25 | 20.83 | 21.00 |
| | | | | | 50 | 0 | 20.88 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 7 | 5MHz | QPSK | 20775 | 2502.5 | 1 | 0 | 21.64 | 22.00 |
| | | | | | 1 | 12 | 21.66 | 22.00 |
| | | | | | 1 | 24 | 21.58 | 22.00 |
| | | | | | 12 | 0 | 20.72 | 21.00 |
| | | | | | 12 | 6 | 20.75 | 21.00 |
| | | | | | 12 | 13 | 20.63 | 21.00 |
| | | | | | 25 | 0 | 20.63 | 21.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 21.56 | 22.00 |
| | | | | | 1 | 12 | 21.60 | 22.00 |
| | | | | | 1 | 24 | 21.58 | 22.00 |
| | | | | | 12 | 0 | 20.61 | 21.00 |
| | | | | | 12 | 6 | 20.66 | 21.00 |
| | | | | | 12 | 13 | 20.66 | 21.00 |
| | | | | | 25 | 0 | 20.66 | 21.00 |
| | | | 21425 | 2567.5 | 1 | 0 | 21.52 | 22.00 |
| | | | | | 1 | 12 | 21.54 | 22.00 |
| | | | | | 1 | 24 | 21.55 | 22.00 |
| | | | | | 12 | 0 | 20.55 | 21.00 |
| | | | | | 12 | 6 | 20.60 | 21.00 |
| | | | | | 12 | 13 | 20.59 | 21.00 |
| | | | | | 25 | 0 | 20.60 | 21.00 |
| | | 16QAM | 20775 | 2502.5 | 1 | 0 | 20.95 | 21.00 |
| | | | | | 1 | 12 | 20.99 | 21.00 |
| | | | | | 1 | 24 | 20.92 | 21.00 |
| | | | | | 12 | 0 | 19.86 | 20.00 |
| | | | | | 12 | 6 | 19.89 | 20.00 |
| | | | | | 12 | 13 | 19.80 | 20.00 |
| | | | | | 25 | 0 | 19.72 | 20.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 20.78 | 21.00 |
| | | | | | 1 | 12 | 20.83 | 21.00 |
| | | | | | 1 | 24 | 20.83 | 21.00 |
| | | | | | 12 | 0 | 19.69 | 20.00 |
| | | | | | 12 | 6 | 19.73 | 20.00 |
| | | | | | 12 | 13 | 19.72 | 20.00 |
| | | | | | 25 | 0 | 19.71 | 20.00 |
| | | | 21425 | 2567.5 | 1 | 0 | 20.84 | 21.00 |
| | | | | | 1 | 12 | 20.84 | 21.00 |
| | | | | | 1 | 24 | 20.83 | 21.00 |
| | | | | | 12 | 0 | 19.70 | 20.00 |
| | | | | | 12 | 6 | 19.75 | 20.00 |
| | | | | | 12 | 11 | 19.71 | 20.00 |
| | | | | | 25 | 0 | 19.69 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 7 | 10MHz | QPSK | 20800 | 2505.0 | 1 | 0 | 21.67 | 22.00 |
| | | | | | 1 | 24 | 21.59 | 22.00 |
| | | | | | 1 | 49 | 21.53 | 22.00 |
| | | | | | 25 | 0 | 20.65 | 21.00 |
| | | | | | 25 | 12 | 20.66 | 21.00 |
| | | | | | 25 | 25 | 20.64 | 21.00 |
| | | | | | 50 | 0 | 20.63 | 21.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 21.72 | 22.00 |
| | | | | | 1 | 24 | 21.61 | 22.00 |
| | | | | | 1 | 49 | 21.69 | 22.00 |
| | | | | | 25 | 0 | 20.68 | 21.00 |
| | | | | | 25 | 12 | 20.71 | 21.00 |
| | | | | | 25 | 25 | 20.70 | 21.00 |
| | | | | | 50 | 0 | 20.69 | 21.00 |
| | | | 21400 | 2565.0 | 1 | 0 | 21.54 | 22.00 |
| | | | | | 1 | 24 | 21.55 | 22.00 |
| | | | | | 1 | 49 | 21.60 | 22.00 |
| | | | | | 25 | 0 | 20.57 | 21.00 |
| | | | | | 25 | 12 | 20.61 | 21.00 |
| | | | | | 25 | 25 | 20.63 | 21.00 |
| | | | | | 50 | 0 | 20.61 | 21.00 |
| | | 16QAM | 20800 | 2505.0 | 1 | 0 | 20.93 | 21.00 |
| | | | | | 1 | 24 | 20.92 | 21.00 |
| | | | | | 1 | 49 | 20.94 | 21.00 |
| | | | | | 25 | 0 | 19.75 | 20.00 |
| | | | | | 25 | 12 | 19.79 | 20.00 |
| | | | | | 25 | 25 | 19.78 | 20.00 |
| | | | | | 50 | 0 | 19.77 | 20.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 20.89 | 21.00 |
| | | | | | 1 | 24 | 20.82 | 21.00 |
| | | | | | 1 | 49 | 20.96 | 21.00 |
| | | | | | 25 | 0 | 19.74 | 20.00 |
| | | | | | 25 | 12 | 19.75 | 20.00 |
| | | | | | 25 | 25 | 19.77 | 20.00 |
| | | | | | 50 | 0 | 19.76 | 20.00 |
| | | | 21400 | 2565.0 | 1 | 0 | 20.92 | 21.00 |
| | | | | | 1 | 24 | 20.91 | 21.00 |
| | | | | | 1 | 49 | 20.87 | 21.00 |
| | | | | | 25 | 0 | 19.70 | 20.00 |
| | | | | | 25 | 12 | 19.76 | 20.00 |
| | | | | | 25 | 25 | 19.70 | 20.00 |
| | | | | | 50 | 0 | 19.68 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 7 | 15MHz | QPSK | 20825 | 2507.5 | 1 | 0 | 21.71 | 22.00 |
| | | | | | 1 | 37 | 21.57 | 22.00 |
| | | | | | 1 | 74 | 21.71 | 22.00 |
| | | | | | 36 | 0 | 20.67 | 21.00 |
| | | | | | 36 | 19 | 20.73 | 21.00 |
| | | | | | 36 | 39 | 20.72 | 21.00 |
| | | | | | 75 | 0 | 20.69 | 21.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 21.75 | 22.00 |
| | | | | | 1 | 37 | 21.62 | 22.00 |
| | | | | | 1 | 74 | 21.74 | 22.00 |
| | | | | | 36 | 0 | 20.67 | 21.00 |
| | | | | | 36 | 19 | 20.73 | 21.00 |
| | | | | | 36 | 39 | 20.72 | 21.00 |
| | | | | | 75 | 0 | 20.69 | 21.00 |
| | | | 21375 | 2562.5 | 1 | 0 | 21.69 | 22.00 |
| | | | | | 1 | 37 | 21.58 | 22.00 |
| | | | | | 1 | 74 | 21.66 | 22.00 |
| | | | | | 36 | 0 | 20.73 | 21.00 |
| | | | | | 36 | 19 | 20.76 | 21.00 |
| | | | | | 36 | 39 | 20.65 | 21.00 |
| | | | | | 75 | 0 | 20.74 | 21.00 |
| | | 16QAM | 20825 | 2507.5 | 1 | 0 | 21.04 | 21.50 |
| | | | | | 1 | 37 | 20.97 | 21.50 |
| | | | | | 1 | 74 | 21.15 | 21.50 |
| | | | | | 36 | 0 | 19.85 | 20.00 |
| | | | | | 36 | 19 | 19.86 | 20.00 |
| | | | | | 36 | 39 | 19.87 | 20.00 |
| | | | | | 75 | 0 | 19.87 | 20.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 20.95 | 21.50 |
| | | | | | 1 | 37 | 20.90 | 21.50 |
| | | | | | 1 | 74 | 21.03 | 21.50 |
| | | | | | 36 | 0 | 19.75 | 20.00 |
| | | | | | 36 | 19 | 19.80 | 20.00 |
| | | | | | 36 | 39 | 19.85 | 20.00 |
| | | | | | 75 | 0 | 19.77 | 20.00 |
| | | | 21375 | 2562.5 | 1 | 0 | 21.11 | 21.50 |
| | | | | | 1 | 37 | 21.00 | 21.50 |
| | | | | | 1 | 74 | 20.94 | 21.50 |
| | | | | | 36 | 0 | 19.88 | 20.00 |
| | | | | | 36 | 19 | 19.90 | 20.00 |
| | | | | | 36 | 39 | 19.75 | 20.00 |
| | | | | | 75 | 0 | 19.85 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 7 | 20MHz | QPSK | 20850 | 2510.0 | 1 | 0 | 21.69 | 22.00 |
| | | | | | 1 | 49 | 21.54 | 22.00 |
| | | | | | 1 | 99 | 21.66 | 22.00 |
| | | | | | 50 | 0 | 20.67 | 21.00 |
| | | | | | 50 | 25 | 20.70 | 21.00 |
| | | | | | 50 | 50 | 20.68 | 21.00 |
| | | | | | 100 | 0 | 20.67 | 21.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 21.69 | 22.00 |
| | | | | | 1 | 49 | 21.62 | 22.00 |
| | | | | | 1 | 99 | 21.72 | 22.00 |
| | | | | | 50 | 0 | 20.70 | 21.00 |
| | | | | | 50 | 25 | 20.75 | 21.00 |
| | | | | | 50 | 50 | 20.78 | 21.00 |
| | | | | | 100 | 0 | 20.74 | 21.00 |
| | | | 21350 | 2560.0 | 1 | 0 | 21.67 | 22.00 |
| | | | | | 1 | 49 | 21.60 | 22.00 |
| | | | | | 1 | 99 | 21.62 | 22.00 |
| | | | | | 50 | 0 | 20.71 | 21.00 |
| | | | | | 50 | 25 | 20.76 | 21.00 |
| | | | | | 50 | 50 | 20.65 | 21.00 |
| | | | | | 100 | 0 | 20.76 | 21.00 |
| | | 16QAM | 20850 | 2510.0 | 1 | 0 | 20.99 | 21.50 |
| | | | | | 1 | 49 | 20.91 | 21.50 |
| | | | | | 1 | 99 | 20.90 | 21.50 |
| | | | | | 50 | 0 | 19.77 | 20.00 |
| | | | | | 50 | 25 | 19.80 | 20.00 |
| | | | | | 50 | 50 | 19.83 | 20.00 |
| | | | | | 100 | 0 | 19.82 | 20.00 |
| | | | 21100 | 2535.0 | 1 | 0 | 20.94 | 21.50 |
| | | | | | 1 | 49 | 20.89 | 21.50 |
| | | | | | 1 | 99 | 21.11 | 21.50 |
| | | | | | 50 | 0 | 19.75 | 20.00 |
| | | | | | 50 | 25 | 19.82 | 20.00 |
| | | | | | 50 | 50 | 19.85 | 20.00 |
| | | | | | 100 | 0 | 19.81 | 20.00 |
| | | | 21350 | 2560.0 | 1 | 0 | 21.09 | 21.50 |
| | | | | | 1 | 49 | 20.94 | 21.50 |
| | | | | | 1 | 99 | 20.90 | 21.50 |
| | | | | | 50 | 0 | 19.85 | 20.00 |
| | | | | | 50 | 25 | 19.87 | 20.00 |
| | | | | | 50 | 50 | 19.73 | 20.00 |
| | | | | | 100 | 0 | 19.88 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 12 | 1.4MHz | QPSK | 23017 | 699.7 | 1 | 0 | 21.52 | 22.00 |
| | | | | | 1 | 2 | 21.58 | 22.00 |
| | | | | | 1 | 5 | 21.50 | 22.00 |
| | | | | | 3 | 0 | 21.57 | 22.00 |
| | | | | | 3 | 1 | 21.60 | 22.00 |
| | | | | | 3 | 3 | 21.55 | 22.00 |
| | | | | | 6 | 0 | 20.59 | 21.00 |
| | | | 23095 | 707.5 | 1 | 0 | 21.44 | 22.00 |
| | | | | | 1 | 2 | 21.53 | 22.00 |
| | | | | | 1 | 5 | 21.45 | 22.00 |
| | | | | | 3 | 0 | 21.51 | 22.00 |
| | | | | | 3 | 1 | 21.54 | 22.00 |
| | | | | | 3 | 3 | 21.51 | 22.00 |
| | | | | | 6 | 0 | 20.48 | 21.00 |
| | | | 23173 | 715.3 | 1 | 0 | 21.40 | 22.00 |
| | | | | | 1 | 2 | 21.47 | 22.00 |
| | | | | | 1 | 5 | 21.37 | 22.00 |
| | | | | | 3 | 0 | 21.44 | 22.00 |
| | | | | | 3 | 1 | 21.45 | 22.00 |
| | | | | | 3 | 3 | 21.46 | 22.00 |
| | | | | | 6 | 0 | 20.42 | 21.00 |
| | | 16QAM | 23017 | 699.7 | 1 | 0 | 20.87 | 21.00 |
| | | | | | 1 | 2 | 20.98 | 21.00 |
| | | | | | 1 | 5 | 20.87 | 21.00 |
| | | | | | 3 | 0 | 20.79 | 21.00 |
| | | | | | 3 | 1 | 20.82 | 21.00 |
| | | | | | 3 | 3 | 20.77 | 21.00 |
| | | | | | 6 | 0 | 19.73 | 20.00 |
| | | | 23095 | 707.5 | 1 | 0 | 20.84 | 21.00 |
| | | | | | 1 | 2 | 20.86 | 21.00 |
| | | | | | 1 | 5 | 20.79 | 21.00 |
| | | | | | 3 | 0 | 20.70 | 21.00 |
| | | | | | 3 | 1 | 20.74 | 21.00 |
| | | | | | 3 | 3 | 20.68 | 21.00 |
| | | | | | 6 | 0 | 19.66 | 20.00 |
| | | | 23173 | 715.3 | 1 | 0 | 20.76 | 21.00 |
| | | | | | 1 | 2 | 20.80 | 21.00 |
| | | | | | 1 | 5 | 20.67 | 21.00 |
| | | | | | 3 | 0 | 20.62 | 21.00 |
| | | | | | 3 | 1 | 20.68 | 21.00 |
| | | | | | 3 | 3 | 20.65 | 21.00 |
| | | | | | 6 | 0 | 19.60 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 12 | 3MHz | QPSK | 23025 | 700.5 | 1 | 0 | 21.56 | 22.00 |
| | | | | | 1 | 7 | 21.65 | 22.00 |
| | | | | | 1 | 14 | 21.57 | 22.00 |
| | | | | | 8 | 0 | 20.59 | 21.00 |
| | | | | | 8 | 3 | 20.62 | 21.00 |
| | | | | | 8 | 7 | 20.60 | 21.00 |
| | | | | | 15 | 0 | 20.60 | 21.00 |
| | | | 23095 | 707.5 | 1 | 0 | 21.50 | 22.00 |
| | | | | | 1 | 7 | 21.60 | 22.00 |
| | | | | | 1 | 14 | 21.52 | 22.00 |
| | | | | | 8 | 0 | 20.53 | 21.00 |
| | | | | | 8 | 3 | 20.57 | 21.00 |
| | | | | | 8 | 7 | 20.53 | 21.00 |
| | | | | | 15 | 0 | 20.55 | 21.00 |
| | | | 23165 | 714.5 | 1 | 0 | 21.44 | 22.00 |
| | | | | | 1 | 7 | 21.54 | 22.00 |
| | | | | | 1 | 14 | 21.41 | 22.00 |
| | | | | | 8 | 0 | 20.48 | 21.00 |
| | | | | | 8 | 3 | 20.52 | 21.00 |
| | | | | | 8 | 7 | 20.52 | 21.00 |
| | | | | | 15 | 0 | 20.49 | 21.00 |
| | | 16QAM | 23025 | 700.5 | 1 | 0 | 20.87 | 21.00 |
| | | | | | 1 | 7 | 20.99 | 21.00 |
| | | | | | 1 | 14 | 20.90 | 21.00 |
| | | | | | 8 | 0 | 19.76 | 20.00 |
| | | | | | 8 | 3 | 19.77 | 20.00 |
| | | | | | 8 | 7 | 19.72 | 20.00 |
| | | | | | 15 | 0 | 19.68 | 20.00 |
| | | | 23095 | 707.5 | 1 | 0 | 20.85 | 21.00 |
| | | | | | 1 | 7 | 20.95 | 21.00 |
| | | | | | 1 | 14 | 20.86 | 21.00 |
| | | | | | 8 | 0 | 19.71 | 20.00 |
| | | | | | 8 | 3 | 19.74 | 20.00 |
| | | | | | 8 | 7 | 19.69 | 20.00 |
| | | | | | 15 | 0 | 19.63 | 20.00 |
| | | | 23165 | 714.5 | 1 | 0 | 20.80 | 21.00 |
| | | | | | 1 | 7 | 20.88 | 21.00 |
| | | | | | 1 | 14 | 20.76 | 21.00 |
| | | | | | 8 | 0 | 19.59 | 20.00 |
| | | | | | 8 | 3 | 19.67 | 20.00 |
| | | | | | 8 | 7 | 19.62 | 20.00 |
| | | | | | 15 | 0 | 19.59 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 12 | 5MHz | QPSK | 23035 | 701.5 | 1 | 0 | 21.55 | 22.00 |
| | | | | | 1 | 12 | 21.54 | 22.00 |
| | | | | | 1 | 24 | 21.54 | 22.00 |
| | | | | | 12 | 0 | 20.61 | 21.00 |
| | | | | | 12 | 6 | 20.63 | 21.00 |
| | | | | | 12 | 13 | 20.61 | 21.00 |
| | | | | | 25 | 0 | 20.61 | 21.00 |
| | | | 23095 | 707.5 | 1 | 0 | 21.51 | 22.00 |
| | | | | | 1 | 12 | 21.51 | 22.00 |
| | | | | | 1 | 24 | 21.52 | 22.00 |
| | | | | | 12 | 0 | 20.55 | 21.00 |
| | | | | | 12 | 6 | 20.61 | 21.00 |
| | | | | | 12 | 13 | 20.59 | 21.00 |
| | | | | | 25 | 0 | 20.58 | 21.00 |
| | | | 23155 | 713.5 | 1 | 0 | 21.46 | 22.00 |
| | | | | | 1 | 12 | 21.48 | 22.00 |
| | | | | | 1 | 24 | 21.45 | 22.00 |
| | | | | | 12 | 0 | 20.51 | 21.00 |
| | | | | | 12 | 6 | 20.53 | 21.00 |
| | | | | | 12 | 13 | 20.48 | 21.00 |
| | | | | | 25 | 0 | 20.52 | 21.00 |
| | | 16QAM | 23035 | 701.5 | 1 | 0 | 20.88 | 21.00 |
| | | | | | 1 | 12 | 20.87 | 21.00 |
| | | | | | 1 | 24 | 20.88 | 21.00 |
| | | | | | 12 | 0 | 19.71 | 20.00 |
| | | | | | 12 | 6 | 19.75 | 20.00 |
| | | | | | 12 | 13 | 19.71 | 20.00 |
| | | | | | 25 | 0 | 19.68 | 20.00 |
| | | | 23095 | 707.5 | 1 | 0 | 20.86 | 21.00 |
| | | | | | 1 | 12 | 20.86 | 21.00 |
| | | | | | 1 | 24 | 20.87 | 21.00 |
| | | | | | 12 | 0 | 19.69 | 20.00 |
| | | | | | 12 | 6 | 19.71 | 20.00 |
| | | | | | 12 | 13 | 19.68 | 20.00 |
| | | | | | 25 | 0 | 19.64 | 20.00 |
| | | | 23155 | 713.5 | 1 | 0 | 20.83 | 21.00 |
| | | | | | 1 | 12 | 20.84 | 21.00 |
| | | | | | 1 | 24 | 20.79 | 21.00 |
| | | | | | 12 | 0 | 19.65 | 20.00 |
| | | | | | 12 | 6 | 19.64 | 20.00 |
| | | | | | 12 | 11 | 19.64 | 20.00 |
| | | | | | 25 | 0 | 19.62 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 12 | 10MHz | QPSK | 23060 | 704.0 | 1 | 0 | 21.51 | 22.00 |
| | | | | | 1 | 24 | 21.55 | 22.00 |
| | | | | | 1 | 49 | 21.54 | 22.00 |
| | | | | | 25 | 0 | 20.60 | 21.00 |
| | | | | | 25 | 12 | 20.61 | 21.00 |
| | | | | | 25 | 25 | 20.60 | 21.00 |
| | | | | | 50 | 0 | 20.57 | 21.00 |
| | | | 23095 | 707.5 | 1 | 0 | 21.50 | 22.00 |
| | | | | | 1 | 24 | 21.54 | 22.00 |
| | | | | | 1 | 49 | 21.54 | 22.00 |
| | | | | | 25 | 0 | 20.55 | 21.00 |
| | | | | | 25 | 12 | 20.58 | 21.00 |
| | | | | | 25 | 25 | 20.58 | 21.00 |
| | | | | | 50 | 0 | 20.55 | 21.00 |
| | | | 23130 | 711.0 | 1 | 0 | 21.46 | 22.00 |
| | | | | | 1 | 24 | 21.50 | 22.00 |
| | | | | | 1 | 49 | 21.50 | 22.00 |
| | | | | | 25 | 0 | 20.54 | 21.00 |
| | | | | | 25 | 12 | 20.56 | 21.00 |
| | | | | | 25 | 25 | 20.52 | 21.00 |
| | | | | | 50 | 0 | 20.55 | 21.00 |
| | | 16QAM | 23060 | 704.0 | 1 | 0 | 20.85 | 21.00 |
| | | | | | 1 | 24 | 20.89 | 21.00 |
| | | | | | 1 | 49 | 20.91 | 21.00 |
| | | | | | 25 | 0 | 19.72 | 20.00 |
| | | | | | 25 | 12 | 19.69 | 20.00 |
| | | | | | 25 | 25 | 19.66 | 20.00 |
| | | | | | 50 | 0 | 19.69 | 20.00 |
| | | | 23095 | 707.5 | 1 | 0 | 20.86 | 21.00 |
| | | | | | 1 | 24 | 20.91 | 21.00 |
| | | | | | 1 | 49 | 20.90 | 21.00 |
| | | | | | 25 | 0 | 19.66 | 20.00 |
| | | | | | 25 | 12 | 19.70 | 20.00 |
| | | | | | 25 | 25 | 19.68 | 20.00 |
| | | | | | 50 | 0 | 19.67 | 20.00 |
| | | | 23130 | 711.0 | 1 | 0 | 20.81 | 21.00 |
| | | | | | 1 | 24 | 20.85 | 21.00 |
| | | | | | 1 | 49 | 20.79 | 21.00 |
| | | | | | 25 | 0 | 19.62 | 20.00 |
| | | | | | 25 | 12 | 19.66 | 20.00 |
| | | | | | 25 | 25 | 19.63 | 20.00 |
| | | | | | 50 | 0 | 19.61 | 20.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 17 | 5MHz | QPSK | 23755 | 706.5 | 1 | 0 | 22.61 | 23.00 |
| | | | | | 1 | 12 | 22.62 | 23.00 |
| | | | | | 1 | 24 | 22.66 | 23.00 |
| | | | | | 12 | 0 | 21.67 | 22.00 |
| | | | | | 12 | 6 | 21.69 | 22.00 |
| | | | | | 12 | 13 | 21.70 | 22.00 |
| | | | | | 25 | 0 | 21.68 | 22.00 |
| | | | 23790 | 710.0 | 1 | 0 | 22.59 | 23.00 |
| | | | | | 1 | 12 | 22.60 | 23.00 |
| | | | | | 1 | 24 | 22.59 | 23.00 |
| | | | | | 12 | 0 | 21.65 | 22.00 |
| | | | | | 12 | 6 | 21.70 | 22.00 |
| | | | | | 12 | 13 | 21.63 | 22.00 |
| | | | | | 25 | 0 | 21.65 | 22.00 |
| | | | 23825 | 713.5 | 1 | 0 | 22.67 | 23.00 |
| | | | | | 1 | 12 | 22.68 | 23.00 |
| | | | | | 1 | 24 | 22.63 | 23.00 |
| | | | | | 12 | 0 | 21.71 | 22.00 |
| | | | | | 12 | 6 | 21.73 | 22.00 |
| | | | | | 12 | 13 | 21.68 | 22.00 |
| | | | | | 25 | 0 | 21.71 | 22.00 |
| | | 16QAM | 23755 | 706.5 | 1 | 0 | 21.91 | 22.00 |
| | | | | | 1 | 12 | 21.94 | 22.00 |
| | | | | | 1 | 24 | 21.91 | 22.00 |
| | | | | | 12 | 0 | 20.77 | 21.00 |
| | | | | | 12 | 6 | 20.80 | 21.00 |
| | | | | | 12 | 13 | 20.79 | 21.00 |
| | | | | | 25 | 0 | 20.75 | 21.00 |
| | | | 23790 | 710.0 | 1 | 0 | 21.88 | 22.00 |
| | | | | | 1 | 12 | 21.93 | 22.00 |
| | | | | | 1 | 24 | 21.87 | 22.00 |
| | | | | | 12 | 0 | 20.74 | 21.00 |
| | | | | | 12 | 6 | 20.81 | 21.00 |
| | | | | | 12 | 13 | 20.74 | 21.00 |
| | | | | | 25 | 0 | 20.71 | 21.00 |
| | | | 23825 | 713.5 | 1 | 0 | 21.99 | 22.00 |
| | | | | | 1 | 12 | 21.92 | 22.00 |
| | | | | | 1 | 24 | 21.90 | 22.00 |
| | | | | | 12 | 0 | 20.82 | 21.00 |
| | | | | | 12 | 6 | 20.81 | 21.00 |
| | | | | | 12 | 11 | 20.77 | 21.00 |
| | | | | | 25 | 0 | 20.76 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 17 | 10MHz | QPSK | 23780 | 709.0 | 1 | 0 | 22.57 | 23.00 |
| | | | | | 1 | 24 | 22.63 | 23.00 |
| | | | | | 1 | 49 | 22.60 | 23.00 |
| | | | | | 25 | 0 | 21.63 | 22.00 |
| | | | | | 25 | 12 | 21.70 | 22.00 |
| | | | | | 25 | 25 | 21.67 | 22.00 |
| | | | | | 50 | 0 | 21.66 | 22.00 |
| | | | 23790 | 710.0 | 1 | 0 | 22.58 | 23.00 |
| | | | | | 1 | 24 | 22.61 | 23.00 |
| | | | | | 1 | 49 | 22.57 | 23.00 |
| | | | | | 25 | 0 | 21.66 | 22.00 |
| | | | | | 25 | 12 | 21.70 | 22.00 |
| | | | | | 25 | 25 | 21.64 | 22.00 |
| | | | | | 50 | 0 | 21.67 | 22.00 |
| | | | 23800 | 711.0 | 1 | 0 | 22.57 | 23.00 |
| | | | | | 1 | 24 | 22.60 | 23.00 |
| | | | | | 1 | 49 | 22.55 | 23.00 |
| | | | | | 25 | 0 | 21.63 | 22.00 |
| | | | | | 25 | 12 | 21.67 | 22.00 |
| | | | | | 25 | 25 | 21.64 | 22.00 |
| | | | | | 50 | 0 | 21.65 | 22.00 |
| | | 16QAM | 23780 | 709.0 | 1 | 0 | 21.88 | 22.00 |
| | | | | | 1 | 24 | 21.93 | 22.00 |
| | | | | | 1 | 49 | 21.88 | 22.00 |
| | | | | | 25 | 0 | 20.73 | 21.00 |
| | | | | | 25 | 12 | 20.76 | 21.00 |
| | | | | | 25 | 25 | 20.72 | 21.00 |
| | | | | | 50 | 0 | 20.72 | 21.00 |
| | | | 23790 | 710.0 | 1 | 0 | 21.88 | 22.00 |
| | | | | | 1 | 24 | 21.93 | 22.00 |
| | | | | | 1 | 49 | 21.83 | 22.00 |
| | | | | | 25 | 0 | 20.71 | 21.00 |
| | | | | | 25 | 12 | 20.79 | 21.00 |
| | | | | | 25 | 25 | 20.72 | 21.00 |
| | | | | | 50 | 0 | 20.71 | 21.00 |
| | | | 23800 | 711.0 | 1 | 0 | 21.89 | 22.00 |
| | | | | | 1 | 24 | 21.95 | 22.00 |
| | | | | | 1 | 49 | 21.82 | 22.00 |
| | | | | | 25 | 0 | 20.70 | 21.00 |
| | | | | | 25 | 12 | 20.74 | 21.00 |
| | | | | | 25 | 25 | 20.71 | 21.00 |
| | | | | | 50 | 0 | 20.73 | 21.00 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 38 | 5MHz | QPSK | 37775 | 2572.5 | 1 | 0 | 24.12 | 24.50 |
| | | | | | 1 | 12 | 24.16 | 24.50 |
| | | | | | 1 | 24 | 24.13 | 24.50 |
| | | | | | 12 | 0 | 23.23 | 23.50 |
| | | | | | 12 | 6 | 23.25 | 23.50 |
| | | | | | 12 | 13 | 23.25 | 23.50 |
| | | | | | 25 | 0 | 23.24 | 23.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 23.87 | 24.50 |
| | | | | | 1 | 12 | 23.93 | 24.50 |
| | | | | | 1 | 24 | 23.90 | 24.50 |
| | | | | | 12 | 0 | 22.99 | 23.50 |
| | | | | | 12 | 6 | 23.01 | 23.50 |
| | | | | | 12 | 13 | 23.01 | 23.50 |
| | | | | | 25 | 0 | 23.00 | 23.50 |
| | | | 38225 | 2617.5 | 1 | 0 | 23.96 | 24.50 |
| | | | | | 1 | 12 | 23.99 | 24.50 |
| | | | | | 1 | 24 | 23.98 | 24.50 |
| | | | | | 12 | 0 | 23.09 | 23.50 |
| | | | | | 12 | 6 | 23.11 | 23.50 |
| | | | | | 12 | 13 | 23.11 | 23.50 |
| | | | | | 25 | 0 | 23.12 | 23.50 |
| | | 16QAM | 37775 | 2572.5 | 1 | 0 | 23.41 | 24.00 |
| | | | | | 1 | 12 | 23.43 | 24.00 |
| | | | | | 1 | 24 | 23.41 | 24.00 |
| | | | | | 12 | 0 | 22.35 | 22.50 |
| | | | | | 12 | 6 | 22.39 | 22.50 |
| | | | | | 12 | 13 | 22.36 | 22.50 |
| | | | | | 25 | 0 | 22.29 | 22.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 23.15 | 24.00 |
| | | | | | 1 | 12 | 23.14 | 24.00 |
| | | | | | 1 | 24 | 23.16 | 24.00 |
| | | | | | 12 | 0 | 22.08 | 22.50 |
| | | | | | 12 | 6 | 22.12 | 22.50 |
| | | | | | 12 | 13 | 22.10 | 22.50 |
| | | | | | 25 | 0 | 22.02 | 22.50 |
| | | | 38225 | 2617.5 | 1 | 0 | 23.25 | 24.00 |
| | | | | | 1 | 12 | 23.24 | 24.00 |
| | | | | | 1 | 24 | 23.30 | 24.00 |
| | | | | | 12 | 0 | 22.18 | 22.50 |
| | | | | | 12 | 6 | 22.20 | 22.50 |
| | | | | | 12 | 11 | 22.19 | 22.50 |
| | | | | | 25 | 0 | 22.14 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 38 | 10MHz | QPSK | 37800 | 2575.0 | 1 | 0 | 24.14 | 24.50 |
| | | | | | 1 | 24 | 24.18 | 24.50 |
| | | | | | 1 | 49 | 24.07 | 24.50 |
| | | | | | 25 | 0 | 23.25 | 23.50 |
| | | | | | 25 | 12 | 23.31 | 23.50 |
| | | | | | 25 | 25 | 23.18 | 23.50 |
| | | | | | 50 | 0 | 23.20 | 23.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 24.02 | 24.50 |
| | | | | | 1 | 24 | 23.96 | 24.50 |
| | | | | | 1 | 49 | 23.96 | 24.50 |
| | | | | | 25 | 0 | 23.01 | 23.50 |
| | | | | | 25 | 12 | 23.07 | 23.50 |
| | | | | | 25 | 25 | 23.05 | 23.50 |
| | | | | | 50 | 0 | 23.07 | 23.50 |
| | | | 38200 | 2615.0 | 1 | 0 | 24.00 | 24.50 |
| | | | | | 1 | 24 | 24.02 | 24.50 |
| | | | | | 1 | 49 | 24.03 | 24.50 |
| | | | | | 25 | 0 | 23.09 | 23.50 |
| | | | | | 25 | 12 | 23.15 | 23.50 |
| | | | | | 25 | 25 | 23.14 | 23.50 |
| | | | | | 50 | 0 | 23.14 | 23.50 |
| | | 16QAM | 37800 | 2575.0 | 1 | 0 | 23.45 | 24.00 |
| | | | | | 1 | 24 | 23.44 | 24.00 |
| | | | | | 1 | 49 | 23.37 | 24.00 |
| | | | | | 25 | 0 | 22.34 | 22.50 |
| | | | | | 25 | 12 | 22.35 | 22.50 |
| | | | | | 25 | 25 | 22.22 | 22.50 |
| | | | | | 50 | 0 | 22.26 | 22.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 23.28 | 24.00 |
| | | | | | 1 | 24 | 23.19 | 24.00 |
| | | | | | 1 | 49 | 23.19 | 24.00 |
| | | | | | 25 | 0 | 22.04 | 22.50 |
| | | | | | 25 | 12 | 22.05 | 22.50 |
| | | | | | 25 | 25 | 22.05 | 22.50 |
| | | | | | 50 | 0 | 22.12 | 22.50 |
| | | | 38200 | 2615.0 | 1 | 0 | 23.25 | 24.00 |
| | | | | | 1 | 24 | 23.26 | 24.00 |
| | | | | | 1 | 49 | 23.28 | 24.00 |
| | | | | | 25 | 0 | 22.11 | 22.50 |
| | | | | | 25 | 12 | 22.18 | 22.50 |
| | | | | | 25 | 25 | 22.15 | 22.50 |
| | | | | | 50 | 0 | 22.20 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 38 | 15MHz | QPSK | 37825 | 2577.5 | 1 | 0 | 24.20 | 24.50 |
| | | | | | 1 | 37 | 24.13 | 24.50 |
| | | | | | 1 | 74 | 24.10 | 24.50 |
| | | | | | 36 | 0 | 23.33 | 23.50 |
| | | | | | 36 | 19 | 23.25 | 23.50 |
| | | | | | 36 | 39 | 23.22 | 23.50 |
| | | | | | 75 | 0 | 23.25 | 23.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 24.04 | 24.50 |
| | | | | | 1 | 37 | 23.89 | 24.50 |
| | | | | | 1 | 74 | 23.98 | 24.50 |
| | | | | | 36 | 0 | 23.04 | 23.50 |
| | | | | | 36 | 19 | 23.10 | 23.50 |
| | | | | | 36 | 39 | 23.07 | 23.50 |
| | | | | | 75 | 0 | 23.06 | 23.50 |
| | | | 38175 | 2612.5 | 1 | 0 | 24.02 | 24.50 |
| | | | | | 1 | 37 | 24.02 | 24.50 |
| | | | | | 1 | 74 | 24.06 | 24.50 |
| | | | | | 36 | 0 | 23.11 | 23.50 |
| | | | | | 36 | 19 | 23.16 | 23.50 |
| | | | | | 36 | 39 | 23.13 | 23.50 |
| | | | | | 75 | 0 | 23.17 | 23.50 |
| | | 16QAM | 37825 | 2577.5 | 1 | 0 | 23.52 | 24.00 |
| | | | | | 1 | 37 | 23.44 | 24.00 |
| | | | | | 1 | 74 | 23.39 | 24.00 |
| | | | | | 36 | 0 | 22.40 | 22.50 |
| | | | | | 36 | 19 | 22.33 | 22.50 |
| | | | | | 36 | 39 | 22.32 | 22.50 |
| | | | | | 75 | 0 | 22.31 | 22.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 23.30 | 24.00 |
| | | | | | 1 | 37 | 23.18 | 24.00 |
| | | | | | 1 | 74 | 23.20 | 24.00 |
| | | | | | 36 | 0 | 22.16 | 22.50 |
| | | | | | 36 | 19 | 22.17 | 22.50 |
| | | | | | 36 | 39 | 22.13 | 22.50 |
| | | | | | 75 | 0 | 22.15 | 22.50 |
| | | | 38175 | 2612.5 | 1 | 0 | 23.27 | 24.00 |
| | | | | | 1 | 37 | 23.26 | 24.00 |
| | | | | | 1 | 74 | 23.33 | 24.00 |
| | | | | | 36 | 0 | 22.21 | 22.50 |
| | | | | | 36 | 19 | 22.23 | 22.50 |
| | | | | | 36 | 39 | 22.21 | 22.50 |
| | | | | | 75 | 0 | 22.26 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 38 | 20MHz | QPSK | 37850 | 2580.0 | 1 | 0 | 24.19 | 24.50 |
| | | | | | 1 | 49 | 24.05 | 24.50 |
| | | | | | 1 | 99 | 23.99 | 24.50 |
| | | | | | 50 | 0 | 23.23 | 23.50 |
| | | | | | 50 | 25 | 23.26 | 23.50 |
| | | | | | 50 | 50 | 23.16 | 23.50 |
| | | | | | 100 | 0 | 23.25 | 23.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 24.04 | 24.50 |
| | | | | | 1 | 49 | 23.94 | 24.50 |
| | | | | | 1 | 99 | 23.93 | 24.50 |
| | | | | | 50 | 0 | 23.09 | 23.50 |
| | | | | | 50 | 25 | 23.09 | 23.50 |
| | | | | | 50 | 50 | 23.13 | 23.50 |
| | | | | | 100 | 0 | 23.13 | 23.50 |
| | | | 38150 | 2610.0 | 1 | 0 | 24.00 | 24.50 |
| | | | | | 1 | 49 | 24.01 | 24.50 |
| | | | | | 1 | 99 | 24.02 | 24.50 |
| | | | | | 50 | 0 | 23.17 | 23.50 |
| | | | | | 50 | 25 | 23.20 | 23.50 |
| | | | | | 50 | 50 | 23.18 | 23.50 |
| | | | | | 100 | 0 | 23.17 | 23.50 |
| | | 16QAM | 37850 | 2580.0 | 1 | 0 | 23.48 | 23.50 |
| | | | | | 1 | 49 | 23.38 | 23.50 |
| | | | | | 1 | 99 | 23.26 | 23.50 |
| | | | | | 50 | 0 | 22.32 | 22.50 |
| | | | | | 50 | 25 | 22.33 | 22.50 |
| | | | | | 50 | 50 | 22.23 | 22.50 |
| | | | | | 100 | 0 | 22.36 | 22.50 |
| | | | 38000 | 2595.0 | 1 | 0 | 23.30 | 23.50 |
| | | | | | 1 | 49 | 23.17 | 23.50 |
| | | | | | 1 | 99 | 23.20 | 23.50 |
| | | | | | 50 | 0 | 22.15 | 22.50 |
| | | | | | 50 | 25 | 22.16 | 22.50 |
| | | | | | 50 | 50 | 22.16 | 22.50 |
| | | | | | 100 | 0 | 22.23 | 22.50 |
| | | | 38150 | 2610.0 | 1 | 0 | 23.22 | 23.50 |
| | | | | | 1 | 49 | 23.25 | 23.50 |
| | | | | | 1 | 99 | 23.31 | 23.50 |
| | | | | | 50 | 0 | 22.20 | 22.50 |
| | | | | | 50 | 25 | 22.25 | 22.50 |
| | | | | | 50 | 50 | 22.24 | 22.50 |
| | | | | | 100 | 0 | 22.26 | 22.50 |

| Low Band | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 40 | 5MHz | QPSK | 38725 | 2307.5 | 1 | 0 | 21.57 | 22.00 |
| | | | | | 1 | 12 | 21.56 | 22.00 |
| | | | | | 1 | 24 | 21.53 | 22.00 |
| | | | | | 12 | 0 | 20.70 | 21.00 |
| | | | | | 12 | 6 | 20.75 | 21.00 |
| | | | | | 12 | 13 | 20.73 | 21.00 |
| | | | | | 25 | 0 | 20.68 | 21.00 |
| | | | 38750 | 2310.0 | 1 | 0 | 21.61 | 22.00 |
| | | | | | 1 | 12 | 21.56 | 22.00 |
| | | | | | 1 | 24 | 21.56 | 22.00 |
| | | | | | 12 | 0 | 20.75 | 21.00 |
| | | | | | 12 | 6 | 20.75 | 21.00 |
| | | | | | 12 | 13 | 20.70 | 21.00 |
| | | | | | 25 | 0 | 20.71 | 21.00 |
| | | | 38775 | 2312.5 | 1 | 0 | 21.57 | 22.00 |
| | | | | | 1 | 12 | 21.58 | 22.00 |
| | | | | | 1 | 24 | 21.44 | 22.00 |
| | | | | | 12 | 0 | 20.74 | 21.00 |
| | | | | | 12 | 6 | 20.65 | 21.00 |
| | | | | | 12 | 13 | 20.65 | 21.00 |
| | | | | | 25 | 0 | 20.61 | 21.00 |
| | | 16QAM | 38725 | 2307.5 | 1 | 0 | 20.88 | 21.00 |
| | | | | | 1 | 12 | 20.94 | 21.00 |
| | | | | | 1 | 24 | 20.91 | 21.00 |
| | | | | | 12 | 0 | 19.82 | 20.00 |
| | | | | | 12 | 6 | 19.90 | 20.00 |
| | | | | | 12 | 13 | 19.86 | 20.00 |
| | | | | | 25 | 0 | 19.88 | 20.00 |
| | | | 38750 | 2310.0 | 1 | 0 | 20.94 | 21.00 |
| | | | | | 1 | 12 | 20.97 | 21.00 |
| | | | | | 1 | 24 | 20.97 | 21.00 |
| | | | | | 12 | 0 | 19.86 | 20.00 |
| | | | | | 12 | 6 | 19.90 | 20.00 |
| | | | | | 12 | 13 | 19.84 | 20.00 |
| | | | | | 25 | 0 | 19.91 | 20.00 |
| | | | 38775 | 2312.5 | 1 | 0 | 20.97 | 21.00 |
| | | | | | 1 | 12 | 20.97 | 21.00 |
| | | | | | 1 | 24 | 20.89 | 21.00 |
| | | | | | 12 | 0 | 19.86 | 20.00 |
| | | | | | 12 | 6 | 19.80 | 20.00 |
| | | | | | 12 | 11 | 19.82 | 20.00 |
| | | | | | 25 | 0 | 19.83 | 20.00 |

| Low Band | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 40 | 10MHz | QPSK | 38750 | 2310.0 | 1 | 0 | 21.60 | 22.00 |
| | | | | | 1 | 24 | 21.55 | 22.00 |
| | | | | | 1 | 49 | 21.47 | 22.00 |
| | | | | | 25 | 0 | 20.78 | 21.00 |
| | | | | | 25 | 12 | 20.76 | 21.00 |
| | | | | | 25 | 25 | 20.64 | 21.00 |
| | | | | | 50 | 0 | 20.71 | 21.00 |
| | | 16QAM | 38750 | 2310.0 | 1 | 0 | 20.97 | 21.00 |
| | | | | | 1 | 24 | 20.96 | 21.00 |
| | | | | | 1 | 49 | 20.88 | 21.00 |
| | | | | | 25 | 0 | 19.92 | 20.00 |
| | | | | | 25 | 12 | 19.96 | 20.00 |
| | | | | | 25 | 25 | 19.81 | 20.00 |
| | | | | | 50 | 0 | 19.92 | 20.00 |

| High Band | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 40 | 5MHz | QPSK | 39175 | 2352.5 | 1 | 0 | 21.37 | 21.50 |
| | | | | | 1 | 12 | 21.31 | 21.50 |
| | | | | | 1 | 24 | 21.22 | 21.50 |
| | | | | | 12 | 0 | 20.50 | 21.00 |
| | | | | | 12 | 6 | 20.54 | 21.00 |
| | | | | | 12 | 13 | 20.39 | 21.00 |
| | | | | | 25 | 0 | 20.44 | 21.00 |
| | | | 39200 | 2355.0 | 1 | 0 | 21.44 | 21.50 |
| | | | | | 1 | 12 | 21.22 | 21.50 |
| | | | | | 1 | 24 | 21.24 | 21.50 |
| | | | | | 12 | 0 | 20.50 | 21.00 |
| | | | | | 12 | 6 | 20.61 | 21.00 |
| | | | | | 12 | 13 | 20.37 | 21.00 |
| | | | | | 25 | 0 | 20.52 | 21.00 |
| | | | 39225 | 2357.5 | 1 | 0 | 21.28 | 21.50 |
| | | | | | 1 | 12 | 21.28 | 21.50 |
| | | | | | 1 | 24 | 21.21 | 21.50 |
| | | | | | 12 | 0 | 20.39 | 21.00 |
| | | | | | 12 | 6 | 20.33 | 21.00 |
| | | | | | 12 | 13 | 20.58 | 21.00 |
| | | | | | 25 | 0 | 20.34 | 21.00 |
| | | 16QAM | 39175 | 2352.5 | 1 | 0 | 20.82 | 21.00 |
| | | | | | 1 | 12 | 20.62 | 21.00 |
| | | | | | 1 | 24 | 20.78 | 21.00 |
| | | | | | 12 | 0 | 19.70 | 20.00 |
| | | | | | 12 | 6 | 19.54 | 20.00 |
| | | | | | 12 | 13 | 19.60 | 20.00 |
| | | | | | 25 | 0 | 19.48 | 20.00 |
| | | | 39200 | 2355.0 | 1 | 0 | 20.65 | 21.00 |
| | | | | | 1 | 12 | 20.72 | 21.00 |
| | | | | | 1 | 24 | 20.86 | 21.00 |
| | | | | | 12 | 0 | 19.64 | 20.00 |
| | | | | | 12 | 6 | 19.64 | 20.00 |
| | | | | | 12 | 13 | 19.61 | 20.00 |
| | | | | | 25 | 0 | 19.58 | 20.00 |
| | | | 39225 | 2357.5 | 1 | 0 | 20.82 | 21.00 |
| | | | | | 1 | 12 | 20.66 | 21.00 |
| | | | | | 1 | 24 | 20.61 | 21.00 |
| | | | | | 12 | 0 | 19.53 | 20.00 |
| | | | | | 12 | 6 | 19.58 | 20.00 |
| | | | | | 12 | 11 | 19.49 | 20.00 |
| | | | | | 25 | 0 | 19.62 | 20.00 |

| High Band | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 40 | 10MHz | QPSK | 39200 | 2355.0 | 1 | 0 | 21.29 | 22.00 |
| | | | | | 1 | 24 | 21.22 | 22.00 |
| | | | | | 1 | 49 | 21.22 | 22.00 |
| | | | | | 25 | 0 | 20.45 | 21.00 |
| | | | | | 25 | 12 | 20.39 | 21.00 |
| | | | | | 25 | 25 | 20.37 | 21.00 |
| | | | | | 50 | 0 | 20.41 | 20.50 |
| | | 16QAM | 39200 | 2355.0 | 1 | 0 | 20.77 | 21.00 |
| | | | | | 1 | 24 | 20.64 | 21.00 |
| | | | | | 1 | 49 | 20.64 | 21.00 |
| | | | | | 25 | 0 | 19.60 | 20.00 |
| | | | | | 25 | 12 | 19.60 | 20.00 |
| | | | | | 25 | 25 | 19.55 | 20.00 |
| | | | | | 50 | 0 | 19.43 | 19.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 41 | 5MHz | QPSK | 40265 | 2557.5 | 1 | 0 | 24.18 | 24.50 |
| | | | | | 1 | 12 | 24.16 | 24.50 |
| | | | | | 1 | 24 | 24.15 | 24.50 |
| | | | | | 12 | 0 | 23.21 | 23.50 |
| | | | | | 12 | 6 | 23.25 | 23.50 |
| | | | | | 12 | 13 | 23.25 | 23.50 |
| | | | | | 25 | 0 | 23.26 | 23.50 |
| | | | 40585 | 2589.5 | 1 | 0 | 23.94 | 24.50 |
| | | | | | 1 | 12 | 23.98 | 24.50 |
| | | | | | 1 | 24 | 23.96 | 24.50 |
| | | | | | 12 | 0 | 23.05 | 23.50 |
| | | | | | 12 | 6 | 23.11 | 23.50 |
| | | | | | 12 | 13 | 23.10 | 23.50 |
| | | | | | 25 | 0 | 23.07 | 23.50 |
| | | | 40905 | 2621.5 | 1 | 0 | 24.01 | 24.50 |
| | | | | | 1 | 12 | 24.04 | 24.50 |
| | | | | | 1 | 24 | 23.99 | 24.50 |
| | | | | | 12 | 0 | 23.11 | 23.50 |
| | | | | | 12 | 6 | 23.15 | 23.50 |
| | | | | | 12 | 13 | 23.14 | 23.50 |
| | | | | | 25 | 0 | 23.10 | 23.50 |
| | | | 41215 | 2652.5 | 1 | 0 | 24.05 | 24.50 |
| | | | | | 1 | 12 | 24.05 | 24.50 |
| | | | | | 1 | 24 | 24.06 | 24.50 |
| | | | | | 12 | 0 | 23.09 | 23.50 |
| | | | | | 12 | 6 | 23.14 | 23.50 |
| | | | | | 12 | 13 | 23.12 | 23.50 |
| | | | | | 25 | 0 | 23.12 | 23.50 |
| | | 16QAM | 40265 | 2557.5 | 1 | 0 | 23.57 | 24.00 |
| | | | | | 1 | 12 | 23.56 | 24.00 |
| | | | | | 1 | 24 | 23.56 | 24.00 |
| | | | | | 12 | 0 | 22.38 | 22.50 |
| | | | | | 12 | 6 | 22.41 | 22.50 |
| | | | | | 12 | 13 | 22.42 | 22.50 |
| | | | | | 25 | 0 | 22.37 | 22.50 |
| | | | 40585 | 2589.5 | 1 | 0 | 23.27 | 24.00 |
| | | | | | 1 | 12 | 23.29 | 24.00 |
| | | | | | 1 | 24 | 23.28 | 24.00 |
| | | | | | 12 | 0 | 22.16 | 22.50 |
| | | | | | 12 | 6 | 22.22 | 22.50 |
| | | | | | 12 | 13 | 22.16 | 22.50 |
| | | | | | 25 | 0 | 22.11 | 22.50 |
| | | | 40905 | 2621.5 | 1 | 0 | 23.30 | 24.00 |
| | | | | | 1 | 12 | 23.31 | 24.00 |
| | | | | | 1 | 24 | 23.37 | 24.00 |
| | | | | | 12 | 0 | 22.22 | 22.50 |
| | | | | | 12 | 6 | 22.27 | 22.50 |
| | | | | | 12 | 13 | 22.25 | 22.50 |
| | | | | | 25 | 0 | 22.21 | 22.50 |
| | | | 41215 | 2652.5 | 1 | 0 | 23.44 | 24.00 |
| | | | | | 1 | 12 | 23.43 | 24.00 |
| | | | | | 1 | 24 | 23.44 | 24.00 |
| | | | | | 12 | 0 | 22.31 | 22.50 |
| | | | | | 12 | 6 | 22.30 | 22.50 |
| | | | | | 12 | 13 | 22.31 | 22.50 |
| | | | | | 25 | 0 | 22.22 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 41 | 10MHz | QPSK | 40290 | 2560.0 | 1 | 0 | 24.20 | 24.50 |
| | | | | | 1 | 24 | 24.19 | 24.50 |
| | | | | | 1 | 49 | 24.17 | 24.50 |
| | | | | | 25 | 0 | 23.24 | 23.50 |
| | | | | | 25 | 12 | 23.26 | 23.50 |
| | | | | | 25 | 25 | 23.27 | 23.50 |
| | | | | | 50 | 0 | 23.24 | 23.50 |
| | | | 40590 | 2590.0 | 1 | 0 | 23.98 | 24.50 |
| | | | | | 1 | 24 | 23.98 | 24.50 |
| | | | | | 1 | 49 | 23.98 | 24.50 |
| | | | | | 25 | 0 | 23.04 | 23.50 |
| | | | | | 25 | 12 | 23.07 | 23.50 |
| | | | | | 25 | 25 | 23.05 | 23.50 |
| | | | | | 50 | 0 | 23.11 | 23.50 |
| | | | 40890 | 2620.0 | 1 | 0 | 24.04 | 24.50 |
| | | | | | 1 | 24 | 24.04 | 24.50 |
| | | | | | 1 | 49 | 24.06 | 24.50 |
| | | | | | 25 | 0 | 23.11 | 23.50 |
| | | | | | 25 | 12 | 23.17 | 23.50 |
| | | | | | 25 | 25 | 23.11 | 23.50 |
| | | | | | 50 | 0 | 23.17 | 23.50 |
| | | | 41190 | 2650.0 | 1 | 0 | 24.08 | 24.50 |
| | | | | | 1 | 24 | 24.05 | 24.50 |
| | | | | | 1 | 49 | 24.08 | 24.50 |
| | | | | | 25 | 0 | 23.11 | 23.50 |
| | | | | | 25 | 12 | 23.16 | 23.50 |
| | | | | | 25 | 25 | 23.13 | 23.50 |
| | | | | | 50 | 0 | 23.17 | 23.50 |
| | | 16QAM | 40290 | 2560.0 | 1 | 0 | 23.58 | 24.00 |
| | | | | | 1 | 24 | 23.55 | 24.00 |
| | | | | | 1 | 49 | 23.56 | 24.00 |
| | | | | | 25 | 0 | 22.34 | 22.50 |
| | | | | | 25 | 12 | 22.37 | 22.50 |
| | | | | | 25 | 25 | 22.38 | 22.50 |
| | | | | | 50 | 0 | 22.39 | 22.50 |
| | | | 40590 | 2590.0 | 1 | 0 | 23.27 | 24.00 |
| | | | | | 1 | 24 | 23.27 | 24.00 |
| | | | | | 1 | 49 | 23.28 | 24.00 |
| | | | | | 25 | 0 | 22.13 | 22.50 |
| | | | | | 25 | 12 | 22.15 | 22.50 |
| | | | | | 25 | 25 | 22.15 | 22.50 |
| | | | | | 50 | 0 | 22.15 | 22.50 |
| | | | 40890 | 2620.0 | 1 | 0 | 23.33 | 24.00 |
| | | | | | 1 | 24 | 23.33 | 24.00 |
| | | | | | 1 | 49 | 23.37 | 24.00 |
| | | | | | 25 | 0 | 22.20 | 22.50 |
| | | | | | 25 | 12 | 22.24 | 22.50 |
| | | | | | 25 | 25 | 22.20 | 22.50 |
| | | | | | 50 | 0 | 22.23 | 22.50 |
| | | | 41190 | 2650.0 | 1 | 0 | 23.48 | 24.00 |
| | | | | | 1 | 24 | 23.43 | 24.00 |
| | | | | | 1 | 49 | 23.45 | 24.00 |
| | | | | | 25 | 0 | 22.25 | 22.50 |
| | | | | | 25 | 12 | 22.27 | 22.50 |
| | | | | | 25 | 25 | 22.24 | 22.50 |
| | | | | | 50 | 0 | 22.30 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 41 | 15MHz | QPSK | 40315 | 2562.5 | 1 | 0 | 24.26 | 24.50 |
| | | | | | 1 | 37 | 24.20 | 24.50 |
| | | | | | 1 | 74 | 24.10 | 24.50 |
| | | | | | 36 | 0 | 23.33 | 23.50 |
| | | | | | 36 | 19 | 23.34 | 23.50 |
| | | | | | 36 | 39 | 23.19 | 23.50 |
| | | | | | 75 | 0 | 23.19 | 23.50 |
| | | | 40590 | 2590.5 | 1 | 0 | 24.10 | 24.50 |
| | | | | | 1 | 37 | 23.96 | 24.50 |
| | | | | | 1 | 74 | 24.01 | 24.50 |
| | | | | | 36 | 0 | 23.11 | 23.50 |
| | | | | | 36 | 19 | 23.13 | 23.50 |
| | | | | | 36 | 39 | 23.10 | 23.50 |
| | | | | | 75 | 0 | 23.10 | 23.50 |
| | | | 40885 | 2619.5 | 1 | 0 | 24.07 | 24.50 |
| | | | | | 1 | 37 | 24.05 | 24.50 |
| | | | | | 1 | 74 | 24.12 | 24.50 |
| | | | | | 36 | 0 | 23.16 | 23.50 |
| | | | | | 36 | 19 | 23.17 | 23.50 |
| | | | | | 36 | 39 | 23.17 | 23.50 |
| | | | | | 75 | 0 | 23.17 | 23.50 |
| | | | 41165 | 2647.5 | 1 | 0 | 24.14 | 24.50 |
| | | | | | 1 | 37 | 24.09 | 24.50 |
| | | | | | 1 | 74 | 24.11 | 24.50 |
| | | | | | 36 | 0 | 23.19 | 23.50 |
| | | | | | 36 | 19 | 23.24 | 23.50 |
| | | | | | 36 | 39 | 23.19 | 23.50 |
| | | | | | 75 | 0 | 23.19 | 23.50 |
| | | 16QAM | 40315 | 2562.5 | 1 | 0 | 23.66 | 24.00 |
| | | | | | 1 | 37 | 23.57 | 24.00 |
| | | | | | 1 | 74 | 23.47 | 24.00 |
| | | | | | 36 | 0 | 22.49 | 22.50 |
| | | | | | 36 | 19 | 22.49 | 22.50 |
| | | | | | 36 | 39 | 22.35 | 22.50 |
| | | | | | 75 | 0 | 22.34 | 22.50 |
| | | | 40590 | 2590.5 | 1 | 0 | 23.46 | 24.00 |
| | | | | | 1 | 37 | 23.25 | 24.00 |
| | | | | | 1 | 74 | 23.30 | 24.00 |
| | | | | | 36 | 0 | 22.25 | 22.50 |
| | | | | | 36 | 19 | 22.21 | 22.50 |
| | | | | | 36 | 39 | 22.20 | 22.50 |
| | | | | | 75 | 0 | 22.19 | 22.50 |
| | | | 40885 | 2619.5 | 1 | 0 | 23.33 | 24.00 |
| | | | | | 1 | 37 | 23.33 | 24.00 |
| | | | | | 1 | 74 | 23.47 | 24.00 |
| | | | | | 36 | 0 | 22.28 | 22.50 |
| | | | | | 36 | 19 | 22.30 | 22.50 |
| | | | | | 36 | 39 | 22.33 | 22.50 |
| | | | | | 75 | 0 | 22.28 | 22.50 |
| | | | 41165 | 2647.5 | 1 | 0 | 23.53 | 24.00 |
| | | | | | 1 | 37 | 23.49 | 24.00 |
| | | | | | 1 | 74 | 23.48 | 24.00 |
| | | | | | 36 | 0 | 22.38 | 22.50 |
| | | | | | 36 | 19 | 22.40 | 22.50 |
| | | | | | 36 | 39 | 22.34 | 22.50 |
| | | | | | 75 | 0 | 22.35 | 22.50 |

| Band | Bandwidth | Modulation | Channel | Freq. (MHz) | RB Size | RB Offset | Average (dBm) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Conducted power | Tune-up power |
| LTE Band 41 | 20MHz | QPSK | 40340 | 2565.0 | 1 | 0 | 24.27 | 24.50 |
| | | | | | 1 | 49 | 24.20 | 24.50 |
| | | | | | 1 | 99 | 24.07 | 24.50 |
| | | | | | 50 | 0 | 23.33 | 23.50 |
| | | | | | 50 | 25 | 23.23 | 23.50 |
| | | | | | 50 | 50 | 23.22 | 23.50 |
| | | | | | 100 | 0 | 23.20 | 23.50 |
| | | | 40600 | 2591.0 | 1 | 0 | 24.08 | 24.50 |
| | | | | | 1 | 49 | 23.99 | 24.50 |
| | | | | | 1 | 99 | 24.00 | 24.50 |
| | | | | | 50 | 0 | 23.13 | 23.50 |
| | | | | | 50 | 25 | 23.15 | 23.50 |
| | | | | | 50 | 50 | 23.14 | 23.50 |
| | | | | | 100 | 0 | 23.15 | 23.50 |
| | | | 40870 | 2618.0 | 1 | 0 | 24.04 | 24.50 |
| | | | | | 1 | 49 | 24.04 | 24.50 |
| | | | | | 1 | 99 | 24.08 | 24.50 |
| | | | | | 50 | 0 | 23.17 | 23.50 |
| | | | | | 50 | 25 | 23.20 | 23.50 |
| | | | | | 50 | 50 | 23.18 | 23.50 |
| | | | | | 100 | 0 | 23.23 | 23.50 |
| | | | 41140 | 2645.0 | 1 | 0 | 24.12 | 24.50 |
| | | | | | 1 | 49 | 24.11 | 24.50 |
| | | | | | 1 | 99 | 24.09 | 24.50 |
| | | | | | 50 | 0 | 23.17 | 23.50 |
| | | | | | 50 | 25 | 23.20 | 23.50 |
| | | | | | 50 | 50 | 23.15 | 23.50 |
| | | | | | 100 | 0 | 23.19 | 23.50 |
| | | 16QAM | 40340 | 2565.0 | 1 | 0 | 23.70 | 24.00 |
| | | | | | 1 | 49 | 23.57 | 24.00 |
| | | | | | 1 | 99 | 23.42 | 24.00 |
| | | | | | 50 | 0 | 22.41 | 22.50 |
| | | | | | 50 | 25 | 22.31 | 22.50 |
| | | | | | 50 | 50 | 22.27 | 22.50 |
| | | | | | 100 | 0 | 22.37 | 22.50 |
| | | | 40600 | 2591.0 | 1 | 0 | 23.41 | 24.00 |
| | | | | | 1 | 49 | 23.27 | 24.00 |
| | | | | | 1 | 99 | 23.26 | 24.00 |
| | | | | | 50 | 0 | 22.24 | 22.50 |
| | | | | | 50 | 25 | 22.26 | 22.50 |
| | | | | | 50 | 50 | 22.21 | 22.50 |
| | | | | | 100 | 0 | 22.30 | 22.50 |
| | | | 40870 | 2618.0 | 1 | 0 | 23.30 | 24.00 |
| | | | | | 1 | 49 | 23.35 | 24.00 |
| | | | | | 1 | 99 | 23.42 | 24.00 |
| | | | | | 50 | 0 | 22.26 | 22.50 |
| | | | | | 50 | 25 | 22.30 | 22.50 |
| | | | | | 50 | 50 | 22.27 | 22.50 |
| | | | | | 100 | 0 | 22.31 | 22.50 |
| | | | 41140 | 2645.0 | 1 | 0 | 23.54 | 24.00 |
| | | | | | 1 | 49 | 23.46 | 24.00 |
| | | | | | 1 | 99 | 23.46 | 24.00 |
| | | | | | 50 | 0 | 22.32 | 22.50 |
| | | | | | 50 | 25 | 22.30 | 22.50 |
| | | | | | 50 | 50 | 22.27 | 22.50 |
| | | | | | 100 | 0 | 22.38 | 22.50 |

| Band | Date Rate or Sub-test | CH | Frequency (MHz) | Average Conducted power | Average Tune-up power |
|---|---|---|---|---|---|
| | | | | Ant-0 | Ant-0 |
| IEEE 802.11b | 1M | 1 | 2412.0 | 16.42 | 16.50 |
| | | 6 | 2437.0 | 16.31 | 16.50 |
| | | 11 | 2462.0 | 16.32 | 16.50 |
| | | 12 | 2467.0 | 16.27 | 16.50 |
| | | 13 | 2472.0 | 16.39 | 16.50 |
| IEEE 802.11g | 6M | 1 | 2412.0 | 13.35 | 14.00 |
| | | 6 | 2437.0 | 13.50 | 14.00 |
| | | 11 | 2462.0 | 13.35 | 14.00 |
| | | 12 | 2467.0 | 13.26 | 14.00 |
| | | 13 | 2472.0 | 3.79 | 4.00 |
| IEEE 802.11n 2.4 GHz 20 MHz | 6.5M | 1 | 2412.0 | 13.61 | 14.00 |
| | | 6 | 2437.0 | 13.48 | 14.00 |
| | | 11 | 2462.0 | 13.57 | 14.00 |
| | | 12 | 2467.0 | 13.54 | 14.00 |
| | | 13 | 2472.0 | 3.59 | 4.00 |
| IEEE 802.11n 2.4 GHz 40 MHz | 13.5M | 3 | 2422.0 | 13.37 | 14.00 |
| | | 6 | 2437.0 | 13.62 | 14.00 |
| | | 9 | 2452.0 | 13.58 | 14.00 |
| | | 10 | 2457.0 | 13.32 | 14.00 |
| | | 11 | 2462.0 | 8.76 | 9.00 |

| Band | | Date Rate or Sub-test | CH | Frequency (MHz) | Average Conducted power | Average Tune-up power |
|---|---|---|---|---|---|---|
| | | | | | Ant-0 | Ant-0 |
| 802.11a | U-NII-1 | 6M | 36 | 5180.0 | 13.40 | 14.00 |
| | | | 40 | 5200.0 | 13.52 | 14.00 |
| | | | 44 | 5220.0 | 13.38 | 14.00 |
| | | | 48 | 5240.0 | 13.56 | 14.00 |
| | U-NII-2A | | 52 | 5260.0 | 13.54 | 14.00 |
| | | | 56 | 5280.0 | 13.56 | 14.00 |
| | | | 60 | 5300.0 | 13.35 | 14.00 |
| | | | 64 | 5320.0 | 13.38 | 14.00 |
| | U-NII-2C | | 100 | 5500.0 | 13.53 | 14.00 |
| | | | 104 | 5520.0 | 13.57 | 14.00 |
| | | | 108 | 5540.0 | 13.54 | 14.00 |
| | | | 112 | 5560.0 | 13.55 | 14.00 |
| | | | 116 | 5580.0 | 13.62 | 14.00 |
| | | | 120 | 5600.0 | 13.46 | 14.00 |
| | | | 124 | 5620.0 | 13.42 | 14.00 |
| | | | 128 | 5640.0 | 13.54 | 14.00 |
| | | | 132 | 5660.0 | 13.60 | 14.00 |
| | | | 136 | 5680.0 | 13.38 | 14.00 |
| | | | 140 | 5700.0 | 13.56 | 14.00 |
| | U-NII-3 | | 149 | 5745.0 | 13.55 | 14.00 |
| | | | 153 | 5765.0 | 13.60 | 14.00 |
| | | | 157 | 5785.0 | 13.38 | 14.00 |
| | | | 161 | 5805.0 | 13.40 | 14.00 |
| | | | 165 | 5825.0 | 13.51 | 14.00 |
| IEEE 802.11ac 20 MHz | U-NII-1 | 6.5M | 36 | 5180.0 | 13.34 | 14.00 |
| | | | 40 | 5200.0 | 13.32 | 14.00 |
| | | | 44 | 5220.0 | 13.58 | 14.00 |
| | | | 48 | 5240.0 | 13.55 | 14.00 |
| | U-NII-2A | | 52 | 5260.0 | 13.53 | 14.00 |
| | | | 56 | 5280.0 | 13.39 | 14.00 |
| | | | 60 | 5300.0 | 13.55 | 14.00 |
| | | | 64 | 5320.0 | 13.54 | 14.00 |
| | U-NII-2C | | 100 | 5500.0 | 13.41 | 14.00 |
| | | | 104 | 5520.0 | 13.31 | 14.00 |
| | | | 108 | 5540.0 | 13.44 | 14.00 |
| | | | 112 | 5560.0 | 13.31 | 14.00 |
| | | | 116 | 5580.0 | 13.51 | 14.00 |
| | | | 120 | 5600.0 | 13.32 | 14.00 |
| | | | 124 | 5620.0 | 13.31 | 14.00 |
| | | | 128 | 5640.0 | 13.41 | 14.00 |
| | | | 132 | 5660.0 | 13.55 | 14.00 |
| | | | 136 | 5680.0 | 13.51 | 14.00 |
| | | | 140 | 5700.0 | 13.32 | 14.00 |
| | U-NII-3 | | 149 | 5745.0 | 13.35 | 14.00 |
| | | | 153 | 5765.0 | 13.57 | 14.00 |
| | | | 157 | 5785.0 | 13.53 | 14.00 |
| | | | 161 | 5805.0 | 13.58 | 14.00 |
| | | | 165 | 5825.0 | 13.39 | 14.00 |

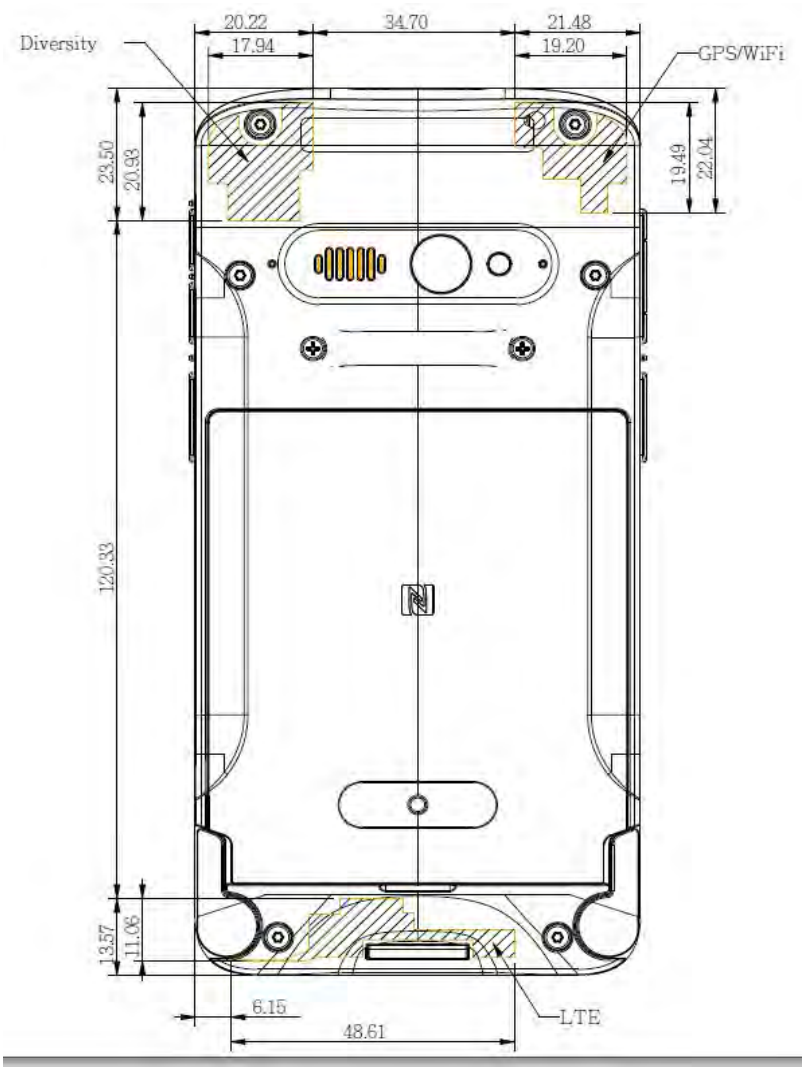
| Band | | Date Rate or Sub-test | CH | Frequency (MHz) | Average Conducted power | Average Tune-up power |
|---|---|---|---|---|---|---|
| | | | | | Ant-0 | Ant-0 |
| IEEE 802.11ac 40 MHz | U-NII-1 | 13.5M | 38 | 5190.0 | 13.56 | 14.00 |
| | | | 46 | 5230.0 | 13.55 | 14.00 |
| | U-NII-2A | | 54 | 5270.0 | 13.34 | 14.00 |
| | | | 62 | 5310.0 | 13.44 | 14.00 |
| | U-NII-2C | | 102 | 5510.0 | 13.35 | 14.00 |
| | | | 110 | 5550.0 | 13.43 | 14.00 |
| | | | 118 | 5590.0 | 13.57 | 14.00 |
| | | | 126 | 5630.0 | 13.33 | 14.00 |
| | | | 134 | 5670.0 | 13.53 | 14.00 |
| | U-NII-3 | | 151 | 5755.0 | 13.36 | 14.00 |
| | | | 159 | 5795.0 | 13.59 | 14.00 |
| IEEE 802.11ac 80 MHz | U-NII-1 | 29.3M | 42 | 5210.0 | 12.53 | 13.00 |
| | U-NII-2A | | 58 | 5290.0 | 12.35 | 13.00 |
| | U-NII-2C | | 106 | 5530.0 | 12.38 | 13.00 |
| | U-NII-3 | | 155 | 5775.0 | 12.44 | 13.00 |

| Band | CH | Frequency (MHz) | Packet Type | Average Power | Average Tune-up Power |
|---|---|---|---|---|---|
| | | | | dBm | dBm |
| Bluetooth BR 1Mbps (GFSK) | 0 | 2402.0 | DH1 | 11.33 | 12.00 |
| | | | DH3 | 11.36 | 12.00 |
| | | | DH5 | 11.41 | 12.00 |
| | 39 | 2441.0 | DH1 | 10.76 | 12.00 |
| | | | DH3 | 10.78 | 12.00 |
| | | | DH5 | 10.82 | 12.00 |
| | 78 | 2480.0 | DH1 | 11.01 | 12.00 |
| | | | DH3 | 11.05 | 12.00 |
| | | | DH5 | 11.10 | 12.00 |
| Bluetooth EDR 2Mbps (π/4-DQPSK) | 0 | 2402.0 | DH1 | 9.28 | 10.00 |
| | | | DH3 | 9.32 | 10.00 |
| | | | DH5 | 9.64 | 10.00 |
| | 39 | 2441.0 | DH1 | 8.34 | 9.00 |
| | | | DH3 | 8.37 | 9.00 |
| | | | DH5 | 8.68 | 9.00 |
| | 78 | 2480.0 | DH1 | 8.99 | 9.50 |
| | | | DH3 | 9.04 | 9.50 |
| | | | DH5 | 9.35 | 9.50 |
| Bluetooth EDR 3Mbps (8DPSK) | 0 | 2402.0 | DH1 | 9.30 | 10.00 |
| | | | DH3 | 9.34 | 10.00 |
| | | | DH5 | 9.65 | 10.00 |
| | 39 | 2441.0 | DH1 | 8.37 | 9.00 |
| | | | DH3 | 8.39 | 9.00 |
| | | | DH5 | 8.69 | 9.00 |
| | 78 | 2480.0 | DH1 | 9.02 | 9.50 |
| | | | DH3 | 9.06 | 9.50 |
| | | | DH5 | 9.37 | 9.50 |
| Bluetooth LE 1M | 0 | 2402.0 | --- | -0.09 | 1.50 |
| | 19 | 2440.0 | | -0.28 | 1.50 |
| | 39 | 2480.0 | | 1.16 | 1.50 |
| Bluetooth LE 2M | 0 | 2402.0 | --- | -0.15 | 1.50 |
| | 19 | 2440.0 | | -0.31 | 1.50 |
| | 39 | 2480.0 | | 1.14 | 1.50 |

## 7.7 Antenna location

| Ant. Used | Antenna to user distance (mm) | | | | | |
|---|---|---|---|---|---|---|
| | Front | Back | Side 1 | Side 2 | Side 3 | Side 4 |
| WWAN Antenna | ≤ 25mm | ≤ 25mm | > 25mm | ≤ 25mm | ≤ 25mm | ≤ 25mm |
| WLAN Antenna | ≤ 25mm | ≤ 25mm | ≤ 25mm | > 25mm | > 25mm | ≤ 25mm |
| Bluetooth Antenna | ≤ 25mm | ≤ 25mm | ≤ 25mm | > 25mm | > 25mm | ≤ 25mm |

Antenna location



## 7.8 Simultaneous Transmitting Evaluate

**Simultaneous transmission configurations as below:**

| Condition(s) | Band | | | |
|---|---|---|---|---|
| | WWAN Ant | WLAN 2.4 GHz Ant | WLAN 5 GHz Ant | Bluetooth Ant |
| 1 | V | V | --- | V |
| 2 | --- | V | --- | V |
| 3 | --- | --- | V | V |
| 4 | V | V | - | --- |
| 5 | V | --- | V | --- |
| 6 | V | --- | --- | V |

### 7.8.1 Sum of 1-g SAR of all simultaneously transmitting

When the sum of 1-g SAR of all simultaneously transmitting antennas in and operating mode and exposure condition combination is within the SAR limit, SAR test exclusion applies to that simultaneous transmission configuration.

Sum of 1-g SAR of summary as below:

| Phantom Position | | Spacing (mm) | ASSY | WWAN Ant (1) Band | WWAN Ant (1) $SAR_{1g}$ (W/Kg) | 2.4 GHz WLAN Ant (2) Band | 2.4 GHz WLAN Ant (2) $SAR_{1g}$ (W/Kg) | 5 GHz WLAN Ant (3) Band | 5 GHz WLAN Ant (3) $SAR_{1g}$ (W/Kg) | Bluetooth Ant (4) Band | Bluetooth Ant (4) $SAR_{1g}$ (W/Kg) | (1)+(2)+(4) Σ $SAR_{1g}$ (W/Kg) | (2)+(4) Σ $SAR_{1g}$ (W/Kg) | (3)+(4) Σ $SAR_{1g}$ (W/Kg) | (1)+(2) Σ $SAR_{1g}$ (W/Kg) | (1)+(3) Σ $SAR_{1g}$ (W/Kg) | (1)+(4) Σ $SAR_{1g}$ (W/Kg) | Event |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Head Mode | | | | | | | | | | | | | | | | | | |
| Flat | Right Cheek | 0 | N/A | WWAN Band | 0.81 | IEEE 802.11 | 0.14 | IEEE 802.11 | 0.77 | Bluetooth | 0.07 | 1.02 | 0.21 | 0.85 | 0.95 | 1.58 | 0.88 | <1.6 |
| | Right Tilted | 0 | N/A | WWAN Band | 0.52 | IEEE 802.11 | 0.10 | IEEE 802.11 | 0.59 | Bluetooth | 0.05 | 0.68 | 0.16 | 0.64 | 0.63 | 1.12 | 0.58 | <1.6 |
| | Left Cheek | 0 | N/A | WWAN Band | 0.59 | IEEE 802.11 | 0.10 | IEEE 802.11 | 0.47 | Bluetooth | 0.05 | 0.74 | 0.15 | 0.52 | 0.69 | 1.06 | 0.64 | <1.6 |
| | Left Tilted | 0 | N/A | WWAN Band | 0.47 | IEEE 802.11 | 0.10 | IEEE 802.11 | 0.49 | Bluetooth | 0.05 | 0.62 | 0.14 | 0.54 | 0.57 | 0.96 | 0.52 | <1.6 |
| Hotspot Mode | | | | | | | | | | | | | | | | | | |
| Flat | Front | 10 | N/A | WWAN Band | 0.87 | IEEE 802.11 | 0.05 | IEEE 802.11 | 0.17 | Bluetooth | 0.02 | 0.94 | 0.07 | 0.19 | 0.91 | 1.04 | 0.89 | <1.6 |
| | Back | 10 | N/A | WWAN Band | 0.72 | IEEE 802.11 | 0.09 | IEEE 802.11 | 0.30 | Bluetooth | 0.05 | 0.85 | 0.14 | 0.35 | 0.81 | 1.02 | 0.76 | <1.6 |
| | Side 1 | 10 | N/A | WWAN Band | 0.00 | IEEE 802.11 | 0.07 | IEEE 802.11 | 0.19 | Bluetooth | 0.04 | 0.11 | 0.11 | 0.22 | 0.07 | 0.19 | 0.04 | <1.6 |
| | Side 2 | 10 | N/A | WWAN Band | 0.61 | IEEE 802.11 | 0.00 | IEEE 802.11 | 0.00 | Bluetooth | 0.00 | 0.61 | 0.00 | 0.00 | 0.61 | 0.61 | 0.61 | <1.6 |
| | Side 3 | 10 | N/A | WWAN Band | 1.06 | IEEE 802.11 | 0.00 | IEEE 802.11 | 0.00 | Bluetooth | 0.00 | 1.06 | 0.00 | 0.00 | 1.06 | 1.06 | 1.06 | <1.6 |
| | Side 4 | 10 | N/A | WWAN Band | 0.16 | IEEE 802.11 | 0.04 | IEEE 802.11 | 0.18 | Bluetooth | 0.02 | 0.21 | 0.06 | 0.19 | 0.20 | 0.33 | 0.17 | <1.6 |
| Body wron Mode | | | | | | | | | | | | | | | | | | |
| Flat | Front | 15 | N/A | WWAN Band | 0.87 | IEEE 802.11 | 0.05 | IEEE 802.11 | 0.17 | Bluetooth | 0.02 | 0.94 | 0.07 | 0.19 | 0.91 | 1.04 | 0.89 | <1.6 |
| | Back | 15 | N/A | WWAN Band | 0.72 | IEEE 802.11 | 0.09 | IEEE 802.11 | 0.30 | Bluetooth | 0.05 | 0.85 | 0.14 | 0.35 | 0.81 | 1.02 | 0.76 | <1.6 |
| | Front | 15 | Headset | WWAN Band | 0.00 | IEEE 802.11 | 0.00 | IEEE 802.11 | 0.00 | Bluetooth | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | <1.6 |
| | Back | 15 | Headset | WWAN Band | 0.05 | IEEE 802.11 | 0.00 | IEEE 802.11 | 0.00 | Bluetooth | 0.00 | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | 0.05 | <1.6 |

### 7.8.2 SAR to peak location separation ratio (SPLSR)

When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by (SAR1 + SAR2)^1.5/Ri, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

**All of sum of SAR < 1.6 W/kg, therefore SPLSR is not required.**

## 7.9 SAR test reduction according to KDB

General:

- The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used were according to FCC, Supplement C [June 2001], IEEE1528-2013.
- All modes of operation were investigated, and worst-case results are reported.
- Tissue parameters and temperatures are listed on the SAR plots.
- Batteries are fully charged for all readings.
- When the Channel's SAR 1 g of maximum conducted power is > 0.8 mW/g, low, middle and high channel are supposed to be tested.

KDB 447498:

- The test data reported are the worst-case SAR value with the position set in a typical configuration. Test procedures used were according to IEEE1528-2013.

KDB 865664:

- Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg.
- When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 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.
- 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.

KDB 941225:

For 2G

- In order to qualify for the above test reduction, the maximum burst-averaged output power for each mode (GMS/GPRS/EDGE) and the corresponding multi-slot class must be clearly identified in the SAR report for each frequency band.We perform worst case SAR with maximum time-average power on GMS/GPRS/EDGE mode.

For 3G-3GPP

- When HSDPA & (HSUPA / HSPA+ uplink with QPSK) power are not more than WCDMA 12.2K RMC 0.25 dB and the SAR value of WCDMA BII/BV<1.2 W/kg ,therefore HSDPA & HSUPA / HSPA+ Stand-alone SAR is not required.

For 4G

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation, otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.
- For QPSK with 100 % RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
- SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.
- For smaller channel bandwidth SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

For Hot-spot mode

- SAR must be measured for all sides and surfaces with a transmitting antenna located within 25 mm from that surface or edge.

For Mini tablet & UMPC

- UMPC mini-tablet devices must be tested on all sides and edges with a transmitting antenna within 25 mm from that surface or edge.

KDB 248227:

- Refer 7.5 SAR Testing with 802.11 Transmitters.

# 8. System Verification and Validation

## 8.1 Symmetric Dipoles for System Verification

| | |
|---|---|
| Construction | Symmetrical dipole with l/4 balun enables measurement of feed point impedance with NWA matched for use near flat phantoms filled with head simulating solutions Includes distance holder and tripod adaptor Calibration Calibrated SAR value for specified position and input power at the flat phantom in head simulating solutions. |
| Return Loss | > 20 dB at specified verification position |
| Options | Dipoles for other frequencies or solutions and other calibration conditions are available upon request |

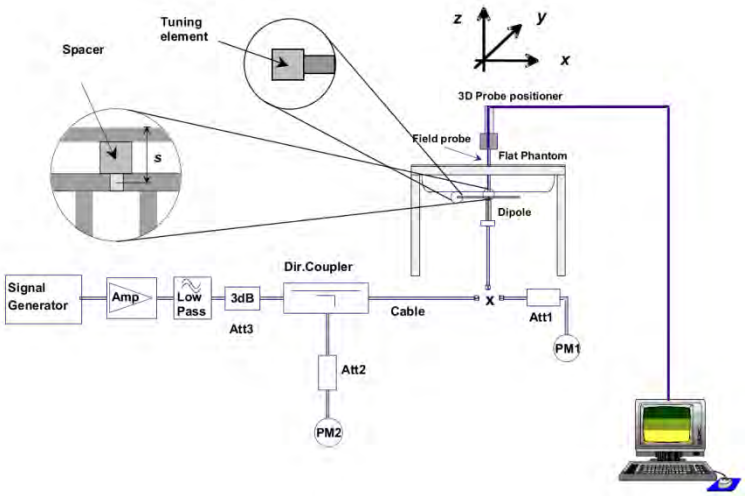



Figure 1. System Verification Setup Diagram

Figure 2. Validation Kit

## 8.2 Verification Summary

Prior to the assessment, the system validation kit was used to test whether the system was operating within its specifications of ± 10 %. The measured SAR will be normalized to 1 W input power.

| Mixture Type | Frequency (MHz) | Power | Probe | Dipole | $SAR_{1g}$ (W/Kg) | Normalize to 1 Watt 1 g (W/Kg) | 1 W Target $SAR_{1g}$ (W/Kg) | $SAR_{10g}$ (W/Kg) | Normalize to 1 Watt 10 g (W/Kg) | 1 W Target $SAR_{10g}$ (W/Kg) | Difference percentage 1 g | Difference percentage 10 g | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Model / Serial No. | Model / Serial No. | | | | | | | | | |
| Head | 750 | 250 mW | EX3DV4-SN3977 | D750V3 – SN1004 | 2.15 | 8.6 | 8.42 | 1.43 | 5.72 | 5.61 | 2.1% | 1.9% | May. 18, 2020 |
| Head | 750 | 250 mW | EX3DV4-SN3977 | D750V3 – SN1004 | 2.13 | 8.52 | 8.42 | 1.41 | 5.64 | 5.61 | 1.2% | 0.5% | May. 28, 2020 |
| Head | 835 | 250 mW | EX3DV4-SN3977 | D835V2 – SN4d082 | 2.56 | 10.24 | 9.39 | 1.68 | 6.72 | 6.33 | 8.3% | 5.8% | May. 18, 2020 |
| Head | 835 | 250 mW | EX3DV4-SN3977 | D835V2 – SN4d082 | 2.55 | 10.2 | 9.39 | 1.64 | 6.56 | 6.33 | 7.9% | 3.5% | May. 28, 2020 |
| Head | 1750 | 250 mW | EX3DV4-SN3977 | D1750V2 – SN1023 | 9.03 | 36.12 | 36.10 | 4.76 | 19.04 | 18.90 | 0.1% | 0.7% | May. 20, 2020 |
| Head | 1750 | 250 mW | EX3DV4-SN3977 | D1750V2 – SN1023 | 9.23 | 36.92 | 36.10 | 4.87 | 19.48 | 18.90 | 2.2% | 3.0% | May. 27, 2020 |
| Head | 1900 | 250 mW | EX3DV4-SN3977 | D1900V2 – SN5d111 | 10.4 | 41.6 | 39.90 | 5.32 | 21.28 | 20.60 | 4.1% | 3.2% | May. 20, 2020 |
| Head | 1900 | 250 mW | EX3DV4-SN3977 | D1900V2 – SN5d111 | 10.3 | 41.2 | 39.90 | 5.26 | 21.04 | 20.60 | 3.2% | 2.1% | May. 27, 2020 |
| Head | 2300 | 250 mW | EX3DV4-SN3887 | D2300V2 – SN1092 | 12.7 | 50.8 | 47.90 | 5.9 | 23.6 | 23.00 | 5.7% | 2.5% | May. 24, 2020 |
| Head | 2450 | 250 mW | EX3DV4-SN3977 | D2450V2 – SN903 | 13.8 | 55.2 | 51.10 | 6.43 | 25.72 | 23.40 | 7.4% | 9.0% | May. 23, 2020 |
| Head | 2600 | 250 mW | EX3DV4-SN3977 | D2600V2 – SN1007 | 13.2 | 52.8 | 56.00 | 5.82 | 23.28 | 24.80 | -6.1% | -6.5% | May. 21, 2020 |
| Head | 2600 | 250 mW | EX3DV4-SN3977 | D2600V2 – SN1007 | 13.5 | 54 | 56.00 | 6.01 | 24.04 | 24.80 | -3.7% | -3.2% | May. 22, 2020 |
| Head | 5250 | 100 mW | EX3DV4-SN3977 | D5250V2 – SN1145 | 8.18 | 81.8 | 78.80 | 2.29 | 22.9 | 22.60 | 3.7% | 1.3% | May. 25, 2020 |
| Head | 5600 | 100 mW | EX3DV4-SN3977 | D5600V2 – SN1145 | 7.98 | 79.8 | 81.00 | 2.25 | 22.5 | 23.20 | -1.5% | -3.1% | May. 26, 2020 |
| Head | 5750 | 100 mW | EX3DV4-SN3977 | D5750V2 – SN1145 | 8.29 | 82.9 | 78.80 | 2.31 | 23.1 | 22.40 | 4.9% | 3.0% | May. 26, 2020 |

# 9. Test Equipment List

Testing Engineer: Kris Pan , Jason Tsao

| Manufacturer | Name of Equipment | Type/Model | Serial Number | Calibration | |
|---|---|---|---|---|---|
| | | | | Cal. Date | Cal.Period |
| SPEAG | 750MHz System Validation Kit | D750V3 | 1004 | 2019/11/20 | 1 year |
| SPEAG | 835MHz System Validation Kit | D835V2 | 4d082 | 2019/09/19 | 1 year |
| SPEAG | 1750MHz System Validation Kit | D1750V2 | 1023 | 2019/06/20 | 1 year |
| SPEAG | 1900MHz System Validation Kit | D1900V2 | 5d111 | 2019/09/19 | 1 year |
| SPEAG | 2300MHz System Validation Kit | D2300V2 | 1092 | 2019/12/13 | 1 year |
| SPEAG | 2450MHz System Validation Kit | D2450V2 | 903 | 2019/10/15 | 1 year |
| SPEAG | 2600MHz System Validation Kit | D2600V2 | 1007 | 2019/10/24 | 1 year |
| SPEAG | 5GHz System Validation Kit | D5GHzV2 | 1145 | 2019/10/16 | 1 year |
| SPEAG | Dosimetric E-Field Probe | EX3DV4 | 3977 | 2019/08/30 | 1 year |
| SPEAG | Dosimetric E-Field Probe | EX3DV4 | 3887 | 2019/09/20 | 1 year |
| SPEAG | Data Acquisition Electronics | DAE4 | 779 | 2019/11/29 | 1 year |
| SPEAG | Measurement Server | SE UMS 011 AA | 1025 | NCR | |
| SPEAG | Device Holder | N/A | N/A | NCR | |
| SPEAG | Phantom | SAM V4.0 | TP-1009 | NCR | |
| SPEAG | Robot | Staubli TX90XL | F07/564ZA1/A/01 | NCR | |
| SPEAG | Software | DASY52 V52.10 (3) | N/A | NCR | |
| R&S | Wireless Communication Test Set | CMU200 | 112387 | 2020/03/15 | |
| Anritsu | Radio Communication Analyzer | MT8820C | 6201342039 | 2019/12/11 | 1 year |
| HILA | Digital Thermometer | TM-906A | 1500033 | 2019/10/28 | 1 year |
| Agilent | Power Sensor | 8481H | 3318A20779 | 2019/06/11 | 1 year |
| Agilent | Power Meter | EDM Series E4418B | GB40206143 | 2019/06/11 | 1 year |
| Agilent | Signal Generator | E8257D | MY44320425 | 2020/03/04 | 1 year |
| Agilent | Dual Directional Coupler | 778D | 50334 | NCR | |
| Woken | Dual Directional Coupler | 0100AZ20200801O | 11012409517 | NCR | |
| Mini-Circuits | Power Amplifier | EMC014225P | 980292 | NCR | |
| Mini-Circuits | Power Amplifier | EMC2830P | 980293 | NCR | |
| Aisi | Attenuator | IEAT 3dB | N/A | NCR | |

Table 1. Test Equipment List

# 10. Measurement Uncertainty

Decision Rule

■ Uncertainty is not included.

□ Uncertainty is included.

| IEEE 1528-2013 & IEC 62209-1<br>Measurement uncertainty evaluation template for SAR test (300 MHz~3 GHz) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Uncertainty component** | **Tol.** | **Prob. Dist.** | **Div.** | **$C_i$ - 1g** | **$C_i$ - 10g** | **$u_i$ - 1g ( ± %)** | **$u_i$ - 10g ( ± %)** | **$v_i$** |
| **Measurement system** | | | | | | | | |
| Probe calibration | 6.1 | N | 1 | 1 | 1 | 6.1 | 6.1 | ∞ |
| Axial isotropy | 4.7 | R | 1.732 | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| Hemispherical isotropy | 9.6 | R | 1.732 | 0.7 | 0.7 | 3.9 | 3.9 | ∞ |
| Boundary effect | 1.0 | R | 1.732 | 1 | 1 | 0.6 | 0.6 | ∞ |
| Linearity | 4.7 | R | 1.732 | 1 | 1 | 2.7 | 2.7 | ∞ |
| System detection limits | 0.25 | R | 1.732 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Readout electronics | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response time | 0.0 | R | 1.732 | 1 | 1 | 0.0 | 0.0 | ∞ |
| Integration time | 2.6 | R | 1.732 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Noise | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Reflections | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner | 0.02 | R | 1.732 | 1 | 1 | 0.01 | 0.01 | ∞ |
| Probe Positioning | 0.4 | R | 1.732 | 1 | 1 | 0.2 | 0.2 | ∞ |
| Max. SAR evaluation | 2.0 | R | 1.732 | 1 | 1 | 1.2 | 1.2 | ∞ |
| **Test sample related** | | | | | | | | |
| Test sample positioning | 2.9 | N | 1 | 1 | 1 | 2.9 | 2.9 | 145 |
| Device holder uncertainty | 3.6 | N | 1 | 1 | 1 | 3.6 | 3.6 | 7 |
| SAR drift measurement | 5.0 | R | 1.732 | 1 | 1 | 2.9 | 2.9 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | |
| Phantom shell uncertainty | 6.1 | R | 1.732 | 1 | 1 | 3.5 | 3.5 | ∞ |
| Liquid Conductivity (target) | 5.0 | R | 1.732 | 0.78 | 0.71 | 2.3 | 2.0 | ∞ |
| Liquid Conductivity (measurement) | 4.8 | R | 1.732 | 0.78 | 0.71 | 2.2 | 2.0 | ∞ |
| Liquid Permittivity (target) | 5.0 | R | 1.732 | 0.23 | 0.26 | 0.7 | 0.8 | ∞ |
| Liquid Permittivity (measurement) | 4.8 | R | 1.732 | 0.23 | 0.26 | 0.6 | 0.7 | ∞ |
| **Combined standard uncertainty** | | | | | | | | |
| - | - | RSS | - | - | - | 11.2 | 11.2 | 642 |
| **Expanded uncertainty (95% confidence interval)** | | | | | | | | |
| - | - | k =2 | - | - | - | 22.4 | 22.3 | - |

| IEEE 1528-2013 & IEC 62209-1<br>Measurement uncertainty evaluation template for SAR test (3 GHz~6 GHz) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Uncertainty component** | **Tol.** | **Prob. Dist.** | **Div.** | **$C_i$ - 1g** | **$C_i$ - 10g** | **$u_i$ - 1g ( ± %)** | **$u_i$ - 10g ( ± %)** | **$v_i$** |
| **Measurement system** | | | | | | | | |
| Probe calibration | 6.7 | N | 1 | 1 | 1 | 6.7 | 6.7 | ∞ |
| Axial isotropy | 4.7 | R | 1.732 | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| Hemispherical isotropy | 9.6 | R | 1.732 | 0.7 | 0.7 | 3.9 | 3.9 | ∞ |
| Boundary effect | 2.0 | R | 1.732 | 1 | 1 | 1.2 | 1.2 | ∞ |
| Linearity | 4.7 | R | 1.732 | 1 | 1 | 2.7 | 2.7 | ∞ |
| System detection limits | 0.25 | R | 1.732 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Readout electronics | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response time | 0.0 | R | 1.732 | 1 | 1 | 0.0 | 0.0 | ∞ |
| Integration time | 2.6 | R | 1.732 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Noise | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Reflections | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner | 0.04 | R | 1.732 | 1 | 1 | 0.02 | 0.02 | ∞ |
| Probe Positioning | 0.8 | R | 1.732 | 1 | 1 | 0.5 | 0.5 | ∞ |
| Max. SAR evaluation | 4.0 | R | 1.732 | 1 | 1 | 2.3 | 2.3 | ∞ |
| **Test sample related** | | | | | | | | |
| Test sample positioning | 2.9 | N | 1 | 1 | 1 | 2.9 | 2.9 | 145 |
| Device holder uncertainty | 3.6 | N | 1 | 1 | 1 | 3.6 | 3.6 | 7 |
| SAR drift measurement | 5.0 | R | 1.732 | 1 | 1 | 2.9 | 2.9 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | |
| Phantom shell uncertainty | 6.6 | R | 1.732 | 1 | 1 | 3.8 | 3.8 | ∞ |
| Liquid Conductivity (target) | 5.0 | R | 1.732 | 0.78 | 0.71 | 2.3 | 2.0 | ∞ |
| Liquid Conductivity (measurement) | 4.8 | R | 1.732 | 0.78 | 0.71 | 2.2 | 2.0 | ∞ |
| Liquid Permittivity (target) | 5.0 | R | 1.732 | 0.23 | 0.26 | 0.7 | 0.8 | ∞ |
| Liquid Permittivity (measurement) | 4.8 | R | 1.732 | 0.23 | 0.26 | 0.6 | 0.7 | ∞ |
| **Combined standard uncertainty** | | | | | | | | |
| - | - | RSS | - | - | - | 11.9 | 11.8 | 804 |
| **Expanded uncertainty (95% confidence interval)** | | | | | | | | |
| - | - | k =2 | - | - | - | 23.7 | 23.6 | - |

| IEC 62209-2<br>Measurement uncertainty evaluation template for SAR test (300 MHz~3 GHz) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Uncertainty component** | **Tol.** | **Prob. Dist.** | **Div.** | **$C_i$ - 1g** | **$C_i$ - 10g** | **$u_i$ - 1g ( ± %)** | **$u_i$ - 10g ( ± %)** | **$v_i$** |
| **Measurement system** | | | | | | | | |
| Probe calibration | 6.1 | N | 1 | 1 | 1 | 6.1 | 6.1 | ∞ |
| Axial isotropy | 4.7 | R | 1.732 | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| Hemispherical isotropy | 9.6 | R | 1.732 | 0.7 | 0.7 | 3.9 | 3.9 | ∞ |
| Boundary effect | 1.0 | R | 1.732 | 1 | 1 | 0.6 | 0.6 | ∞ |
| Linearity | 4.7 | R | 1.732 | 1 | 1 | 2.7 | 2.7 | ∞ |
| System detection limits | 0.25 | R | 1.732 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Readout electronics | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response time | 0.0 | R | 1.732 | 1 | 1 | 0.0 | 0.0 | ∞ |
| Integration time | 2.6 | R | 1.732 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Noise | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Reflections | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner | 0.02 | R | 1.732 | 1 | 1 | 0.01 | 0.01 | ∞ |
| Probe Positioning | 0.4 | R | 1.732 | 1 | 1 | 0.2 | 0.2 | ∞ |
| Max. SAR evaluation | 2.0 | R | 1.732 | 1 | 1 | 1.2 | 1.2 | ∞ |
| **Test sample related** | | | | | | | | |
| Test sample positioning | 2.9 | N | 1 | 1 | 1 | 2.9 | 2.9 | 145 |
| Device holder uncertainty | 3.6 | N | 1 | 1 | 1 | 3.6 | 3.6 | 7 |
| SAR drift measurement | 5.0 | R | 1.732 | 1 | 1 | 2.9 | 2.9 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | |
| Phantom shell uncertainty | 7.2 | R | 1.732 | 1 | 1 | 4.2 | 4.2 | ∞ |
| Liquid Conductivity (target) | 5.0 | R | 1.732 | 0.78 | 0.71 | 2.3 | 2.0 | ∞ |
| Liquid Conductivity (measurement) | 4.8 | R | 1.732 | 0.78 | 0.71 | 2.2 | 2.0 | ∞ |
| Liquid Permittivity (target) | 5.0 | R | 1.732 | 0.23 | 0.26 | 0.7 | 0.8 | ∞ |
| Liquid Permittivity (measurement) | 4.8 | R | 1.732 | 0.23 | 0.26 | 0.6 | 0.7 | ∞ |
| **Combined standard uncertainty** | | | | | | | | |
| - | - | RSS | - | - | - | 11.4 | 11.4 | 693 |
| **Expanded uncertainty (95% confidence interval)** | | | | | | | | |
| - | - | k =2 | - | - | - | 22.9 | 22.7 | - |

| IEC 62209-2<br>Measurement uncertainty evaluation template for SAR test (3 GHz~6 GHz) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Uncertainty component** | **Tol.** | **Prob. Dist.** | **Div.** | **$C_i$ - 1g** | **$C_i$ - 10g** | **$u_i$ - 1g ( ± %)** | **$u_i$ - 10g ( ± %)** | **$v_i$** |
| **Measurement system** | | | | | | | | |
| Probe calibration | 6.1 | N | 1 | 1 | 1 | 6.1 | 6.1 | ∞ |
| Axial isotropy | 4.7 | R | 1.732 | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| Hemispherical isotropy | 9.6 | R | 1.732 | 0.7 | 0.7 | 3.9 | 3.9 | ∞ |
| Boundary effect | 1.0 | R | 1.732 | 1 | 1 | 0.6 | 0.6 | ∞ |
| Linearity | 4.7 | R | 1.732 | 1 | 1 | 2.7 | 2.7 | ∞ |
| System detection limits | 0.25 | R | 1.732 | 1 | 1 | 0.1 | 0.1 | ∞ |
| Readout electronics | 0.3 | N | 1 | 1 | 1 | 0.3 | 0.3 | ∞ |
| Response time | 0.0 | R | 1.732 | 1 | 1 | 0.0 | 0.0 | ∞ |
| Integration time | 2.6 | R | 1.732 | 1 | 1 | 1.5 | 1.5 | ∞ |
| RF Ambient Noise | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| RF Ambient Reflections | 3.0 | R | 1.732 | 1 | 1 | 1.7 | 1.7 | ∞ |
| Probe Positioner | 0.02 | R | 1.732 | 1 | 1 | 0.01 | 0.01 | ∞ |
| Probe Positioning | 0.4 | R | 1.732 | 1 | 1 | 0.2 | 0.2 | ∞ |
| Max. SAR evaluation | 2.0 | R | 1.732 | 1 | 1 | 1.2 | 1.2 | ∞ |
| **Test sample related** | | | | | | | | |
| Test sample positioning | 2.9 | N | 1 | 1 | 1 | 2.9 | 2.9 | 145 |
| Device holder uncertainty | 3.6 | N | 1 | 1 | 1 | 3.6 | 3.6 | 7 |
| SAR drift measurement | 5.0 | R | 1.732 | 1 | 1 | 2.9 | 2.9 | ∞ |
| **Phantom and tissue parameters** | | | | | | | | |
| Phantom shell uncertainty | 7.6 | R | 1.732 | 1 | 1 | 4.4 | 4.4 | ∞ |
| Liquid Conductivity (target) | 5.0 | R | 1.732 | 0.78 | 0.71 | 2.3 | 2.0 | ∞ |
| Liquid Conductivity (measurement) | 4.8 | R | 1.732 | 0.78 | 0.71 | 2.2 | 2.0 | ∞ |
| Liquid Permittivity (target) | 5.0 | R | 1.732 | 0.23 | 0.26 | 0.7 | 0.8 | ∞ |
| Liquid Permittivity (measurement) | 4.8 | R | 1.732 | 0.23 | 0.26 | 0.6 | 0.7 | ∞ |
| **Combined standard uncertainty** | | | | | | | | |
| - | - | RSS | - | - | - | 12.1 | 12.0 | 859 |
| **Expanded uncertainty (95% confidence interval)** | | | | | | | | |
| - | - | k =2 | - | - | - | 24.1 | 24.0 | - |

# 11. Measurement Procedure

The measurement procedures are as follows:

1. For WLAN function, engineering testing software installed on DUTs can provide continuous transmitting signal.
2. Measure output power through RF cable and power meter
3. Set scan area, grid size and other setting on the DASY software
4. Find out the largest SAR result on these testing positions of each band
5. Measure SAR results for other channels in worst SAR testing position if the SAR of highest power channel is larger than 0.8 W/kg

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

1. Power reference measurement
2. Area scan
3. Zoom scan
4. Power drift measurement

## 11.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1 g and 10 g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.
The base for the evaluation is a "cube" measurement. The measured volume must include the 1 g and 10 g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.
The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages

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

## 11.2 Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures points and step size follow as below. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 mm ± 1 mm</td><td>½·δ·ln(2) mm ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$</td><td>≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">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 with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$</td><td>≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm<br>4 – 5 GHz: ≤ 3 mm<br>5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm<br>4 – 5 GHz: ≥ 25 mm<br>5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.<br>* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 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.</td></tr>
</table>

(Our measure settings are refer KDB Publication 865664 D01v01r04)

## 11.3 Volume Scan Procedures

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

## 11.4 SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation. Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

## 11.5 Power Drift Monitoring

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

## 11.6 Positioning of the DUT in relation to the phantom

**<Used at the ear>**

1. Specifies two handset test positions against the head phantom – the "Cheek" position and the "Tilt" position. The DUT shall be tested in both of these positions on the left and right sides of the SAM phantom. In some cases (e.g. asymmetric handsets) the DUT positioning procedures representing intended use conditions cannot be used.
2. The cheek position is established as follows:
   (a) Configure the DUT for talk operation, if necessary. For example, for a DUT with a flip, swivel or slide cover piece, open the cover if this is consistent with talk operation. If the DUT can also be used with the cover closed, both configurations shall be tested.
   (b) Define two imaginary lines on the DUT, the vertical centreline and the horizontal line, for the DUT in vertical orientation as shown in figure as below. The vertical centreline passes through two points on the front side of the DUT: the midpoint of the width wt of the handset at the level of the acoustic output (Point A), and the midpoint of the width wb at the bottom of the handset (Point B). The horizontal line is perpendicular to the vertical centreline and passes through the centre of the acoustic output. The two lines intersect at Point A.
   (c) Position the DUT close to the surface of the phantom such that Point A is on the (virtual) extension of the line passing through Points RE (right ear) and LE (left ear) on the phantom. The plane defined by the vertical centreline and the horizontal line of the DUT shall be parallel to the sagittal plane of the phantom.
   (d) Translate the DUT towards the phantom along the line passing through RE and LE until the handset touches the ear.
   (e) Rotate the DUT around its vertical centreline until the plane defined by the DUT vertical centreline and horizontal line is parallel to the N-F line, and then translate the DUT towards the phantom along the LE-RE line until DUT Point A touches the ear at the ERP (ear reference point).
   (f) While keeping Point A on the line passing through RE and LE and maintaining the DUT in contact with the pinna, rotate the handset about the line N-F until any point on the DUT is in contact with a phantom point below the pinna (cheek). The physical angles of rotation shall be documented.
   (g) While keeping DUT Point A in contact with the ERP, rotate the handset around a line perpendicular to the plane defined by the DUT vertical centreline and horizontal line and passing through DUT Point A, until the DUT vertical centreline is in the reference plane.

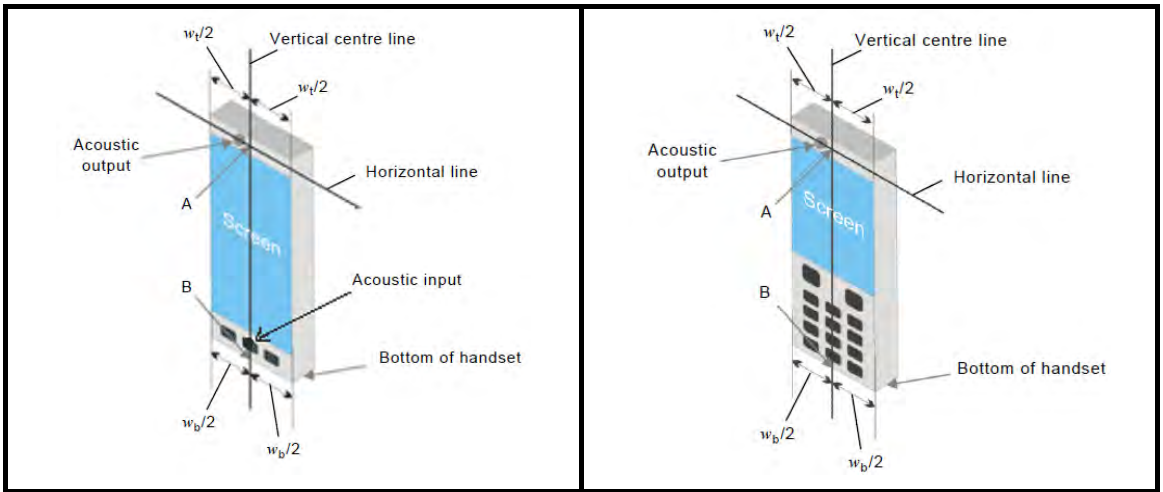



Figure - Vertical and horizontal reference lines and reference Points A, B on two example device types: a full touch screen smart phone (top) and a keyboard handset (bottom).

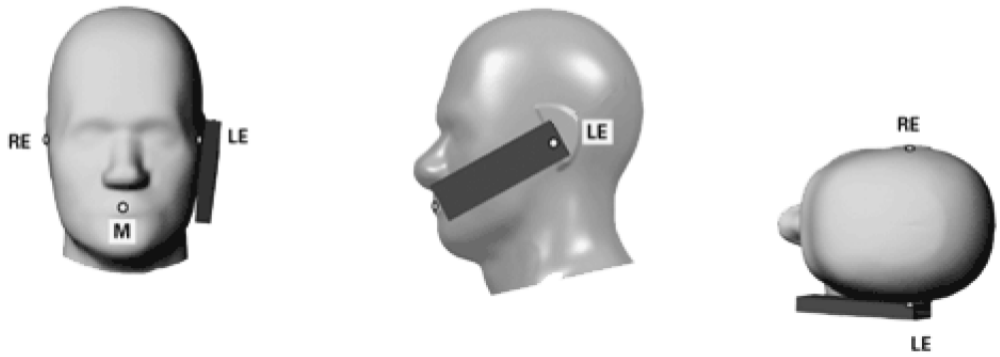



Figure - The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

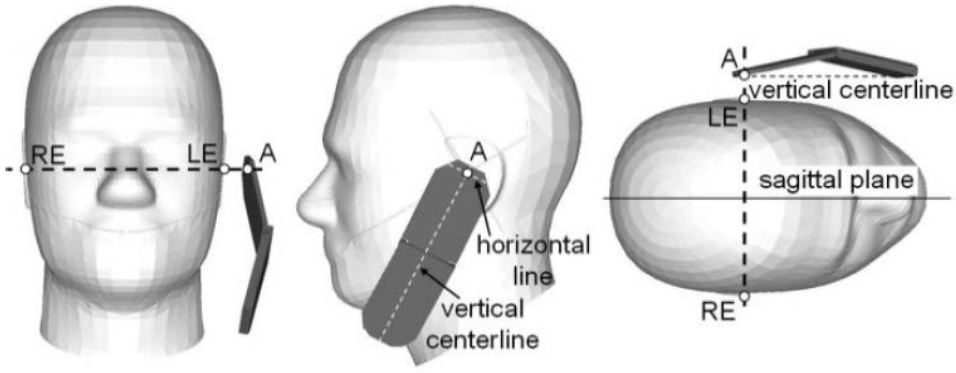



Figure - One possible DUT position against the head after Step (c).

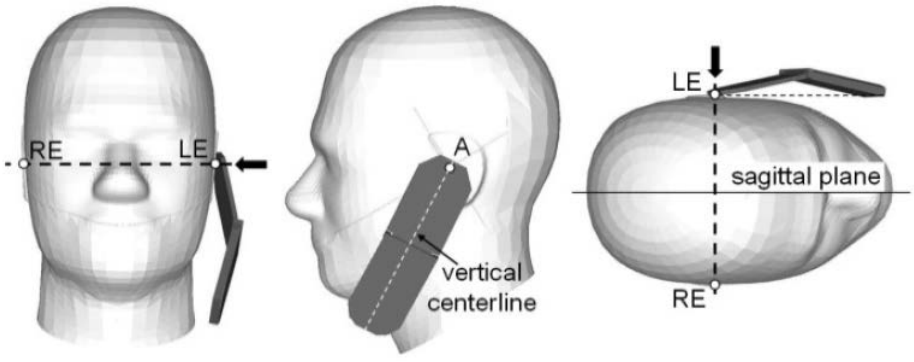



Figure - One possible DUT position against the head after Step (d).

3. The Tilt position is established as follows:
   (a) Repeat Steps (a) to (g) of cheek procedure to place the DUT in the cheek position.
   (b) While maintaining the orientation of the DUT, move the DUT away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
   (c) Rotate the DUT around the horizontal line by 15°.
   (d) While maintaining the orientation of the DUT, move the DUT towards the phantom on a line passing through RE and LE until any part of the DUT touches the ear. The tilt position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, e.g. extended antenna on the back of the phantom head, the angle of the DUT shall be reduced. In this case, the tilt position is obtained if any part of the DUT is in contact with the pinna and a second part of the DUT is in contact with the phantom, e.g. the antenna with the back of the head.


Figure - Tilt position of the wireless device on the left side of SAM.

**<Hotspot mode exposure conditions>**

According to KDB 648474 D04, for cellphones that support wireless routing capabilities, the relevant hand and near-body exposure conditions are tested according to the hotspot mode SAR procedures in KDB Publication 941225 D06. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm × 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is greater than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, such as WCDMA, LTE and Wi-Fi, and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).

**<Body-worn accessory exposure conditions>**

According to the KDB 648474 D04, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative test separation distance configuration may be used to support both SAR conditions. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.

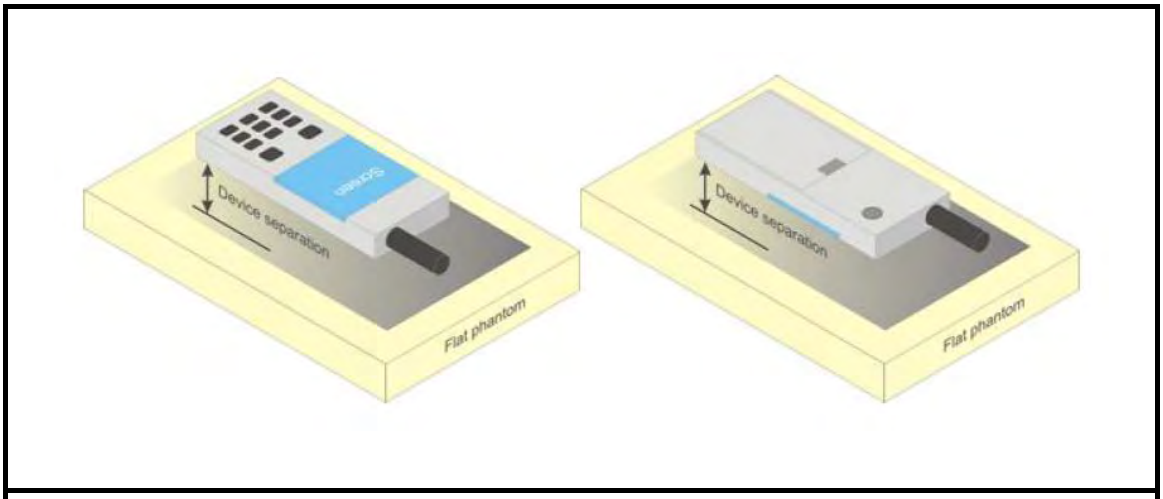



Figure - Test positions for body-worn devices.

**<Phablet SAR test considerations>**

1. The UMPC mini-tablet SAR procedures in KDB Publication 941225 D07 are primarily intended for devices with an overall diagonal dimensions ≤ 20 cm that operate like a tablet and mainly support hand-held interactive use next to or near the body of users, with no provision for next to the ear voice mode operations.
2. For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension >16.0 cm, devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.
   (a) The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
   (b) The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions.
   (c) The 1-g SAR at 5 mm for UMPC mini-tablets is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
   (d) The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode and extremity 10-g SAR is not required when normal tablet procedures are applied.

# 12. SAR Test Results Summary

1. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge.
2. When the WWAN band channel's reported SAR1g of the position is > 0.8 W/kg, low, middle and high channel are supposed to be tested.
3. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio 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.
4. The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) configurations with 12.2 kbps RMC as the primary mode.
5. SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power.
6. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions.
7. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.
8. Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge,middle and lower edge of each required test channel.
9. 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; therefore, the requirement for H, M, and L channels may not fully apply.
10. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.
11. When the highest reported SAR for 1 RB and 50% RB allocation are > 0.8 W/kg,SAR is measured for the highest output power channel in 100%RB.
12. The procedures required for 1 RB allocation are applied to measure the SAR for QPSK with 50% RB allocation.
13. For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise,SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
14. As per KDB 248227 D01, SAR testing are not required for 802.11g/n channels when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2W/kg.
15. When the reported SAR of the highest measured maximum output power channel is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS, otherwise, SAR is required using the next highest measured output power channel for 802.11b DSSS.
16. When the highest reported SAR for the initial test configuration, according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.
17. SAR for the initial test configuration is measured using the highest maximum output power channel, when the reported SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until reported SAR is ≤ 1.2 W/kg or all required channels are tested.
18. When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

19. When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, lowest order 802.11 mode is selected (i.e. a, g, n then ac).
20. The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same specified maximum output power.

## 12.1 Head SAR Measurement

| Index. | Band | Frequency | | Test Mode | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Right-Cheek | 0 | 0.020 | 31.91 | 32.00 | 0.02 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Right-Tilted | 0 | 0.010 | 31.91 | 32.00 | 0.01 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Left-Cheek | 0 | 0.028 | 31.91 | 32.00 | 0.03 |
| | GSM850 | 190 | 836.6 | GPRS (4 Tx slots) | Left-Cheek | 0 | 0.029 | 31.85 | 32.00 | 0.03 |
| #246 | GSM850 | 251 | 848.8 | GPRS (4 Tx slots) | Left-Cheek | 0 | 0.034 | 31.77 | 32.00 | 0.04 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Left-Tilted | 0 | 0.011 | 31.91 | 32.00 | 0.01 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Right-Cheek | 0 | 0.320 | 29.79 | 30.00 | 0.34 |
| | GSM1900 | 661 | 1880.0 | GPRS (4 Tx slots) | Right-Cheek | 0 | 0.368 | 29.72 | 30.00 | 0.39 |
| #240 | GSM1900 | 810 | 1909.8 | GPRS (4 Tx slots) | Right-Cheek | 0 | 0.405 | 29.56 | 30.00 | 0.45 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Right-Tilted | 0 | 0.196 | 29.79 | 30.00 | 0.21 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Left-Cheek | 0 | 0.236 | 29.79 | 30.00 | 0.25 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Left-Tilted | 0 | 0.159 | 29.79 | 30.00 | 0.17 |

| Index. | Band | Frequency | | Modulation or Sub-Test | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | |
| #229 | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Right-Cheek | 0 | 0.765 | 24.75 | 25.00 | 0.81 |
| | WCDMA Band II | 9262 | 1852.4 | RMC12.2K | Right-Cheek | 0 | 0.709 | 24.65 | 25.00 | 0.77 |
| | WCDMA Band II | 9400 | 1880.0 | RMC12.2K | Right-Cheek | 0 | 0.747 | 24.68 | 25.00 | 0.80 |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Right-Tilted | 0 | 0.495 | 24.75 | 25.00 | 0.52 |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Left-Cheek | 0 | 0.557 | 24.75 | 25.00 | 0.59 |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Left-Tilted | 0 | 0.446 | 24.75 | 25.00 | 0.47 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Right-Cheek | 0 | 0.082 | 24.02 | 24.50 | 0.09 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Right-Tilted | 0 | 0.044 | 24.02 | 24.50 | 0.05 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Left-Cheek | 0 | 0.085 | 24.02 | 24.50 | 0.10 |
| | WCDMA Band V | 4132 | 826.4 | RMC12.2K | Left-Cheek | 0 | 0.080 | 23.82 | 24.50 | 0.09 |
| #252 | WCDMA Band V | 4233 | 846.6 | RMC12.2K | Left-Cheek | 0 | 0.088 | 23.76 | 24.50 | 0.10 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Left-Tilted | 0 | 0.036 | 24.02 | 24.50 | 0.04 |

| Index. | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | | | | (mm) | (W/Kg) | | | | |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.662 | 23.94 | 24.00 | --- | 0.67 |
| | LTE Band 2 | 18900 | 1880.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.679 | 23.91 | 24.00 | --- | 0.69 |
| #219 | LTE Band 2 | 19100 | 1900.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.704 | 23.77 | 24.00 | --- | 0.74 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Right-Cheek | 0 | 0.540 | 23.03 | 23.50 | --- | 0.60 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Right-Tilted | 0 | 0.418 | 23.94 | 24.00 | --- | 0.42 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Right-Tilted | 0 | 0.328 | 23.03 | 23.50 | --- | 0.37 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Left-Cheek | 0 | 0.434 | 23.94 | 24.00 | --- | 0.44 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Left-Cheek | 0 | 0.360 | 23.03 | 23.50 | --- | 0.40 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Left-Tilted | 0 | 0.378 | 23.94 | 24.00 | --- | 0.38 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Left-Tilted | 0 | 0.311 | 23.03 | 23.50 | --- | 0.35 |
| #221 | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.306 | 23.78 | 24.00 | --- | 0.32 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Right-Cheek | 0 | 0.249 | 22.86 | 23.00 | --- | 0.26 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Right-Tilted | 0 | 0.232 | 23.78 | 24.00 | --- | 0.24 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Right-Tilted | 0 | 0.187 | 22.86 | 23.00 | --- | 0.19 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Left-Cheek | 0 | 0.260 | 23.78 | 24.00 | --- | 0.27 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Left-Cheek | 0 | 0.218 | 22.86 | 23.00 | --- | 0.23 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Left-Tilted | 0 | 0.174 | 23.78 | 24.00 | --- | 0.18 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Left-Tilted | 0 | 0.144 | 22.86 | 23.00 | --- | 0.15 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Right-Cheek | 0 | 0.071 | 22.83 | 23.00 | --- | 0.07 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Right-Cheek | 0 | 0.047 | 21.91 | 22.00 | --- | 0.05 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Right-Tilted | 0 | 0.034 | 22.83 | 23.00 | --- | 0.04 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Right-Tilted | 0 | 0.028 | 21.91 | 22.00 | --- | 0.03 |
| #257 | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Left-Cheek | 0 | 0.076 | 22.83 | 23.00 | --- | 0.08 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Left-Cheek | 0 | 0.054 | 21.91 | 22.00 | --- | 0.06 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Left-Tilted | 0 | 0.033 | 22.83 | 23.00 | --- | 0.03 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Left-Tilted | 0 | 0.025 | 21.91 | 22.00 | --- | 0.03 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Right-Cheek | 0 | 0.051 | 21.72 | 22.00 | --- | 0.05 |
| #188 | LTE Band 7 | 20850 | 2510.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.070 | 21.69 | 22.00 | --- | 0.08 |
| | LTE Band 7 | 21350 | 2560.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.047 | 21.67 | 22.00 | --- | 0.05 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Right-Cheek | 0 | 0.042 | 20.78 | 21.00 | --- | 0.04 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Right-Tilted | 0 | 0.039 | 21.72 | 22.00 | --- | 0.04 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Right-Tilted | 0 | 0.031 | 20.78 | 21.00 | --- | 0.03 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Left-Cheek | 0 | 0.028 | 21.72 | 22.00 | --- | 0.03 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Left-Cheek | 0 | 0.022 | 20.78 | 21.00 | --- | 0.02 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Left-Tilted | 0 | 0.044 | 21.72 | 22.00 | --- | 0.05 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Left-Tilted | 0 | 0.036 | 20.78 | 21.00 | --- | 0.04 |
| #261 | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Right-Cheek | 0 | 0.040 | 21.54 | 22.00 | --- | 0.04 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Right-Cheek | 0 | 0.029 | 20.58 | 21.00 | --- | 0.03 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Right-Tilted | 0 | 0.026 | 21.54 | 22.00 | --- | 0.03 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Right-Tilted | 0 | 0.021 | 20.58 | 21.00 | --- | 0.02 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Left-Cheek | 0 | 0.039 | 21.54 | 22.00 | --- | 0.04 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Left-Cheek | 0 | 0.032 | 20.58 | 21.00 | --- | 0.04 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Left-Tilted | 0 | 0.025 | 21.54 | 22.00 | --- | 0.03 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Left-Tilted | 0 | 0.020 | 20.58 | 21.00 | --- | 0.02 |

| Index. | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | | | | (mm) | (W/Kg) | | | | |
| #270 | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Right-Cheek | 0 | 0.052 | 22.61 | 23.00 | --- | 0.06 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Right-Cheek | 0 | 0.040 | 21.70 | 22.00 | --- | 0.04 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Right-Tilted | 0 | 0.034 | 22.61 | 23.00 | --- | 0.04 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Right-Tilted | 0 | 0.026 | 21.70 | 22.00 | --- | 0.03 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Left-Cheek | 0 | 0.051 | 22.61 | 23.00 | --- | 0.06 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Left-Cheek | 0 | 0.040 | 21.70 | 22.00 | --- | 0.04 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Left-Tilted | 0 | 0.030 | 22.61 | 23.00 | --- | 0.03 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Left-Tilted | 0 | 0.026 | 21.70 | 22.00 | --- | 0.03 |
| #163 | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.136 | 21.60 | 22.00 | 62.9 | 0.15 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Right-Cheek | 0 | 0.078 | 20.78 | 21.00 | 62.9 | 0.08 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Right-Tilted | 0 | 0.103 | 21.60 | 22.00 | 62.9 | 0.11 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Right-Tilted | 0 | 0.076 | 20.78 | 21.00 | 62.9 | 0.08 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Left-Cheek | 0 | 0.098 | 21.60 | 22.00 | 62.9 | 0.11 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Left-Cheek | 0 | 0.062 | 20.78 | 21.00 | 62.9 | 0.07 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Left-Tilted | 0 | 0.079 | 21.60 | 22.00 | 62.9 | 0.09 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Left-Tilted | 0 | 0.059 | 20.78 | 21.00 | 62.9 | 0.06 |
| #172 | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.142 | 21.29 | 22.00 | 62.9 | 0.17 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Right-Cheek | 0 | 0.082 | 20.45 | 21.00 | 62.9 | 0.09 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Right-Tilted | 0 | 0.113 | 21.29 | 22.00 | 62.9 | 0.13 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Right-Tilted | 0 | 0.082 | 20.45 | 21.00 | 62.9 | 0.09 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Left-Cheek | 0 | 0.101 | 21.29 | 22.00 | 62.9 | 0.12 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Left-Cheek | 0 | 0.066 | 20.45 | 21.00 | 62.9 | 0.08 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Left-Tilted | 0 | 0.082 | 21.29 | 22.00 | 62.9 | 0.10 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Left-Tilted | 0 | 0.063 | 20.45 | 21.00 | 62.9 | 0.07 |
| #191 | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.120 | 24.27 | 24.50 | 62.9 | 0.13 |
| | LTE Band 38 | 37850 | 2580.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.094 | 24.19 | 24.50 | 62.9 | 0.10 |
| | LTE Band 41 | 40600 | 2591.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.072 | 24.08 | 24.50 | 62.9 | 0.08 |
| | LTE Band 41 | 40870 | 2618.0 | 20M | QPSK | 1 | 99 | Right-Cheek | 0 | 0.056 | 24.08 | 24.50 | 62.9 | 0.06 |
| | LTE Band 41 | 41140 | 2645.0 | 20M | QPSK | 1 | 0 | Right-Cheek | 0 | 0.049 | 24.12 | 24.50 | 62.9 | 0.05 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Right-Cheek | 0 | 0.092 | 23.33 | 23.50 | 62.9 | 0.10 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Right-Tilted | 0 | 0.104 | 24.27 | 24.50 | 62.9 | 0.11 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Right-Tilted | 0 | 0.079 | 23.33 | 23.50 | 62.9 | 0.08 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Left-Cheek | 0 | 0.095 | 24.27 | 24.50 | 62.9 | 0.10 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Left-Cheek | 0 | 0.076 | 23.33 | 23.50 | 62.9 | 0.08 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Left-Tilted | 0 | 0.080 | 24.27 | 24.50 | 62.9 | 0.09 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Left-Tilted | 0 | 0.062 | 23.33 | 23.50 | 62.9 | 0.07 |

| Index. | Band | Mode | Frequency | | Data Rate | Test Position | Spacing | EUT & Accessory | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ch. | MHz | | | (mm) | | (W/Kg) | | | | |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.116 | 16.42 | 16.50 | 99.50 | 0.12 |
| #410 | WLAN2.4GHz | 802.11b | 6 | 2437.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.134 | 16.31 | 16.50 | 99.50 | 0.14 |
| | WLAN2.4GHz | 802.11b | 11 | 2462.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.102 | 16.32 | 16.50 | 99.50 | 0.11 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Right-Tilted | 0 | --- | 0.101 | 16.42 | 16.50 | 99.50 | 0.10 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Left-Cheek | 0 | --- | 0.093 | 16.42 | 16.50 | 99.50 | 0.10 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Left-Tilted | 0 | --- | 0.093 | 16.42 | 16.50 | 99.50 | 0.10 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.050 | 11.41 | 12.00 | 83.30 | 0.07 |
| #417 | Bluetooth | --- | 39 | 2441.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.046 | 10.82 | 12.00 | 83.30 | 0.07 |
| | Bluetooth | --- | 78 | 2480.0 | 1 Mbps | Right-Cheek | 0 | --- | 0.035 | 11.10 | 12.00 | 83.30 | 0.05 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Right-Tilted | 0 | --- | 0.038 | 11.41 | 12.00 | 83.30 | 0.05 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Left-Cheek | 0 | --- | 0.038 | 11.41 | 12.00 | 83.30 | 0.05 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Left-Tilted | 0 | --- | 0.036 | 11.41 | 12.00 | 83.30 | 0.05 |
| #430 | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Right-Cheek | 0 | --- | 0.625 | 13.44 | 14.00 | 91.80 | 0.77 |
| | WLAN5GHz | 802.11n 40 MHz | 54 | 5270.0 | HT40 | Right-Cheek | 0 | --- | 0.559 | 13.34 | 14.00 | 91.80 | 0.71 |
| | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Right-Tilted | 0 | --- | 0.477 | 13.44 | 14.00 | 91.80 | 0.59 |
| | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Left-Cheek | 0 | --- | 0.375 | 13.44 | 14.00 | 91.80 | 0.47 |
| | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Left-Tilted | 0 | --- | 0.392 | 13.44 | 14.00 | 91.80 | 0.49 |
| | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Right-Cheek | 0 | --- | 0.473 | 13.53 | 14.00 | 91.80 | 0.57 |
| | WLAN5GHz | 802.11n 40 MHz | 102 | 5510.0 | HT40 | Right-Cheek | 0 | --- | 0.500 | 13.35 | 14.00 | 91.80 | 0.63 |
| | WLAN5GHz | 802.11n 40 MHz | 110 | 5550.0 | HT40 | Right-Cheek | 0 | --- | 0.502 | 13.43 | 14.00 | 91.80 | 0.62 |
| #506 | WLAN5GHz | 802.11n 40 MHz | 126 | 5630.0 | HT40 | Right-Cheek | 0 | --- | 0.527 | 13.33 | 14.00 | 91.80 | 0.67 |
| | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Right-Tilted | 0 | --- | 0.349 | 13.53 | 14.00 | 91.80 | 0.42 |
| | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Left-Cheek | 0 | --- | 0.298 | 13.53 | 14.00 | 91.80 | 0.36 |
| | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Left-Tilted | 0 | --- | 0.334 | 13.53 | 14.00 | 91.80 | 0.41 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Right-Cheek | 0 | --- | 0.353 | 13.59 | 14.00 | 91.80 | 0.42 |
| #512 | WLAN5GHz | 802.11n 40 MHz | 151 | 5755.0 | HT40 | Right-Cheek | 0 | --- | 0.355 | 13.36 | 14.00 | 91.80 | 0.45 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Right-Tilted | 0 | --- | 0.307 | 13.59 | 14.00 | 91.80 | 0.37 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Left-Cheek | 0 | --- | 0.240 | 13.59 | 14.00 | 91.80 | 0.29 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Left-Tilted | 0 | --- | 0.236 | 13.59 | 14.00 | 91.80 | 0.28 |

## 12.2 Body SAR Measurement

| Index. | Band | Frequency | | Test Mode | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Front | 10 | 0.030 | 31.91 | 32.00 | 0.03 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Back | 10 | 0.035 | 31.91 | 32.00 | 0.04 |
| | GSM850 | 190 | 836.6 | GPRS (4 Tx slots) | Back | 10 | 0.041 | 31.85 | 32.00 | 0.04 |
| | GSM850 | 251 | 848.8 | GPRS (4 Tx slots) | Back | 10 | 0.050 | 31.77 | 32.00 | 0.05 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Front | 10 | 0.336 | 29.79 | 30.00 | 0.35 |
| | GSM1900 | 661 | 1880.0 | GPRS (4 Tx slots) | Front | 10 | 0.350 | 29.72 | 30.00 | 0.37 |
| | GSM1900 | 810 | 1909.8 | GPRS (4 Tx slots) | Front | 10 | 0.350 | 29.56 | 30.00 | 0.39 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Back | 10 | 0.229 | 29.79 | 30.00 | 0.24 |

| Index. | Band | Frequency | | Modulation or Sub-Test | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Front | 10 | 0.819 | 24.75 | 25.00 | 0.87 |
| | WCDMA Band II | 9262 | 1852.4 | RMC12.2K | Front | 10 | 0.700 | 24.65 | 25.00 | 0.76 |
| | WCDMA Band II | 9400 | 1880.0 | RMC12.2K | Front | 10 | 0.778 | 24.68 | 25.00 | 0.84 |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Back | 10 | 0.668 | 24.75 | 25.00 | 0.71 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Front | 10 | 0.058 | 24.02 | 24.50 | 0.07 |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Back | 10 | 0.092 | 24.02 | 24.50 | 0.10 |
| | WCDMA Band V | 4132 | 826.4 | RMC12.2K | Back | 10 | 0.073 | 23.82 | 24.50 | 0.09 |
| | WCDMA Band V | 4233 | 846.6 | RMC12.2K | Back | 10 | 0.104 | 23.76 | 24.50 | 0.12 |

| Index. | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1 g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1 g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | | | | (mm) | (W/Kg) | | | | |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.690 | 23.94 | 24.00 | --- | 0.70 |
| | LTE Band 2 | 18900 | 1880.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.693 | 23.91 | 24.00 | --- | 0.71 |
| | LTE Band 2 | 19100 | 1900.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.672 | 23.77 | 24.00 | --- | 0.71 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Front | 10 | 0.541 | 23.03 | 23.50 | --- | 0.60 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.595 | 23.94 | 24.00 | --- | 0.60 |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Back | 10 | 0.479 | 23.03 | 23.50 | --- | 0.53 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Front | 10 | 0.541 | 23.78 | 24.00 | --- | 0.57 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Front | 10 | 0.438 | 22.86 | 23.00 | --- | 0.45 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Back | 10 | 0.329 | 23.78 | 24.00 | --- | 0.35 |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Back | 10 | 0.262 | 22.86 | 23.00 | --- | 0.27 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Front | 10 | 0.045 | 22.83 | 23.00 | --- | 0.05 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Front | 10 | 0.035 | 21.91 | 22.00 | --- | 0.04 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Back | 10 | 0.120 | 22.83 | 23.00 | --- | 0.13 |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Back | 10 | 0.094 | 21.91 | 22.00 | --- | 0.10 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Front | 10 | 0.131 | 21.72 | 22.00 | --- | 0.14 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Front | 10 | 0.112 | 20.78 | 21.00 | --- | 0.12 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Back | 10 | 0.519 | 21.72 | 22.00 | --- | 0.55 |
| | LTE Band 7 | 20850 | 2510.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.666 | 21.69 | 22.00 | --- | 0.72 |
| | LTE Band 7 | 21350 | 2560.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.492 | 21.67 | 22.00 | --- | 0.53 |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Back | 10 | 0.443 | 20.78 | 21.00 | --- | 0.47 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Front | 10 | 0.032 | 21.54 | 22.00 | --- | 0.04 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Front | 10 | 0.025 | 20.58 | 21.00 | --- | 0.03 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Back | 10 | 0.079 | 21.54 | 22.00 | --- | 0.09 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Back | 10 | 0.063 | 20.58 | 21.00 | --- | 0.07 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Front | 10 | 0.042 | 22.61 | 23.00 | --- | 0.05 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Front | 10 | 0.032 | 21.70 | 22.00 | --- | 0.03 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Back | 10 | 0.101 | 22.61 | 23.00 | --- | 0.11 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Back | 10 | 0.080 | 21.70 | 22.00 | --- | 0.09 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Front | 10 | 0.151 | 21.60 | 22.00 | 62.9 | 0.17 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Front | 10 | 0.128 | 20.78 | 21.00 | 62.9 | 0.14 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Back | 10 | 0.542 | 21.60 | 22.00 | 62.9 | 0.60 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Back | 10 | 0.461 | 20.78 | 21.00 | 62.9 | 0.49 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Front | 10 | 0.160 | 21.29 | 22.00 | 62.9 | 0.19 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Front | 10 | 0.124 | 20.45 | 21.00 | 62.9 | 0.14 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Back | 10 | 0.478 | 21.29 | 22.00 | 62.9 | 0.57 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Back | 10 | 0.351 | 20.45 | 21.00 | 62.9 | 0.40 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.146 | 24.27 | 24.50 | 62.9 | 0.16 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Front | 10 | 0.116 | 23.33 | 23.50 | 62.9 | 0.12 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.502 | 24.27 | 24.50 | 62.9 | 0.53 |
| | LTE Band 38 | 37850 | 2580.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.448 | 24.19 | 24.50 | 62.9 | 0.48 |
| | LTE Band 41 | 40600 | 2591.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.406 | 24.08 | 24.50 | 62.9 | 0.45 |
| | LTE Band 41 | 40870 | 2618.0 | 20M | QPSK | 1 | 99 | Back | 10 | 0.311 | 24.08 | 24.50 | 62.9 | 0.35 |
| | LTE Band 41 | 41140 | 2645.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.306 | 24.12 | 24.50 | 62.9 | 0.34 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Back | 10 | 0.396 | 23.33 | 23.50 | 62.9 | 0.41 |

| Index. | Band | Mode | Frequency | | Data Rate | Test Position | Spacing | EUT & Accessory | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ch. | MHz | | | (mm) | | (W/Kg) | | | | |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Front | 10 | --- | 0.044 | 16.42 | 16.50 | 99.50 | 0.05 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Back | 10 | --- | 0.089 | 16.42 | 16.50 | 99.50 | 0.09 |
| | WLAN2.4GHz | 802.11b | 6 | 2437.0 | 1 Mbps | Back | 10 | --- | 0.086 | 16.31 | 16.50 | 99.50 | 0.09 |
| | WLAN2.4GHz | 802.11b | 11 | 2462.0 | 1 Mbps | Back | 10 | --- | 0.065 | 16.32 | 16.50 | 99.50 | 0.07 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Front | 10 | --- | 0.016 | 11.41 | 12.00 | 83.30 | 0.02 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Back | 10 | --- | 0.032 | 11.41 | 12.00 | 83.30 | 0.04 |
| | Bluetooth | --- | 39 | 2440.0 | 1 Mbps | Back | 10 | --- | 0.029 | 10.82 | 12.00 | 83.30 | 0.05 |
| | Bluetooth | --- | 78 | 2480.0 | 1 Mbps | Back | 10 | --- | 0.021 | 11.10 | 12.00 | 83.30 | 0.03 |
| | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Front | 10 | --- | 0.138 | 13.44 | 14.00 | 91.80 | 0.17 |
| | WLAN5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Back | 10 | --- | 0.139 | 13.44 | 14.00 | 91.80 | 0.17 |
| #452 | WLAN5GHz | 802.11n 40 MHz | 54 | 5270.0 | HT40 | Back | 10 | --- | 0.143 | 13.34 | 14.00 | 91.80 | 0.18 |
| | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Front | 10 | --- | 0.114 | 13.53 | 14.00 | 91.80 | 0.14 |
| #524 | WLAN5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Back | 10 | --- | 0.247 | 13.53 | 14.00 | 91.80 | 0.30 |
| | WLAN5GHz | 802.11n 40 MHz | 102 | 5510.0 | HT40 | Back | 10 | --- | 0.177 | 13.35 | 14.00 | 91.80 | 0.22 |
| | WLAN5GHz | 802.11n 40 MHz | 110 | 5550.0 | HT40 | Back | 10 | --- | 0.195 | 13.43 | 14.00 | 91.80 | 0.24 |
| | WLAN5GHz | 802.11n 40 MHz | 126 | 5630.0 | HT40 | Back | 10 | --- | 0.214 | 13.33 | 14.00 | 91.80 | 0.27 |

## 12.3 Hot-spot mode SAR Measurement

| Index. | Band | Frequency | | Test Mode | Test Position | Spacing | SAR 1 g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1 g |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Front | 10 | 0.030 | 31.91 | 32.00 | 0.03 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Back | 10 | 0.035 | 31.91 | 32.00 | 0.04 |
| | GSM850 | 190 | 836.6 | GPRS (4 Tx slots) | Back | 10 | 0.041 | 31.85 | 32.00 | 0.04 |
| #16 | GSM850 | 251 | 848.8 | GPRS (4 Tx slots) | Back | 10 | 0.050 | 31.77 | 32.00 | 0.05 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Side 1 | 10 | 0.001 | 31.91 | 32.00 | 0.00 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Side 2 | 10 | 0.029 | 31.91 | 32.00 | 0.03 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Side 3 | 10 | 0.023 | 31.91 | 32.00 | 0.02 |
| | GSM850 | 128 | 824.2 | GPRS (4 Tx slots) | Side 4 | 10 | 0.033 | 31.91 | 32.00 | 0.03 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Front | 10 | 0.336 | 29.79 | 30.00 | 0.35 |
| | GSM1900 | 661 | 1880.0 | GPRS (4 Tx slots) | Front | 10 | 0.350 | 29.72 | 30.00 | 0.37 |
| #91 | GSM1900 | 810 | 1909.8 | GPRS (4 Tx slots) | Front | 10 | 0.350 | 29.56 | 30.00 | 0.39 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Back | 10 | 0.229 | 29.79 | 30.00 | 0.24 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Side 2 | 10 | 0.220 | 29.79 | 30.00 | 0.23 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Side 3 | 10 | 0.244 | 29.79 | 30.00 | 0.26 |
| | GSM1900 | 512 | 1850.2 | GPRS (4 Tx slots) | Side 4 | 10 | 0.050 | 29.79 | 30.00 | 0.05 |

| Index. | Band | Frequency | | Modulation or Sub-Test | Test Position | Spacing | SAR 1 g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1 g | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | (mm) | (W/Kg) | | | | |
| #78 | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Front | 10 | 0.819 | 24.75 | 25.00 | 0.87 | --- |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Front | 10 | 0.795 | 24.75 | 25.00 | 0.84 | Repeat |
| | WCDMA Band II | 9262 | 1852.4 | RMC12.2K | Front | 10 | 0.700 | 24.65 | 25.00 | 0.76 | --- |
| | WCDMA Band II | 9400 | 1880.0 | RMC12.2K | Front | 10 | 0.778 | 24.68 | 25.00 | 0.84 | --- |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Back | 10 | 0.668 | 24.75 | 25.00 | 0.71 | --- |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Side 2 | 10 | 0.580 | 24.75 | 25.00 | 0.61 | --- |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Side 3 | 10 | 0.543 | 24.75 | 25.00 | 0.58 | --- |
| | WCDMA Band II | 9538 | 1907.6 | RMC12.2K | Side 4 | 10 | 0.149 | 24.75 | 25.00 | 0.16 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Front | 10 | 0.058 | 24.02 | 24.50 | 0.07 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Back | 10 | 0.092 | 24.02 | 24.50 | 0.10 | --- |
| | WCDMA Band V | 4132 | 826.4 | RMC12.2K | Back | 10 | 0.073 | 23.82 | 24.50 | 0.09 | --- |
| #8 | WCDMA Band V | 4233 | 846.6 | RMC12.2K | Back | 10 | 0.104 | 23.76 | 24.50 | 0.12 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Side 1 | 10 | 0.003 | 24.02 | 24.50 | 0.00 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Side 2 | 10 | 0.045 | 24.02 | 24.50 | 0.05 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Side 3 | 10 | 0.060 | 24.02 | 24.50 | 0.07 | --- |
| | WCDMA Band V | 4183 | 836.6 | RMC12.2K | Side 4 | 10 | 0.060 | 24.02 | 24.50 | 0.07 | --- |

| Index. | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1 g | Burst Avg Power (dBm) | Max tune-up (dBm) | Reported SAR 1 g | Note |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ch. | MHz | | | | | | (mm) | (W/Kg) | | | | |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.690 | 23.94 | 24.00 | 0.70 | --- |
| | LTE Band 2 | 18900 | 1880.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.693 | 23.91 | 24.00 | 0.71 | --- |
| #66 | LTE Band 2 | 19100 | 1900.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.672 | 23.77 | 24.00 | 0.71 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Front | 10 | 0.541 | 23.03 | 23.50 | 0.60 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.595 | 23.94 | 24.00 | 0.60 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Back | 10 | 0.479 | 23.03 | 23.50 | 0.53 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Side 2 | 10 | 0.512 | 23.94 | 24.00 | 0.52 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Side 2 | 10 | 0.414 | 23.03 | 23.50 | 0.46 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.501 | 23.94 | 24.00 | 0.51 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Side 3 | 10 | 0.406 | 23.03 | 23.50 | 0.45 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 1 | 0 | Side 4 | 10 | 0.123 | 23.94 | 24.00 | 0.13 | --- |
| | LTE Band 2 | 18700 | 1860.0 | 20M | QPSK | 50 | 50 | Side 4 | 10 | 0.096 | 23.03 | 23.50 | 0.11 | --- |
| #68 | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Front | 10 | 0.541 | 23.78 | 24.00 | 0.57 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Front | 10 | 0.438 | 22.86 | 23.00 | 0.45 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Back | 10 | 0.329 | 23.78 | 24.00 | 0.35 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Back | 10 | 0.262 | 22.86 | 23.00 | 0.27 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Side 2 | 10 | 0.315 | 23.78 | 24.00 | 0.33 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Side 2 | 10 | 0.250 | 22.86 | 23.00 | 0.26 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.349 | 23.78 | 24.00 | 0.37 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Side 3 | 10 | 0.281 | 22.86 | 23.00 | 0.29 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 1 | 0 | Side 4 | 10 | 0.047 | 23.78 | 24.00 | 0.05 | --- |
| | LTE Band 4 | 20175 | 1732.5 | 20M | QPSK | 50 | 0 | Side 4 | 10 | 0.036 | 22.86 | 23.00 | 0.04 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Front | 10 | 0.045 | 22.83 | 23.00 | 0.05 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Front | 10 | 0.035 | 21.91 | 22.00 | 0.04 | --- |
| #19 | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Back | 10 | 0.120 | 22.83 | 23.00 | 0.13 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Back | 10 | 0.094 | 21.91 | 22.00 | 0.10 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Side 2 | 10 | 0.038 | 22.83 | 23.00 | 0.04 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Side 2 | 10 | 0.028 | 21.91 | 22.00 | 0.03 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Side 3 | 10 | 0.051 | 22.83 | 23.00 | 0.05 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Side 3 | 10 | 0.040 | 21.91 | 22.00 | 0.04 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 1 | 24 | Side 4 | 10 | 0.047 | 22.83 | 23.00 | 0.05 | --- |
| | LTE Band 5 | 20525 | 836.5 | 10M | QPSK | 25 | 12 | Side 4 | 10 | 0.037 | 21.91 | 22.00 | 0.04 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Front | 10 | 0.131 | 21.72 | 22.00 | 0.14 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Front | 10 | 0.112 | 20.78 | 21.00 | 0.12 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Back | 10 | 0.519 | 21.72 | 22.00 | 0.55 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Back | 10 | 0.443 | 20.78 | 21.00 | 0.47 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Side 2 | 10 | 0.065 | 21.72 | 22.00 | 0.07 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Side 2 | 10 | 0.054 | 20.78 | 21.00 | 0.06 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Side 3 | 10 | 0.752 | 21.72 | 22.00 | 0.80 | --- |
| #100 | LTE Band 7 | 20850 | 2510.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.989 | 21.69 | 22.00 | 1.06 | --- |
| | LTE Band 7 | 20850 | 2510.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.972 | 21.69 | 22.00 | 1.04 | Repeat |
| | LTE Band 7 | 21350 | 2560.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.711 | 21.67 | 22.00 | 0.77 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Side 3 | 10 | 0.633 | 20.78 | 21.00 | 0.67 | --- |
| | LTE Band 7 | 21350 | 2560.0 | 20M | QPSK | 100 | 0 | Side 3 | 10 | 0.565 | 20.76 | 21.00 | 0.60 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 1 | 99 | Side 4 | 10 | 0.012 | 21.72 | 22.00 | 0.01 | --- |
| | LTE Band 7 | 21100 | 2535.0 | 20M | QPSK | 50 | 50 | Side 4 | 10 | 0.010 | 20.78 | 21.00 | 0.01 | --- |

| Index. | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Front | 10 | 0.032 | 21.54 | 22.00 | --- | 0.04 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Front | 10 | 0.025 | 20.58 | 21.00 | --- | 0.03 |
| #32 | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Back | 10 | 0.079 | 21.54 | 22.00 | --- | 0.09 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Back | 10 | 0.063 | 20.58 | 21.00 | --- | 0.07 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Side 2 | 10 | 0.053 | 21.54 | 22.00 | --- | 0.06 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Side 2 | 10 | 0.045 | 20.58 | 21.00 | --- | 0.05 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Side 3 | 10 | 0.014 | 21.54 | 22.00 | --- | 0.02 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Side 3 | 10 | 0.010 | 20.58 | 21.00 | --- | 0.01 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 1 | 24 | Side 4 | 10 | 0.053 | 21.54 | 22.00 | --- | 0.06 |
| | LTE Band 12 | 23095 | 707.5 | 10M | QPSK | 25 | 12 | Side 4 | 10 | 0.041 | 20.58 | 21.00 | --- | 0.05 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Front | 10 | 0.042 | 22.61 | 23.00 | --- | 0.05 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Front | 10 | 0.032 | 21.70 | 22.00 | --- | 0.03 |
| #45 | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Back | 10 | 0.101 | 22.61 | 23.00 | --- | 0.11 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Back | 10 | 0.080 | 21.70 | 22.00 | --- | 0.09 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Side 2 | 10 | 0.069 | 22.61 | 23.00 | --- | 0.08 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Side 2 | 10 | 0.055 | 21.70 | 22.00 | --- | 0.06 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Side 3 | 10 | 0.018 | 22.61 | 23.00 | --- | 0.02 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Side 3 | 10 | 0.014 | 21.70 | 22.00 | --- | 0.02 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 1 | 24 | Side 4 | 10 | 0.065 | 22.61 | 23.00 | --- | 0.07 |
| | LTE Band 17 | 23790 | 710.0 | 10M | QPSK | 25 | 12 | Side 4 | 10 | 0.051 | 21.70 | 22.00 | --- | 0.06 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Front | 10 | 0.151 | 21.60 | 22.00 | 62.9 | 0.17 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Front | 10 | 0.128 | 20.78 | 21.00 | 62.9 | 0.14 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Back | 10 | 0.542 | 21.60 | 22.00 | 62.9 | 0.60 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Back | 10 | 0.461 | 20.78 | 21.00 | 62.9 | 0.49 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Side 2 | 10 | 0.117 | 21.60 | 22.00 | 62.9 | 0.13 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Side 2 | 10 | 0.093 | 20.78 | 21.00 | 62.9 | 0.10 |
| #147 | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Side 3 | 10 | 0.701 | 21.60 | 22.00 | 62.9 | 0.77 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Side 3 | 10 | 0.542 | 20.78 | 21.00 | 62.9 | 0.57 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 50 | 0 | Side 3 | 10 | 0.521 | 20.71 | 21.00 | 62.9 | 0.56 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 1 | 0 | Side 4 | 10 | 0.073 | 21.60 | 22.00 | 62.9 | 0.08 |
| | LTE Band 40 | 38750 | 2310.0 | 10M | QPSK | 25 | 0 | Side 4 | 10 | 0.058 | 20.78 | 21.00 | 62.9 | 0.06 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Front | 10 | 0.160 | 21.29 | 22.00 | 62.9 | 0.19 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Front | 10 | 0.124 | 20.45 | 21.00 | 62.9 | 0.14 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Back | 10 | 0.478 | 21.29 | 22.00 | 62.9 | 0.57 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Back | 10 | 0.351 | 20.45 | 21.00 | 62.9 | 0.40 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Side 2 | 10 | 0.113 | 21.29 | 22.00 | 62.9 | 0.13 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Side 2 | 10 | 0.072 | 20.45 | 21.00 | 62.9 | 0.08 |
| #158 | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Side 3 | 10 | 0.645 | 21.29 | 22.00 | 62.9 | 0.76 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Side 3 | 10 | 0.492 | 20.45 | 21.00 | 62.9 | 0.56 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 1 | 0 | Side 4 | 10 | 0.066 | 21.29 | 22.00 | 62.9 | 0.08 |
| | LTE Band 40 | 39200 | 2355.0 | 10M | QPSK | 25 | 0 | Side 4 | 10 | 0.051 | 20.45 | 21.00 | 62.9 | 0.06 |

| Index | Band | Frequency | | Bandwidth | Modulation | RB Size | RB Offset | Test Position | Spacing | SAR 1g | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Front | 10 | 0.146 | 24.27 | 24.50 | 62.9 | 0.16 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Front | 10 | 0.116 | 23.33 | 23.50 | 62.9 | 0.12 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Back | 10 | 0.502 | 24.27 | 24.50 | 62.9 | 0.53 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Back | 10 | 0.396 | 23.33 | 23.50 | 62.9 | 0.41 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Side 2 | 10 | 0.114 | 24.27 | 24.50 | 62.9 | 0.12 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Side 2 | 10 | 0.091 | 23.33 | 23.50 | 62.9 | 0.10 |
| #129 | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.705 | 24.27 | 24.50 | 62.9 | 0.75 |
| | LTE Band 38 | 37850 | 2580.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.534 | 24.19 | 24.50 | 62.9 | 0.58 |
| | LTE Band 41 | 40600 | 2591.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.594 | 24.08 | 24.50 | 62.9 | 0.66 |
| | LTE Band 41 | 40870 | 2618.0 | 20M | QPSK | 1 | 99 | Side 3 | 10 | 0.460 | 24.08 | 24.50 | 62.9 | 0.51 |
| | LTE Band 41 | 41140 | 2645.0 | 20M | QPSK | 1 | 0 | Side 3 | 10 | 0.441 | 24.12 | 24.50 | 62.9 | 0.48 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Side 3 | 10 | 0.560 | 23.33 | 23.50 | 62.9 | 0.59 |
| | LTE Band 41 | 40870 | 2618.0 | 20M | QPSK | 100 | 0 | Side 3 | 10 | 0.450 | 23.23 | 23.50 | 62.9 | 0.48 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 1 | 0 | Side 4 | 10 | 0.071 | 24.27 | 24.50 | 62.9 | 0.08 |
| | LTE Band 41 | 40340 | 2565.0 | 20M | QPSK | 50 | 0 | Side 4 | 10 | 0.057 | 23.33 | 23.50 | 62.9 | 0.06 |

| Index. | Band | Mode | Frequency | | Data Rate | Test Position | Spacing | EUT & Accessory | SAR 1g | Burst Avg Powe (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported SAR 1g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ch. | MHz | | | (mm) | | (W/Kg) | | | | |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Front | 10 | --- | 0.044 | 16.42 | 16.50 | 99.50 | 0.05 |
| #401 | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Back | 10 | --- | 0.089 | 16.42 | 16.50 | 99.50 | 0.09 |
| | WLAN2.4GHz | 802.11b | 6 | 2437.0 | 1 Mbps | Back | 10 | --- | 0.086 | 16.31 | 16.50 | 99.50 | 0.09 |
| | WLAN2.4GHz | 802.11b | 11 | 2462.0 | 1 Mbps | Back | 10 | --- | 0.065 | 16.32 | 16.50 | 99.50 | 0.07 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Side 1 | 10 | --- | 0.066 | 16.42 | 16.50 | 99.50 | 0.07 |
| | WLAN2.4GHz | 802.11b | 1 | 2412.0 | 1 Mbps | Side 4 | 10 | --- | 0.040 | 16.42 | 16.50 | 99.50 | 0.04 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Front | 10 | --- | 0.016 | 11.41 | 12.00 | 83.30 | 0.02 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Back | 10 | --- | 0.032 | 11.41 | 12.00 | 83.30 | 0.04 |
| #422 | Bluetooth | --- | 39 | 2441.0 | 1 Mbps | Back | 10 | --- | 0.029 | 10.82 | 12.00 | 83.30 | 0.05 |
| | Bluetooth | --- | 78 | 2480.0 | 1 Mbps | Back | 10 | --- | 0.021 | 11.10 | 12.00 | 83.30 | 0.03 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Side 1 | 10 | --- | 0.027 | 11.41 | 12.00 | 83.30 | 0.04 |
| | Bluetooth | --- | 0 | 2402.0 | 1 Mbps | Side 4 | 10 | --- | 0.011 | 11.41 | 12.00 | 83.30 | 0.02 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Front | 10 | --- | 0.097 | 13.59 | 14.00 | 91.80 | 0.12 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Back | 10 | --- | 0.198 | 13.59 | 14.00 | 91.80 | 0.24 |
| #467 | WLAN5GHz | 802.11n 40 MHz | 151 | 5755.0 | HT40 | Back | 10 | --- | 0.217 | 13.36 | 14.00 | 91.80 | 0.27 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Side 1 | 10 | --- | 0.156 | 13.59 | 14.00 | 91.80 | 0.19 |
| | WLAN5GHz | 802.11n 40 MHz | 159 | 5795.0 | HT40 | Side 4 | 10 | --- | 0.146 | 13.59 | 14.00 | 91.80 | 0.18 |

## 12.4 Extremity SAR Measurement

| Index. | Band | Mode | Frequency | | Data Rate | Test Position | Spacing | EUT & Accessory | $SAR_{10g}$ | Burst Avg Power (dBm) | Max tune-up (dBm) | Duty Cycle (%) | Reported $SAR_{10g}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ch. | MHz | | | (mm) | | (W/Kg) | | | | |
| #453 | WLAN 5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Front | 0 | --- | 0.306 | 13.44 | 14.00 | 91.80 | 0.379 |
| | WLAN 5GHz | 802.11n 40 MHz | 54 | 5270.0 | HT40 | Front | 0 | --- | 0.299 | 13.34 | 14.00 | 91.80 | 0.379 |
| | WLAN 5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Back | 0 | --- | 0.276 | 13.44 | 14.00 | 91.80 | 0.342 |
| | WLAN 5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Side 1 | 0 | --- | 0.183 | 13.44 | 14.00 | 91.80 | 0.227 |
| | WLAN 5GHz | 802.11n 40 MHz | 62 | 5310.0 | HT40 | Side 4 | 0 | --- | 0.171 | 13.44 | 14.00 | 91.80 | 0.212 |
| | WLAN 5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Front | 0 | --- | 0.214 | 13.53 | 14.00 | 91.80 | 0.260 |
| #516 | WLAN 5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Back | 0 | --- | 0.397 | 13.53 | 14.00 | 91.80 | 0.482 |
| | WLAN 5GHz | 802.11n 40 MHz | 102 | 5510.0 | HT40 | Back | 0 | --- | 0.287 | 13.35 | 14.00 | 91.80 | 0.363 |
| | WLAN 5GHz | 802.11n 40 MHz | 110 | 5550.0 | HT40 | Back | 0 | --- | 0.314 | 13.43 | 14.00 | 91.80 | 0.390 |
| | WLAN 5GHz | 802.11n 40 MHz | 126 | 5630.0 | HT40 | Back | 0 | --- | 0.358 | 13.33 | 14.00 | 91.80 | 0.455 |
| | WLAN 5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Side 1 | 0 | --- | 0.202 | 13.53 | 14.00 | 91.80 | 0.245 |
| | WLAN 5GHz | 802.11n 40 MHz | 134 | 5670.0 | HT40 | Side 4 | 0 | --- | 0.194 | 13.53 | 14.00 | 91.80 | 0.235 |

## 12.5 Std. C95.1-1992 RF Exposure Limit

| Human Exposure | Population Uncontrolled Exposure ( W/kg ) or (mW/g) | Occupational Controlled Exposure ( W/kg ) or (mW/g) |
|---|---|---|
| Spatial Peak SAR* (head) | 1.60 | 8.00 |
| Spatial Peak SAR** (Whole Body) | 0.08 | 0.40 |
| Spatial Peak SAR*** (Partial-Body) | 1.60 | 8.00 |
| Spatial Peak SAR**** (Hands / Feet / Ankle / Wrist ) | 4.00 | 20.00 |

Table 2. Safety Limits for Partial Body Exposure

**Notes：**

***** The Spatial Peak value of the SAR averaged over any 1 gram of tissue.
( defined as a tissue volume in the shape of a cube ) and over the appropriate averaging time.

****** The Spatial Average value of the SAR averaged over the whole – body.

******* The Spatial Average value of the SAR averaged over the partial – body.

******** The Spatial Peak value of the SAR averaged over any 10 grams of tissue.
( defined as a tissue volume in the shape of a cube ) and over the appropriate averaging time.

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

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

# 13. References

[1] Std. C95.1-1999, "*American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 300KHz to 100GHz",* New York.

[2] NCRP, National Council on Radiation Protection and Measurements, "Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields", NCRP report NO. 86, 1986.

[3] T. Schmid, O. Egger, and N. Kuster, "Automatic E-field scanning system for dosimetric assessments", IEEE Transactions on Microwave Theory and Techniques, vol. 44, pp, 105-113, Jan. 1996.

[4] K. Pokovi ć, T. Schmid, and N. Kuster, "Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequency", in ICECOM'97, Dubrovnik, October 15-17, 1997, pp.120-124.

[5] K. Pokovi ć, T. Schmid, and N. Kuster, "E-field probe with improved isotropy in brain simulating liquids", in Proceedings of the ELMAR, Zadar, Croatia, 23-25 June, 1996, pp.172-175.

[6] N. Kuster, and Q. Balzano, "Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz", IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

[7] Robert J. Renka, "Multivariate Interpolation Of Large Sets Of Scattered Data", University of North Texas ACM Transactions on Mathematical Software, vol. 14, no. 2, June 1988 , pp. 139-148.

[8] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

[9] Std. C95.3-1991, "IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave, New York: IEEE, Aug. 1992.

[10] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10KHz-300GHz, Jan. 1995.

[11] 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

## *Appendix A - System Performance Check*

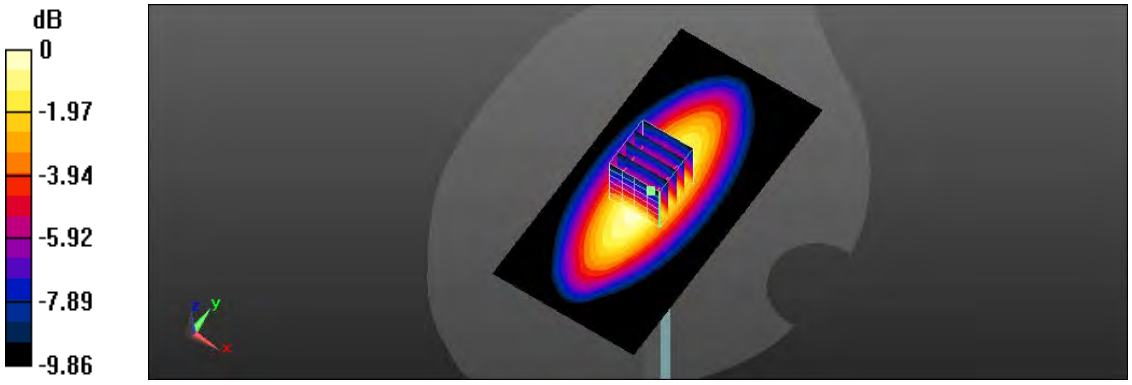
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
System Performance Check at 750MHz_20200518_Head
**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1004**

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; $\sigma$ = 0.899 S/m; $\varepsilon_r$ = 42.046; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 750 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 750MHz/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.89 W/kg

**System Performance Check at 750MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 57.61 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 3.31 W/kg
**SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.43 W/kg**
Smallest distance from peaks to all points 3 dB below = 20.5 mm
Ratio of SAR at M2 to SAR at M1 = 65.3%
Maximum value of SAR (measured) = 2.89 W/kg




0 dB = 2.89 W/kg = 4.61 dBW/kg

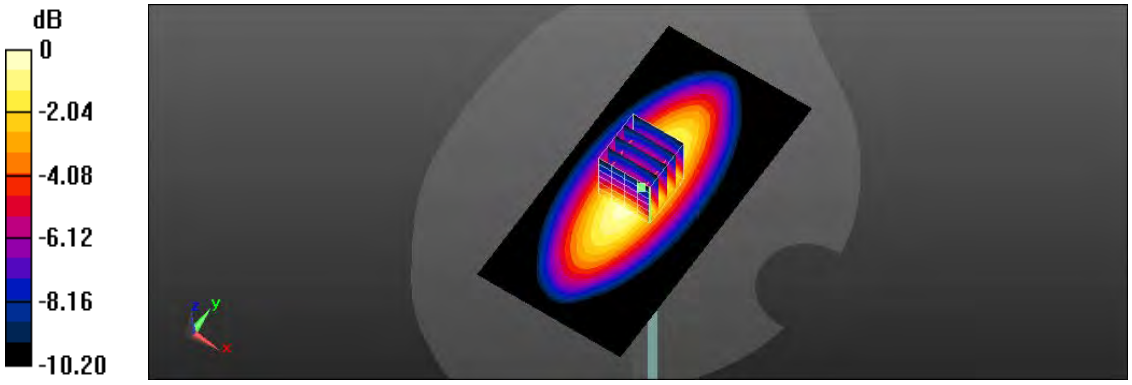
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
System Performance Check at 750MHz_20200528_Head
**DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1004**

Communication System: UID 0, CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; $\sigma$ = 0.898 S/m; $\varepsilon_r$ = 41.969; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 750 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 750MHz/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 2.87 W/kg

**System Performance Check at 750MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 58.14 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.34 W/kg
**SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.41 W/kg**
Smallest distance from peaks to all points 3 dB below = 16.3 mm
Ratio of SAR at M2 to SAR at M1 = 64%
Maximum value of SAR (measured) = 2.90 W/kg




0 dB = 2.87 W/kg = 4.59 dBW/kg

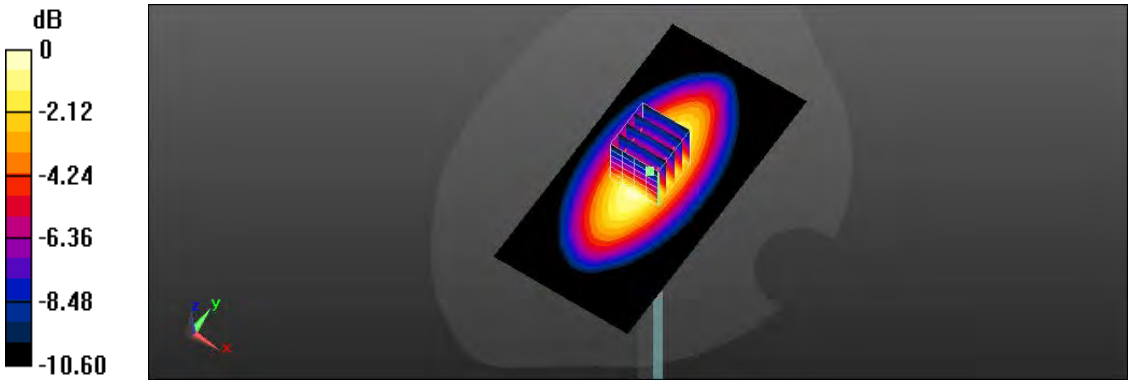
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
System Performance Check at 835MHz_20200518_Head
**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d082**

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma$ = 0.909 S/m; $\varepsilon_r$ = 42.54; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 835MHz/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.52 W/kg

**System Performance Check at 835MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 63.37 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 4.10 W/kg
**SAR(1 g) = 2.56 W/kg; SAR(10 g) = 1.68 W/kg**
Smallest distance from peaks to all points 3 dB below = 20.5 mm
Ratio of SAR at M2 to SAR at M1 = 62.8%
Maximum value of SAR (measured) = 3.51 W/kg




0 dB = 3.51 W/kg = 5.45 dBW/kg

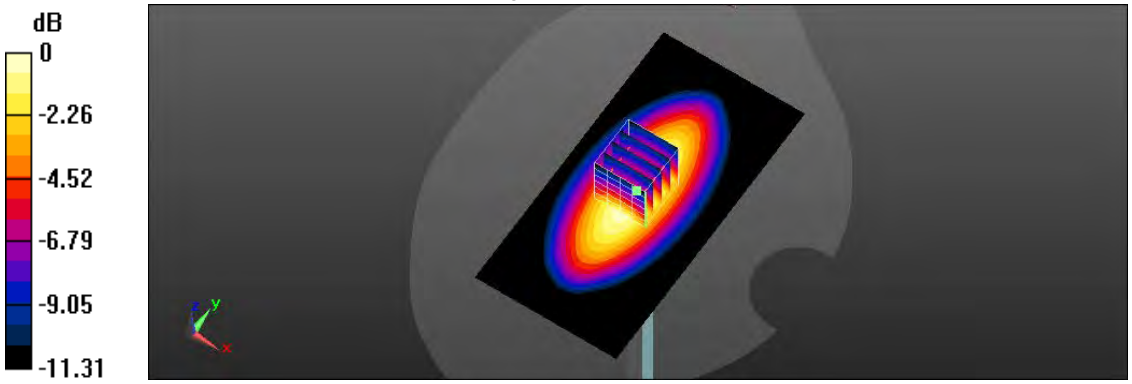
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
System Performance Check at 835MHz_20200528_Head
**DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d082**

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; $\sigma$ = 0.907 S/m; $\varepsilon_r$ = 42.474; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 835 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 835MHz/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.52 W/kg

**System Performance Check at 835MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 63.26 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 4.09 W/kg
**SAR(1 g) = 2.55 W/kg; SAR(10 g) = 1.64 W/kg**
Smallest distance from peaks to all points 3 dB below = 16 mm
Ratio of SAR at M2 to SAR at M1 = 62.3%
Maximum value of SAR (measured) = 3.53 W/kg




0 dB = 3.53 W/kg = 5.47 dBW/kg

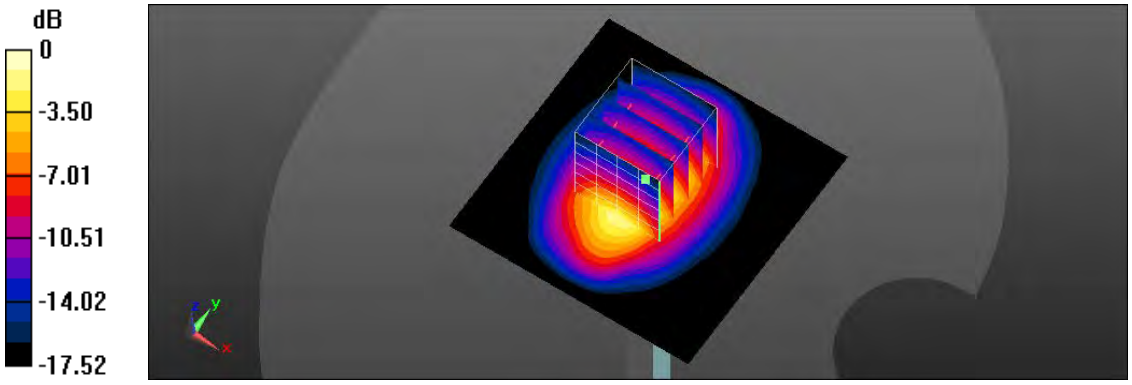
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
System Performance Check at 1750MHz_20200520_Head
**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1023**

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; $\sigma$ = 1.33 S/m; $\varepsilon_r$ = 40.606; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.47, 8.47, 8.47) @ 1750 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 1750MHz/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.9 W/kg

**System Performance Check at 1750MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 102.6 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 16.7 W/kg
**SAR(1 g) = 9.03 W/kg; SAR(10 g) = 4.76 W/kg**
Smallest distance from peaks to all points 3 dB below = 10.7 mm
Ratio of SAR at M2 to SAR at M1 = 54%
Maximum value of SAR (measured) = 14.0 W/kg




0 dB = 13.9 W/kg = 11.43 dBW/kg

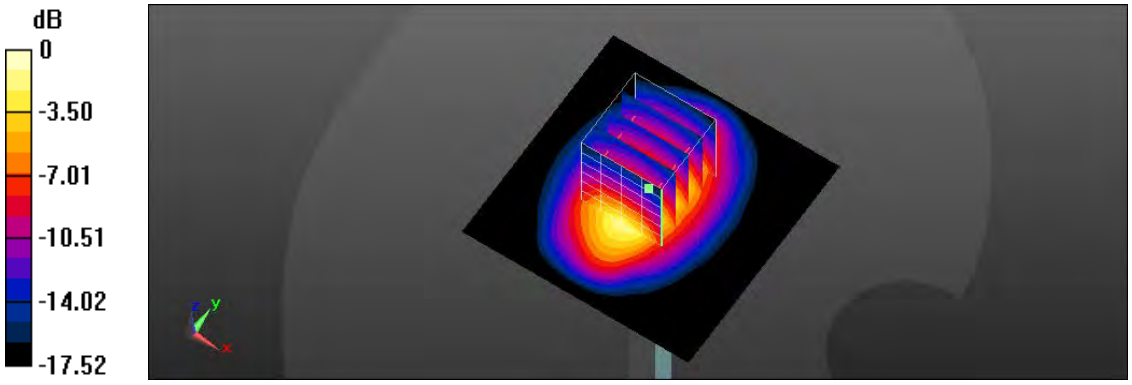
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
System Performance Check at 1750MHz_20200527_Head
**DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1023**

Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; $\sigma$ = 1.361 S/m; $\varepsilon_r$ = 40.297; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.47, 8.47, 8.47) @ 1750 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 1750MHz/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 12.4 W/kg

**System Performance Check at 1750MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 102.6 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 15.0 W/kg
**SAR(1 g) = 9.23 W/kg; SAR(10 g) = 4.87 W/kg**
Smallest distance from peaks to all points 3 dB below = 11.2 mm
Ratio of SAR at M2 to SAR at M1 = 53.7%
Maximum value of SAR (measured) = 12.5 W/kg




0 dB = 12.5 W/kg = 10.97 dBW/kg

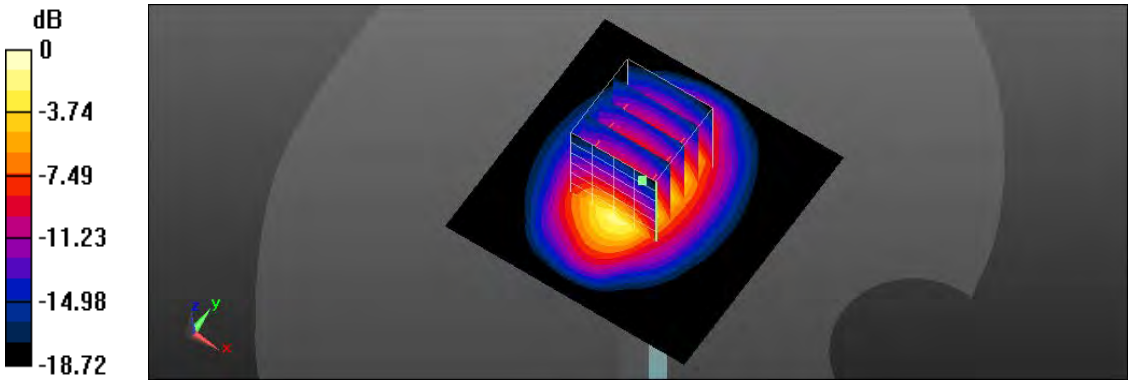
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
System Performance Check at 1900MHz_20200520_Head
**DUT: Dipole D1900V2_SN5d111; Type: D1900V2; Serial: D1900V2 - SN:5d111**

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.459 S/m; $\varepsilon_r$ = 40.078; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1900 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 1900MHz/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 16.5 W/kg

**System Performance Check at 1900MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.4 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 20.0 W/kg
**SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.32 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 52.1%
Maximum value of SAR (measured) = 16.6 W/kg




0 dB = 16.5 W/kg = 12.17 dBW/kg

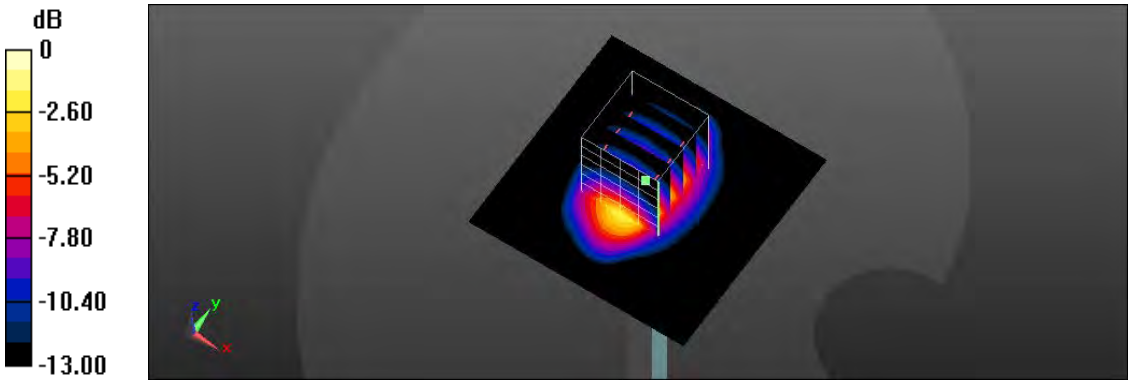
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
System Performance Check at 1900MHz_20200527_Head
**DUT: Dipole D1900V2_SN5d111; Type: D1900V2; Serial: D1900V2 - SN:5d111**

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.441 S/m; $\varepsilon_r$ = 39.757; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1900 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 1900MHz/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 13.7 W/kg

**System Performance Check at 1900MHz/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 106.4 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 16.6 W/kg
**SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.26 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 52.3%
Maximum value of SAR (measured) = 13.8 W/kg




0 dB = 13.8 W/kg = 11.40 dBW/kg

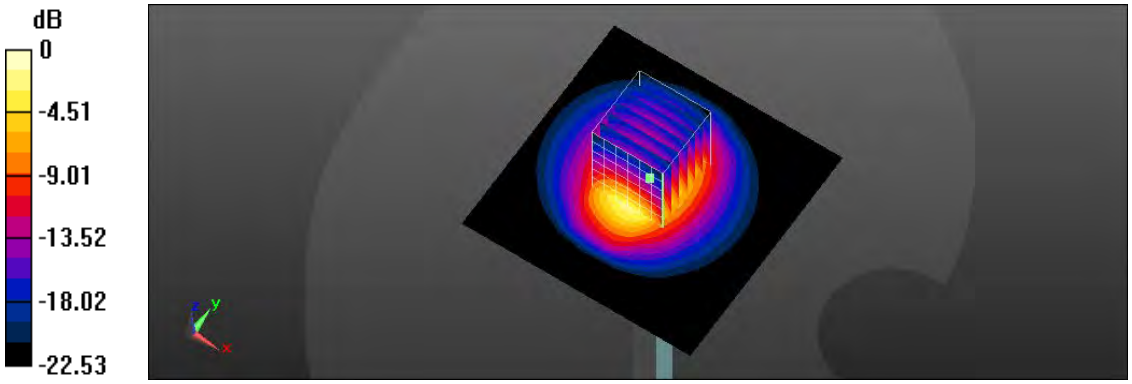
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/24
System Performance Check at 2300MHz_20200524_Head
**DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN:1092**

Communication System: UID 0, CW (0); Frequency: 2300 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2300 MHz; $\sigma$ = 1.628 S/m; $\varepsilon_r$ = 40.072; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3887; ConvF(7.7, 7.7, 7.7) @ 2300 MHz; Calibrated: 2019/9/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 2300MHz/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 24.3 W/kg

**System Performance Check at 2300MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 116.1 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 30.6 W/kg
**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.9 W/kg**
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 47.5%
Maximum value of SAR (measured) = 24.3 W/kg




0 dB = 24.3 W/kg = 13.86 dBW/kg

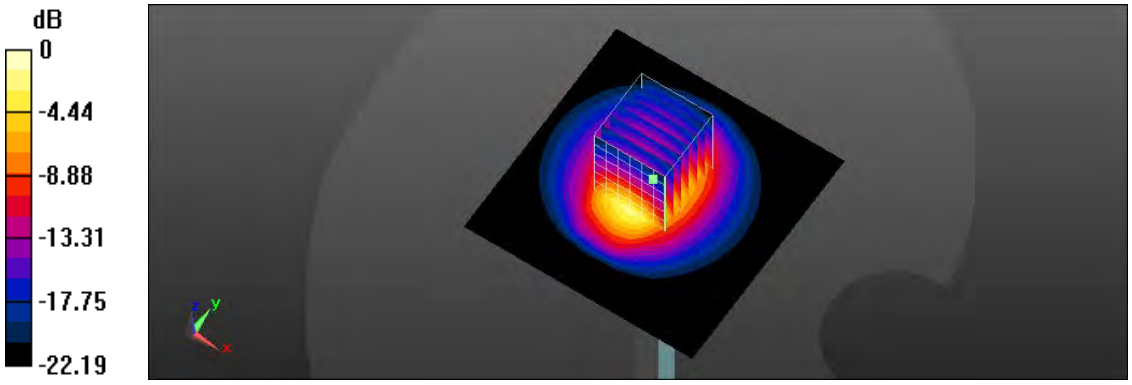
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/23
System Performance Check at 2450MHz_20200523_Head
**DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:903**

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2450 MHz; $\sigma$ = 1.779 S/m; $\varepsilon_r$ = 39.515; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2450 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 2450MHz/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 18.8 W/kg

**System Performance Check at 2450MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 109.1 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 23.2 W/kg
**SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.43 W/kg**
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 48.9%
Maximum value of SAR (measured) = 18.8 W/kg




0 dB = 18.8 W/kg = 12.74 dBW/kg

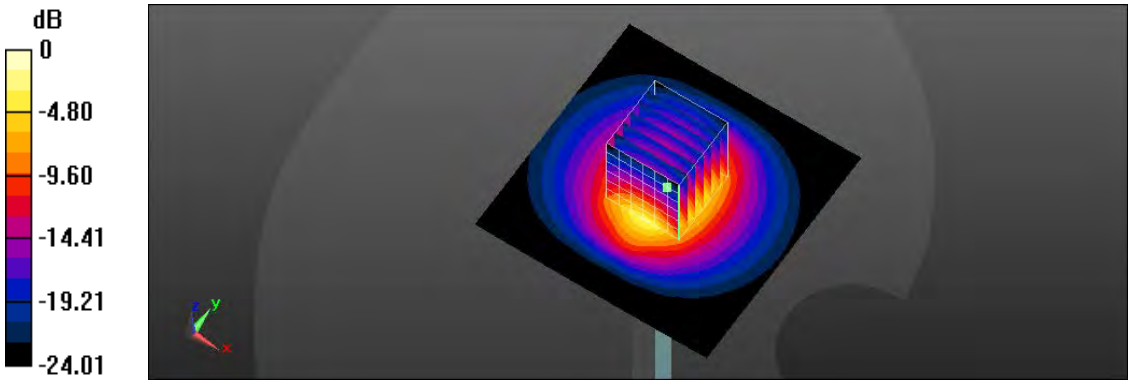
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/21
System Performance Check at 2600MHz_20200521_Head
**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1007**

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; $\sigma$ = 1.987 S/m; $\varepsilon_r$ = 39.64; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 2600MHz/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 17.6 W/kg

**System Performance Check at 2600MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 106.63 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 22.5 W/kg
**SAR(1 g) = 13.2 W/kg; SAR(10 g) = 5.82 W/kg**
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 46.2%
Maximum value of SAR (measured) = 17.8 W/kg




0 dB = 17.8 W/kg = 12.50 dBW/kg

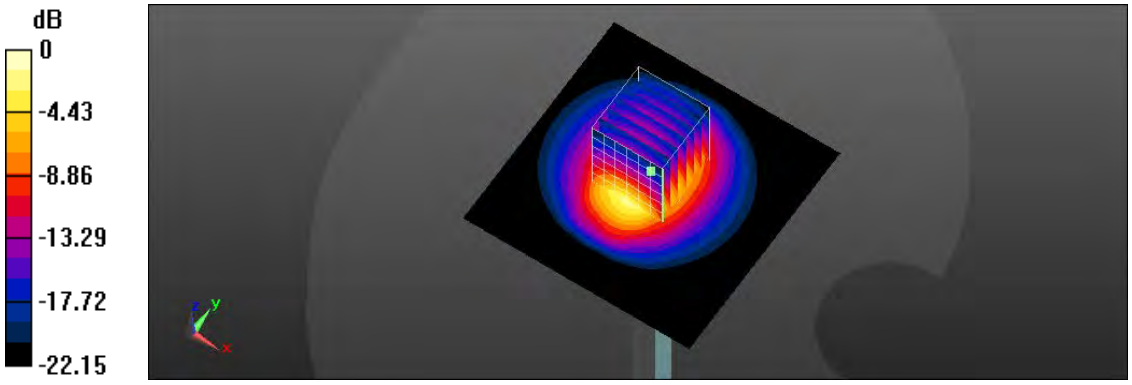
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/22
System Performance Check at 2600MHz_20200522_Head
**DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1007**

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; $\sigma$ = 1.974 S/m; $\varepsilon_r$ = 39.124; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.43, 7.43, 7.43) @ 2600 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 2600MHz/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 21.3 W/kg

**System Performance Check at 2600MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 109.2 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 26.2 W/kg
**SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.01 W/kg**
Smallest distance from peaks to all points 3 dB below = 9 mm
Ratio of SAR at M2 to SAR at M1 = 49.4%
Maximum value of SAR (measured) = 21.3 W/kg




0 dB = 21.3 W/kg = 13.28 dBW/kg

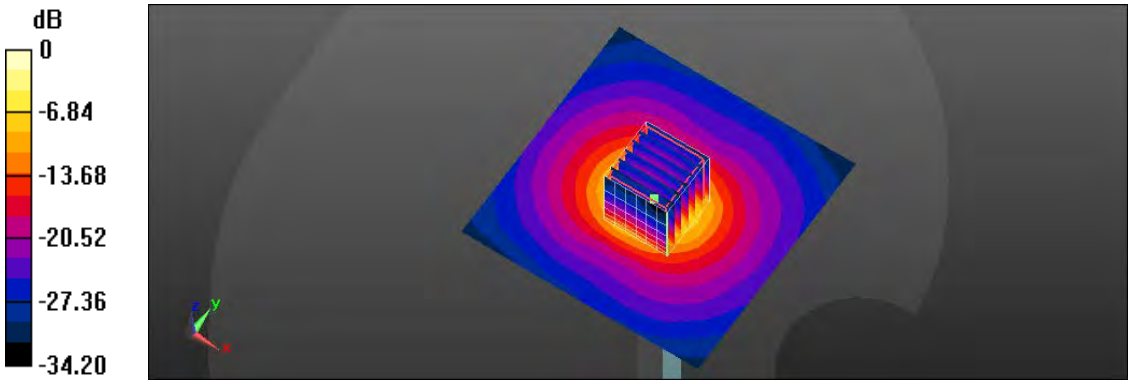
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/25
System Performance Check at 5250MHz_20200525_Head
**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1145**

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5250 MHz; $\sigma$ = 4.624 S/m; $\varepsilon_r$ = 36.55; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.57, 5.57, 5.57) @ 5250 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 5250MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.6 W/kg

**System Performance Check at 5250MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 73.8 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 28.3 W/kg
**SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.29 W/kg**
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 65.1%
Maximum value of SAR (measured) = 17.1 W/kg




0 dB = 17.1 W/kg = 12.33 dBW/kg

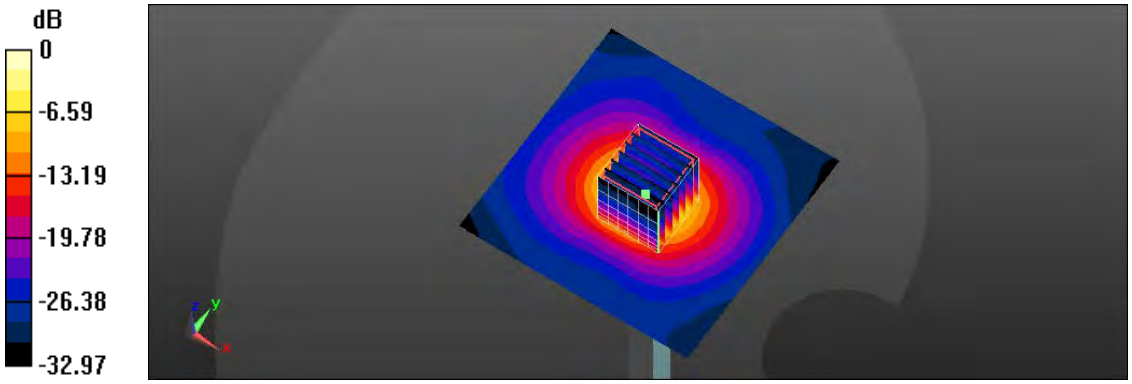
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
System Performance Check at 5600MHz_20200526_Head
**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1145**

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5600 MHz; $\sigma$ = 5.127 S/m; $\varepsilon_r$ = 36.374; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(4.81, 4.81, 4.81) @ 5600 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 5600MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.6 W/kg

**System Performance Check at 5600MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.81 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 33.5 W/kg
**SAR(1 g) = 7.98 W/kg; SAR(10 g) = 2.25 W/kg**
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 63.2%
Maximum value of SAR (measured) = 20.6 W/kg




0 dB = 20.6 W/kg = 13.14 dBW/kg

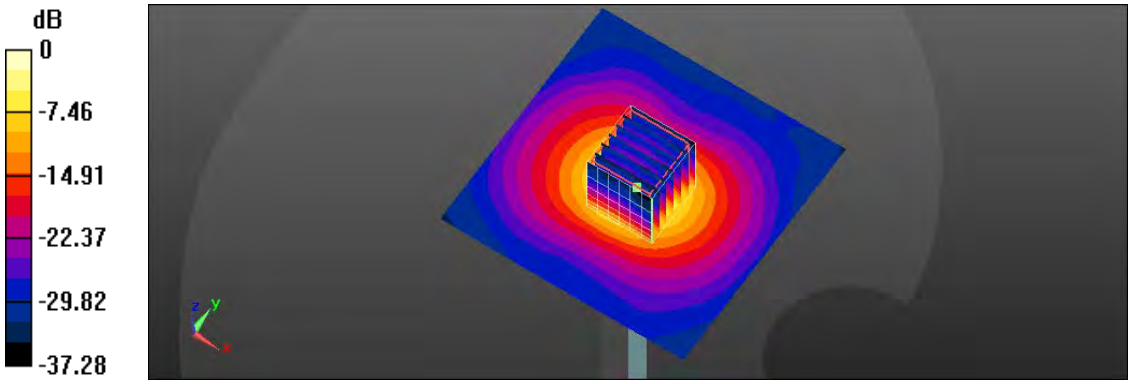
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
System Performance Check at 5750MHz_20200526_Head
**DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1145**

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 5750 MHz; $\sigma$ = 5.307 S/m; $\varepsilon_r$ = 36.083; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.06, 5.06, 5.06) @ 5750 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**System Performance Check at 5750MHz/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 17.1 W/kg

**System Performance Check at 5750MHz/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 70.08 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 31.3 W/kg
**SAR(1 g) = 8.29 W/kg; SAR(10 g) = 2.31 W/kg**
Smallest distance from peaks to all points 3 dB below = 7.5 mm
Ratio of SAR at M2 to SAR at M1 = 61.3%
Maximum value of SAR (measured) = 17.4 W/kg




0 dB = 17.4 W/kg = 12.41 dBW/kg

## *Appendix B - SAR Measurement Data*

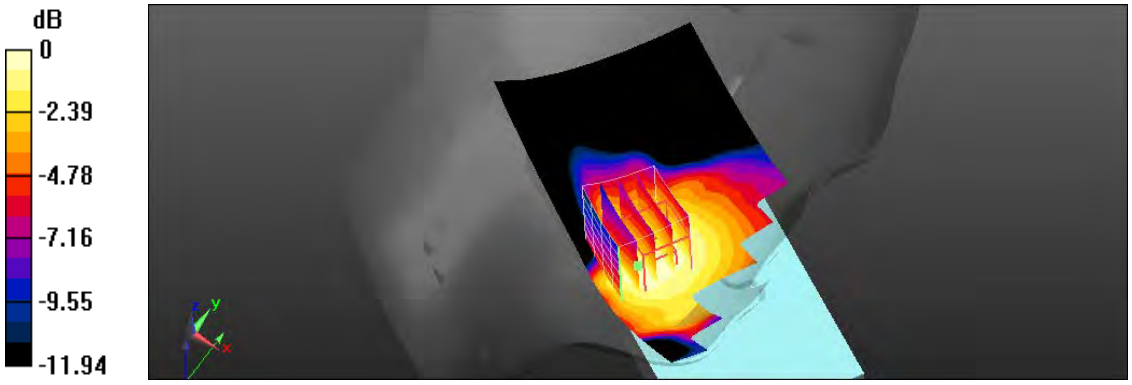
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
246_GSM850 CH 251_GPRS (4 Tx slots)_Left-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, GPRS 850 (1Down, 4Up) (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium parameters used: f = 849 MHz; $\sigma$ = 0.92 S/m; $\varepsilon_r$ = 42.273; $\rho$ = 1000 kg/$m^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 848.8 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0458 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.993 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.0490 W/kg
**SAR(1 g) = 0.034 W/kg; SAR(10 g) = 0.025 W/kg**
Ratio of SAR at M2 to SAR at M1 = 71.8%
Maximum value of SAR (measured) = 0.0423 W/kg




0 dB = 0.0423 W/kg = -13.74 dBW/kg

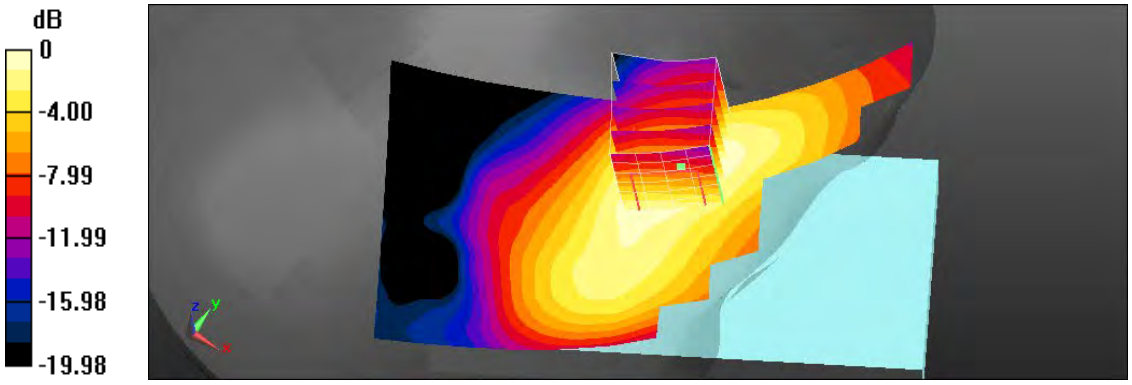
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
240_GSM1900 CH 810_GPRS (4 Tx slots)_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, GPRS PCS (1Down,4Up) (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.08
Medium parameters used: f = 1910 MHz; $\sigma$ = 1.449 S/m; $\varepsilon_r$ = 39.731; $\rho$ = 1000 kg/$m^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1909.8 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.590 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.97 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.655 W/kg
**SAR(1 g) = 0.405 W/kg; SAR(10 g) = 0.258 W/kg**
Smallest distance from peaks to all points 3 dB below = 14.2 mm
Ratio of SAR at M2 to SAR at M1 = 60.9%
Maximum value of SAR (measured) = 0.555 W/kg




0 dB = 0.555 W/kg = -2.56 dBW/kg

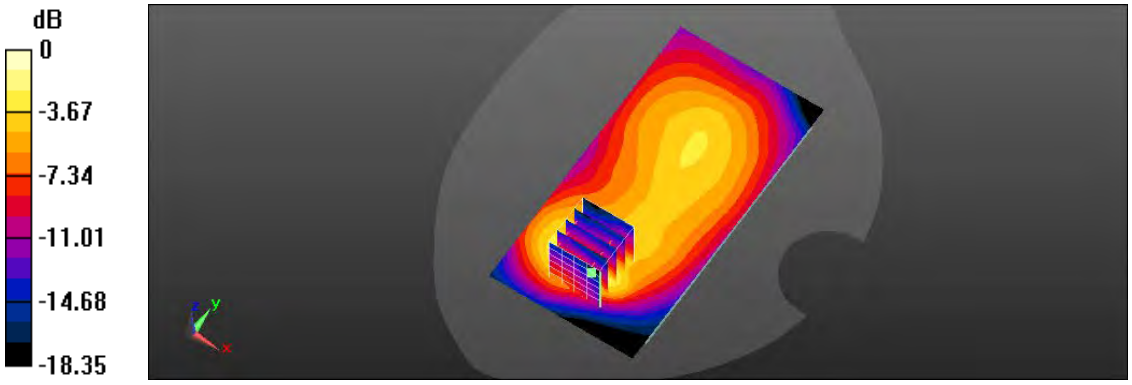
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
16_GSM850 CH 251_GPRS (4 Tx slots)_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, GPRS 850 (1Down, 4Up) (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.08
Medium parameters used: f = 849 MHz; $\sigma$ = 0.922 S/m; $\varepsilon_r$ = 42.339; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 848.8 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0852 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.086 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.116 W/kg
**SAR(1 g) = 0.050 W/kg; SAR(10 g) = 0.025 W/kg**
Ratio of SAR at M2 to SAR at M1 = 43.9%
Maximum value of SAR (measured) = 0.0861 W/kg




0 dB = 0.0861 W/kg = -10.65 dBW/kg

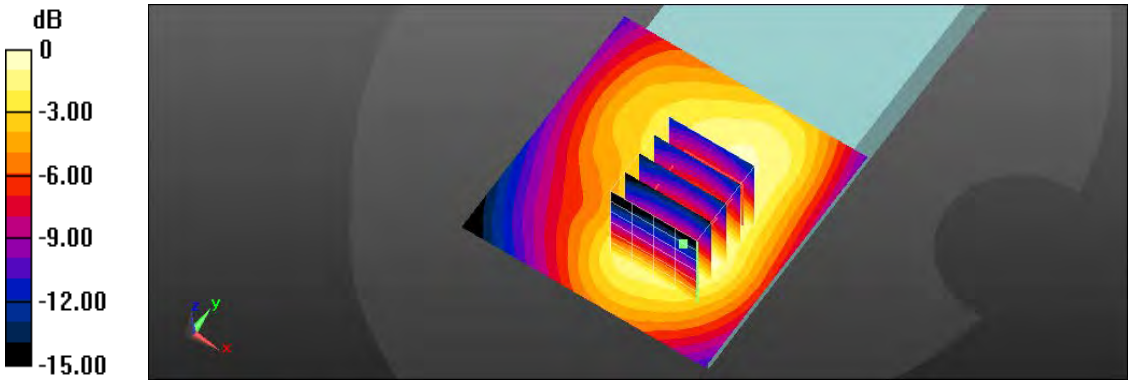
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
91_GSM1900 CH 810_GPRS (4 Tx slots)_Front_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, GPRS PCS (1Down,4Up) (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.08
Medium parameters used: f = 1910 MHz; $\sigma$ = 1.467 S/m; $\varepsilon_r$ = 40.052; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1880 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.503 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.94 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.573 W/kg
**SAR(1 g) = 0.350 W/kg; SAR(10 g) = 0.215 W/kg**
Smallest distance from peaks to all points 3 dB below = 17 mm
Ratio of SAR at M2 to SAR at M1 = 61.2%
Maximum value of SAR (measured) = 0.478 W/kg




0 dB = 0.478 W/kg = -3.21 dBW/kg

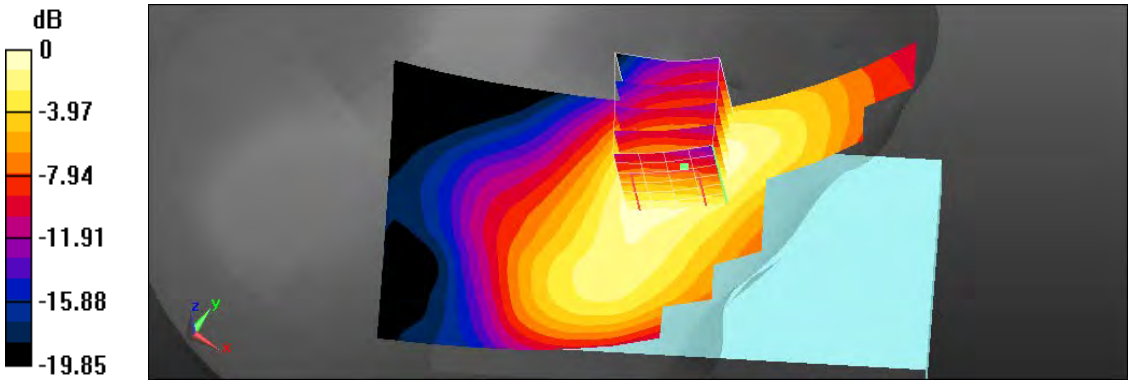
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
229_WCDMA Band II CH 9538_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, WCDMA Band II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; $\sigma$ = 1.447 S/m; $\varepsilon_r$ = 39.736; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1907.6 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.57 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.23 W/kg
**SAR(1 g) = 0.765 W/kg; SAR(10 g) = 0.501 W/kg**
Smallest distance from peaks to all points 3 dB below = 14.6 mm
Ratio of SAR at M2 to SAR at M1 = 63.1%
Maximum value of SAR (measured) = 1.06 W/kg




0 dB = 1.06 W/kg = 0.25 dBW/kg

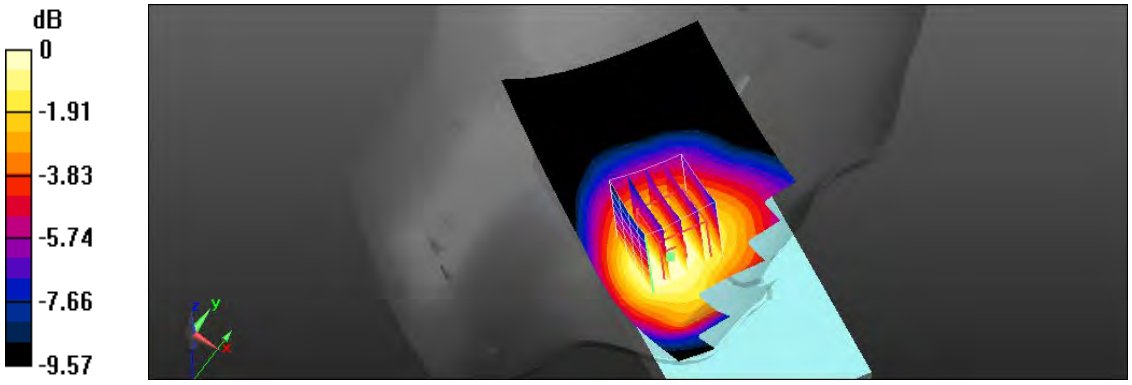
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
252_WCDMA Band V CH 4233_Left-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, WCDMA Band V (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 847 MHz; $\sigma$ = 0.919 S/m; $\varepsilon_r$ = 42.3; $\rho$ = 1000 kg/$m^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 846.6 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.114 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.30 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.125 W/kg
**SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.066 W/kg**
Smallest distance from peaks to all points 3 dB below = 20 mm
Ratio of SAR at M2 to SAR at M1 = 69.6%
Maximum value of SAR (measured) = 0.108 W/kg




0 dB = 0.108 W/kg = -9.67 dBW/kg

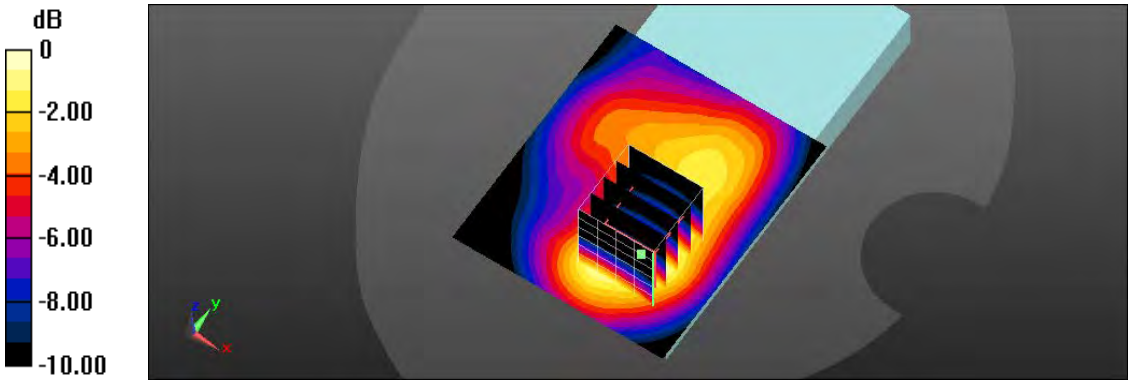
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
78_WCDMA Band II CH 9538_Front_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, WCDMA Band II (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1908 MHz; $\sigma$ = 1.465 S/m; $\varepsilon_r$ = 40.057; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1907.6 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.37 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.40 W/kg
**SAR(1 g) = 0.819 W/kg; SAR(10 g) = 0.476 W/kg**
Smallest distance from peaks to all points 3 dB below = 17 mm
Ratio of SAR at M2 to SAR at M1 = 59.1%
Maximum value of SAR (measured) = 1.16 W/kg




0 dB = 1.16 W/kg = 0.64 dBW/kg

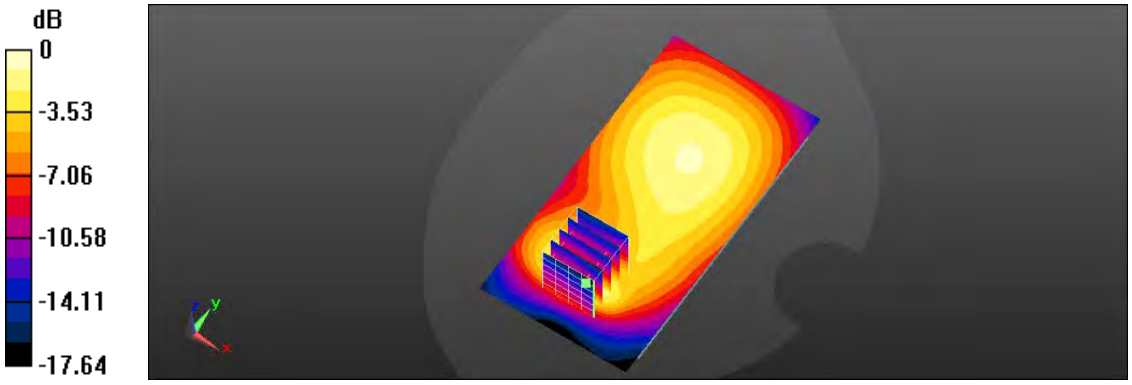
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
08_WCDMA Band V CH 4233_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, WCDMA Band V (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 847 MHz; $\sigma$ = 0.92 S/m; $\varepsilon_r$ = 42.366; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 846.6 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.187 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.96 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.237 W/kg
**SAR(1 g) = 0.104 W/kg; SAR(10 g) = 0.054 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.6 mm
Ratio of SAR at M2 to SAR at M1 = 45.2%
Maximum value of SAR (measured) = 0.177 W/kg




0 dB = 0.177 W/kg = -7.52 dBW/kg

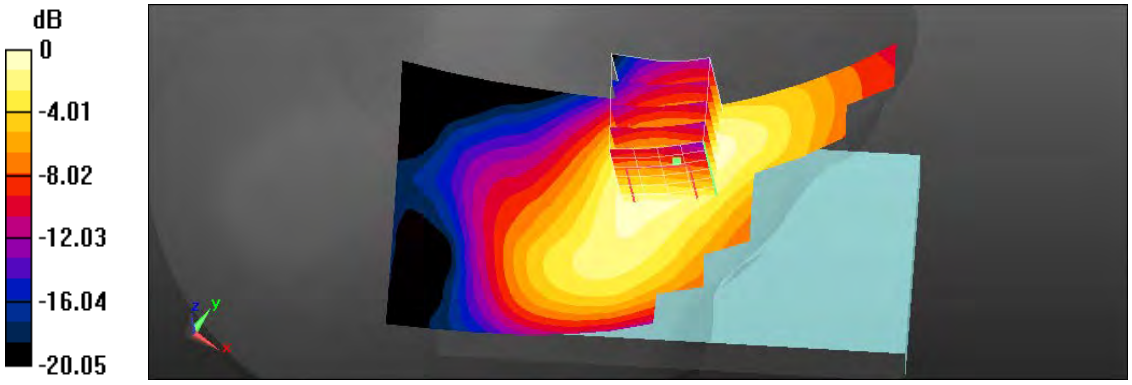
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
219_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.441 S/m; $\varepsilon_r$ = 39.757; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1900 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.01 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.95 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.08 W/kg
**SAR(1 g) = 0.704 W/kg; SAR(10 g) = 0.455 W/kg**
Smallest distance from peaks to all points 3 dB below = 14.8 mm
Ratio of SAR at M2 to SAR at M1 = 64.7%
Maximum value of SAR (measured) = 0.936 W/kg




0 dB = 0.936 W/kg = -0.29 dBW/kg

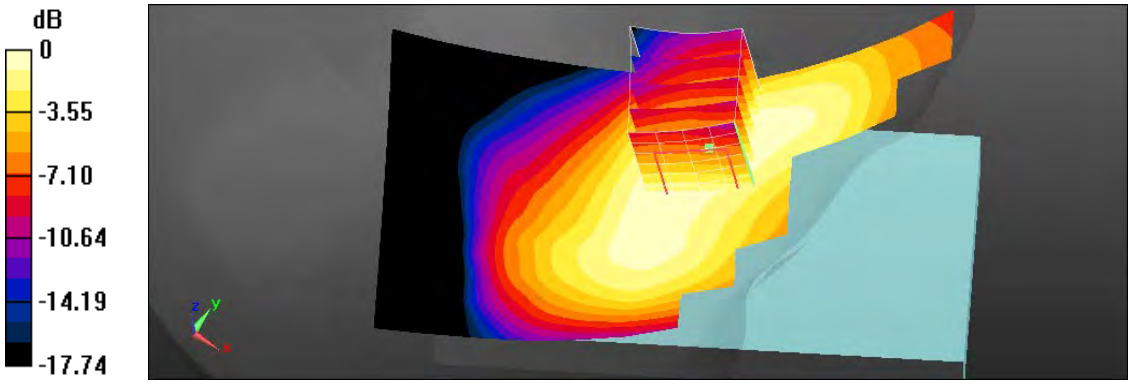
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/27
221_LTE Band 4 CH 20175_QPSK_BW 20M_1RB Size 0RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma$ = 1.347 S/m; $\varepsilon_r$ = 40.352; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.47, 8.47, 8.47) @ 1732.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.420 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.21 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.452 W/kg
**SAR(1 g) = 0.306 W/kg; SAR(10 g) = 0.210 W/kg**
Smallest distance from peaks to all points 3 dB below = 17.8 mm
Ratio of SAR at M2 to SAR at M1 = 66.6%
Maximum value of SAR (measured) = 0.399 W/kg




0 dB = 0.399 W/kg = -3.99 dBW/kg

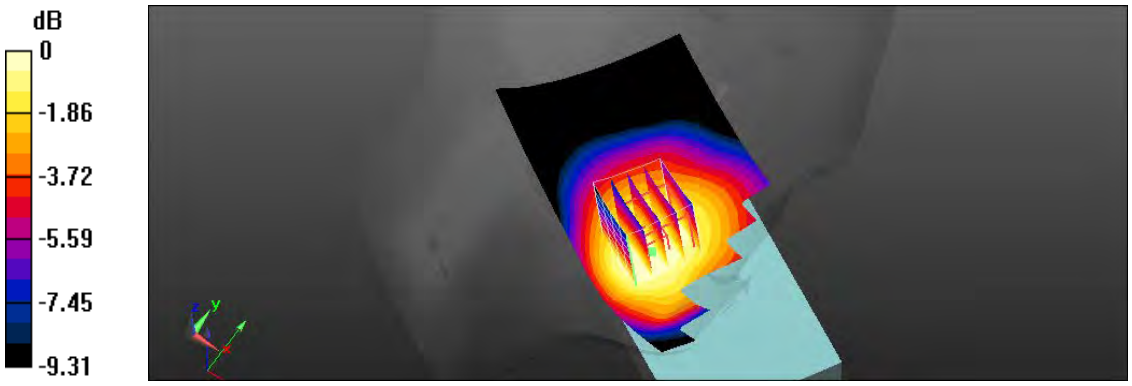
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
257_LTE Band 5 CH 20525_QPSK_BW 10M_1RB Size 24RB Offset_Left-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; $\sigma$ = 0.909 S/m; $\varepsilon_r$ = 42.453; $\rho$ = 1000 kg/$m^3$
Phantom section: Left Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.101 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.92 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.103 W/kg
**SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.058 W/kg**
Ratio of SAR at M2 to SAR at M1 = 76%
Maximum value of SAR (measured) = 0.0929 W/kg




0 dB = 0.0929 W/kg = -10.32 dBW/kg

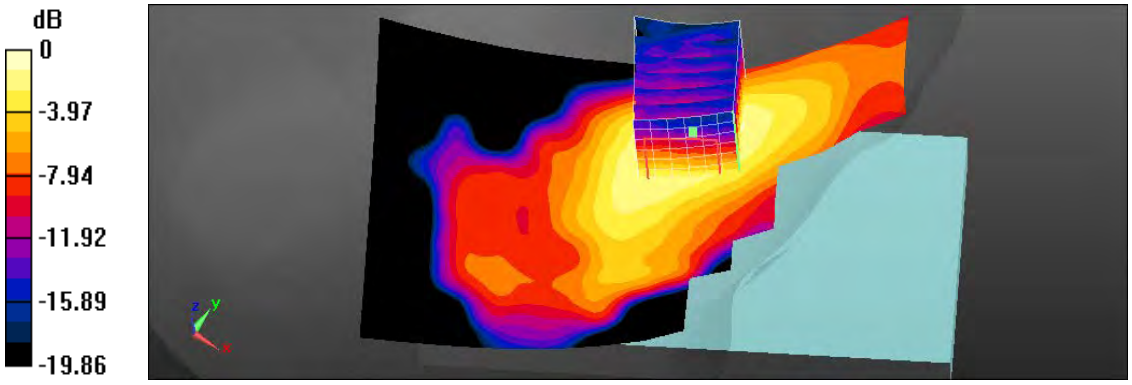
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/22
188_LTE Band 7 CH 20850_QPSK_BW 20M_1RB Size 0RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; $\sigma$ = 1.86 S/m; $\varepsilon_r$ = 39.571; $\rho$ = 1000 kg/$m^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2510 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0998 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.323 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.128 W/kg
**SAR(1 g) = 0.070 W/kg; SAR(10 g) = 0.038 W/kg**
Smallest distance from peaks to all points 3 dB below = 10.1 mm
Ratio of SAR at M2 to SAR at M1 = 54.7%
Maximum value of SAR (measured) = 0.106 W/kg




0 dB = 0.106 W/kg = -9.75 dBW/kg

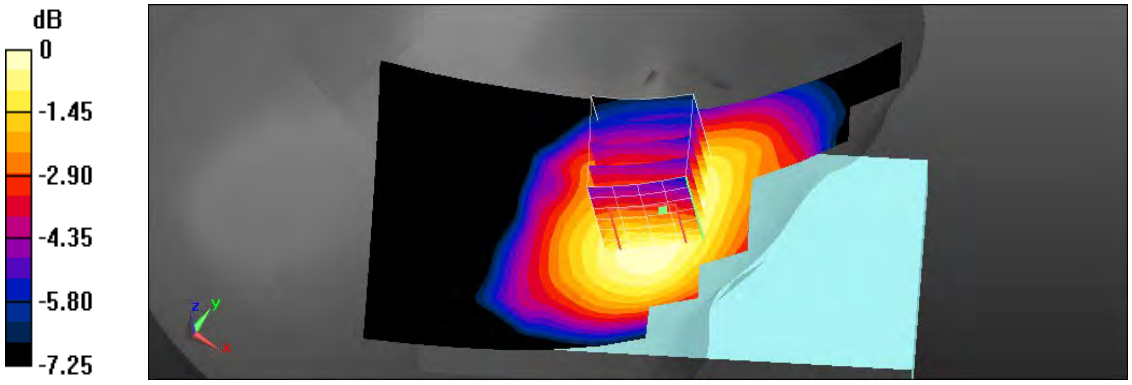
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
261_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 24RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; $\sigma$ = 0.859 S/m; $\varepsilon_r$ = 42.578; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 707.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0483 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.620 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.0500 W/kg
**SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.033 W/kg**
Ratio of SAR at M2 to SAR at M1 = 79.6%
Maximum value of SAR (measured) = 0.0465 W/kg




0 dB = 0.0465 W/kg = -13.33 dBW/kg

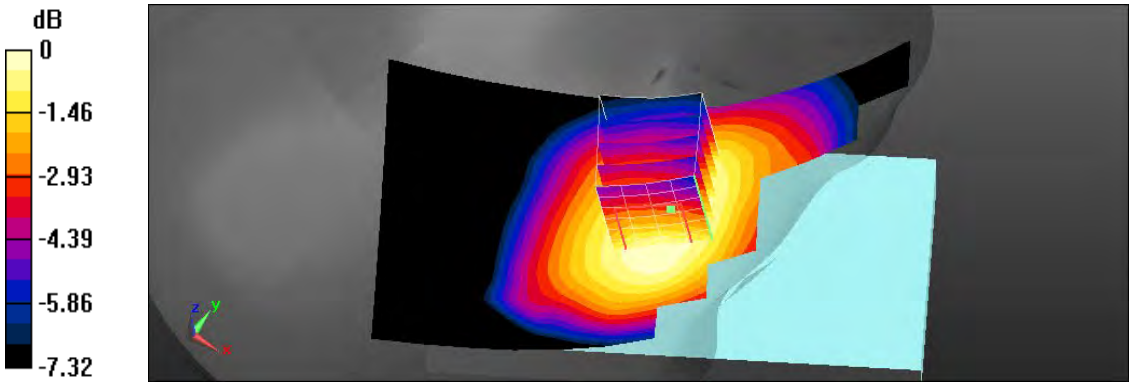
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/28
270_LTE Band 17 CH 23790_QPSK_BW 10M_1RB Size 24RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 710 MHz;Duty Cycle: 1:1
Medium parameters used: f = 710 MHz; $\sigma$ = 0.861 S/m; $\varepsilon_r$ = 42.542; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 710 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0626 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.586 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.0630 W/kg
**SAR(1 g) = 0.052 W/kg; SAR(10 g) = 0.042 W/kg**
Ratio of SAR at M2 to SAR at M1 = 83.2%
Maximum value of SAR (measured) = 0.0589 W/kg




0 dB = 0.0589 W/kg = -12.30 dBW/kg

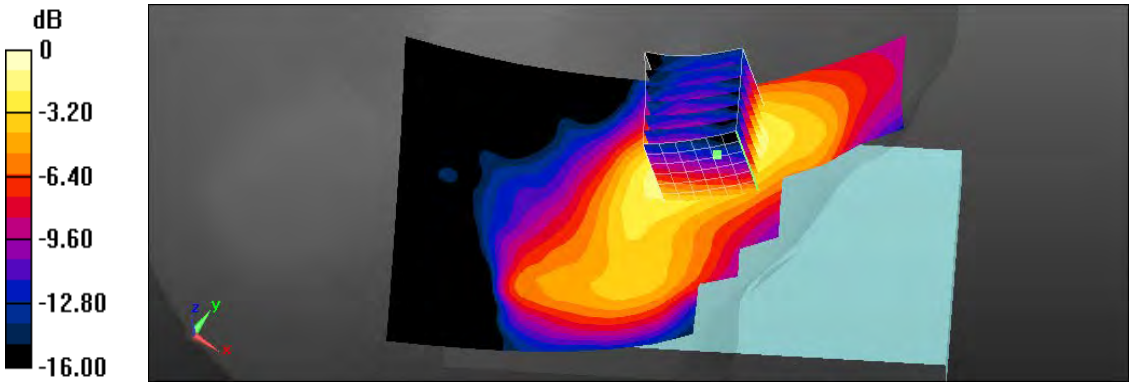
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/24
163_LTE Band 40 CH 38750_QPSK_BW 10M_1RB Size 0RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1.59
Medium parameters used: f = 2310 MHz; $\sigma$ = 1.638 S/m; $\varepsilon_r$ = 40.017; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3887; ConvF(7.7, 7.7, 7.7) @ 2310 MHz; Calibrated: 2019/9/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.175 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.970 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.238 W/kg
**SAR(1 g) = 0.136 W/kg; SAR(10 g) = 0.077 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.5 mm
Ratio of SAR at M2 to SAR at M1 = 61.5%
Maximum value of SAR (measured) = 0.194 W/kg




0 dB = 0.194 W/kg = -7.12 dBW/kg

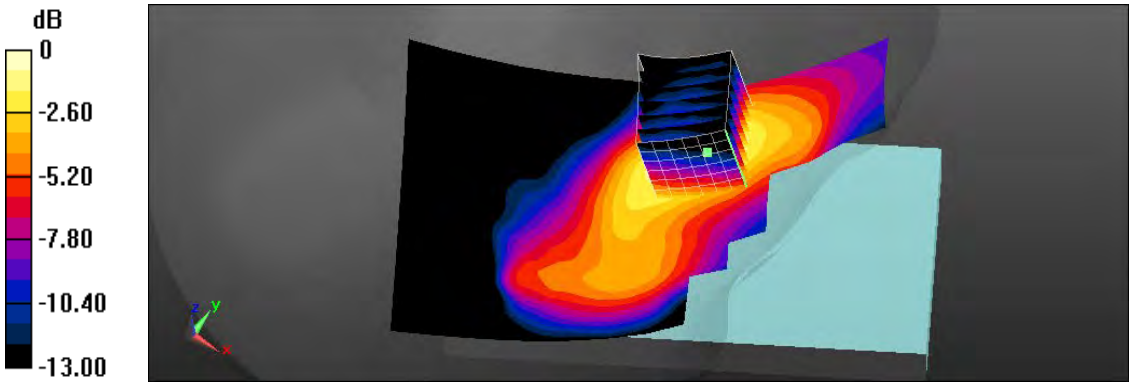
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/24
172_LTE Band 40 CH 39200_QPSK_BW 10M_1RB Size 0RB Offset_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2355 MHz;Duty Cycle: 1:1.59
Medium parameters used (interpolated): f = 2355 MHz; $\sigma$ = 1.688 S/m; $\varepsilon_r$ = 39.837; $\rho$ = 1000 kg/$m^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3887; ConvF(7.7, 7.7, 7.7) @ 2355 MHz; Calibrated: 2019/9/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.183 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.038 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.249 W/kg
**SAR(1 g) = 0.142 W/kg; SAR(10 g) = 0.080 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.5 mm
Ratio of SAR at M2 to SAR at M1 = 61.5%
Maximum value of SAR (measured) = 0.203 W/kg




0 dB = 0.203 W/kg = -6.93 dBW/kg

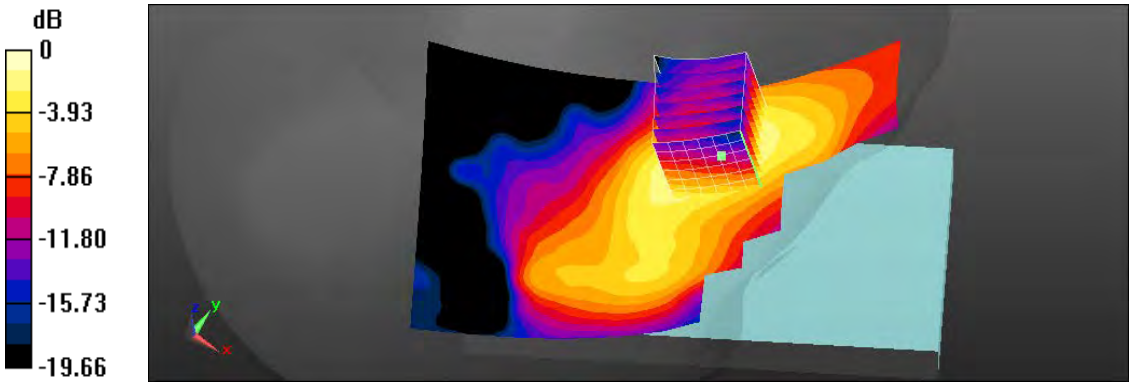
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/22
191_LTE Band 41 CH 40340_QPSK_BW 20M_1RB Size 0RB Offset_Right Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2565 MHz;Duty Cycle: 1:1.59
Medium parameters used (interpolated): f = 2565 MHz; $\sigma$ = 1.925 S/m; $\varepsilon_r$ = 39.441; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.43, 7.43, 7.43) @ 2565 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.154 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.823 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.200 W/kg
**SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.068 W/kg**
Smallest distance from peaks to all points 3 dB below = 10.4 mm
Ratio of SAR at M2 to SAR at M1 = 63.3%
Maximum value of SAR (measured) = 0.170 W/kg




0 dB = 0.170 W/kg = -7.70 dBW/kg

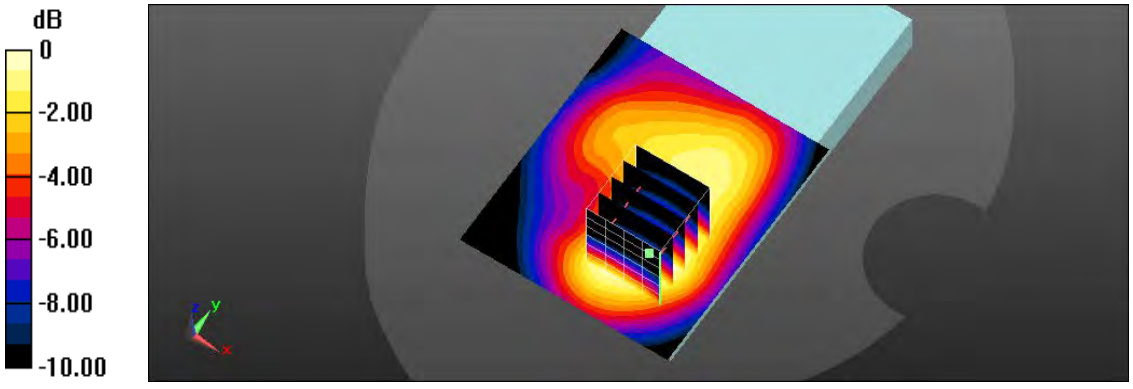
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
66_LTE Band 2 CH 19100_QPSK_BW 20M_1RB Size 0RB Offset_Front_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.459 S/m; $\varepsilon_r$ = 40.078; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.24, 8.24, 8.24) @ 1900 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.03 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.67 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.13 W/kg
**SAR(1 g) = 0.672 W/kg; SAR(10 g) = 0.394 W/kg**
Smallest distance from peaks to all points 3 dB below = 17 mm
Ratio of SAR at M2 to SAR at M1 = 56.4%
Maximum value of SAR (measured) = 0.922 W/kg




0 dB = 0.922 W/kg = -0.35 dBW/kg

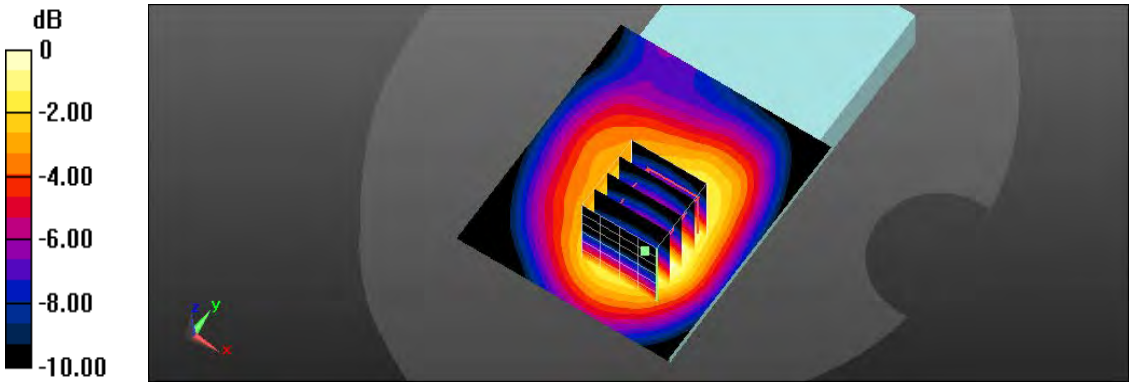
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/20
68_LTE Band 4 CH 20175_QPSK_BW 20M_1RB Size 0RB Offset_Front_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 1732.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 1732.5 MHz; $\sigma$ = 1.316 S/m; $\varepsilon_r$ = 40.661; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(8.47, 8.47, 8.47) @ 1732.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.762 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.33 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.847 W/kg
**SAR(1 g) = 0.541 W/kg; SAR(10 g) = 0.345 W/kg**
Smallest distance from peaks to all points 3 dB below = 18.2 mm
Ratio of SAR at M2 to SAR at M1 = 64.6%
Maximum value of SAR (measured) = 0.721 W/kg




0 dB = 0.721 W/kg = -1.42 dBW/kg

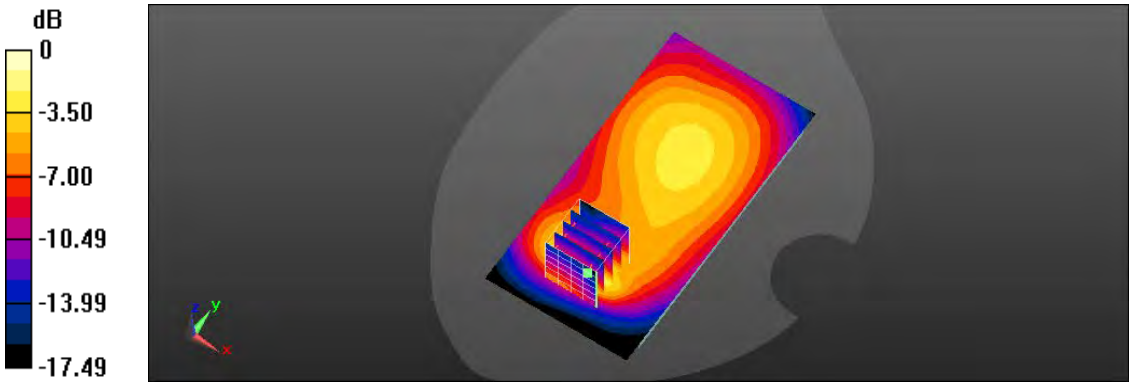
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
19_LTE Band 5 CH 20525_QPSK_BW 10M_1RB Size 24RB Offset_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 836.5 MHz; $\sigma$ = 0.911 S/m; $\varepsilon_r$ = 42.519; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(9.79, 9.79, 9.79) @ 836.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.152 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.28 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.274 W/kg
**SAR(1 g) = 0.120 W/kg; SAR(10 g) = 0.060 W/kg**
Smallest distance from peaks to all points 3 dB below = 8.2 mm
Ratio of SAR at M2 to SAR at M1 = 44.7%
Maximum value of SAR (measured) = 0.203 W/kg




0 dB = 0.203 W/kg = -6.93 dBW/kg

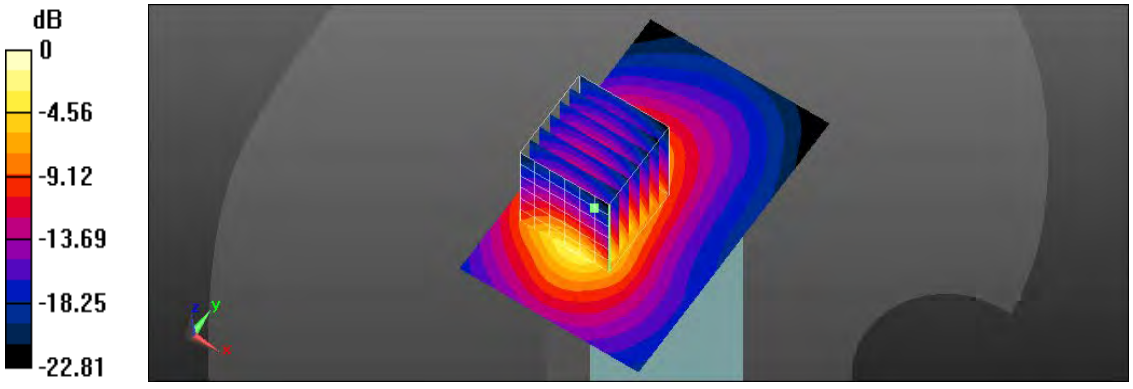
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/21
100_LTE Band 7 CH 20850_QPSK_BW 20M_1RB Size 0RB Offset_Side 3_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2510 MHz; $\sigma$ = 1.87 S/m; $\varepsilon_r$ = 39.907; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2510 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (51x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.69 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.59 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 2.02 W/kg
**SAR(1 g) = 0.989 W/kg; SAR(10 g) = 0.463 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.4 mm
Ratio of SAR at M2 to SAR at M1 = 50.2%
Maximum value of SAR (measured) = 1.62 W/kg




0 dB = 1.62 W/kg = 2.10 dBW/kg

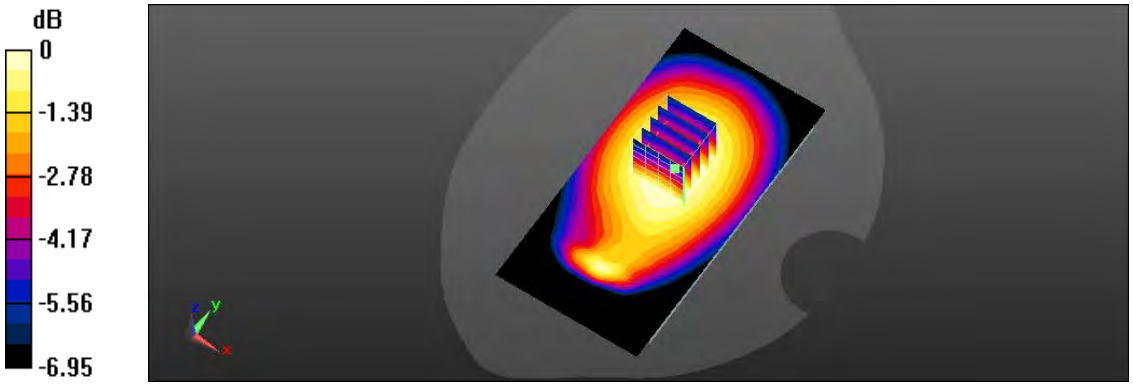
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
32_LTE Band 12 CH 23095_QPSK_BW 10M_1RB Size 24RB Offset_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium parameters used (interpolated): f = 707.5 MHz; $\sigma$ = 0.86 S/m; $\varepsilon_r$ = 42.654; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 707.5 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0985 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.38 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.103 W/kg
**SAR(1 g) = 0.079 W/kg; SAR(10 g) = 0.061 W/kg**
Ratio of SAR at M2 to SAR at M1 = 76.8%
Maximum value of SAR (measured) = 0.0945 W/kg




0 dB = 0.0945 W/kg = -10.25 dBW/kg

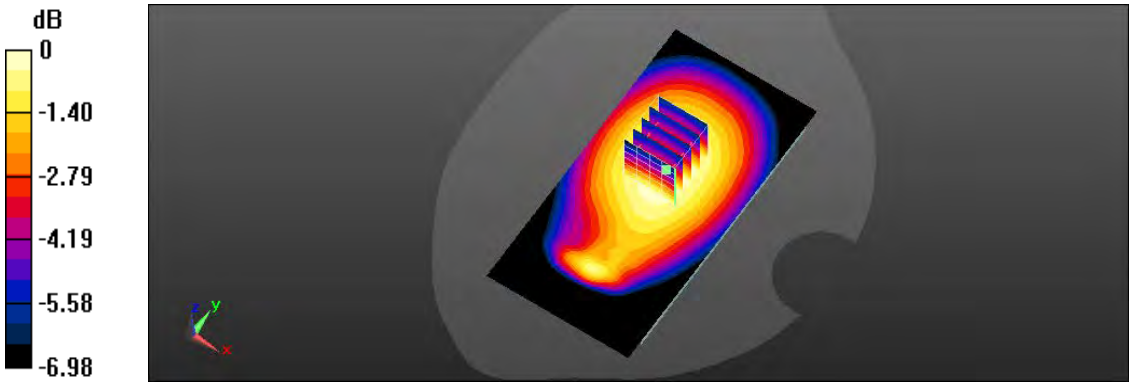
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/18
45_LTE Band 17 CH 23790_QPSK_BW 10M_1RB Size 24RB Offset_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 710 MHz;Duty Cycle: 1:1
Medium parameters used: f = 710 MHz; $\sigma$ = 0.862 S/m; $\varepsilon_r$ = 42.618; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(10.19, 10.19, 10.19) @ 710 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.121 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.61 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.130 W/kg
**SAR(1 g) = 0.101 W/kg; SAR(10 g) = 0.078 W/kg**
Ratio of SAR at M2 to SAR at M1 = 77.2%
Maximum value of SAR (measured) = 0.120 W/kg




0 dB = 0.120 W/kg = -9.21 dBW/kg

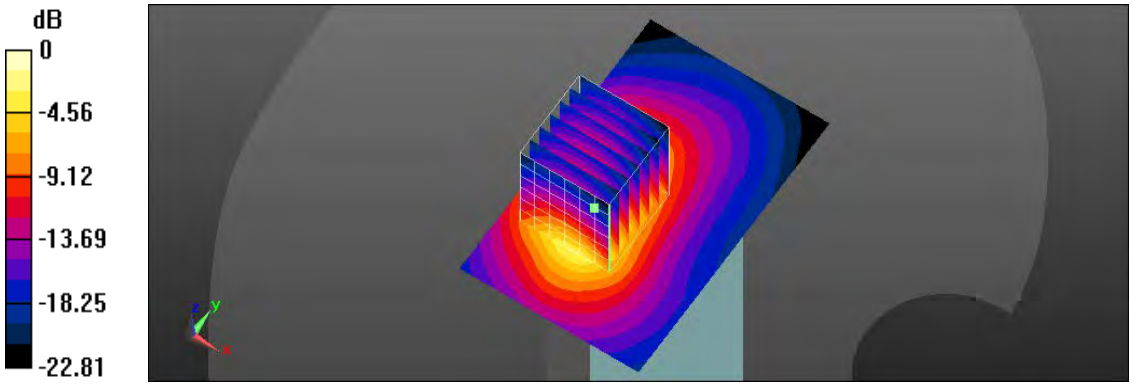
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/24
147_LTE Band 40 CH 38750_QPSK_BW 10M_1RB Size 0RB Offset_Side 3_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2310 MHz; $\sigma$ = 1.634 S/m; $\varepsilon_r$ = 40.542; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3887; ConvF(7.7, 7.7, 7.7) @ 2310 MHz; Calibrated: 2019/9/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (51x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.19 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.72 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.43 W/kg
**SAR(1 g) = 0.701 W/kg; SAR(10 g) = 0.328 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.4 mm
Ratio of SAR at M2 to SAR at M1 = 50.2%
Maximum value of SAR (measured) = 1.15 W/kg




0 dB = 1.15 W/kg = 0.60 dBW/kg

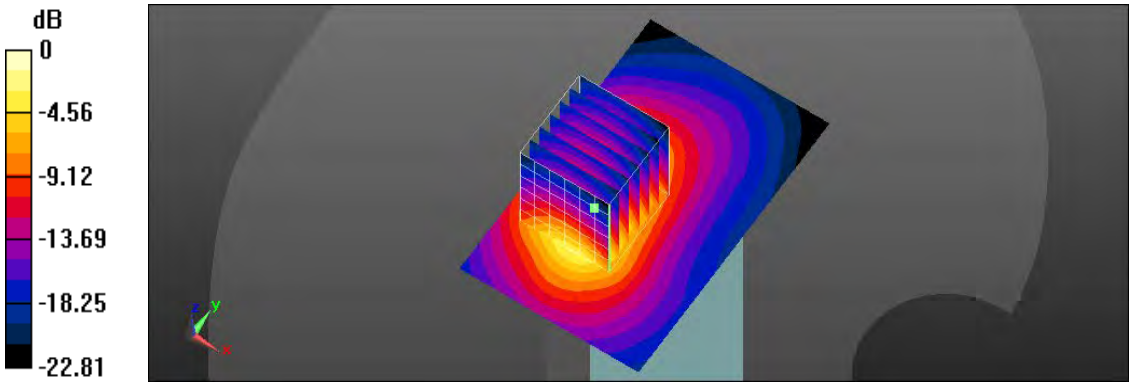
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/24
158_LTE Band 40 CH 39200_QPSK_BW 10M_1RB Size 0RB Offset_Side 3_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2355 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2355 MHz; $\sigma$ = 1.684 S/m; $\varepsilon_r$ = 40.362; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3887; ConvF(7.7, 7.7, 7.7) @ 2355 MHz; Calibrated: 2019/9/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (51x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.38 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 1.32 W/kg
**SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.302 W/kg**
Smallest distance from peaks to all points 3 dB below = 9.1 mm
Ratio of SAR at M2 to SAR at M1 = 49.8%
Maximum value of SAR (measured) = 1.06 W/kg




0 dB = 1.06 W/kg = 0.25 dBW/kg

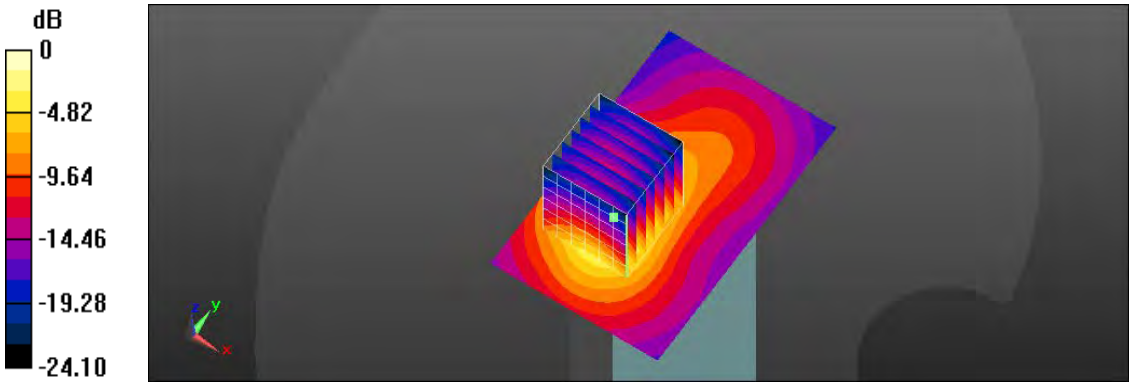
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/21
129_LTE Band 41 CH 40340_QPSK_BW 20M_1RB Size 0RB Offset_Side 3_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Generic LTE (0); Frequency: 2565 MHz;Duty Cycle: 1:1.59
Medium parameters used (interpolated): f = 2565 MHz; $\sigma$ = 1.935 S/m; $\varepsilon_r$ = 39.777; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.43, 7.43, 7.43) @ 2565 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (51x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.38 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.45 W/kg
**SAR(1 g) = 0.705 W/kg; SAR(10 g) = 0.330 W/kg**
Smallest distance from peaks to all points 3 dB below = 10 mm
Ratio of SAR at M2 to SAR at M1 = 49.1%
Maximum value of SAR (measured) = 1.17 W/kg




0 dB = 1.17 W/kg = 0.68 dBW/kg

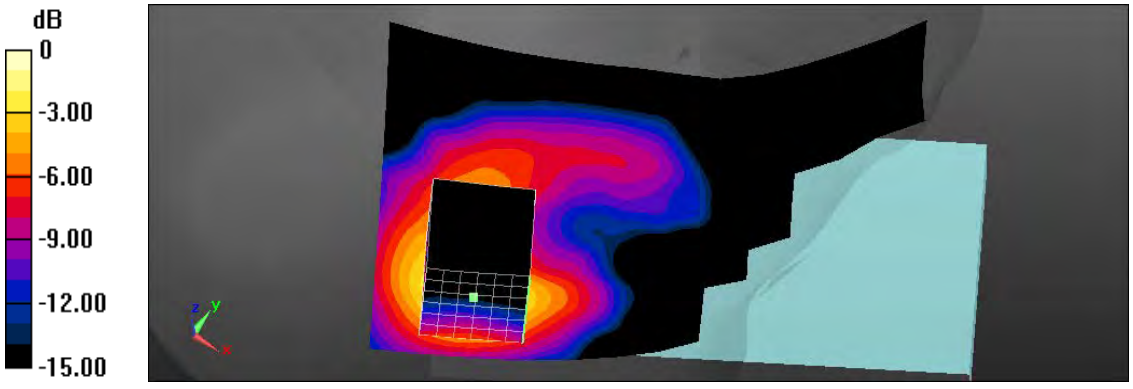
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/23
410_IEEE 802.11b CH6_1M_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1.005
Medium parameters used (interpolated): f = 2437 MHz; $\sigma$ = 1.763 S/m; $\varepsilon_r$ = 39.544; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2437 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.205 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.340 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.298 W/kg
**SAR(1 g) = 0.134 W/kg; SAR(10 g) = 0.060 W/kg**
Smallest distance from peaks to all points 3 dB below = 8.3 mm
Ratio of SAR at M2 to SAR at M1 = 46.5%
Maximum value of SAR (measured) = 0.234 W/kg




0 dB = 0.234 W/kg = -6.31 dBW/kg

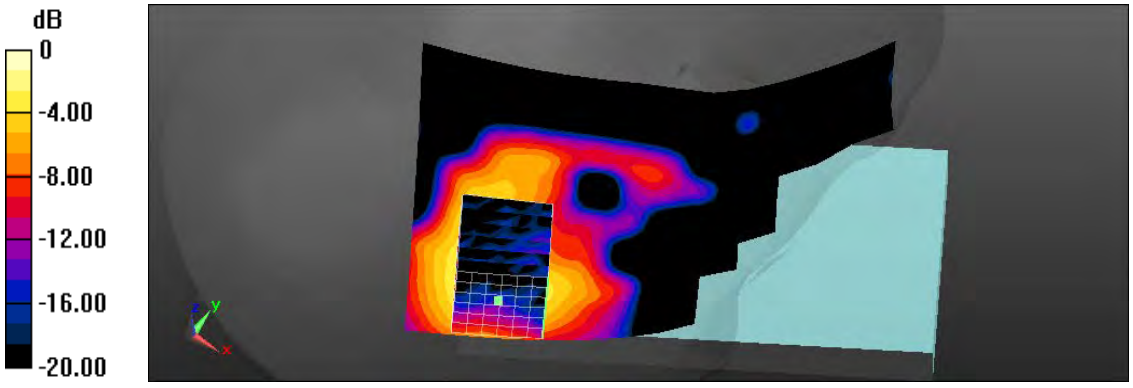
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/23
417_Bluetooth CH39_1M_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2441 MHz;Duty Cycle: 1:1.2
Medium parameters used (interpolated): f = 2441 MHz; $\sigma$ = 1.768 S/m; $\varepsilon_r$ = 39.535; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2441 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (81x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0654 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.166 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.101 W/kg
**SAR(1 g) = 0.046 W/kg; SAR(10 g) = 0.020 W/kg**
Ratio of SAR at M2 to SAR at M1 = 46.2%
Maximum value of SAR (measured) = 0.0781 W/kg




0 dB = 0.0781 W/kg = -11.07 dBW/kg

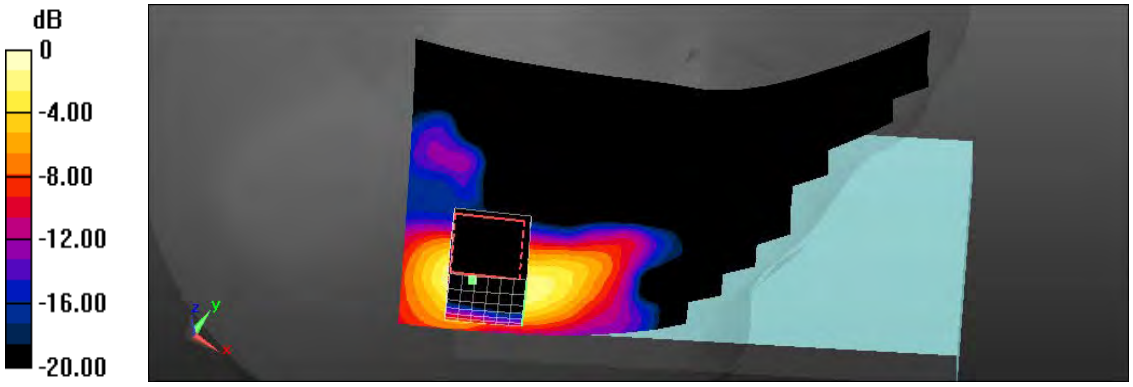
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/25
430_IEEE 802.11n_HT40_CH62_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5310 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5310 MHz; $\sigma$ = 4.71 S/m; $\varepsilon_r$ = 36.483; $\rho$ = 1000 kg/m$^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.57, 5.57, 5.57) @ 5310 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x181x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.57 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.379 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 2.27 W/kg
**SAR(1 g) = 0.625 W/kg; SAR(10 g) = 0.220 W/kg**
Smallest distance from peaks to all points 3 dB below = 8.1 mm
Ratio of SAR at M2 to SAR at M1 = 67.4%
Maximum value of SAR (measured) = 1.49 W/kg




0 dB = 1.49 W/kg = 1.73 dBW/kg

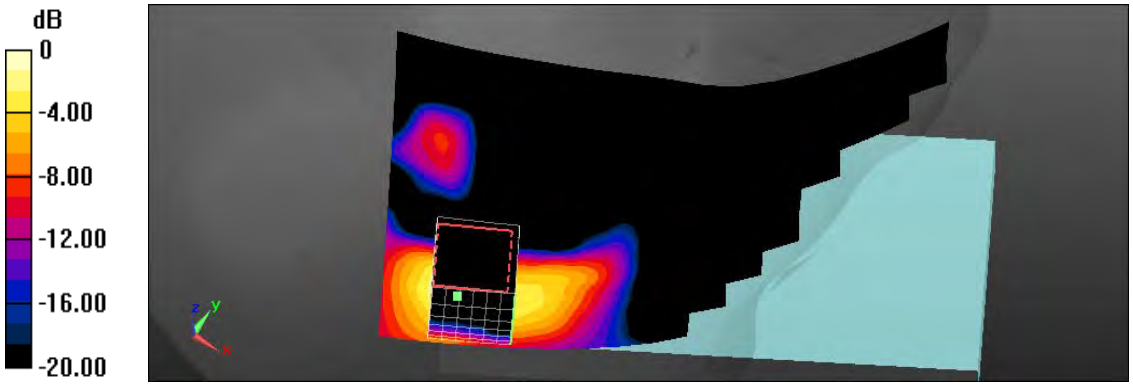
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
506_IEEE 802.11n_HT40_CH126_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5630 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5630 MHz; $\sigma$ = 5.179 S/m; $\varepsilon_r$ = 36.294; $\rho$ = 1000 kg/$m^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(4.81, 4.81, 4.81) @ 5630 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x181x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.30 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.022 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.11 W/kg
**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.165 W/kg**
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 62.9%
Maximum value of SAR (measured) = 1.30 W/kg




0 dB = 1.30 W/kg = 1.14 dBW/kg

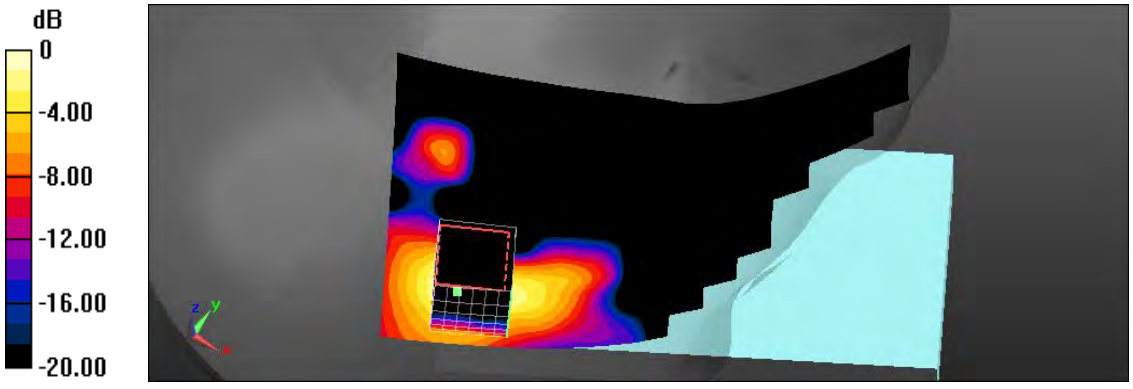
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
512_IEEE 802.11n_HT40_CH151_Right-Cheek
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5755 MHz; $\sigma$ = 5.308 S/m; $\varepsilon_r$ = 36.076; $\rho$ = 1000 kg/$m^3$
Phantom section: Right Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.06, 5.06, 5.06) @ 5755 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x181x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.879 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.014 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.39 W/kg
**SAR(1 g) = 0.355 W/kg; SAR(10 g) = 0.119 W/kg**
Smallest distance from peaks to all points 3 dB below = 8.3 mm
Ratio of SAR at M2 to SAR at M1 = 63.7%
Maximum value of SAR (measured) = 0.868 W/kg




0 dB = 0.868 W/kg = -0.61 dBW/kg

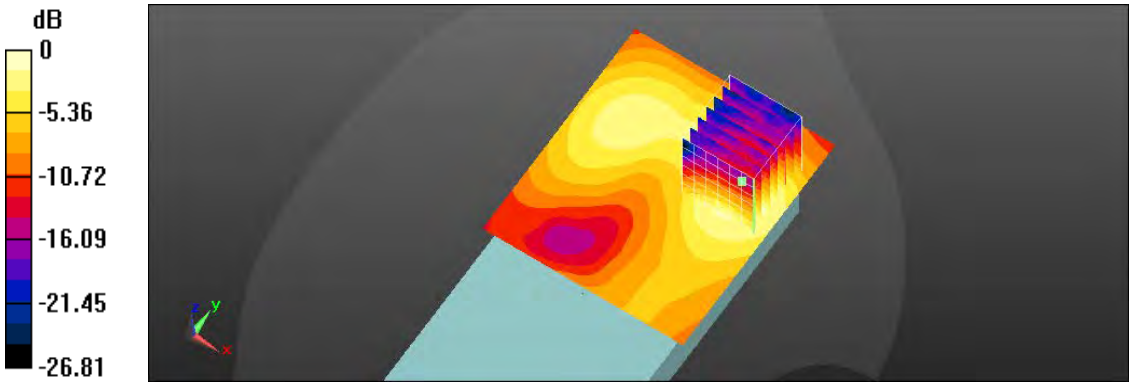
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/23
401_IEEE 802.11b CH1_1M_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.005
Medium parameters used: f = 2412 MHz; $\sigma$ = 1.734 S/m; $\varepsilon_r$ = 39.618; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2412 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (71x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.136 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.690 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.177 W/kg
**SAR(1 g) = 0.089 W/kg; SAR(10 g) = 0.046 W/kg**
Smallest distance from peaks to all points 3 dB below = 12 mm
Ratio of SAR at M2 to SAR at M1 = 48%
Maximum value of SAR (measured) = 0.142 W/kg




0 dB = 0.142 W/kg = -8.48 dBW/kg

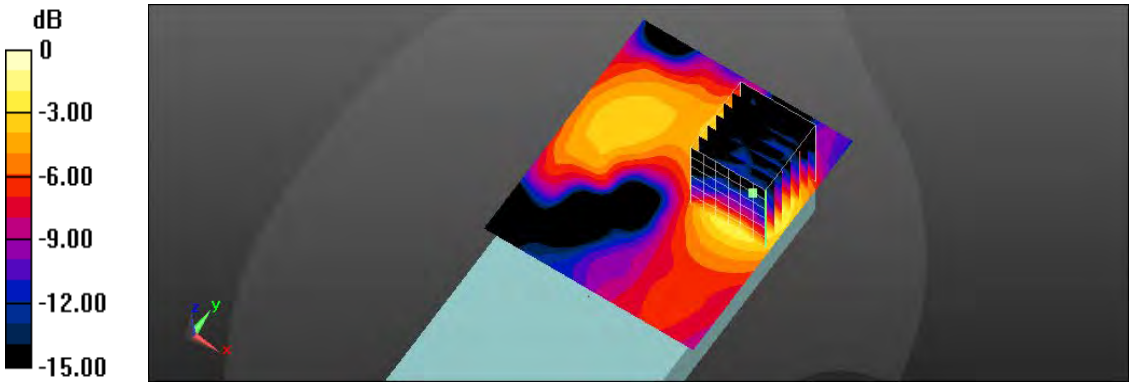
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/23
422_Bluetooth CH39_1M_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2441 MHz;Duty Cycle: 1:1.2
Medium parameters used (interpolated): f = 2441 MHz; $\sigma$ = 1.768 S/m; $\varepsilon_r$ = 39.535; $\rho$ = 1000 kg/$m^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(7.65, 7.65, 7.65) @ 2441 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (71x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0453 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.276 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.0560 W/kg
**SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.015 W/kg**
Ratio of SAR at M2 to SAR at M1 = 50.6%
Maximum value of SAR (measured) = 0.0457 W/kg




0 dB = 0.0457 W/kg = -13.40 dBW/kg

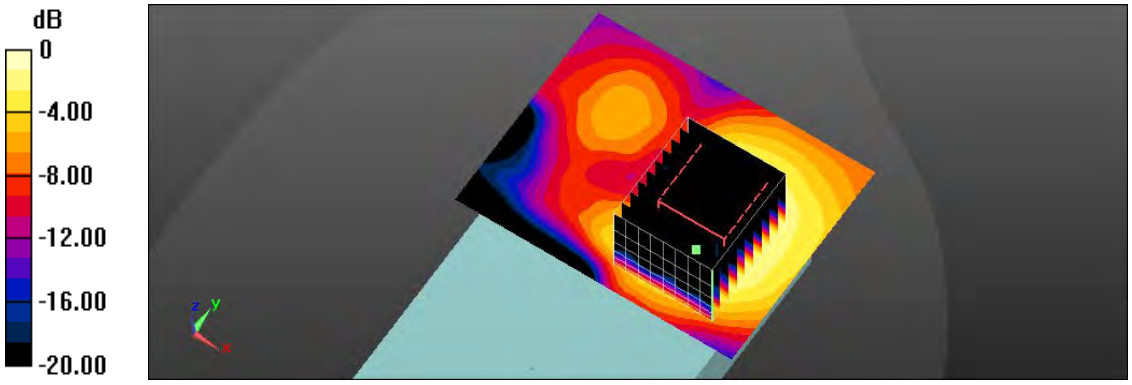
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
467_IEEE 802.11n_HT40_CH151_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5755 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5755 MHz; $\sigma$ = 5.308 S/m; $\varepsilon_r$ = 36.076; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.06, 5.06, 5.06) @ 5755 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x71x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.508 W/kg

**Zoom Scan (9x10x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.846 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.838 W/kg
**SAR(1 g) = 0.217 W/kg; SAR(10 g) = 0.090 W/kg**
Smallest distance from peaks to all points 3 dB below = 13.2 mm
Ratio of SAR at M2 to SAR at M1 = 61.9%
Maximum value of SAR (measured) = 0.491 W/kg




0 dB = 0.491 W/kg = -3.09 dBW/kg

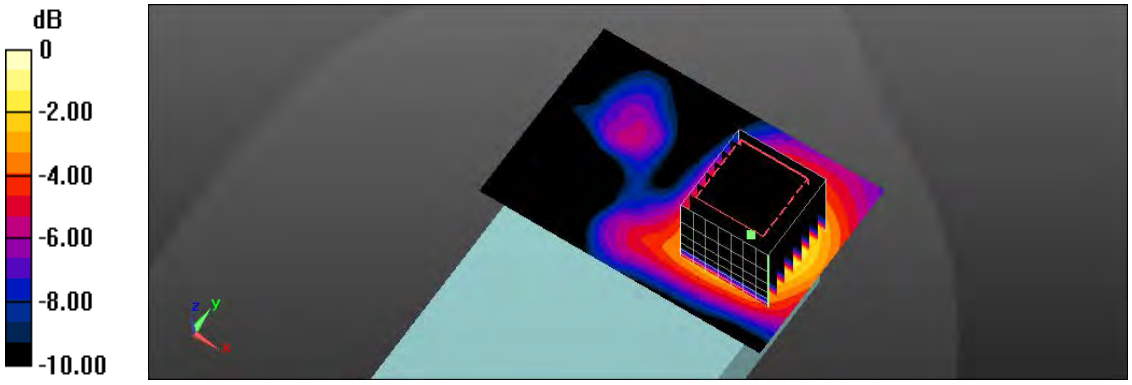
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/25
452_IEEE 802.11n_HT40_CH54_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5270 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5270 MHz; $\sigma$ = 4.652 S/m; $\varepsilon_r$ = 36.52; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.57, 5.57, 5.57) @ 5270 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.333 W/kg

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 7.487 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.502 W/kg
**SAR(1 g) = 0.143 W/kg; SAR(10 g) = 0.057 W/kg**
Smallest distance from peaks to all points 3 dB below = 15.2 mm
Ratio of SAR at M2 to SAR at M1 = 66.6%
Maximum value of SAR (measured) = 0.318 W/kg




0 dB = 0.318 W/kg = -4.98 dBW/kg

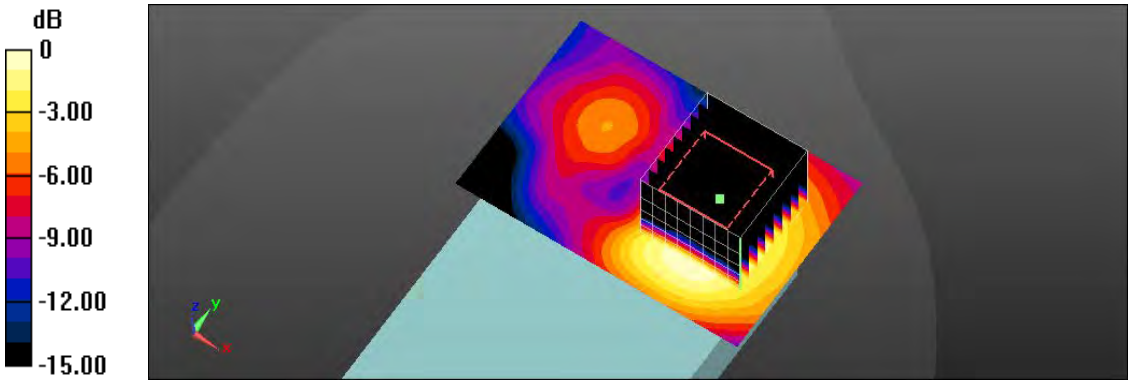
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
524_IEEE 802.11n_HT40_CH134_Back_10mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5670 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5670 MHz; $\sigma$ = 5.242 S/m; $\varepsilon_r$ = 36.207; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(4.81, 4.81, 4.81) @ 5670 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.575 W/kg

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 10.67 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.974 W/kg
**SAR(1 g) = 0.247 W/kg; SAR(10 g) = 0.103 W/kg**
Smallest distance from peaks to all points 3 dB below = 13.6 mm
Ratio of SAR at M2 to SAR at M1 = 59.7%
Maximum value of SAR (measured) = 0.566 W/kg




0 dB = 0.566 W/kg = -2.47 dBW/kg

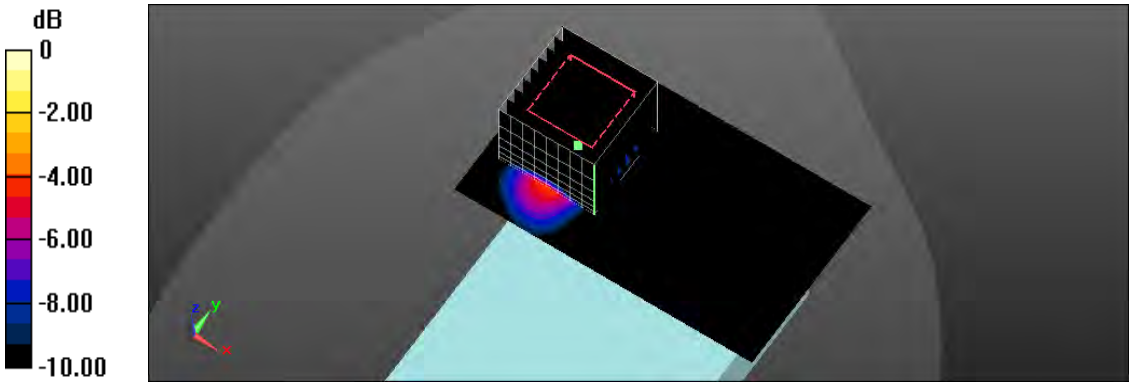
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/25
453_IEEE 802.11n_HT40_CH62_Front_0mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5310 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5310 MHz; $\sigma$ = 4.71 S/m; $\varepsilon_r$ = 36.483; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(5.57, 5.57, 5.57) @ 5310 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (101x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.45 W/kg

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 9.385 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 4.29 W/kg
**SAR(1 g) = 0.990 W/kg; SAR(10 g) = 0.306 W/kg**
Smallest distance from peaks to all points 3 dB below = 6.4 mm
Ratio of SAR at M2 to SAR at M1 = 62.8%
Maximum value of SAR (measured) = 2.45 W/kg




0 dB = 2.45 W/kg = 3.89 dBW/kg

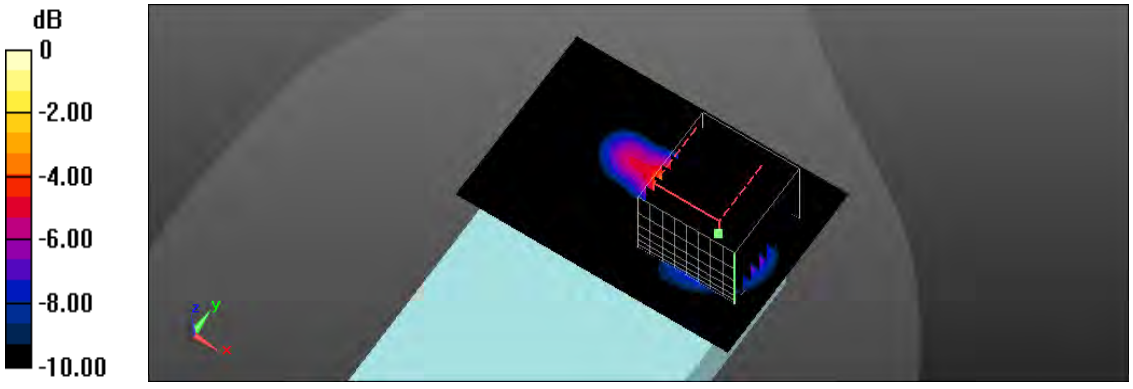
Test Laboratory: A Test Lab Techno Corp.
Date: 2020/5/26
516_IEEE 802.11n_HT40_CH134_Back_0mm
**DUT: EA630 ; Type: Rugged Handheld Computer**

Communication System: UID 0, IEEE 802.11n(5GHz)HT40 (0); Frequency: 5670 MHz;Duty Cycle: 1:1.089
Medium parameters used: f = 5670 MHz; $\sigma$ = 5.242 S/m; $\varepsilon_r$ = 36.207; $\rho$ = 1000 kg/m$^3$
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)
DASY5.2 Configuration:

- Area Scan setting - Find Secondary Maximum Within:2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 - SN3977; ConvF(4.81, 4.81, 4.81) @ 5670 MHz; Calibrated: 2019/8/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2019/11/29
- Phantom: Twin-SAM V4.0 (20deg probe tilt); Type: QD 000 P40 CD; Serial: TP-1009
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.10 (7331)

**Area Scan (91x61x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 3.02 W/kg

**Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 12.90 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 6.62 W/kg
**SAR(1 g) = 1.33 W/kg; SAR(10 g) = 0.397 W/kg**
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 61.2%
Maximum value of SAR (measured) = 3.70 W/kg




0 dB = 3.70 W/kg = 5.68 dBW/kg