




# TEST REPORT

Report No. .... : **CHTEW21100013** Report verification: 

Project No..... : **SHT2107003405EW**

FCC ID..... : **2AYEZ-TE620**

Applicant's name ..... : **Telo Communication (Shenzhen) Co., Ltd**

Address..... : **6/F, No.42 Liuxian 1st Road, Bao'an District, Shenzhen, China**

Test item description ..... : **TE620**

Trade Mark ..... : **TELOX**

Model/Type reference..... : **TE620**

Listed Model(s) ..... : **TELOX-TE620,Telo-TE620,TE620A,TE620B,TE620C,TE620D,TE620E,TE620F,TE620G,TE620H,TE620J,TE620K,TE620L,TE620M,TE620Q,TE620R,TE620S,TE620T,TE620U,TE620V,TE620X,TE620Y**

Standard ..... : **FCC 47 CFR Part2.1093  
IEEE Std C95.1, 1999 Edition  
IEEE 1528: 2013**

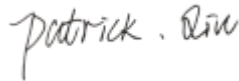
Date of receipt of test sample..... : **Sep. 10, 2021**


Date of testing..... : **Sep. 11, 2021- Oct. 08, 2021**

Date of issue..... : **Oct. 09, 2021**

Result..... : **PASS**

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*The test report merely correspond to the test sample.*

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## 1. Statement of Compliance

Maximum Reported SAR (W/kg @1g)				
RF Exposure Conditions	WWAN	DTS	NII	Simultaneous TX
Head	0.678	0.285	0.062	0.963
Body-worn(Dist.= 10mm)	0.667	0.168	0.071	0.835

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

## 2. Test Standards and Report version

### 2.1. Test Standards

The tests were performed according to following standards:

[FCC 47 Part 2.1093](#): Radiofrequency radiation exposure evaluation: portable devices.

[IEEE Std C95.1, 1999 Edition](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz

[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.

FCC published RF exposure KDB procedures:

[865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04](#): SAR Measurement Requirements for 100 MHz to 6 GHz

[865664 D02 RF Exposure Reporting v01r02](#): RF Exposure Compliance Reporting and Documentation Considerations

[447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies

[248227 D01 802.11 Wi-Fi SAR v02r02](#): SAR Measurement Procedures for 802.11 a/b/g Transmitters

[648474 D04 Handset SAR v01r03](#): SAR Evaluation Considerations for Wireless Handsets

[941225 D01 3G SAR Procedures v03r01](#): SAR Measurement Procedures for 3G Devices

[941225 D05 SAR for LTE Devices v02r05](#): SAR Evaluation Considerations for LTE Devices

[941225 D06 Hotspot Mode v02r01](#): SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

[TCB workshop](#) April, 2019; Page 19, Tissue Simulating Liquids (TSL)

### 2.2. Report version

Revision No.	Date of issue	Description
N/A	2021-10-09	Original

### 3. Summary

#### 3.1. Client Information

Applicant:	Telo Communication (Shenzhen) Co., Ltd
Address:	6/F, No.42 Liuxian 1st Road, Bao'an District, Shenzhen, China
Manufacturer:	Telo Communication (Shenzhen) Co., Ltd
Address:	6/F, No.42 Liuxian 1st Road, Bao'an District, Shenzhen, China

#### 3.2. Product Description

Main unit	
Name of EUT:	TE620
Trade Mark:	TELOX
Model No.:	TE620
Listed Model(s):	TELOX-TE620, Telo-TE620, TE620A, TE620B, TE620C, TE620D, TE620E, TE620F, TE620G, TE620H, TE620J, TE620K, TE620L, TE620M, TE620Q, TE620R, TE620S, TE620T, TE620U, TE620V, TE620X, TE620Y
Power supply:	DC 3.8V
Device Category:	Portable
Product stage:	Production unit
RF Exposure Environment:	General Population/Uncontrolled
HTW test sample No.:	YPHT21070034001
Hardware version:	TE620 V2.2
Software version:	TE620_INT_V7_20210902
Device Dimension:	Overall (Length x Width x Thickness):165 x 25 x 72.5 mm

#### 3.3. RF Specification Description

WCDMA	
Operation Band:	FDD Band II FDD Band IV FDD Band V
Power Class:	Class 3
Operating Mode:	UMTS Rel. 99 (Voice & Data) HSDPA HSUPA
Antenna Type:	PIFA Antenna
LTE	
Operation Band:	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 14 FDD Band 17 FDD Band 25 FDD Band 26

	FDD Band 66 FDD Band 71 TDD Band 41
Power Class:	Class 3
Operating Mode:	QPSK 16QAM
Antenna Type:	PIFA Antenna
Does this device support Carrier Aggregation (CA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Wi-Fi 2.4G</b>	
Operating Mode:	802.11b 802.11g 802.11n(HT20) 802.11n(HT40)
Antenna Type:	PIFA Antenna
Does this device 2.4GHz Wi-Fi support hotspot operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Wi-Fi 5G</b>	
Operation Band:	U-NII-1 U-NII-3
Operating Mode:	802.11a 802.11n(HT20) 802.11n(HT40)
Antenna Type:	PIFA Antenna
Does this device 5GHz Wi-Fi support hotspot operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>Bluetooth</b>	
Bluetooth version:	V4.0
Support function:	EDR
Operating Mode:	GFSK $\pi/4$ DQPSK 8DPSK
Antenna Type:	PIFA Antenna
Does this device support Bluetooth Tethering? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Bluetooth</b>	
Bluetooth version:	V4.0
Support function:	BLE
Operating Mode:	GFSK
Antenna Type:	PIFA Antenna
Does this device support Bluetooth Tethering? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remark: 1. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power.	

### 3.4. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.	
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China	
Connect information:	Tel: 86-755-26715499 E-mail: <a href="mailto:cs@szhtw.com.cn">cs@szhtw.com.cn</a> <a href="http://www.szhtw.com.cn">http://www.szhtw.com.cn</a>	
Qualifications	Type	Accreditation Number
	FCC	762235

### 3.5. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Ambient temperature	18 °C to 25 °C
Ambient humidity	30%RH to 70%RH
Air Pressure	950-1050mbar

#### 4. Equipments Used during the Test

Used	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YY-MM-DD)	Due date (YY-MM-DD)
●	Data Acquisition Electronics DAEx	SPEAG	DAE4	1549	2021/03/23	2022/03/22
●	E-field Probe	SPEAG	EX3DV4	7494	2021/04/09	2022/04/08
●	Universal Radio Communication Tester	R&S	CMW500	137681	2021/05/27	2022/05/26
● Tissue-equivalent liquids Validation						
●	Dielectric Assessment Kit	SPEAG	DAK-3.5	1267	N/A	N/A
○	Dielectric Assessment Kit	SPEAG	DAK-12	1130	N/A	N/A
●	Network analyzer	Keysight	E5071C	MY46733048	2020/10/15	2021/10/14
● System Validation						
○	System Validation Antenna	SPEAG	CLA-150	4024	2021/01/25	2024/01/24
○	System Validation Dipole	SPEAG	D450V3	1102	2021/01/20	2024/01/19
●	System Validation Dipole	SPEAG	D750V3	1180	2021/01/22	2024/01/21
●	System Validation Dipole	SPEAG	D835V2	4d238	2021/01/22	2024/01/21
●	System Validation Dipole	SPEAG	D1750V2	1164	2021/01/22	2024/01/21
●	System Validation Dipole	SPEAG	D1900V2	5d226	2021/01/22	2024/01/21
●	System Validation Dipole	SPEAG	D2450V2	1009	2021/01/25	2024/01/24
●	System Validation Dipole	SPEAG	D2600V2	1150	2021/01/25	2024/01/24
●	System Validation Dipole	SPEAG	D5GHzV2	1273	2021/01/26	2024/01/25
●	Signal Generator	R&S	SMB100A	114360	2021/08/05	2022/08/04
●	Power Viewer for Windows	R&S	N/A	N/A	N/A	N/A
●	Power sensor	R&S	NRP18A	101010	2021/08/05	2022/08/04
●	Power sensor	R&S	NRP18A	101386	2021/05/27	2022/05/26
●	Power Amplifier	BONN	BLWA 0160-2M	1811887	2020/11/12	2021/11/11
●	Dual Directional Coupler	Mini-Circuits	ZHDC-10-62-S+	F975001814	2020/11/12	2021/11/11
●	Attenuator	Mini-Circuits	VAT-3W2+	1819	2020/11/12	2021/11/11
●	Attenuator	Mini-Circuits	VAT-10W2+	1741	2020/11/12	2021/11/11

**Note:**

1. The Probe, Dipole and DAE calibration reference to the Appendix B and C.
2. Referring to KDB865664 D01, the dipole calibration interval can be extended to 3 years with justification. The dipole are also not physically damaged or repaired during the interval.



## **5. Measurement Uncertainty**

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is  $< 1.5$  W/kg and the measured 10-g SAR within a frequency band is  $< 3.75$  W/kg. The expanded SAR measurement uncertainty must be  $\leq 30\%$ , for a confidence interval of  $k = 2$ . If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

Therefore, the measurement uncertainty is not required.

## 6. SAR Measurements System Configuration

### 6.1. SAR Measurement Set-up

The DASY5 system for performing compliance tests consists of the following items:

A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).

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.

A data acquisition electronic (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.

A unit to operate the optical surface detector which is connected to the EOC.

The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.

The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 2003.

DASY5 software and SEMCAD data evaluation software.

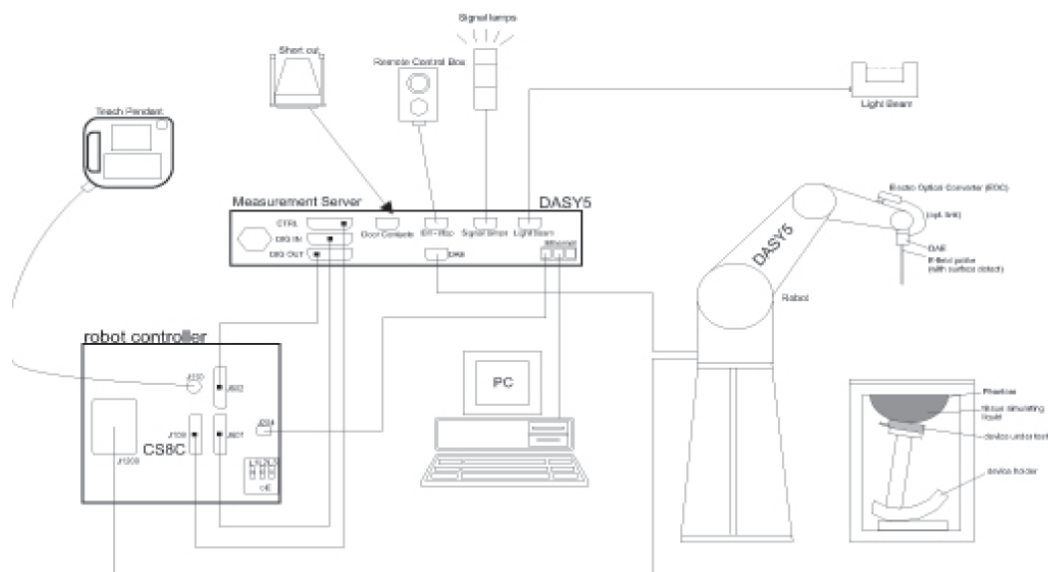
Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

The generic twin phantom enabling the testing of left-hand and right-hand usage.

The device holder for handheld Mobile Phones.

Tissue simulating liquid mixed according to the given recipes.

System validation dipoles allowing to validate the proper functioning of the system.



## 6.2. DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

### ● Probe Specification

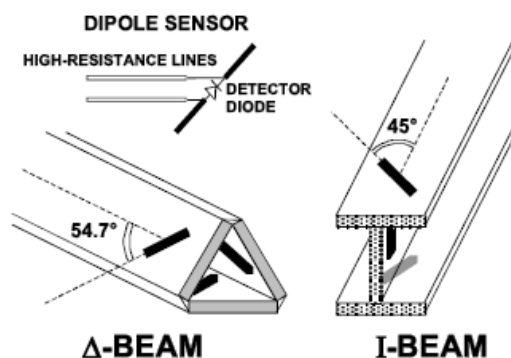
Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	4 MHz to 10 GHz; Linearity: $\pm 0.2$ dB (30 MHz to 6 GHz)
Directivity	$\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 $\mu$ W/g to > 100 W/kg; Linearity: $\pm 0.2$ dB
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 6 GHz Dosimetry in strong gradient fields Compliance tests of Mobile Phones
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI



### ◆ Isotropic E-Field Probe

The isotropic E-Field probe has been fully calibrated and assessed for isotropicity, and boundary effect within a controlled environment. Depending on the frequency for which the probe is calibrated the method utilized for calibration will change.

The E-Field probe utilizes a triangular sensor arrangement as detailed in the diagram below:



### 6.3. Phantoms

The phantom used for all tests i.e. for both system checks and device testing, was the twin-headed "SAM Phantom", manufactured by SPEAG. The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region, where shell thickness increases to 6mm).

System checking was performed using the flat section, whilst Head SAR tests used the left and right head profile sections. Body SAR testing also used the flat section between the head profiles.



SAM-Twin Phantom

### 6.4. Device Holder

The device was placed in the device holder (illustrated below) that is supplied by SPEAG as an integral part of the DASY system.

The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales is the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.



Device holder supplied by SPEAG

## 7. SAR Test Procedure

### 7.1. Scanning Procedure

#### Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. Measure the local SAR at a test point within 8 mm of the phantom inner surface that is closest to the DUT. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

#### Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

#### Area Scan Resolutions per FCC KDB Publication 865664 D01v04

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

**Step 3: Zoom Scan**

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

**Zoom Scan Resolutions per FCC KDB Publication 865664 D01v04**

Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$ , $\Delta y_{Zoom}$		$\leq 2$ GHz: $\leq 8$ mm 2 – 3 GHz: $\leq 5$ mm*	3 – 4 GHz: $\leq 5$ mm* 4 – 6 GHz: $\leq 4$ mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	$\leq 5$ mm	3 – 4 GHz: $\leq 4$ mm 4 – 5 GHz: $\leq 3$ mm 5 – 6 GHz: $\leq 2$ mm
	graded grid	$\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface	$\leq 4$ mm
		$\Delta z_{Zoom}(n>1)$ : between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$ mm
Minimum zoom scan volume	x, y, z	$\geq 30$ mm	3 – 4 GHz: $\geq 28$ mm 4 – 5 GHz: $\geq 25$ mm 5 – 6 GHz: $\geq 22$ mm
<p>Note: <math>\delta</math> is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.</p> <p>* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB Publication 447498 is <math>\leq 1.4</math> W/kg, <math>\leq 8</math> mm, <math>\leq 7</math> mm and <math>\leq 5</math> 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.</p>			

**Step 4: Power drift measurement**

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1. The SAR drift shall be kept within  $\pm 5\%$ .

## 7.2. Data Storage and Evaluation

### Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors),s together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension “.DA4”. The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [W/kg], [mW/cm<sup>2</sup>], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

### Data Evaluation

The SEMCAD software automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	Sensitivity:	Normi, ai0, ai1, ai2
	Conversion factor:	ConvFi
	Diode compression point:	Dcpi
Device parameters:	Frequency:	f
	Crest factor:	cf
Media parameters:	Conductivity:	σ
	Density:	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

Vi:	compensated signal of channel ( i = x, y, z )
Ui:	input signal of channel ( i = x, y, z )
cf:	crest factor of exciting field (DASY parameter)
dcp <sub>i</sub> :	diode compression point (DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

$$E - \text{fieldprobes} : \quad E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

$$H - \text{fieldprobes} : \quad H_i = \sqrt{V_i} \cdot \frac{a_{i0} + a_{i1}f + a_{i2}f^2}{f}$$

Vi:	compensated signal of channel ( i = x, y, z )
Norm <sub>i</sub> :	sensor sensitivity of channel ( i = x, y, z ), [mV/(V/m) <sup>2</sup> ] for E-field Probes
ConvF:	sensitivity enhancement in solution
a <sub>ij</sub> :	sensor sensitivity factors for H-field probes
f:	carrier frequency [GHz]
E <sub>i</sub> :	electric field strength of channel i in V/m
H <sub>i</sub> :	magnetic field strength of channel i in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1'000}$$

SAR: local specific absorption rate in W/kg  
Etot: total field strength in V/m  
 $\sigma$ : conductivity in [mho/m] or [Siemens/m]  
 $\rho$ : equivalent tissue density in g/cm<sup>3</sup>

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid.



## 8. Position of the wireless device in relation to the phantom

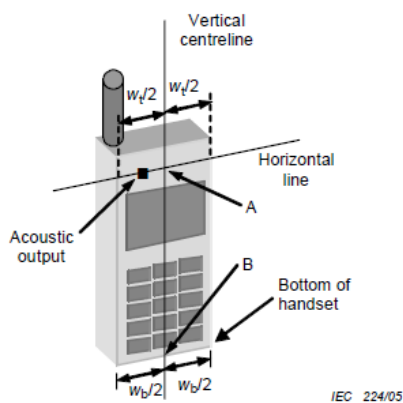
### 8.1. Head Position

The wireless device define two imaginary lines on the handset, the vertical centreline and the horizontal line, for the handset in vertical orientation as shown in Figures 5a and 5b.

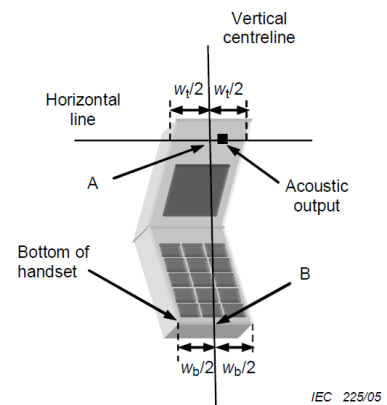
**The vertical centreline** passes through two points on the front side of the handset: the midpoint of the width  $W_t$  of the handset at the level of the acoustic output (point A in Figures 5a and 5b), and the midpoint of the width  $W_b$  of the bottom of the handset (point B).

**The horizontal line** is perpendicular to the vertical centreline and passes through the centre of the acoustic output (see Figures 5a and 5b). The two lines intersect at point A.

Note that for many handsets, point A coincides with the centre of the acoustic output. However, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centreline is not necessarily parallel to the front face of the handset (see Figure 5b), especially for clam-shell handsets, handsets with flip cover pieces, and other irregularly shaped handsets.



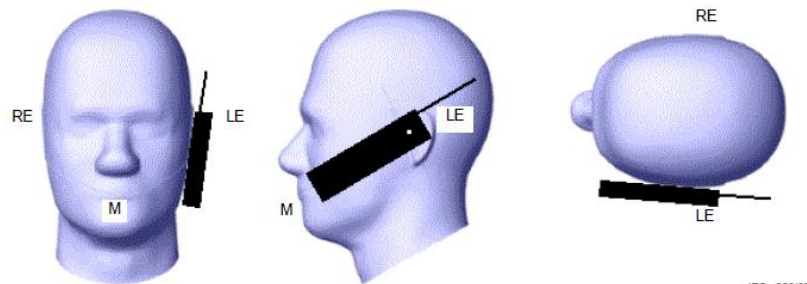
Figures 5a



Figures 5b

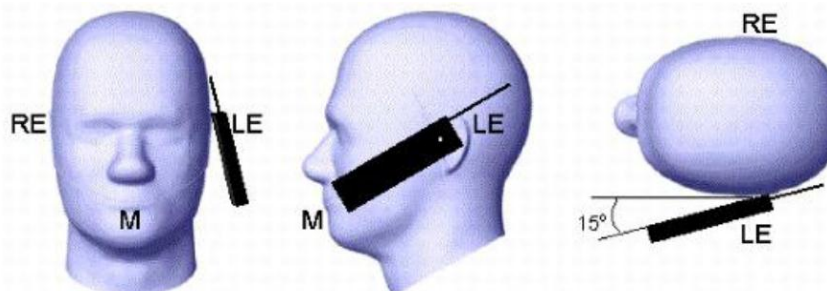
- $W_t$  Width of the handset at the level of the acoustic
- $W_b$  Width of the bottom of the handset
- A Midpoint of the width  $w_t$  of the handset at the level of the acoustic output
- B Midpoint of the width  $w_b$  of the bottom of the handset

### Cheek position



Picture 2 Cheek position of the wireless device on the left side of SAM

### Tilt position

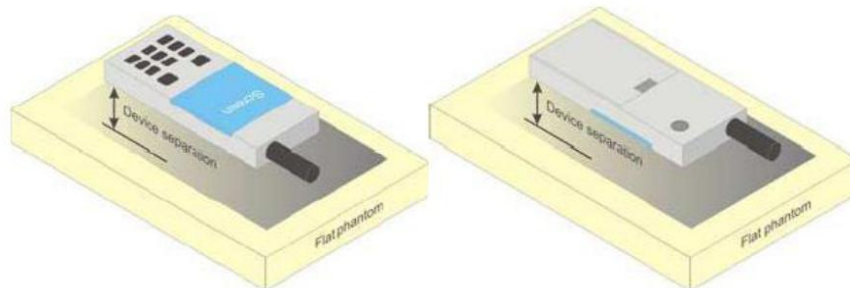


Picture 3 Tilt position of the wireless device on the left side of SAM

## 8.2. Body Position

Devices that support transmission while used with body-worn accessories must be tested for body-worn accessory SAR compliance, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.

Devices that are designed to operate on the body of users using lanyards and straps or without requiring additional body-worn accessories must be tested for SAR compliance using a conservative minimum test separation distance  $\leq 5\text{mm}$  to support compliance.



Picture 4 Test positions for body-worn devices

## 9. Dielectric Property Measurements & System Check

### 9.1. Tissue Dielectric Parameters

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within  $\pm 2^\circ\text{C}$  of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3-4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

The dielectric constant ( $\epsilon_r$ ) and conductivity ( $\sigma$ ) of typical tissue-equivalent media recipes are expected to be within  $\pm 5\%$  of the required target values; but for SAR measurement systems that have implemented the SAR error compensation algorithms documented in IEEE Std 1528-2013, to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, the tolerance for  $\epsilon_r$  and  $\sigma$  may be relaxed to  $\pm 10\%$ . This is limited to frequencies  $\leq 3$  GHz.

#### Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Tissue dielectric parameters for Head and Body				
Target Frequency (MHz)	Head		Body	
	$\epsilon_r$	$\sigma(\text{S/m})$	$\epsilon_r$	$\sigma(\text{S/m})$
750	41.9	0.89	55.5	0.96
835	41.5	0.90	55.2	0.97
1750	40.1	1.37	53.4	1.49
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
2600	39.0	1.96	52.5	2.16
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5800	35.3	5.27	48.2	6.00

#### IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

**Dielectric Property Measurements Results:**

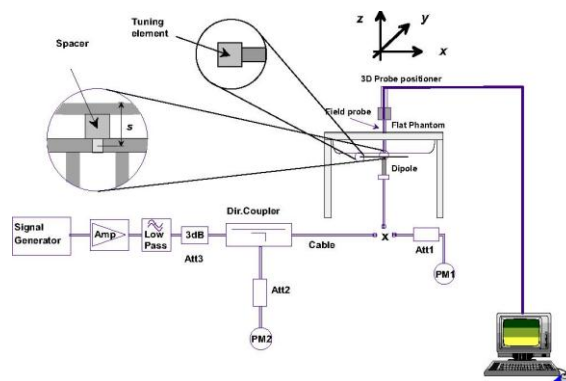
Dielectric performance of Head tissue simulating liquid									
Frequency (MHz)	$\epsilon_r$		$\sigma$ (S/m)		Delta ( $\epsilon_r$ )	Delta ( $\sigma$ )	Limit	Temp (°C)	Date
	Target	Measured	Target	Measured					
750	41.90	40.60	0.890	0.933	-3.10%	4.83%	±5%	22.4	2021/9/22
835	41.50	40.25	0.900	0.940	-3.01%	4.44%	±5%	22.4	2021/9/24
1750	40.10	38.85	1.370	1.401	-3.12%	2.26%	±5%	22.4	2021/9/26
1900	40.00	38.46	1.400	1.469	-3.85%	4.93%	±5%	22.4	2021/9/27
2450	39.20	39.10	1.800	1.838	-0.26%	2.11%	±5%	22.4	2021/9/28
2600	39.00	39.86	1.960	1.947	2.21%	-0.66%	±5%	22.4	2021/9/28
5250	35.93	34.85	4.706	4.609	-3.01%	-2.06%	±5%	22.4	2021/9/29
5750	35.36	34.12	5.219	5.103	-3.51%	-2.22%	±5%	22.4	2021/9/29

## 9.2. System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

### System Performance Check Measurement Conditions:

- ◆ The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness:  $2.0 \pm 0.2$  mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- ◆ The depth of tissue-equivalent liquid in a phantom must be  $\geq 15.0$  cm for SAR measurements  $\leq 3$  GHz and  $\geq 10.0$  cm for measurements  $> 3$  GHz.
- ◆ The DASY system with an E-Field Probe was used for the measurements.
- ◆ The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- ◆ The coarse grid with a grid spacing of 15 mm was aligned with the dipole.  
For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- ◆ Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- ◆ The results are normalized to 1 W input power.



System Performance Check Setup

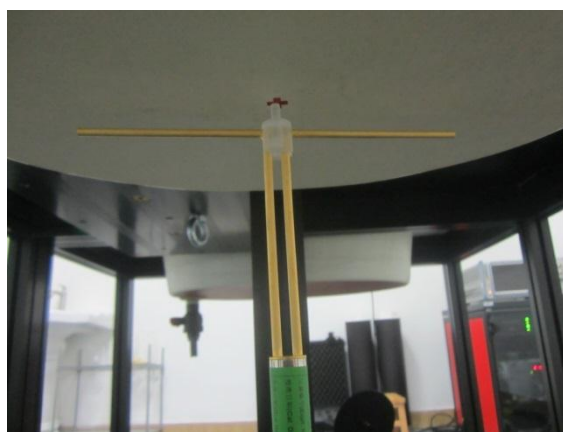


Photo of Dipole Setup

**System Check Result:**

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within  $\pm 10\%$  of the manufacturer calibrated dipole SAR target.

Head											
Frequency (MHz)	1g SAR			10g SAR			Delta (1g)	Delta (10g)	Limit	Temp (°C)	Date
	Target 1W	Normalize to 1W	Measured 250mW	Target 1W	Normalize to 1W	Measured 250mW					
750	8.43	8.80	2.20	5.59	5.88	1.47	4.39%	5.19%	$\pm 10\%$	22.4	2021/9/22
835	9.39	10.08	2.52	6.14	6.72	1.68	7.35%	9.45%	$\pm 10\%$	22.4	2021/9/24
1750	36.40	38.56	9.64	19.20	20.84	5.21	5.93%	8.54%	$\pm 10\%$	22.4	2021/9/26
1900	39.80	36.80	9.20	20.30	19.88	4.97	-7.54%	-2.07%	$\pm 10\%$	22.4	2021/9/27
2450	52.00	48.00	12.00	23.90	22.76	5.69	-7.69%	-4.77%	$\pm 10\%$	22.4	2021/9/28
2600	56.50	52.40	13.10	25.00	24.20	6.05	-7.26%	-3.20%	$\pm 10\%$	22.4	2021/9/28

Head											
Frequency (MHz)	1g SAR			10g SAR			Delta (1g)	Delta (10g)	Limit	Temp (°C)	Date
	Target 1W	Normalize to 1W	Measured 100mW	Target 1W	Normalize to 1W	Measured 100mW					
5250	78.20	73.50	7.35	22.30	20.90	2.09	-6.01%	-6.28%	$\pm 10\%$	22.4	2021/9/29
5750	79.30	81.60	8.16	22.50	23.10	2.31	2.90%	2.67%	$\pm 10\%$	22.4	2021/9/29

## Plots of System Performance Check

### System Performance Check-Head 750MHz

DUT: D750V3; Type: D750V3; Serial: 1180

Date: 2021-09-22

Communication System: UID 0, A-CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.933$  S/m;  $\epsilon_r = 40.603$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6°C; Liquid Temperature: 22.4°C;

#### DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.7, 10.7, 10.7) @ 750 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

#### Head/d=15mm, Pin=250mW, dist=1.4mm/Area Scan (51x121x1): Interpolated grid:

$dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 2.55 W/kg

#### Head/d=15mm, Pin=250mW, dist=1.4mm/Zoom Scan (5x5x7)/Cube 0:

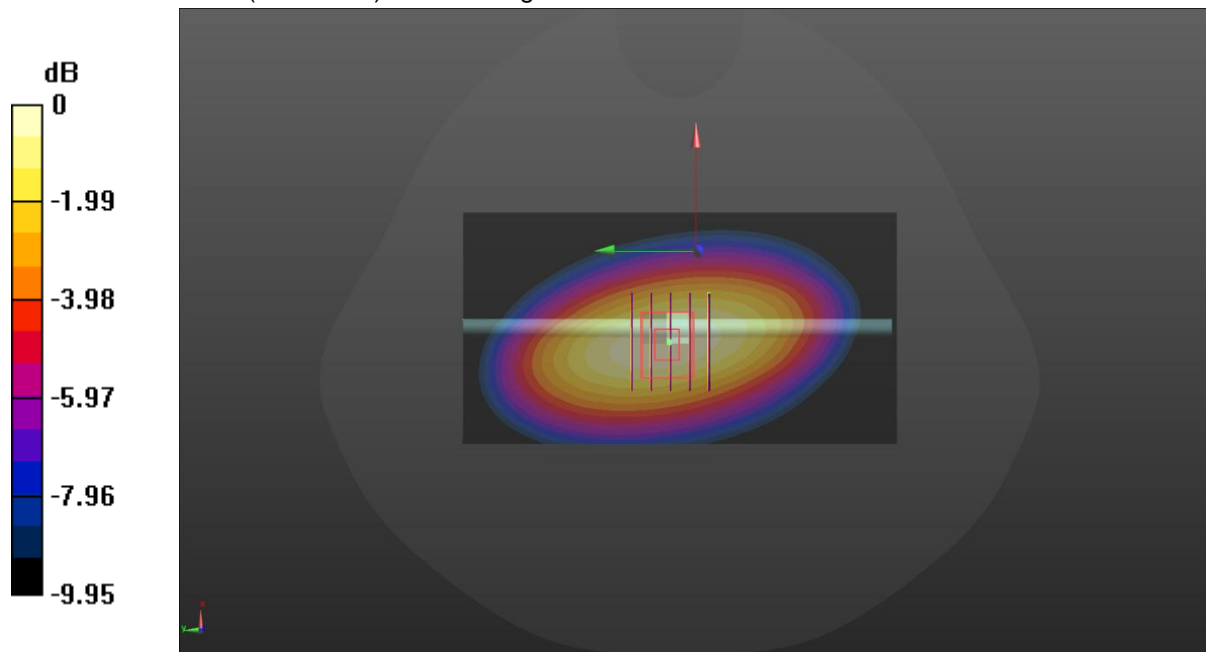
Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 51.29 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 3.23 W/kg

**SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.47 W/kg**

Maximum value of SAR (measured) = 2.56 W/kg



0 dB = 2.56 W/kg = 4.08 dBW/kg

**System Performance Check-Head 835MHz**

DUT: D835V2; Type: D835V2; Serial: 4d238

Date: 2021-09-24

Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.94$  S/m;  $\epsilon_r = 40.245$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6°C; Liquid Temperature: 22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(10.41, 10.41, 10.41) @ 835 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=15mm, Pin=250mW/Area Scan (41x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 3.03 W/kg

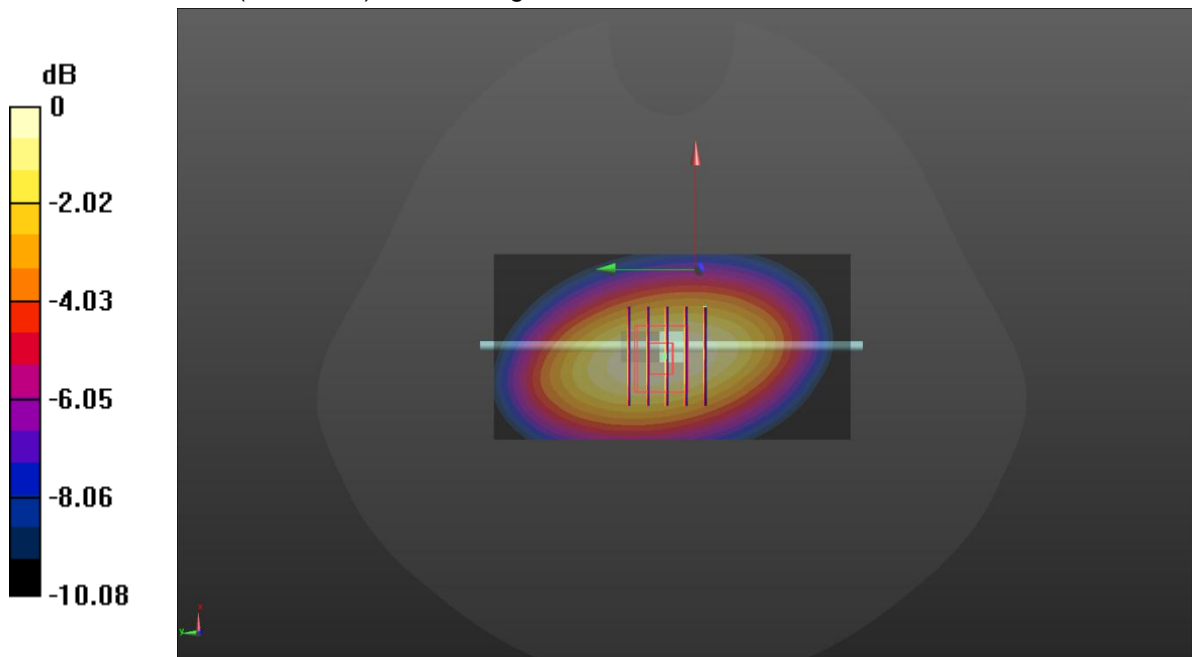
**Head/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.64 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 3.69 W/kg

**SAR(1 g) = 2.52 W/kg; SAR(10 g) = 1.68 W/kg**

Maximum value of SAR (measured) = 2.93 W/kg





**System Performance Check-Head 1750MHz**

DUT: D1750V2; Type: D1750V2; Serial: 1164

Date: 2021-09-26

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.401$  S/m;  $\epsilon_r = 38.855$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6°C; Liquid Temperature: 22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(8.88, 8.88, 8.88) @ 1750 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm, Pin=250mW/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.7 W/kg

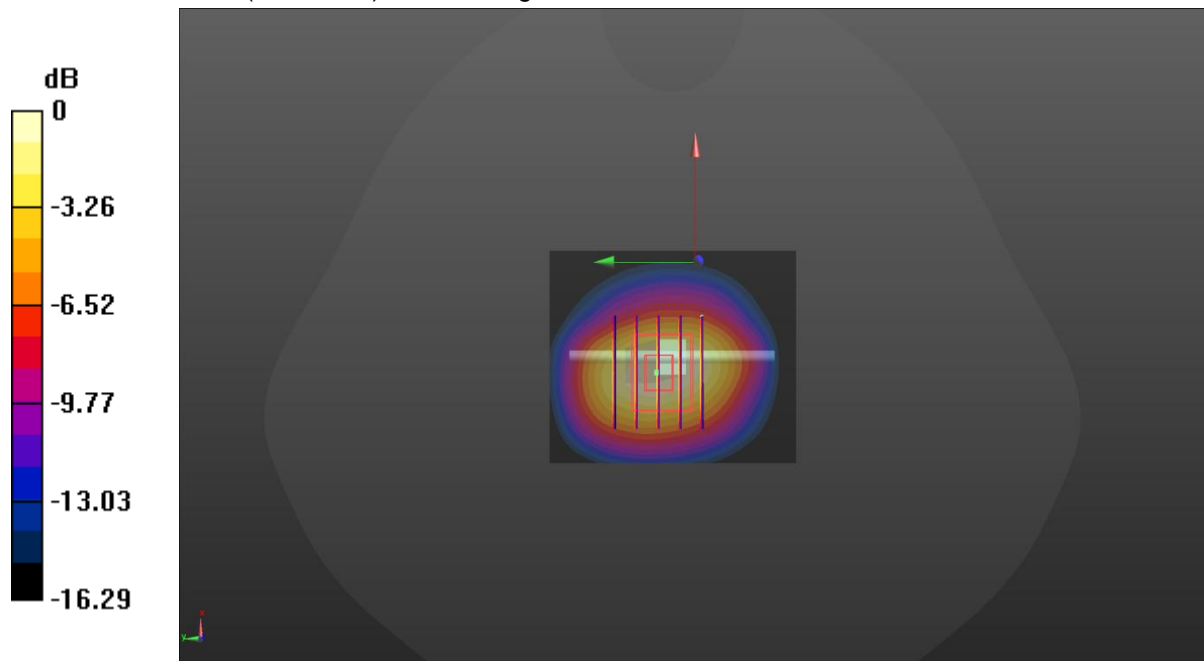
**Head/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.95 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 16.8 W/kg

**SAR(1 g) = 9.64 W/kg; SAR(10 g) = 5.21 W/kg**

Maximum value of SAR (measured) = 12.1 W/kg



0 dB = 12.1 W/kg = 10.83 dBW/kg

**System Performance Check-Head 1900MHz**

DUT: D1900V2; Type: D1900V2; Serial: 5d226

Date: 2021-09-27

Communication System: UID 0, CW (0); Frequency: 1900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.469$  S/m;  $\epsilon_r = 38.459$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature: 22.6°C; Liquid Temperature: 22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(8.55, 8.55, 8.55) @ 1900 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm, Pin=250mW/Area Scan (41x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 12.2 W/kg

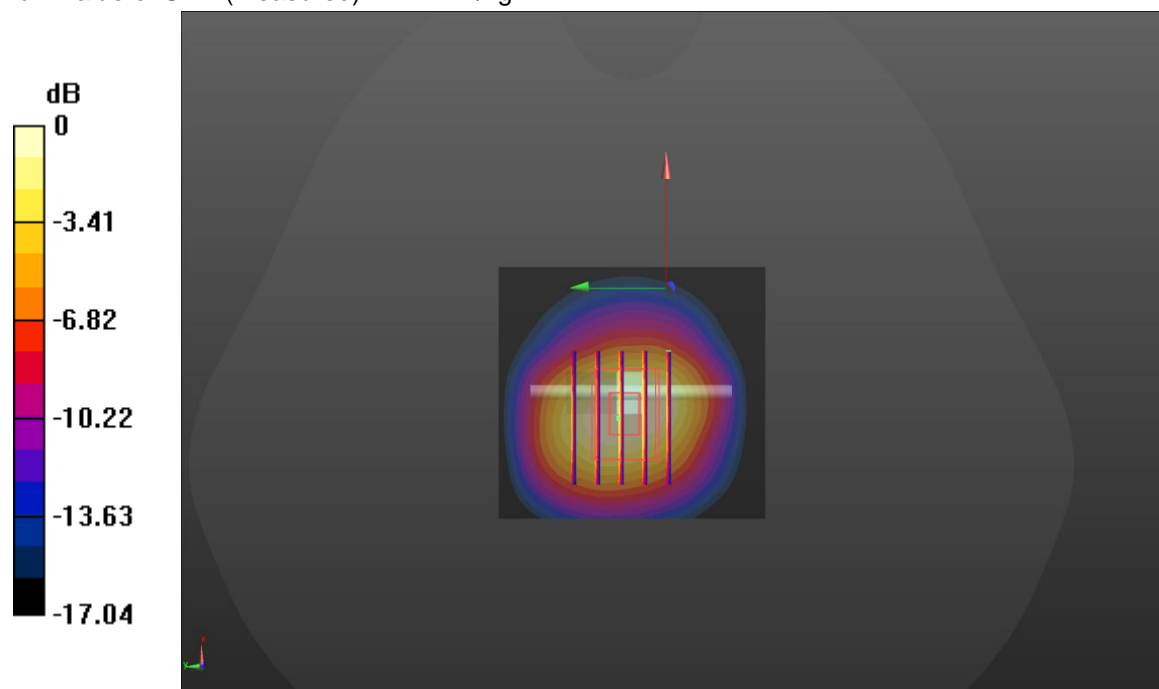
**Head/d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 81.85 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 15.8 W/kg

**SAR(1 g) = 9.2 W/kg; SAR(10 g) = 4.97 W/kg**

Maximum value of SAR (measured) = 11.4 W/kg



0 dB = 11.4 W/kg = 10.57 dBW/kg

**SystemPerformanceCheck-Head 2450MHz**

DUT: D2450V2; Type: D2450V2; Serial: 1009

Date: 2021-09-28

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 2450$  MHz;  $\sigma = 1.838$  S/m;  $\epsilon_r = 39.096$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6°C;Liquid Temperature:22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(7.97, 7.97, 7.97) @ 2450 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm,Pin=250mW/Area Scan (41x61x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 17.0 W/kg

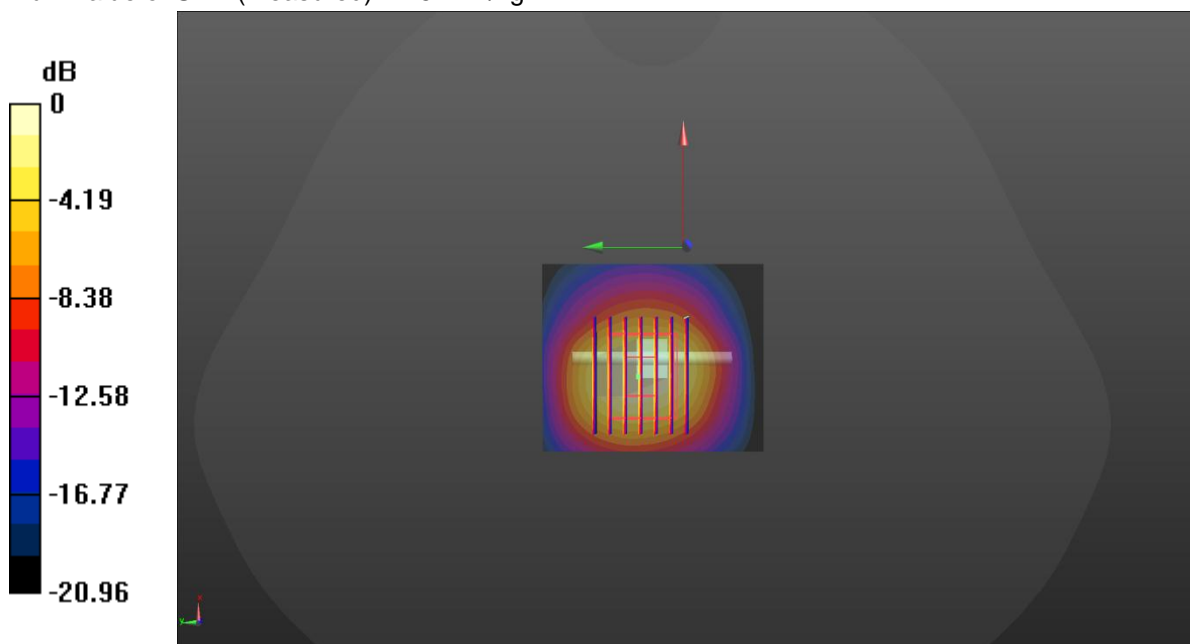
**Head/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 84.40 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 23.9 W/kg

**SAR(1 g) = 12 W/kg; SAR(10 g) = 5.69 W/kg**

Maximum value of SAR (measured) = 15.7 W/kg



0 dB = 15.7 W/kg = 11.96 dBW/kg

**SystemPerformanceCheck-Head 2600MHz**

DUT: D2600V2; Type: D2600V2; Serial: 1150

Date: 2021-09-28

Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.947$  S/m;  $\epsilon_r = 38.86$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6°C;Liquid Temperature:22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(7.68, 7.68, 7.68) @ 2600 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm,Pin=250mW/Area Scan (41x51x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 23.3 W/kg

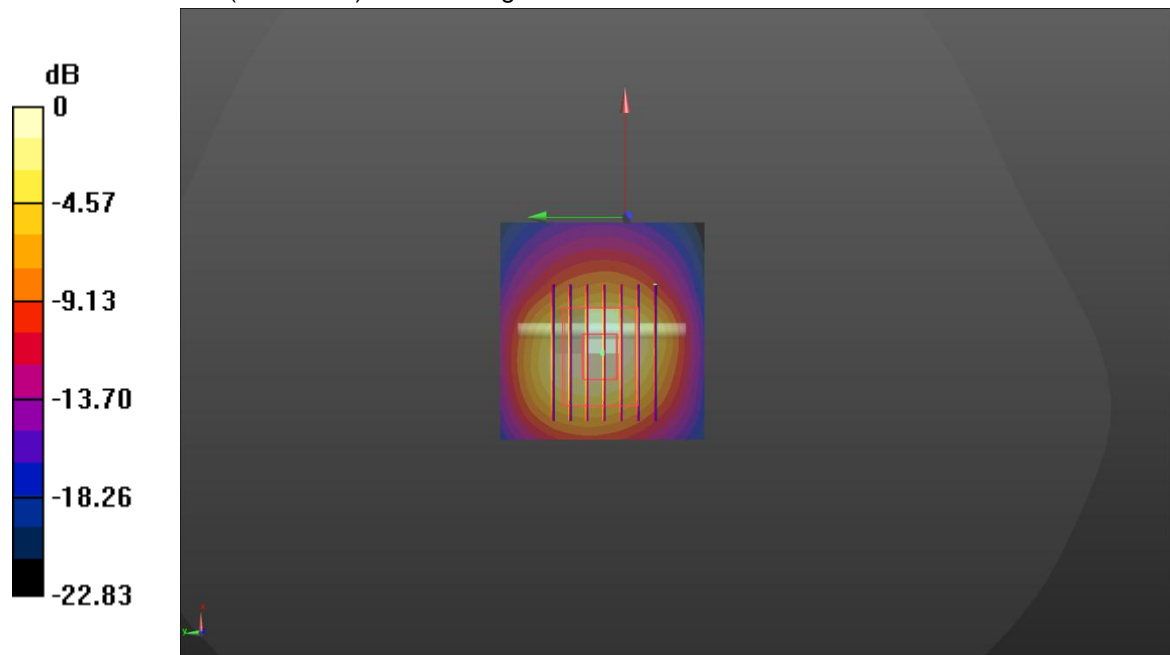
**Head/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 100.1 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 27.4 W/kg

**SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6.05 W/kg**

Maximum value of SAR (measured) = 22.0 W/kg



0 dB = 22.0 W/kg = 13.42 dBW/kg

**SystemPerformanceCheck-Head 5250MHz**

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1273

Date: 2021-09-29

Communication System: UID 0, Generic WIFI (0); Frequency: 5250 MHz;Duty Cycle: 1:1

Medium parameters used (interpolated):  $f = 5250$  MHz;  $\sigma = 4.609$  S/m;  $\epsilon_r = 34.849$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6°C;Liquid Temperature:22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(5.65, 5.65, 5.65) @ 5250 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm,pin=100mW/Area Scan (31x31x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 18.6 W/kg

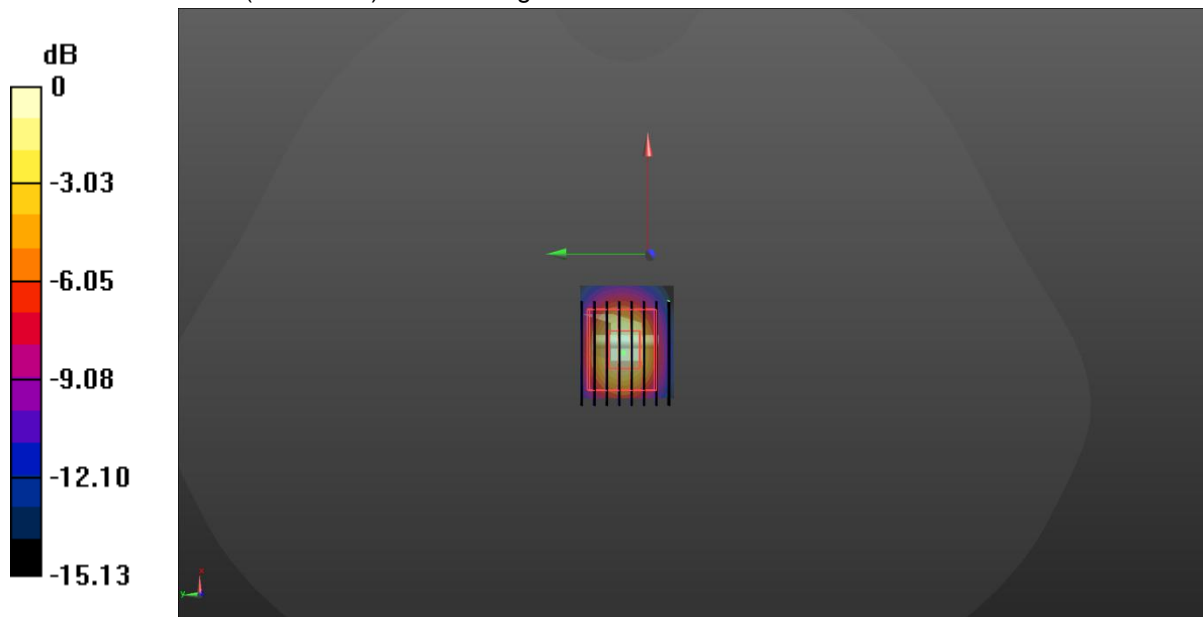
**Head/d=10mm,pin=100mW/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 66.91 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 30.4 W/kg

**SAR(1 g) = 7.35 W/kg; SAR(10 g) = 2.09 W/kg**

Maximum value of SAR (measured) = 17.9 W/kg



0 dB = 17.9 W/kg = 12.53 dBW/kg

**SystemPerformanceCheck-Head 5750MHz**

DUT: D5GHzV2; Type: D5GHzV2; Serial: 1273

Date: 2021-09-29

Communication System: UID 0, Generic WIFI (0); Frequency: 5750 MHz;Duty Cycle: 1:1

Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.103$  S/m;  $\epsilon_r = 34.123$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Ambient Temperature:22.6°C;Liquid Temperature:22.4°C;

**DASY Configuration:**

- Probe: EX3DV4 - SN7494; ConvF(4.86, 4.86, 4.86) @ 5750 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

**Head/d=10mm,Pin=100mW/Area Scan (41x41x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 23.1 W/kg

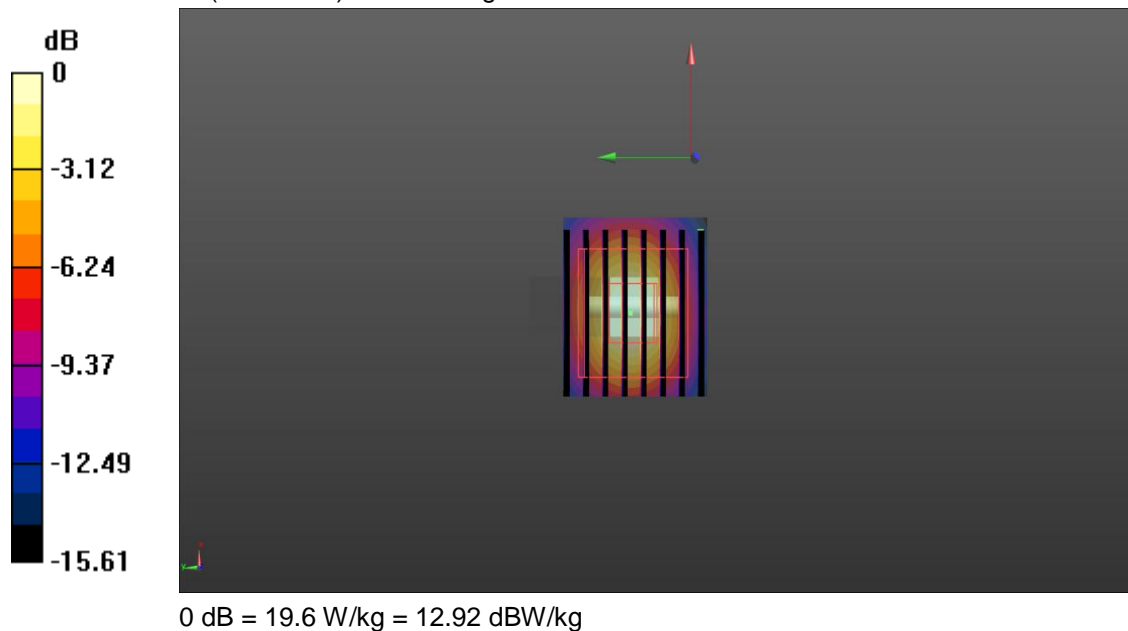
**Head/d=10mm,Pin=100mW/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 71.96 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 35.5 W/kg

**SAR(1 g) = 8.16 W/kg; SAR(10 g) = 2.31 W/kg**

Maximum value of SAR (measured) = 19.6 W/kg



## 10. SAR Exposure Limits

SAR assessments have been made in line with the requirements of FCC 47 CFR § 2.1093.

Type Exposure	Limit (W/kg)	
	General Population/ Uncontrolled Exposure Environment	Occupational/ Controlled Exposure Environment
Spatial Average SAR (whole body)	0.08	0.4
Spatial Peak SAR (1g cube tissue for head and trunk)	1.6	8.0
Spatial Peak SAR (10g for limb)	4.0	20.0

Population/Uncontrolled Environments: are defined as locations where there is the exposure of individual 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 people who are aware of the potential for exposure (i.e. as a result of employment or occupation).

## 11. Conducted Power Measurement Results

### 11.1. WCDMA

1. The following tests were conducted according to the test requirements outlines in 3GPP TS34.121 specification.
2. The procedures in KDB 941225 D01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode to determine SAR test exclusion

A summary of these settings are illustrated below:

#### HSDPA Setup Configuration:

- a) The EUT was connected to base station RS CMU200 referred to the setup configuration
- b) The RF path losses were compensated into the measurements
- c) A call was established between EUT and base station with following setting:
  - i. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each specific sub-test in the following table, C10.1.4, Quoted from the TS 34.121
  - ii. Set RMC 12.2Kbps + HSDPA mode
  - iii. Set Cell Power=-86dBm
  - iv. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
  - v. Select HSDPA uplink parameters
  - vi. Set Delta ACK, Delta NACK and Delta CQI=8
  - vii. Set Ack-Nack repetition Factor to 3
  - viii. Set CQI Feedback Cycle (K) to 4ms
  - ix. Set CQI repetition factor to 2
  - x. Power ctrl mode= all up bits
- d) The transmitter maximum output power was recorded.

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

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

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

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

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

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

#### Setup Configuration

#### HSUPA Setup Configuration:

- a) The EUT was connected to base station RS CMU200 referred to the setup configuration
- b) The RF path losses were compensated into the measurements
- c) A call was established between EUT and base station with following setting:
  - i. Call configs = 5.2b, 5.9b, 5.10b, and 5.13.2B with QPSK
  - ii. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG index) were set according to each specific sub-test in the following table, C11.1.3, Quoted from the TS 34.121
  - iii. Set Cell Power=-86dBm
  - iv. Set channel type= 12.2Kbps + HSPA mode
  - v. Set UE Target power
  - vi. Set Ctrl mode=Alternating bits
  - vii. Set and observe the E-TFCl
  - viii. Confirm that E-TFCl is equal the target E-TFCl of 75 for Sub-test 1, and other subtest's E-TFCl
- d) The transmitter maximum output power was recorded.



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

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note 1)	$\beta_{EC}$	$\beta_{ED}$ (Note 5) (Note 6)	$\beta_{ED}$ (SF)	$\beta_{ED}$ (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 6)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ED1}$ : 47/15 $\beta_{ED2}$ : 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

- Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .
- Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
- Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .
- Note 4: For subtest 5 the  $\beta_c/\beta_d$  ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 14/15$  and  $\beta_d = 15/15$ .
- Note 5: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.
- Note 6:  $\beta_{ED}$  can not be set directly, it is set by Absolute Grant Value.

### Setup Configuration

#### General Note:

- Per KDB 941225 D01, SAR for Head / Hotspot / Body-worn Exposure is measured using a 12.2Kbps RMC with TPC bit configured to all 1s
- Per KDB 941225 D01 RMC 12.2Kbps setting is used to evaluate SAR. If the maximum output power and Tune-up tolerance specified for production units in HSDPA/HSUPA is  $\leq 1/4$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC 12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA to RMC 12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA.

Mode		WCDMA Band II			WCDMA Band IV		
		Conducted Power (dBm)			Conducted Power (dBm)		
		CH9262 1852.4MHz	CH9400 1880MHz	CH9538 1907.6MHz	CH1312 1712.4MHz	CH1413 1732.6MHz	CH1513 1752.6MHz
AMR 12.2K		22.49	22.76	22.55	22.50	22.72	22.66
RMC 12.2K		22.52	22.79	22.58	22.53	22.75	22.69
HSDPA	Subtest-1	21.65	21.58	21.45	21.60	21.73	21.34
	Subtest-2	21.25	21.21	21.08	21.90	21.94	21.55
	Subtest-3	20.95	20.98	20.75	21.06	21.17	20.75
	Subtest-4	18.81	20.87	20.65	21.07	21.17	20.72
HSUPA	Subtest-1	18.77	18.65	18.71	18.47	18.44	18.15
	Subtest-2	19.11	18.75	18.83	18.53	18.53	18.27
	Subtest-3	18.93	18.51	18.59	18.75	18.81	18.54
	Subtest-4	19.21	18.89	18.98	18.56	18.61	18.34
	Subtest-5	22.12	22.18	21.94	22.11	22.15	22.05

Mode		WCDMA Band V		
		Conducted Power (dBm)		
		CH4132 826.4MHz	CH4183 836.6MHz	CH4233 846.6MHz
AMR 12.2K		22.40	22.66	22.74
RMC 12.2K		22.43	22.69	22.77
HSDPA	Subtest-1	21.57	21.66	21.69
	Subtest-2	21.47	21.56	21.59
	Subtest-3	21.72	21.81	21.84
	Subtest-4	21.67	21.76	21.79
HSUPA	Subtest-1	19.48	19.56	19.59
	Subtest-2	19.56	19.64	19.67
	Subtest-3	19.48	19.56	19.59
	Subtest-4	19.38	19.46	19.49
	Subtest-5	21.22	21.31	21.34

## 11.2. LTE

### General Note:

1. CMW500 base station simulator was used to setup the connection with EUT; the frequency band, channel, bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r03, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r03, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r03, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r03, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r03, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r03, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r03, smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r03, smaller bandwidth SAR testing is not required.

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows:

- a) The maximum output power, including tolerance, for the smaller band must be  $\leq$  the larger band to qualify for the SAR test exclusion.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.
  - LTE Band 2 (1850-1910 MHz) is covered by LTE Band 25 (1850-1915 MHz)
  - LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)
  - LTE Band 5 (824-849 MHz) is covered by LTE Band 26 (814-849 MHz)
  - LTE Band 17 (704-716 MHz) is covered by LTE Band 12 (699-716 MHz)

LTE-FDD Band 2				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	18607	18900	19193
				1850.7MHz	1880MHz	1909.3MHz
1.4MHz	QPSK	1	0	23.10	23.13	23.59
			2	23.49	23.20	23.18
			5	23.14	23.16	23.19
		3	0	23.11	23.06	23.26
			1	23.20	23.11	23.35
			3	23.21	23.15	23.26
	6	0	22.00	22.32	22.16	
	16QAM	1	0	22.12	22.44	21.80
			2	22.53	22.59	21.73
			5	22.23	22.51	21.71
		3	0	22.28	22.44	22.26
			1	22.40	22.37	22.20
			3	22.29	22.10	22.16
	6	0	21.31	21.51	20.92	
Band-width	Modulation	RB allocation	RB offset	18615	18900	19185
				1851.5MHz	1880MHz	1908.5MHz
3MHz	QPSK	1	0	23.30	23.29	23.19
			8	23.44	23.32	23.34
			14	23.40	23.29	23.19
		8	0	22.25	22.29	22.19
			4	22.16	22.28	22.16
			7	22.15	22.27	22.02
	15	0	22.17	22.29	22.25	
	16QAM	1	0	22.03	22.67	22.30
			8	22.32	22.68	22.42
			14	22.12	22.39	22.19
		8	0	21.24	21.47	21.50
			4	21.25	21.55	21.19
			7	21.06	21.33	21.01
	15	0	21.22	21.34	21.31	

LTE-FDD Band 2				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	18625	18900	19175
				1852.5MHz	1880MHz	1907.5MHz
5MHz	QPSK	1	0	23.22	23.13	21.73
			12	23.29	23.20	22.00
			24	23.18	23.12	22.08
		12	0	22.23	22.25	21.17
			7	22.32	22.30	21.20
			13	22.26	22.22	21.16
	25	0	22.23	22.24	21.16	
	16QAM	1	0	21.75	21.80	21.73
			12	21.82	21.85	22.00
			24	21.86	21.82	22.08
		12	0	21.19	21.20	21.17
			7	21.31	21.33	21.20
			13	21.43	21.26	21.16
		25	0	21.25	21.29	21.16
Band-width		Modulation	RB allocation	RB offset	18650	18900
	1855MHz				1880MHz	1905MHz
10MHz	QPSK	1	0	23.52	23.33	23.35
			24	23.65	23.44	23.33
			49	23.25	23.37	22.92
		25	0	22.31	22.35	22.17
			24	22.30	22.28	22.30
			49	22.16	22.23	22.27
	50	0	22.21	22.19	22.19	
	16QAM	1	0	22.43	22.69	22.17
			24	22.80	22.78	22.54
			49	22.34	22.67	22.19
		25	0	21.28	21.33	21.39
			24	21.20	21.44	21.60
			49	21.16	21.18	21.61
		50	0	21.05	21.26	21.26

LTE-FDD Band 2				Conducted Power(dBm)			
Band-width	Modulation	RB allocation	RB offset	18675	18900	19125	
				1857.5MHz	1880MHz	1902.5MHz	
15MHz	QPSK	1	0	23.65	23.19	23.16	
			38	23.27	23.22	23.16	
			74	23.29	23.10	22.99	
		38	0	22.20	21.99	22.02	
			18	22.03	22.20	22.30	
			37	22.01	22.06	22.26	
		75	0	22.16	22.01	22.16	
		16QAM	1	0	22.19	21.59	22.21
				38	22.68	22.12	22.55
	74			22.49	22.26	22.47	
	38		0	21.10	21.27	20.96	
			18	21.05	21.34	21.21	
			37	20.96	21.13	21.15	
	75	0	21.07	21.11	21.09		
	Band-width	Modulation	RB allocation	RB offset	18700	18900	19100
1860MHz					1880MHz	1900MHz	
20MHz	QPSK	1	0	23.04	23.10	22.98	
			49	23.17	23.30	23.13	
			99	23.01	22.96	22.88	
		50	0	22.17	22.08	22.04	
			25	22.15	22.27	22.14	
			50	21.98	22.03	22.11	
		100	0	22.07	21.98	22.07	
		16QAM	1	0	21.64	21.75	21.64
				49	22.88	22.48	22.60
	99			21.80	21.76	21.99	
	50		0	21.17	21.10	21.18	
			25	21.15	21.30	21.30	
			50	21.11	21.21	21.25	
	100	0	21.28	21.20	21.21		

LTE-FDD Band 4				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	19957	20175	20393
				1710.7MHz	1732.5MHz	1754.3MHz
1.4MHz	QPSK	1	0	23.42	23.48	23.33
			2	23.44	23.57	23.52
			5	23.24	23.47	23.33
		3	0	23.21	23.40	23.38
			1	23.24	23.53	23.49
			3	23.25	23.49	23.41
	6	0	22.14	22.55	22.30	
	16QAM	1	0	22.08	22.41	21.98
			2	22.19	22.51	21.92
			5	22.12	22.28	21.96
		3	0	21.95	22.34	21.68
			1	22.37	22.37	22.21
			3	22.30	22.31	22.27
	6	0	21.23	21.36	20.99	
Band-width	Modulation	RB allocation	RB offset	19965	20175	20385
				1711.5MHz	1732.5MHz	1753.5MHz
3MHz	QPSK	1	0	23.30	23.51	23.23
			8	23.41	23.58	23.44
			14	23.41	23.49	23.43
		8	0	22.18	22.37	22.21
			4	22.08	22.36	22.21
			7	22.05	22.37	22.18
	15	0	22.08	22.43	22.12	
	16QAM	1	0	22.20	22.76	22.19
			8	22.21	22.79	22.17
			14	22.27	22.66	22.35
		8	0	21.30	21.46	21.07
			4	21.21	21.64	20.90
			7	21.30	21.55	20.96
	15	0	21.23	21.41	21.09	

LTE-FDD Band 4				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	19975	20175	20375
				1712.5MHz	1732.5MHz	1752.5MHz
5MHz	QPSK	1	0	23.15	23.26	23.26
			12	23.28	23.23	23.29
			24	23.19	23.21	23.40
		12	0	22.03	22.39	22.33
			7	22.18	22.45	22.37
			13	22.22	22.44	22.38
	25	0	22.11	22.41	22.35	
	16QAM	1	0	21.52	21.86	22.08
			12	21.65	21.90	21.88
			24	21.58	21.79	22.12
		12	0	21.17	21.28	21.11
			7	21.22	21.23	21.18
			13	21.36	21.27	21.18
		25	0	21.39	21.34	21.37
Band-width	Modulation	RB allocation	RB offset	20000	20175	20350
				1715MHz	1732.5MHz	1750MHz
10MHz	QPSK	1	0	23.35	23.03	23.23
			24	23.61	23.74	23.52
			49	22.90	23.18	23.34
		25	0	22.12	22.33	22.16
			24	22.05	22.51	22.21
			49	21.99	22.38	22.24
	50	0	21.96	22.37	22.21	
	16QAM	1	0	22.16	22.49	22.07
			24	22.50	22.46	22.26
			49	21.75	22.08	22.35
		25	0	21.12	21.45	21.28
			24	20.96	21.53	21.58
			49	20.78	21.44	21.39
		50	0	20.93	21.47	21.20



LTE-FDD Band 4				Conducted Power(dBm)			
Band-width	Modulation	RB allocation	RB offset	20025	20175	20325	
				1717.5MHz	1732.5MHz	1747.5MHz	
15MHz	QPSK	1	0	23.35	23.03	23.19	
			38	22.99	23.52	23.24	
			74	23.52	23.02	23.31	
		38	0	21.91	22.18	21.90	
			18	21.77	22.29	22.08	
			37	21.80	22.31	22.16	
		75	0	21.92	22.17	22.00	
		16QAM	1	0	21.93	22.15	22.53
				38	22.40	22.69	22.96
	74			22.48	22.61	22.80	
	38		0	21.04	21.36	20.91	
			18	20.88	21.38	21.19	
			37	20.90	21.27	21.17	
	75	0	20.89	21.31	21.04		
Band-width	Modulation	RB allocation	RB offset	20050	20175	20300	
				1720MHz	1732.5MHz	1745MHz	
20MHz	QPSK	1	0	22.97	23.07	23.03	
			49	22.92	23.59	23.18	
			99	22.84	22.92	22.99	
		50	0	21.96	22.21	22.07	
			25	21.93	22.42	22.04	
			50	22.12	22.29	22.11	
		100	0	22.02	22.35	22.12	
		16QAM	1	0	21.59	22.00	22.09
				49	21.52	22.67	21.84
	99			21.75	21.92	22.20	
	50		0	21.05	21.35	21.19	
			25	20.98	21.47	21.06	
			50	21.25	21.30	21.17	
	100		0	21.10	21.32	21.15	

LTE-FDD Band 5				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	20407	20525	20643
				8.4.7MHz	836.5MHz	848.3MHz
1.4MHz	QPSK	1	0	23.88	23.87	23.48
			2	23.79	23.91	23.64
			5	23.82	23.87	23.53
		3	0	23.86	23.88	23.75
			1	23.89	24.01	23.69
			3	23.84	23.89	23.73
	6	0	22.84	22.94	22.81	
	16QAM	1	0	22.89	23.31	23.14
			2	22.89	23.36	23.26
			5	23.01	23.28	22.63
		3	0	23.37	23.35	22.94
			1	23.30	23.30	22.87
			3	23.30	23.25	22.66
	6	0	21.98	22.21	21.90	
Band-width	Modulation	RB allocation	RB offset	20415	20525	20635
				825.5MHz	836.5MHz	847.5MHz
3MHz	QPSK	1	0	23.83	24.08	23.97
			8	23.99	24.00	23.97
			14	23.86	23.79	23.47
		8	0	22.73	22.96	22.94
			4	22.72	22.91	22.90
			7	22.64	22.93	22.77
	15	0	22.71	22.95	22.91	
	16QAM	1	0	22.92	23.40	22.99
			8	22.90	23.53	23.02
			14	22.82	23.43	22.84
		8	0	21.96	22.25	22.01
			4	21.94	22.20	21.98
			7	21.98	22.29	21.79
	15	0	21.86	22.21	21.77	

LTE-FDD Band 5				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	20425	20525	20625
				826.5MHz	836.5MHz	846.5MHz
5MHz	QPSK	1	0	23.83	23.74	23.82
			12	23.89	23.84	23.90
			24	23.97	23.76	23.56
		12	0	22.78	23.13	22.86
			7	22.92	23.02	23.01
			13	22.95	22.94	22.92
	25	0	22.90	23.11	22.88	
	16QAM	1	0	22.34	22.45	22.59
			12	22.40	22.49	22.62
			24	22.78	22.32	22.43
		12	0	21.86	22.01	22.04
			7	21.97	21.91	22.07
			13	21.93	21.84	22.09
		25	0	21.84	22.19	21.95
Band-width		Modulation	RB allocation	RB offset	20450	20525
	829MHz				836.5MHz	844MHz
10MHz	QPSK	1	0	23.96	23.81	23.82
			24	24.38	24.17	24.11
			49	24.30	23.48	23.65
		25	0	22.78	23.05	22.78
			24	22.97	23.02	22.94
			49	23.10	22.88	22.88
	50	0	22.87	22.97	22.86	
	16QAM	1	0	22.94	23.35	22.84
			24	23.45	23.44	23.01
			49	23.35	23.18	22.80
		25	0	21.83	22.16	21.98
			24	21.95	22.16	22.14
			49	22.00	22.00	22.08
		50	0	21.97	22.09	21.94

LTE-FDD Band 7				Conducted Power(dBm)			
Band-width	Modulation	RB allocation	RB offset	20775	21100	21425	
				2502.5MHz	2535MHz	2567.5MHz	
5MHz	QPSK	1	0	23.71	24.01	24.07	
			12	23.57	24.36	24.29	
			24	23.71	24.48	24.02	
		12	0	22.84	23.13	22.99	
			7	22.82	23.25	22.98	
			13	22.86	23.18	22.96	
		25	0	22.83	23.08	23.01	
		16QAM	1	0	22.21	22.80	22.57
				12	22.47	23.08	22.90
	24			22.38	22.80	22.70	
	12		0	21.89	22.22	21.95	
			7	22.02	22.36	21.92	
			13	21.91	22.44	22.07	
	25	0	21.80	22.26	22.12		
	Band-width	Modulation	RB allocation	RB offset	20800	21100	21400
2505MHz					2535MHz	2565MHz	
10MHz	QPSK	1	0	24.01	24.22	24.04	
			24	24.45	24.55	24.18	
			49	24.02	24.48	24.11	
		25	0	23.04	23.20	23.04	
			24	23.04	23.31	23.11	
			49	22.95	23.25	23.05	
		50	0	22.94	23.21	23.03	
		16QAM	1	0	22.94	23.63	23.20
				24	23.56	23.29	23.87
	49			23.17	22.92	22.92	
	25		0	22.07	22.25	22.20	
			24	22.22	22.38	22.20	
			49	22.06	22.39	22.14	
	50		0	21.95	22.07	22.06	

LTE-FDD Band 7				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	20825	21100	21375
				2507.5MHz	2535MHz	2562.5MHz
15MHz	QPSK	1	0	24.19	24.22	24.21
			38	24.30	24.36	24.08
			74	24.06	24.24	24.09
		38	0	23.00	23.20	23.26
			18	23.08	23.27	23.16
			37	23.05	23.33	23.12
	75	0	23.08	23.22	23.10	
	16QAM	1	0	22.94	22.61	23.59
			38	23.32	22.84	23.76
			74	23.33	22.75	23.88
		38	0	22.01	22.28	22.19
			18	22.05	22.19	22.16
			37	22.05	22.25	22.09
	75	0	22.12	22.16	22.14	
Band-width	Modulation	RB allocation	RB offset	20850	21100	21350
				2510MHz	2535MHz	2560MHz
20MHz	QPSK	1	0	23.83	24.06	24.18
			49	24.23	24.45	24.34
			99	23.85	24.18	24.13
		50	0	23.10	23.27	23.35
			25	23.10	23.40	23.31
			50	23.04	23.40	23.12
	100	0	23.15	23.26	23.24	
	16QAM	1	0	22.59	23.05	22.89
			49	23.22	23.36	23.09
			99	22.75	22.93	22.53
		50	0	22.12	22.10	22.28
			25	22.16	22.37	22.22
			50	22.04	22.36	22.07
	100	0	22.10	22.12	22.17	

LTE-FDD Band 12				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	23017	23095	23173
				699.7MHz	707.5MHz	715.3MHz
1.4MHz	QPSK	1	0	24.15	23.65	24.15
			2	24.30	23.85	24.34
			5	24.37	23.80	24.35
		3	0	24.08	23.69	24.20
			1	24.14	23.80	24.25
			3	24.21	23.71	24.33
	6	0	23.18	22.75	23.53	
	16QAM	1	0	23.41	23.06	23.65
			2	23.50	23.05	23.71
			5	23.61	23.00	23.84
		3	0	23.43	22.84	23.45
			1	23.50	22.97	23.43
			3	23.56	22.98	23.58
	6	0	22.59	21.97	22.33	
Band-width	Modulation	RB allocation	RB offset	23025	23095	23165
				700.5MHz	707.5MHz	714.5MHz
3MHz	QPSK	1	0	24.14	23.78	24.44
			8	24.31	23.95	24.38
			14	24.22	23.84	24.43
		8	0	23.35	22.85	23.64
			4	23.40	22.73	23.56
			7	23.28	22.82	23.51
	15	0	23.29	22.77	23.59	
	16QAM	1	0	23.10	23.24	23.49
			8	23.36	23.33	23.53
			14	23.31	23.32	23.64
		8	0	22.56	22.19	22.76
			4	22.60	22.26	22.35
			7	22.57	22.20	22.25
	15	0	22.44	22.27	22.44	

LTE-FDD Band 12				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	23035	23095	23155
				701.5MHz	707.5MHz	713.5MHz
5MHz	QPSK	1	0	24.24	23.73	24.37
			12	24.63	23.94	24.63
			24	24.15	23.85	24.26
		12	0	23.46	22.77	23.59
			7	23.44	22.79	23.66
			13	23.33	22.79	23.52
	25	0	23.42	22.78	23.52	
	16QAM	1	0	23.19	23.25	23.39
			12	23.62	23.48	23.77
			24	23.28	23.38	23.42
		12	0	22.61	22.10	22.41
			7	22.57	22.14	22.49
			13	22.50	22.13	22.47
	25	0	22.60	22.15	22.40	
Band-width	Modulation	RB allocation	RB offset	23060	23095	23130
				704MHz	707.5MHz	711MHz
10MHz	QPSK	1	0	23.44	23.55	23.02
			24	24.13	23.97	24.54
			49	23.11	23.58	23.53
		25	0	23.14	22.74	22.81
			24	23.16	22.99	23.46
			49	22.78	22.98	23.31
	50	0	22.79	22.76	23.18	
	16QAM	1	0	22.99	23.28	22.66
			24	23.17	23.33	23.68
			49	22.68	23.00	22.63
		25	0	22.33	22.30	22.30
			24	22.16	22.27	22.43
			49	22.02	22.22	22.38
	50	0	22.28	22.17	22.27	

LTE-FDD Band 13				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	23205	23230	23255
				779.5MHz	782MHz	784.5MHz
5MHz	QPSK	1	0	24.03	24.52	24.07
			12	24.12	24.55	24.24
			24	24.05	24.57	24.04
		12	0	23.30	23.33	23.35
			7	23.30	23.26	23.54
			13	23.34	23.24	23.48
	25	0	23.24	23.26	23.29	
	16QAM	1	0	23.06	22.69	22.84
			12	23.09	22.67	23.02
			24	23.07	22.88	22.84
		12	0	22.20	22.43	22.35
			7	22.43	22.35	22.36
			13	22.35	22.33	22.37
		25	0	22.32	22.38	22.57
Band-width		Modulation	RB allocation	RB offset		23230
					782MHz	
10MHz	QPSK	1	0		24.31	
			24		24.22	
			49		24.52	
		25	0		23.36	
			24		23.25	
			49		23.13	
	50	0		23.33		
	16QAM	1	0		23.07	
			24		23.29	
			49		23.15	
		25	0		22.40	
			24		22.31	
			49		22.19	
		50	0		22.39	



LTE-FDD Band 14				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	23205	23230	23255
				779.5MHz	782MHz	784.5MHz
5MHz	QPSK	1	0	23.80	23.79	23.75
			12	23.68	23.67	23.60
			24	23.62	23.56	23.75
		12	0	23.63	23.63	23.71
			6	23.74	23.69	23.70
			13	23.65	23.35	23.22
	25	0	23.21	23.16	23.50	
	16QAM	1	0	23.22	23.22	23.60
			12	22.85	22.77	22.52
			24	24.05	24.16	24.17
		12	0	24.25	23.85	24.20
			6	23.73	23.77	24.06
			13	22.73	23.05	23.11
		25	0	22.85	22.73	23.35
Band-width		Modulation	RB allocation	RB offset		23230
					782MHz	
10MHz	QPSK	1	0		23.19	
			24		23.05	
			49		23.33	
		25	0		23.56	
			12		23.54	
			25		22.05	
	50	0		22.34		
	16QAM	1	0		22.08	
			24		22.10	
			49		23.75	
		25	0		23.56	
			12		23.63	
			25		23.80	
		50	0		23.79	

LTE-FDD Band 17				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	23755	23790	23825
				706.5MHz	710MHz	713.5MHz
5MHz	QPSK	1	0	24.69	24.28	24.50
			12	24.59	24.22	24.71
			24	24.48	24.30	24.62
		12	0	23.84	23.64	23.72
			7	23.83	23.66	23.77
			13	23.70	23.68	23.75
	25	0	23.74	23.69	23.70	
	16QAM	1	0	23.65	23.35	23.22
			12	23.21	23.16	23.50
			24	23.22	23.22	23.60
		12	0	22.85	22.77	22.52
			7	22.73	22.41	22.56
			13	22.72	22.37	22.73
		25	0	22.82	22.67	22.55
Band-width		Modulation	RB allocation	RB offset	23780	23790
	709MHz				710MHz	711MHz
10MHz	QPSK	1	0	24.82	24.77	24.81
			24	24.79	24.35	24.79
			49	24.71	24.50	24.50
		25	0	23.80	23.79	23.75
			24	23.68	23.67	23.60
			49	23.62	23.56	23.75
	50	0	23.63	23.63	23.71	
	16QAM	1	0	23.90	23.80	23.70
			24	23.63	23.79	23.14
			49	23.52	23.60	23.56
		25	0	22.96	22.62	22.90
			24	22.75	22.57	22.71
			49	22.69	22.54	22.80
		50	0	22.67	22.69	22.60

LTE-FDD Band 25				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	26047	26365	26683
				1850.7MHz	1882.5MHz	1914.3MHz
1.4MHz	QPSK	1	0	23.28	23.21	23.12
			2	23.37	23.31	23.36
			5	23.34	23.25	23.17
		3	0	23.26	23.16	23.23
			1	23.36	23.31	23.31
			3	23.24	23.29	23.13
	6	0	22.19	22.29	22.33	
	16QAM	1	0	21.99	22.02	22.28
			2	22.31	22.06	22.34
			5	21.95	21.75	22.30
		3	0	22.26	22.19	22.53
			1	22.12	22.25	22.45
			3	22.11	22.16	22.25
	6	0	21.02	21.10	21.27	
Band-width	Modulation	RB allocation	RB offset	26055	26365	26675
				1851.5MHz	1882.5MHz	1913.5MHz
3MHz	QPSK	1	0	23.25	23.17	23.28
			8	23.34	23.31	23.35
			14	23.30	23.15	23.32
		8	0	22.26	22.31	22.41
			4	22.34	22.38	22.35
			7	22.33	22.39	22.37
	15	0	22.38	22.26	22.39	
	16QAM	1	0	22.37	22.55	22.31
			8	22.45	22.52	22.34
			14	22.25	22.34	22.45
		8	0	20.92	21.10	21.16
			4	20.87	21.14	21.07
			7	20.95	21.19	21.36
	15	0	21.24	21.33	21.46	

LTE-FDD Band 25				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	26065	26365	26665
				1852.5MHz	1882.5MHz	1912.5MHz
5MHz	QPSK	1	0	23.13	22.89	22.99
			12	23.33	22.96	23.16
			24	23.39	22.96	23.26
		12	0	22.26	22.30	22.34
			7	22.28	22.42	22.37
			13	22.42	22.39	22.29
	25	0	22.26	22.31	22.31	
	16QAM	1	0	21.60	21.98	21.90
			12	21.67	22.15	21.92
			24	21.83	21.90	21.81
		12	0	21.32	21.32	21.29
			7	21.34	21.23	21.24
			13	21.48	21.25	21.24
	25	0	21.45	21.37	21.39	
Band-width	Modulation	RB allocation	RB offset	26090	26365	26640
				1855MHz	1882.5MHz	1910MHz
10MHz	QPSK	1	0	23.49	23.15	23.14
			24	23.78	23.59	23.40
			49	23.44	23.39	23.43
		25	0	22.37	22.30	22.37
			24	22.35	22.40	22.17
			49	22.24	22.36	22.33
	50	0	22.29	22.29	22.31	
	16QAM	1	0	22.40	21.48	22.04
			24	22.47	22.51	22.18
			49	22.51	22.08	22.44
		25	0	21.31	21.30	21.52
			24	21.39	21.64	21.36
			49	21.29	21.58	21.58
	50	0	21.39	21.29	21.40	

LTE-FDD Band 25				Conducted Power(dBm)			
Band-width	Modulation	RB allocation	RB offset	26115	26365	26615	
				1857.5MHz	1882.5MHz	1907.5MHz	
15MHz	QPSK	1	0	23.01	23.02	23.12	
			38	23.80	23.16	23.14	
			74	23.54	23.06	23.16	
		38	0	22.40	22.24	22.27	
			18	22.31	22.39	22.38	
			37	22.29	22.39	22.11	
		75	0	22.31	22.25	22.18	
		16QAM	1	0	22.36	21.47	22.95
				38	22.97	22.08	23.21
	74			22.37	22.61	23.03	
	38		0	21.41	21.35	21.17	
			18	21.34	21.45	21.31	
			37	21.35	21.43	21.18	
	75	0	21.27	21.34	21.29		
	Band-width	Modulation	RB allocation	RB offset	26140	26365	26590
1860MHz					1882.5MHz	1905MHz	
20MHz	QPSK	1	0	22.60	23.18	22.89	
			49	23.20	23.45	23.10	
			99	22.85	23.08	22.99	
		50	0	22.28	22.21	22.11	
			25	22.40	22.28	22.25	
			50	22.34	22.18	22.11	
		100	0	22.32	22.23	22.17	
		16QAM	1	0	21.64	22.13	21.54
				49	22.05	22.41	22.76
	99			21.70	21.74	22.23	
	50		0	21.47	21.16	21.02	
			25	21.47	21.23	21.23	
			50	21.30	21.28	21.15	
	100		0	21.30	21.33	21.18	

LTE-FDD Band 26				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	26697	26865	27033
				814.7MHz	831.5MHz	848.3MHz
1.4MHz	QPSK	1	0	23.77	24.10	23.96
			2	24.15	24.21	24.16
			5	24.06	24.11	24.01
		3	0	24.05	24.16	24.17
			1	24.25	23.85	24.20
			3	23.73	23.77	24.06
	6	0	22.73	23.05	23.11	
	16QAM	1	0	22.85	22.73	23.35
			2	23.00	22.96	23.32
			5	23.04	22.90	22.92
		3	0	23.50	23.21	23.23
			1	23.62	23.14	23.15
			3	23.50	22.62	23.12
	6	0	22.63	22.17	22.05	
	Band-width	Modulation	RB allocation	RB offset	26705	26865
815.5MHz					831.5MHz	847.5MHz
3MHz	QPSK	1	0	24.22	23.63	24.08
			8	24.32	24.09	23.87
			14	24.24	23.94	24.04
		8	0	22.74	23.10	23.05
			4	23.20	23.29	23.10
			7	22.86	23.19	23.01
	15	0	22.97	23.05	23.13	
	16QAM	1	0	22.80	23.33	23.10
			8	23.55	23.56	23.17
			14	23.40	23.54	23.14
		8	0	22.34	22.05	22.06
			4	22.22	22.34	22.11
			7	22.13	22.08	21.94
	15	0	21.93	22.10	22.17	

LTE-FDD Band 26				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	26715	26865	27015
				816.5MHz	831.5MHz	846.5MHz
5MHz	QPSK	1	0	24.00	23.75	23.90
			12	24.02	23.98	24.13
			24	24.28	23.94	23.88
		12	0	23.15	22.87	23.18
			7	23.03	23.37	23.14
			13	23.33	22.99	23.20
	25	0	22.84	22.84	23.04	
	16QAM	1	0	22.49	22.43	22.90
			12	22.42	22.87	22.82
			24	22.56	22.52	22.85
		12	0	22.18	22.06	22.09
			7	22.18	21.82	22.13
			13	22.14	21.80	22.18
		25	0	22.04	22.09	21.95
Band-width		Modulation	RB allocation	RB offset	26740	26865
	819MHz				831.5MHz	844MHz
10MHz	QPSK	1	0	24.03	24.11	23.98
			24	24.48	24.26	24.22
			49	24.13	23.86	23.93
		25	0	23.13	22.96	22.84
			24	23.28	23.16	23.20
			49	23.10	23.07	23.23
	50	0	23.22	23.04	23.14	
	16QAM	1	0	22.87	23.31	22.80
			24	23.45	22.97	23.69
			49	23.26	22.86	22.99
		25	0	22.08	22.12	22.07
			24	22.23	22.23	22.18
			49	22.07	22.22	22.24
		50	0	22.15	22.14	22.03

LTE-FDD Band 26				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	26765	26865	26965
				821.5MHz	831.5MHz	841.5MHz
15MHz	QPSK	1	0	23.91	23.79	23.93
			38	23.93	23.97	23.83
			74	24.24	23.73	23.91
		38	0	23.14	22.92	22.99
			18	23.11	23.02	23.00
			37	23.03	22.96	23.13
	75	0	23.11	22.89	23.02	
	16QAM	1	0	22.64	23.00	22.82
			38	22.77	23.63	22.85
			74	22.91	23.29	22.88
		38	0	22.35	21.86	22.00
			18	22.29	22.12	22.03
			37	22.06	22.05	22.15
		75	0	22.22	22.02	22.06



LTE-FDD Band 66				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	131979	132322	132665
				1710.7MHz	1745MHz	1779.3MHz
1.4MHz	QPSK	1	0	24.48	23.58	23.40
			2	24.54	23.65	23.39
			5	24.42	23.56	23.12
		3	0	24.43	23.55	23.31
			1	24.43	23.60	23.35
			3	24.42	23.61	23.25
	6	0	23.34	22.42	22.16	
	16QAM	1	0	23.27	22.77	22.07
			2	23.40	22.21	22.37
			5	22.99	22.56	22.12
		3	0	23.38	22.62	22.43
			1	23.22	22.50	22.45
			3	23.18	22.47	22.35
	6	0	22.18	21.29	21.29	
Band-width	Modulation	RB allocation	RB offset	131987	132322	132657
				1711.5MHz	1745MHz	1778.5MHz
3MHz	QPSK	1	0	24.45	23.49	23.27
			8	24.47	23.63	23.52
			14	24.59	23.66	23.47
		8	0	23.27	22.57	22.22
			4	23.28	22.62	22.21
			7	23.26	22.66	22.18
	15	0	23.28	22.61	22.27	
	16QAM	1	0	23.15	23.00	22.12
			8	23.43	23.03	22.26
			14	23.40	23.08	22.30
		8	0	22.36	21.56	21.34
			4	22.26	21.38	21.22
			7	22.26	21.41	21.40
	15	0	22.31	21.63	21.14	

LTE-FDD Band 66				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	131997	132322	132647
				1712.5MHz	1745MHz	1777.5MHz
5MHz	QPSK	1	0	24.27	23.38	23.26
			12	24.16	23.26	23.07
			24	24.11	23.36	23.16
		12	0	23.23	22.60	22.22
			7	23.18	22.62	22.16
			13	23.21	22.67	22.10
	25	0	23.20	22.45	22.10	
	16QAM	1	0	22.71	22.53	21.70
			12	22.69	22.53	21.67
			24	22.60	22.08	21.74
		12	0	22.23	21.65	21.20
			7	22.32	21.53	21.20
			13	22.25	21.45	21.15
	25	0	22.27	21.53	21.12	
Band-width	Modulation	RB allocation	RB offset	132022	132322	132622
				1715MHz	1745MHz	1775MHz
10MHz	QPSK	1	0	24.39	23.50	23.09
			24	24.67	23.55	23.32
			49	24.21	23.57	23.07
		25	0	23.12	22.45	22.18
			24	23.26	22.54	22.10
			49	23.23	22.58	22.01
	50	0	23.18	22.54	22.02	
	16QAM	1	0	23.37	22.87	22.22
			24	23.70	22.95	22.17
			49	23.55	22.38	22.04
		25	0	22.14	21.48	21.41
			24	22.27	21.66	21.29
			49	22.14	21.66	21.27
	50	0	21.99	21.65	21.12	

LTE-FDD Band 66				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	132047	132322	132597
				1717.5MHz	1745MHz	1772.5MHz
15MHz	QPSK	1	0	24.53	23.34	23.22
			38	24.16	23.41	23.07
			74	23.98	23.66	22.99
		38	0	23.16	22.46	22.27
			18	23.16	22.59	22.19
			37	23.13	22.53	22.04
	75	0	23.04	22.53	22.16	
	16QAM	1	0	23.32	22.51	23.11
			38	23.11	22.67	23.08
			74	23.50	22.87	22.75
		38	0	21.99	21.62	21.35
			18	21.98	21.65	21.18
			37	22.03	21.67	21.00
	75	0	21.99	21.67	21.26	
Band-width	Modulation	RB allocation	RB offset	132072	132322	132572
				1720MHz	1745MHz	1770MHz
20MHz	QPSK	1	0	23.90	23.51	23.21
			49	23.87	23.61	23.05
			99	23.58	23.67	22.95
		50	0	23.19	22.53	22.21
			25	23.09	22.51	22.14
			50	23.01	22.49	22.08
	100	0	23.01	22.46	22.26	
	16QAM	1	0	22.81	22.43	22.19
			49	22.86	22.65	21.71
			99	22.50	22.55	21.66
		50	0	22.07	21.47	21.30
			25	22.06	21.64	21.22
			50	21.96	21.60	21.15
	100	0	21.98	21.58	21.32	

LTE-FDD Band 71				Conducted Power(dBm)			
Band-width	Modulation	RB allocation	RB offset	133147	133297	133447	
				665.5MHz	680.5MHz	695.5MHz	
5MHz	QPSK	1	0	23.61	23.12	23.32	
			12	23.31	23.28	23.42	
			24	23.01	23.16	23.31	
		12	0	22.49	22.37	22.34	
			7	22.50	22.44	22.35	
			13	22.55	22.43	22.40	
	25	0	22.43	22.31	22.30		
	16QAM	1	0	22.21	22.33	21.95	
			12	21.84	21.97	21.73	
			24	21.95	21.81	22.09	
		12	0	21.27	21.29	21.23	
			7	21.55	21.35	21.33	
			13	21.53	21.36	21.38	
		25	0	21.52	21.42	21.42	
		Band-width	Modulation	RB allocation	RB offset	133172	133297
668MHz						680.5MHz	693MHz
10MHz	QPSK	1	0	23.60	23.34	23.18	
			24	23.18	23.81	23.56	
			49	23.52	23.49	23.15	
		25	0	22.50	22.44	22.40	
			24	22.38	22.48	22.35	
			49	22.30	22.46	22.36	
	50	0	22.31	22.41	22.35		
	16QAM	1	0	22.27	22.25	22.04	
			24	23.08	22.67	22.29	
			49	22.25	22.53	21.77	
		25	0	21.63	21.28	21.28	
			24	21.53	21.34	21.32	
			49	21.54	21.51	21.33	
		50	0	21.33	21.24	21.33	

LTE-FDD Band 71				Conducted Power(dBm)		
Band-width	Modulation	RB allocation	RB offset	133197	133297	133397
				670.5MHz	680.5MHz	690.5MHz
15MHz	QPSK	1	0	23.49	23.50	23.07
			38	23.54	23.73	23.21
			74	23.28	23.59	23.16
		38	0	22.38	22.45	22.49
			18	22.46	22.44	22.43
			37	22.56	22.45	22.45
	75	0	22.48	22.32	22.38	
	16QAM	1	0	22.40	22.42	22.35
			38	23.12	22.84	22.45
			74	22.87	22.53	22.66
		38	0	21.29	21.33	21.41
			18	21.31	21.32	21.35
			37	21.29	21.32	21.36
	75	0	21.25	21.31	21.30	
Band-width	Modulation	RB allocation	RB offset	133222	133322	133372
				673MHz	683MHz	688MHz
20MHz	QPSK	1	0	23.10	22.82	23.36
			49	23.78	23.36	23.64
			99	23.01	22.92	23.35
		50	0	22.28	22.36	22.44
			25	22.48	22.51	22.45
			50	22.40	22.43	22.31
	100	0	22.41	22.36	22.36	
	16QAM	1	0	22.41	21.61	21.70
			49	22.98	22.69	22.40
			99	22.27	21.72	21.80
		50	0	21.32	21.37	21.40
			25	21.43	21.50	21.45
			50	21.25	21.26	21.13
	100	0	21.30	21.34	21.24	

## LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Bands support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplinkdownlink configurations and Table 4.2-1 for Special subframe configurations.

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$	$7680 \cdot T_s$	$(1+X) \cdot 2192 \cdot T_s$	$(1+X) \cdot 2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$		
5	$6592 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$	$20480 \cdot T_s$	$(2+X) \cdot 2192 \cdot T_s$	$(2+X) \cdot 2560 \cdot T_s$
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-		
10	$13168 \cdot T_s$	$13152 \cdot T_s$	$12800 \cdot T_s$	-	-	-

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

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

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle =  $5120 \times [1/(15000 \times 2048)] \times 2 + 6 \text{ ms} = 63.33\%$

where

$T_s = 1/(15000 \times 2048)$  seconds

This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used-configuration 0 at 63.3% duty cycle.

## Band41 整段频率范围的

LTE-TDD Band 41				Conducted Power(dBm)					
Band-width	Modulation	RB allocation	RB offset	39750	40185	40620	41055	41490	
				2506MHz	2549.5MHz	2593MHz	2636.5MHz	2680MHz	
5MHz	QPSK	1	0	23.52	23.22	23.70	23.13	23.32	
			12	23.73	23.35	23.79	23.21	23.41	
			24	23.70	23.43	23.46	22.89	23.08	
		12	0	22.62	22.70	22.84	22.29	22.47	
			7	22.72	22.70	22.92	22.37	22.55	
			13	22.76	22.58	22.88	22.33	22.51	
	25	0	22.66	22.63	22.87	22.32	22.50		
	16QAM	1	0	22.47	22.02	22.61	22.06	22.25	
			12	22.55	22.14	22.54	21.99	22.18	
			24	22.43	21.96	22.57	22.02	22.21	
		12	0	21.76	21.50	21.91	21.38	21.56	
			7	21.95	21.63	21.91	21.38	21.56	
			13	21.89	21.56	21.94	21.41	21.59	
		25	0	21.63	21.68	21.74	21.21	21.39	
		Band-width	Modulation	RB allocation	RB offset	39750	40185	40620	41055
2506MHz						2549.5MHz	2593MHz	2636.5MHz	2680MHz
10MHz	QPSK	1	0	23.65	23.40	23.75	23.18	23.37	
			24	23.78	23.55	23.84	23.26	23.46	
			49	23.86	23.39	23.66	23.09	23.28	
		25	0	22.76	22.53	22.76	22.21	22.40	
			24	22.82	22.66	22.95	22.39	22.58	
			49	22.74	22.55	22.88	22.33	22.51	
	50	0	22.72	22.55	22.81	22.26	22.45		
	16QAM	1	0	22.86	21.95	23.56	22.99	23.18	
			24	23.34	22.28	23.79	23.21	23.41	
			49	23.28	21.96	23.30	22.74	22.93	
		25	0	21.84	21.60	21.75	21.22	21.40	
			24	21.99	21.73	21.84	21.31	21.49	
			49	21.95	21.54	21.79	21.26	21.44	
		50	0	21.84	21.65	21.83	21.30	21.48	

LTE-TDD Band 41				Conducted Power(dBm)						
Band-width	Modulation	RB allocation	RB offset	39750	40185	40620	41055	41490		
				2506MHz	2549.5MHz	2593MHz	2636.5MHz	2680MHz		
15MHz	QPSK	1	0	23.51	23.44	23.67	23.10	23.29		
			38	23.71	23.39	23.58	23.01	23.20		
			74	23.71	23.33	23.69	23.12	23.31		
		38	0	22.64	22.48	22.76	22.21	22.40		
			18	22.66	22.71	22.90	22.35	22.53		
			37	22.92	22.42	22.63	22.08	22.27		
		75	0	22.93	22.43	22.71	22.16	22.35		
		16QAM	1	0	22.54	22.03	22.86	22.31	22.49	
				38	23.13	22.09	22.95	22.39	22.58	
	74			22.91	21.93	22.89	22.34	22.52		
	38		0	21.92	21.64	21.78	21.25	21.43		
			18	21.67	21.79	21.67	21.15	21.32		
			37	21.66	21.60	21.67	21.15	21.32		
	75		0	21.92	21.60	21.72	21.19	21.37		
	Band-width		Modulation	RB allocation	RB offset	39750	40185	40620	41055	41490
						2506MHz	2549.5MHz	2593MHz	2636.5MHz	2680MHz
	20MHz	QPSK	1	0	23.46	23.54	23.57	23.00	23.19	
				49	23.95	23.78	24.00	23.42	23.62	
99				23.63	23.52	23.70	23.13	23.32		
50			0	22.73	22.57	22.74	22.19	22.38		
			25	22.89	22.59	22.81	22.26	22.45		
			50	22.82	22.38	22.59	22.04	22.23		
100			0	22.90	22.43	22.82	22.27	22.45		
16QAM			1	0	22.30	22.14	22.92	22.37	22.55	
				49	22.88	22.08	23.28	22.72	22.91	
		99		22.50	21.70	23.11	22.55	22.74		
		50	0	21.83	21.57	21.78	21.25	21.43		
			25	22.05	21.67	21.87	21.34	21.52		
			50	21.92	21.53	21.72	21.19	21.37		
		100	0	21.92	21.54	21.74	21.21	21.39		



### 11.3. Wi-Fi

For 2.4GHz Wi-Fi SAR testing, highest average RF output power channel for the lowest data rate for 802.11b were for SAR evaluation.

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

SAR testing is not required for OFDM mode(s) 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  $\leq 1.2$  W/kg.

Wi-Fi 2.4G				
Mode	Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Conducted Average Power (dBm)
802.11b	1	2412	18.42	16.52
	6	2437	18.38	16.31
	11	2462	19.50	17.45
802.11g	1	2412	23.25	20.17
	6	2437	23.84	20.61
	11	2462	24.11	21.36
802.11n (HT20)	1	2412	23.12	20.11
	6	2437	23.24	20.64
	11	2462	23.92	21.47
802.11n (HT40)	3	2422	22.4	20.95
	6	2437	21.62	20.73
	9	2452	22.32	20.82

Wi-Fi 5G U-NII-1			
Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)
802.11n (HT20)	36	5180	11.71
	40	5200	11.58
	48	5240	11.42
802.11a	36	5180	12.93
	40	5200	12.75
	48	5240	12.71
802.11n (HT40)	38	5190	9.68
	46	5230	9.47

Wi-Fi 5G U-NII-3			
Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)
802.11n (HT20)	149	5745	11.01
	157	5785	11.08
	165	5825	11.25
802.11a	149	5745	11.36
	157	5785	11.54
	165	5825	11.65
802.11n (HT40)	151	5755	9.45
	159	5795	9.76

## 11.4. Bluetooth

Bluetooth				
Mode	Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Conducted Average Power (dBm)
GFSK	0	2402	2.93	0.75
	39	2441	2.17	0.22
	78	2480	3.08	<b>0.94</b>
$\pi/4$ QPSK	0	2402	3.05	0.57
	39	2441	2.88	0.18
	78	2480	<b>3.12</b>	0.63
8DPSK	0	2402	3.08	0.58
	39	2441	2.76	0.22
	78	2480	3.10	0.74
BLE	0	2402	2.38	0.11
	19	2440	1.66	-1.26
	39	2480	2.49	0.28

## 12. Maximum Tune-up Limit

WCDMA			
Mode	Maximum Tune-up (dBm)		
	FDD Band II	FDD Band IV	FDD Band V
AMR 12.2Kbps	23.00	23.00	23.00
RMC 12.2Kbps	23.00	23.00	23.00
HSDPA Subtest-1	22.00	22.00	22.00
HSDPA Subtest-2	21.50	22.00	22.00
HSDPA Subtest-3	21.00	21.50	22.00
HSDPA Subtest-4	21.00	21.50	22.00
HSUPA Subtest-1	19.00	18.50	20.00
HSUPA Subtest-2	19.50	19.00	20.00
HSUPA Subtest-3	19.00	19.00	20.00
HSUPA Subtest-4	19.50	19.00	19.50
HSUPA Subtest-5	22.50	22.50	21.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 2	1.4	QPSK	1	24.00
			3	23.50
			6	22.50
		16QAM	1	23.00
			3	22.50
			6	22.00
	3	QPSK	1	23.50
			8	22.50
			15	22.50
		16QAM	1	23.00
			8	22.00
			15	21.50
	5	QPSK	1	23.50
			12	22.50
			25	22.50
		16QAM	1	22.50
			12	21.50
			25	21.50
	10	QPSK	1	24.00
			25	22.50
			50	22.50
		16QAM	1	23.00
			25	22.00
			50	21.50
	15	QPSK	1	24.00
			38	22.50
			75	22.50
		16QAM	1	23.00
			38	21.50
			75	21.50
20	QPSK	1	23.50	
		50	22.50	
		100	22.50	
	16QAM	1	23.00	
		50	21.50	
		100	21.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 4	1.4	QPSK	1	24.00
			3	24.00
			6	23.00
		16QAM	1	23.00
			3	22.50
			6	21.50
	3	QPSK	1	24.00
			8	22.50
			15	22.50
		16QAM	1	23.00
			8	22.00
			15	21.50
	5	QPSK	1	23.50
			12	22.50
			25	22.50
		16QAM	1	22.50
			12	21.50
			25	21.50
	10	QPSK	1	24.00
			25	23.00
			50	22.50
		16QAM	1	23.00
			25	22.00
			50	21.50
	15	QPSK	1	24.00
			38	22.50
			75	22.50
		16QAM	1	23.00
			38	21.50
			75	21.50
20	QPSK	1	24.00	
		50	22.50	
		100	22.50	
	16QAM	1	23.00	
		50	21.50	
		100	21.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 5	1.4	QPSK	1	24.00
			3	24.50
			6	23.00
		16QAM	1	23.50
			3	23.50
			6	22.50
	3	QPSK	1	24.50
			8	23.00
			15	23.00
		16QAM	1	24.00
			8	22.50
			15	22.50
	5	QPSK	1	24.00
			12	23.50
			25	23.50
		16QAM	1	23.00
			12	22.50
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.00
16QAM		1	23.50	
		25	22.50	
		50	22.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 7	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.50
			12	22.50
			25	22.50
	10	QPSK	1	25.00
			25	23.50
			50	23.50
		16QAM	1	24.00
			25	22.50
			50	22.50
	15	QPSK	1	24.50
			38	23.50
			75	23.50
		16QAM	1	24.00
			38	22.50
			75	22.50
	20	QPSK	1	24.50
			50	23.50
			100	23.50
16QAM		1	23.50	
		50	22.50	
		100	22.50	



LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 12	1.4	QPSK	1	24.50
			3	24.50
			6	24.00
		16QAM	1	24.00
			3	24.00
			6	23.00
	3	QPSK	1	24.50
			8	24.00
			15	24.00
		16QAM	1	24.00
			8	23.00
			15	22.50
	5	QPSK	1	25.00
			12	24.00
			25	24.00
		16QAM	1	24.00
			12	23.00
			25	23.00
	10	QPSK	1	25.00
			25	23.50
			50	23.50
16QAM		1	24.00	
		25	22.50	
		50	22.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 13	5	QPSK	1	25.00
			12	24.00
			25	23.50
		16QAM	1	23.50
			12	22.50
			25	23.00
	10	QPSK	1	25.00
			25	23.50
			50	23.50
		16QAM	1	23.50
			25	22.50
			50	22.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 17	5	QPSK	1	25.00
			12	24.00
			25	24.00
		16QAM	1	24.00
			12	23.00
			25	23.00
	10	QPSK	1	25.00
			25	24.00
			50	24.00
		16QAM	1	24.00
			25	23.00
			50	23.00

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 25	1.4	QPSK	1	23.50
			3	23.50
			6	22.50
		16QAM	1	22.50
			3	23.00
			6	21.50
	3	QPSK	1	23.50
			8	22.50
			15	22.50
		16QAM	1	23.00
			8	21.50
			15	21.50
	5	QPSK	1	23.50
			12	22.50
			25	22.50
		16QAM	1	22.50
			12	21.50
			25	21.50
	10	QPSK	1	24.00
			25	22.50
			50	22.50
		16QAM	1	23.00
			25	22.00
			50	21.50
	15	QPSK	1	24.00
			38	22.50
			75	22.50
		16QAM	1	23.50
			38	21.50
			75	21.50
20	QPSK	1	23.50	
		50	22.50	
		100	22.50	
	16QAM	1	23.00	
		50	21.50	
		100	21.50	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 26	1.4	QPSK	1	24.50
			3	24.50
			6	23.50
		16QAM	1	23.50
			3	24.00
			6	23.00
	3	QPSK	1	24.50
			8	23.50
			15	23.50
		16QAM	1	24.00
			8	22.50
			15	22.50
	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.00
			12	22.50
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.50
		16QAM	1	24.00
			25	22.50
			50	22.50
15	QPSK	1	24.50	
		38	23.50	
		75	23.50	
	16QAM	1	24.00	
		38	22.50	
		75	22.50	

LTE				
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 66	1.4	QPSK	1	25.00
			3	24.50
			6	23.50
		16QAM	1	23.50
			3	23.50
			6	22.50
	3	QPSK	1	25.00
			8	23.50
			15	23.50
		16QAM	1	23.50
			8	22.50
			15	22.50
	5	QPSK	1	24.50
			12	23.50
			25	23.50
		16QAM	1	23.00
			12	22.50
			25	22.50
	10	QPSK	1	25.00
			25	23.50
			50	23.50
		16QAM	1	24.00
			25	22.50
			50	22.00
	15	QPSK	1	25.00
			38	23.50
			75	23.50
		16QAM	1	24.00
			38	22.50
			75	22.00
20	QPSK	1	24.00	
		50	23.50	
		100	23.50	
	16QAM	1	23.00	
		50	22.50	
		100	22.00	

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 71	5	QPSK	1	24.00
			12	23.00
			25	22.50
		16QAM	1	22.50
			12	22.00
			25	22.00
	10	QPSK	1	24.00
			25	23.00
			50	22.50
		16QAM	1	23.50
			25	22.00
			50	21.50
	15	QPSK	1	24.00
			38	23.00
			75	22.50
		16QAM	1	23.50
			38	21.50
			75	21.50
	20	QPSK	1	24.00
			50	23.00
			100	22.50
16QAM		1	23.00	
		50	22.00	
		100	21.50	

LTE				
Frequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
TDD Band 41	5	QPSK	1	24.00
			12	23.00
			25	23.00
		16QAM	1	23.00
			12	22.00
			25	22.00
	10	QPSK	1	24.00
			25	23.00
			50	23.00
		16QAM	1	24.00
			25	22.00
			50	22.00
	15	QPSK	1	24.00
			38	23.00
			75	23.00
		16QAM	1	23.50
			38	22.00
			75	22.00
	20	QPSK	1	24.50
			50	23.00
100			23.00	
16QAM		1	23.50	
		50	22.50	
		100	22.00	

The allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2-1 due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth ( $N_{RB}$ )						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

Wi-Fi 2.4G		
Mode	Channel	Maximum Tune-up (dBm) Conducted Average Power
802.11b	1	17.00
	6	16.50
	11	17.50
802.11g	1	20.50
	6	20.50
	11	21.50
802.11n(HT20)	1	20.50
	6	21.00
	11	21.50
802.11n(HT40)	3	21.00
	6	21.00
	9	21.00

Wi-Fi 5G U-NII-1		
Mode	Channel	Maximum Tune-up (dBm) Conducted Average Power
802.11n (HT20)	36	12.00
	40	12.00
	48	11.50
802.11a	36	13.00
	40	13.00
	48	13.00
802.11n (HT40)	38	10.00
	46	9.50

Wi-Fi 5G U-NII-3		
Mode	Channel	Maximum Tune-up (dBm) Conducted Average Power
802.11n (HT20)	149	11.50
	157	11.50
	165	11.50
802.11a	149	11.50
	157	12.00
	165	12.00
802.11n (HT40)	151	9.50
	159	10.00



Bluetooth		
Mode	Channel	Maximum Tune-up (dBm) Conducted Average Power
GFSK	0	1.00
	39	0.50
	78	1.00
$\pi/4$ QPSK	0	1.00
	39	0.50
	78	1.00
8DPSK	0	1.00
	39	0.50
	78	1.00
BLE	0	0.50
	19	-1.00
	39	0.50

Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances  $\leq 50$ mm are determined by:

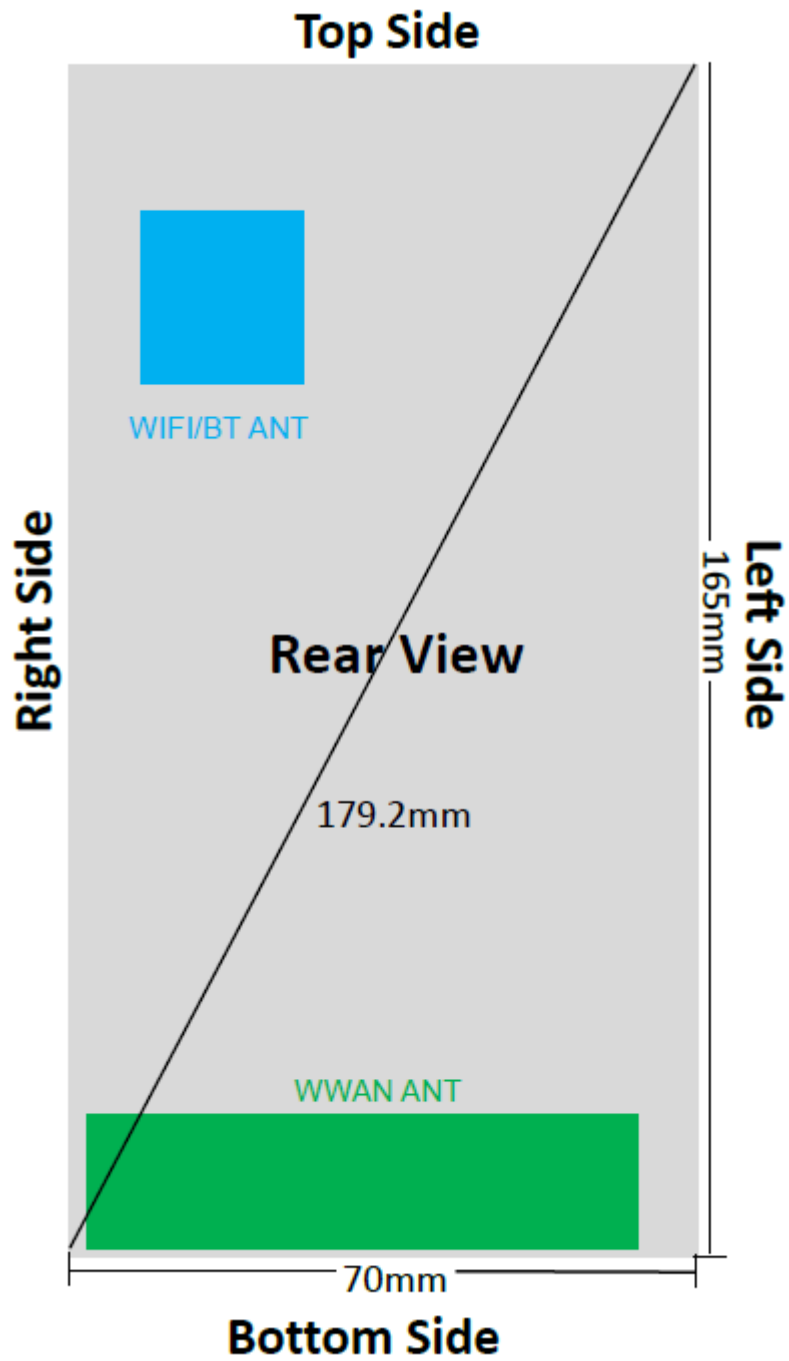
$[(\text{max. Power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR

Band/Mode	F(GHz)	Position	Separation Distance (mm)	Exclusion Thresholds	SAR test exclusion
Bluetooth	2.45	Head	0	0.4	0.053
		Body	10	0.2	0.026
		with back splint	0	0.4	0.053

Per KDB 447498 D01, when the minimum test separation distance is  $< 5$ mm, a distance of 5mm is applied to determine SAR test exclusion.

The test exclusion threshold is  $\leq 3$ , SAR testing is not required.

### 13. Antenna Location



## **14. Measured and Reported SAR Results**

### **SAR Test Reduction criteria are as follows:**

- Reported SAR(W/kg) for WWAN = Measured SAR \*Tune-up Scaling Factor
- Reported SAR(W/kg) for Wi-Fi and Bluetooth = Measured SAR \* Tune-up scaling factor \* Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

### **KDB 447498 D01 General RF Exposure Guidance:**

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

- $\leq 0.8$  W/kg or  $2.0$  W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
- $\leq 0.6$  W/kg or  $1.5$  W/kg, for 1-g or 10-g respectively, when the transmission band is between  $100$  MHz and  $200$  MHz
- $\leq 0.4$  W/kg or  $1.0$  W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz

### **KDB 648474 D04 Handset SAR:**

With headset attached, when the reported SAR for 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 that body-worn accessory with a headset attached to the handset. Additional 1-g SAR testing at 5 mm is not required when hotspot mode 10-g extremity SAR is not required for the surfaces and edges; since all 1-g reported SAR  $< 1.2$  W/kg.

### **KDB 941225 D01 SAR test for 3G SAR Test Reduction Procedure:**

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode 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  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

### **W-CDMA Guidance**

SAR for next to the ear head exposure 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 AMR configurations with 12.2 kbps RMC (Head) and other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC (Body-Worn Accessory) as the primary mode.

SAR measurement is not required for the HSDPA, HSUPA, DC-HSDPA and HSPA+. When primary mode and the adjusted SAR is  $\leq 1.2$  W/kg and secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode

### **KDB 941225 D05 SAR for LTE Devices:**

SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is  $> 0.8$  W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are  $> 0.8$  W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation  $< 1.45$  W/kg.
- Testing for 16-QAM and 64-QAM modulation is not required because the reported SAR for QPSK is  $< 1.45$  W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.

- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is  $< 1.45$  W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

**KDB 248227 D01 SAR meas for 802.11:**

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

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:

- $\leq 0.4$  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 closest/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is  $\leq 0.8$  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  $\leq 1.2$  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  $\leq 1.2$  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  $\leq 1.2$  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.

## 14.1. Head SAR

WCDMA Band II										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Left-Cheek	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	-0.06	0.620	0.651	1
		9538	1907.6	22.58	23.00	1.102	-	-	-	-
	Left-Tilt	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	-0.05	0.510	0.535	-
		9538	1907.6	22.58	23.00	1.102	-	-	-	-
	Right-Cheek	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	-0.08	0.592	0.621	-
		9538	1907.6	22.58	23.00	1.102	-	-	-	-
	Right-Tilt	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	0.03	0.474	0.497	-
		9538	1907.6	22.58	23.00	1.102	-	-	-	-

## WCDMA Band IV

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Left-Cheek	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	-0.11	0.461	0.488	2
		1513	1752.6	22.69	23.00	1.074	-	-	-	-
	Left-Tilt	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	-0.09	0.379	0.401	-
		1513	1752.6	22.69	23.00	1.074	-	-	-	-
	Right-Cheek	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	-0.15	0.440	0.466	-
		1513	1752.6	22.69	23.00	1.074	-	-	-	-
	Right-Tilt	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	0.05	0.352	0.373	-
		1513	1752.6	22.69	23.00	1.074	-	-	-	-

## WCDMA Band V

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Left-Cheek	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	-0.05	0.643	0.678	3
	Left-Tilt	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	0.06	0.492	0.519	-
	Right-Cheek	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	0.02	0.596	0.628	-
	Right-Tilt	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	-0.03	0.451	0.476	-

## LTE Band 2

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	-0.10	0.367	0.384	4
		19100	1900	23.13	23.50	1.089	-	-	-	-
	Left-Tilt	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	0.07	0.300	0.315	-
		19100	1900	23.13	23.50	1.089	-	-	-	-
	Right-Cheek	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	0.05	0.358	0.374	-
		19100	1900	23.13	23.50	1.089	-	-	-	-
	Right-Tilt	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	-0.06	0.285	0.298	-
		19100	1900	23.13	23.50	1.089	-	-	-	-
20M QPSK 50RB	Left-Cheek	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	-0.05	0.332	0.350	-
		19100	1900	22.14	22.50	1.086	-	-	-	-
	Left-Tilt	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	0.03	0.291	0.307	-
		19100	1900	22.14	22.50	1.086	-	-	-	-
	Right-Cheek	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	0.02	0.307	0.324	-
		19100	1900	22.14	22.50	1.086	-	-	-	-
	Right-Tilt	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	-0.02	0.261	0.275	-
		19100	1900	22.14	22.50	1.086	-	-	-	-



## LTE Band 4

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	-0.06	0.421	0.463	5
		20300	1745	23.18	24.00	1.208	-	-	-	-
	Left-Tilt	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	0.01	0.315	0.346	-
		20300	1745	23.18	24.00	1.208	-	-	-	-
	Right-Cheek	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	0.03	0.409	0.449	-
		20300	1745	23.18	24.00	1.208	-	-	-	-
	Right-Tilt	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	-0.02	0.317	0.349	-
		20300	1745	23.18	24.00	1.208	-	-	-	-
20M QPSK 50RB	Left-Cheek	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	-0.08	0.410	0.418	-
		20300	1745	22.04	22.50	1.112	-	-	-	-
	Left-Tilt	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	0.06	0.324	0.330	-
		20300	1745	22.04	22.50	1.112	-	-	-	-
	Right-Cheek	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	0.04	0.372	0.379	-
		20300	1745	22.04	22.50	1.112	-	-	-	-
	Right-Tilt	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	-0.05	0.264	0.269	-
		20300	1745	22.04	22.50	1.112	-	-	-	-

## LTE Band 5

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Left-Cheek	20450	829	24.38	24.50	1.028	-0.12	0.526	0.541	6
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
	Left-Tilt	20450	829	24.38	24.50	1.028	-0.06	0.441	0.453	-
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
	Right-Cheek	20450	829	24.38	24.50	1.028	0.09	0.508	0.522	-
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
	Right-Tilt	20450	829	24.38	24.50	1.028	-0.04	0.403	0.414	-
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
10M QPSK 25RB	Left-Cheek	20450	829	23.10	23.50	1.096	-0.10	0.500	0.548	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-
	Left-Tilt	20450	829	23.10	23.50	1.096	0.06	0.388	0.425	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-
	Right-Cheek	20450	829	23.10	23.50	1.096	-0.05	0.498	0.546	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-
	Right-Tilt	20450	829	23.10	23.50	1.096	-0.06	0.406	0.446	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-

## LTE Band 7

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	-0.09	0.027	0.027	7
		21350	2560	24.34	24.50	1.038	-	-	-	-
	Left-Tilt	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	-0.05	0.023	0.023	-
		21350	2560	24.34	24.50	1.038	-	-	-	-
	Right-Cheek	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	0.07	0.026	0.026	-
		21350	2560	24.34	24.50	1.038	-	-	-	-
	Right-Tilt	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	-0.03	0.021	0.021	-
		21350	2560	24.34	24.50	1.038	-	-	-	-
20M QPSK 50RB	Left-Cheek	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	-0.05	0.024	0.025	-
		21350	2560	23.31	23.50	1.045	-	-	-	-
	Left-Tilt	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	0.03	0.019	0.019	-
		21350	2560	23.31	23.50	1.045	-	-	-	-
	Right-Cheek	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	-0.02	0.024	0.024	-
		21350	2560	23.31	23.50	1.045	-	-	-	-
	Right-Tilt	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	-0.03	0.020	0.020	-
		21350	2560	23.31	23.50	1.045	-	-	-	-

## LTE Band 12

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Left-Cheek	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	-0.13	0.210	0.233	8
	Left-Tilt	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	-0.07	0.176	0.196	-
	Right-Cheek	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	0.10	0.203	0.226	-
	Right-Tilt	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	-0.05	0.161	0.179	-
10M QPSK 25RB	Left-Cheek	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	-0.10	0.188	0.190	-
	Left-Tilt	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	0.06	0.146	0.147	-
	Right-Cheek	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	-0.05	0.187	0.189	-
	Right-Tilt	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	-0.06	0.153	0.154	-

**LTE Band 13**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Left-Cheek	23230	782	24.52	25.00	1.117	-0.06	0.422	0.471	9
	Left-Tilt	23230	782	24.52	25.00	1.117	-0.03	0.353	0.395	-
	Right-Cheek	23230	782	24.52	25.00	1.117	0.04	0.408	0.455	-
	Right-Tilt	23230	782	24.52	25.00	1.117	-0.02	0.323	0.361	-
10M QPSK 25RB	Left-Cheek	23230	782	23.36	23.50	1.033	-0.08	0.396	0.409	-
	Left-Tilt	23230	782	23.36	23.50	1.033	0.05	0.307	0.317	-
	Right-Cheek	23230	782	23.36	23.50	1.033	-0.04	0.394	0.407	-
	Right-Tilt	23230	782	23.36	23.50	1.033	-0.05	0.322	0.332	-

**LTE Band 14**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Left-Cheek	23330	793	23.33	23.50	1.040	-0.15	0.374	0.389	10
	Left-Tilt	23330	793	23.33	23.50	1.040	-0.08	0.313	0.326	-
	Right-Cheek	23330	793	23.33	23.50	1.040	0.11	0.361	0.376	-
	Right-Tilt	23330	793	23.33	23.50	1.040	-0.05	0.286	0.298	-
10M QPSK 25RB	Left-Cheek	23330	793	23.56	24.00	1.107	-0.12	0.336	0.372	-
	Left-Tilt	23330	793	23.56	24.00	1.107	0.07	0.261	0.288	-
	Right-Cheek	23330	793	23.56	24.00	1.107	-0.06	0.334	0.370	-
	Right-Tilt	23330	793	23.56	24.00	1.107	-0.07	0.273	0.302	-

## LTE Band 17

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Left-Cheek	23780	709	24.82	25.00	1.042	-0.14	0.219	0.228	11
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
	Left-Tilt	23780	709	24.82	25.00	1.042	-0.07	0.183	0.191	-
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
	Right-Cheek	23780	709	24.82	25.00	1.042	0.10	0.212	0.221	-
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
	Right-Tilt	23780	709	24.82	25.00	1.042	-0.05	0.168	0.175	-
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
10M QPSK 25RB	Left-Cheek	23780	709	23.80	24.00	1.047	-0.10	0.200	0.209	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-
	Left-Tilt	23780	709	23.80	24.00	1.047	0.06	0.155	0.162	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-
	Right-Cheek	23780	709	23.80	24.00	1.047	-0.05	0.199	0.208	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-
	Right-Tilt	23780	709	23.80	24.00	1.047	-0.06	0.163	0.170	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-

## LTE Band 25

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	-0.08	0.406	0.411	12
		26590	1905	23.10	23.50	1.096	-	-	-	-
	Left-Tilt	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	-0.04	0.340	0.344	-
		26590	1905	23.10	23.50	1.096	-	-	-	-
	Right-Cheek	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	0.06	0.392	0.397	-
		26590	1905	23.10	23.50	1.096	-	-	-	-
	Right-Tilt	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	-0.03	0.311	0.315	-
		26590	1905	23.10	23.50	1.096	-	-	-	-
20M QPSK 50RB	Left-Cheek	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	-0.11	0.385	0.405	-
		26590	1905	22.25	22.50	1.059	-	-	-	-
	Left-Tilt	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	0.07	0.299	0.314	-
		26590	1905	22.25	22.50	1.059	-	-	-	-
	Right-Cheek	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	-0.05	0.383	0.403	-
		26590	1905	22.25	22.50	1.059	-	-	-	-
	Right-Tilt	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	-0.06	0.313	0.329	-
		26590	1905	22.25	22.50	1.059	-	-	-	-

## LTE Band 26

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
15M QPSK 1RB	Left-Cheek	26765	821.5	24.24	24.50	1.062	-0.13	0.442	0.469	13
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
	Left-Tilt	26765	821.5	24.24	24.50	1.062	-0.07	0.370	0.393	-
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
	Right-Cheek	26765	821.5	24.24	24.50	1.062	0.10	0.427	0.453	-
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
	Right-Tilt	26765	821.5	24.24	24.50	1.062	-0.05	0.339	0.359	-
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
15M QPSK 38RB	Left-Cheek	26765	821.5	23.14	23.50	1.086	-0.08	0.415	0.451	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-
	Left-Tilt	26765	821.5	23.14	23.50	1.086	0.05	0.322	0.350	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-
	Right-Cheek	26765	821.5	23.14	23.50	1.086	-0.04	0.413	0.449	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-
	Right-Tilt	26765	821.5	23.14	23.50	1.086	-0.05	0.337	0.366	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-



## LTE Band 66

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	132072	1720	23.90	24.00	1.023	-0.07	0.379	0.388	14
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
	Left-Tilt	132072	1720	23.90	24.00	1.023	-0.04	0.317	0.325	-
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
	Right-Cheek	132072	1720	23.90	24.00	1.023	0.05	0.366	0.375	-
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
	Right-Tilt	132072	1720	23.90	24.00	1.023	-0.02	0.290	0.297	-
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
20M QPSK 50RB	Left-Cheek	132072	1720	23.19	23.50	1.074	0.11	0.335	0.360	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-
	Left-Tilt	132072	1720	23.19	23.50	1.074	-0.07	0.260	0.279	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-
	Right-Cheek	132072	1720	23.19	23.50	1.074	0.05	0.333	0.358	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-
	Right-Tilt	132072	1720	23.19	23.50	1.074	0.06	0.272	0.292	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-

## LTE Band 71

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	133222	673	23.78	24.00	1.052	-0.17	0.140	0.147	15
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
	Left-Tilt	133222	673	23.78	24.00	1.052	-0.09	0.117	0.123	-
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
	Right-Cheek	133222	673	23.78	24.00	1.052	0.12	0.135	0.142	-
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
	Right-Tilt	133222	673	23.78	24.00	1.052	-0.06	0.107	0.113	-
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
20M QPSK 50RB	Left-Cheek	133222	673	22.48	23.00	1.127	-0.12	0.118	0.133	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-
	Left-Tilt	133222	673	22.48	23.00	1.127	0.07	0.091	0.103	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-
	Right-Cheek	133222	673	22.48	23.00	1.127	-0.06	0.117	0.132	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-
	Right-Tilt	133222	673	22.48	23.00	1.127	-0.07	0.096	0.108	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-

## LTE Band 41

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz						(W/kg)	(W/kg)	
20M QPSK 1RB	Left-Cheek	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	-0.10	0.029	0.033	16
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
	Left-Tilt	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	-0.05	0.024	0.027	-
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
	Right-Cheek	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	0.07	0.028	0.032	-
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
	Right-Tilt	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	-0.04	0.022	0.025	-
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
20M QPSK 50RB	Left-Cheek	CH39750	2506.0	22.89	23.00	1.026	1.006	-0.04	0.020	0.021	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-

	Left-Tilt	CH39750	2506.0	22.89	23.00	1.026	1.006	0.02	0.016	0.016	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-
	Right-Cheek	CH39750	2506.0	22.89	23.00	1.026	1.006	-0.02	0.020	0.021	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-
	Right-Tilt	CH39750	2506.0	22.89	23.00	1.026	1.006	-0.02	0.016	0.017	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-

**Note:**

For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9%) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg) \* Tune-up Scaling Factor \* scaling factor for extended cyclic prefix.

**WIFI 2.4G**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11b 1Mbps	Left-Cheek	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	0.14	0.282	0.285	17
	Left-Tilt	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	-0.19	0.239	0.242	-
	Right-Cheek	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	-0.08	0.271	0.274	-
	Right-Tilt	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	0.10	0.228	0.230	-

**WIFI 5G U-NII-1**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11a	Left-Cheek	36	5180	12.93	13.00	1.016	100.00%	1.00	-0.12	0.042	0.043	18
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-
	Left-Tilt	36	5180	12.93	13.00	1.016	100.00%	1.00	0.16	0.036	0.036	-
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-
	Right-Cheek	36	5180	12.93	13.00	1.016	100.00%	1.00	0.07	0.040	0.041	-
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-
	Right-Tilt	36	5180	12.93	13.00	1.016	100.00%	1.00	-0.09	0.034	0.034	-
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-

**WIFI 5G U-NII-3**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11a	Left-Cheek	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	-0.10	0.057	0.062	19
	Left-Tilt	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	0.14	0.048	0.052	-
	Right-Cheek	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	0.05	0.055	0.059	-
	Right-Tilt	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	-0.07	0.046	0.050	-

**14.2. Body SAR**

<b>WCDMA Band II</b>										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Front	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	0.04	0.332	0.348	-
		9538	1907.6	22.58	23.00	1.102	-	-	-	-
	Rear	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	-0.10	0.466	0.489	20
		9538	1907.6	22.58	23.00	1.102	-	-	-	-
	with back splint	9262	1852.4	22.52	23.00	1.117	-	-	-	-
		9400	1880	22.79	23.00	1.050	-0.13	0.412	0.432	-
		9538	1907.6	22.58	23.00	1.102	-	-	-	-

<b>WCDMA Band IV</b>										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Front	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	0.01	0.448	0.475	-
		1513	1752.6	22.69	23.00	1.074	-	-	-	-
	Rear	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	-0.02	0.630	0.667	21
		1513	1752.6	22.69	23.00	1.074	-	-	-	-
	with back splint	1312	1712.4	22.53	23.00	1.114	-	-	-	-
		1413	1732.6	22.75	23.00	1.059	-0.08	0.582	0.616	-
		1513	1752.6	22.69	23.00	1.074	-	-	-	-



## WCDMA Band V

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
RMC 12.2Kbps	Front	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	-0.02	0.388	0.409	-
	Rear	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	0.05	0.588	0.620	22
	with back splint	4132	826.4	22.43	23.00	1.140	-	-	-	-
		4183	836.6	22.69	23.00	1.074	-	-	-	-
		4233	846.6	22.77	23.00	1.054	0.09	0.468	0.493	-

## LTE Band 2

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	0.04	0.210	0.220	-
		19100	1900	23.13	23.50	1.089	-	-	-	-
	Rear	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	-0.11	0.295	0.309	23
		19100	1900	23.13	23.50	1.089	-	-	-	-
	with back splint	18700	1860	23.17	23.50	1.079	-	-	-	-
		18900	1880	23.30	23.50	1.047	-0.05	0.246	0.258	-
		19100	1900	23.13	23.50	1.089	-	-	-	-
20M QPSK 50RB	Front	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	-0.03	0.181	0.191	-
		19100	1900	22.14	22.50	1.086	-	-	-	-
	Rear	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	0.08	0.255	0.269	-
		19100	1900	22.14	22.50	1.086	-	-	-	-
	with back splint	18700	1860	22.15	22.50	1.084	-	-	-	-
		18900	1880	22.27	22.50	1.054	-0.12	0.226	0.238	-
		19100	1900	22.14	22.50	1.086	-	-	-	-

## LTE Band 4

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	-0.03	0.399	0.439	-
		20300	1745	23.18	24.00	1.208	-	-	-	-
	Rear	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	0.08	0.560	0.615	24
		20300	1745	23.18	24.00	1.208	-	-	-	-
	with back splint	20050	1720	22.92	24.00	1.282	-	-	-	-
		20175	1732.5	23.59	24.00	1.099	-0.06	0.425	0.467	-
		20300	1745	23.18	24.00	1.208	-	-	-	-
20M QPSK 50RB	Front	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	-0.04	0.364	0.371	-
		20300	1745	22.04	22.50	1.112	-	-	-	-
	Rear	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	0.10	0.512	0.522	-
		20300	1745	22.04	22.50	1.112	-	-	-	-
	with back splint	20050	1720	21.93	22.50	1.140	-	-	-	-
		20175	1732.5	22.42	22.50	1.019	-0.08	0.442	0.450	-
		20300	1745	22.04	22.50	1.112	-	-	-	-

## LTE Band 5

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Front	20450	829	24.38	24.50	1.028	-0.03	0.316	0.325	-
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
	Rear	20450	829	24.38	24.50	1.028	0.07	0.444	0.456	25
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
	with back splint	20450	829	24.38	24.50	1.028	-0.11	0.389	0.400	-
		20525	836.5	24.17	24.50	1.079	-	-	-	-
		20600	844	24.11	24.50	1.094	-	-	-	-
10M QPSK 25RB	Front	20450	829	23.10	23.50	1.096	-0.04	0.285	0.312	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-
	Rear	20450	829	23.10	23.50	1.096	0.10	0.400	0.439	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-
	with back splint	20450	829	23.10	23.50	1.096	-0.05	0.356	0.390	-
		20525	836.5	22.88	23.50	1.153	-	-	-	-
		20600	844	22.88	23.50	1.153	-	-	-	-

## LTE Band 7

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	0.05	0.146	0.148	-
		21350	2560	24.34	24.50	1.038	-	-	-	-
	Rear	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	-0.14	0.205	0.207	26
		21350	2560	24.34	24.50	1.038	-	-	-	-
	with back splint	20850	2510	24.23	24.50	1.064	-	-	-	-
		21100	2535	24.45	24.50	1.012	-0.08	0.156	0.158	-
		21350	2560	24.34	24.50	1.038	-	-	-	-
20M QPSK 50RB	Front	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	0.04	0.132	0.135	-
		21350	2560	23.31	23.50	1.045	-	-	-	-
	Rear	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	-0.10	0.186	0.190	-
		21350	2560	23.31	23.50	1.045	-	-	-	-
	with back splint	20850	2510	23.10	23.50	1.096	-	-	-	-
		21100	2535	23.40	23.50	1.023	-0.06	0.152	0.156	-
		21350	2560	23.31	23.50	1.045	-	-	-	-

LTE Band 12										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Front	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	0.03	0.189	0.210	-
	Rear	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	-0.08	0.266	0.296	27
	with back splint	23060	704	24.13	25.00	1.222	-	-	-	-
		23095	707.5	23.97	25.00	1.268	-	-	-	-
		23130	711	24.54	25.00	1.112	0.13	0.225	0.250	-
10M QPSK 25RB	Front	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	0.04	0.179	0.181	-
	Rear	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	-0.11	0.251	0.253	-
	with back splint	23060	704	23.16	23.50	1.081	-	-	-	-
		23095	707.5	22.99	23.50	1.125	-	-	-	-
		23130	711	23.46	23.50	1.009	-0.05	0.219	0.221	-

**LTE Band 13**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Front	23230	782	24.52	25.00	1.117	0.05	0.231	0.258	-
	Rear	23230	782	24.52	25.00	1.117	-0.13	0.324	0.362	28
	with back splint	23230	782	24.52	25.00	1.117	-0.07	0.289	0.323	-
10M QPSK 25RB	Front	23230	782	23.36	23.50	1.033	0.04	0.213	0.220	-
	Rear	23230	782	23.36	23.50	1.033	-0.10	0.300	0.310	-
	with back splint	23230	782	23.36	23.50	1.033	-0.06	0.255	0.263	-

**LTE Band 14**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Front	23330	793	23.33	23.50	1.040	0.07	0.206	0.214	-
	Rear	23330	793	23.33	23.50	1.040	-0.18	0.289	0.301	29
	with back splint	23330	793	23.33	23.50	1.040	0.05	0.246	0.256	-
10M QPSK 25RB	Front	23330	793	23.56	24.00	1.107	0.05	0.189	0.209	-
	Rear	23330	793	23.56	24.00	1.107	-0.12	0.266	0.294	-
	with back splint	23330	793	23.56	24.00	1.107	-0.09	0.219	0.242	-

## LTE Band 17

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
10M QPSK 1RB	Front	23780	709	24.82	25.00	1.042	0.01	0.190	0.198	-
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
	Rear	23780	709	24.82	25.00	1.042	-0.03	0.267	0.278	30
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
	with back splint	23780	709	24.82	25.00	1.042	-0.08	0.238	0.248	-
		23790	710	24.77	25.00	1.054	-	-	-	-
		23800	711	24.81	25.00	1.045	-	-	-	-
10M QPSK 25RB	Front	23780	709	23.80	24.00	1.047	0.03	0.174	0.182	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-
	Rear	23780	709	23.80	24.00	1.047	-0.08	0.245	0.257	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-
	with back splint	23780	709	23.80	24.00	1.047	-0.04	0.212	0.222	-
		23790	710	23.79	24.00	1.050	-	-	-	-
		23800	711	23.75	24.00	1.059	-	-	-	-



## LTE Band 25

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	0.00	0.213	0.215	-
		26590	1905	23.10	23.50	1.096	-	-	-	-
	Rear	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	0.01	0.300	0.303	31
		26590	1905	23.10	23.50	1.096	-	-	-	-
	with back splint	26140	1860	23.20	23.50	1.072	-	-	-	-
		26365	1882.5	23.45	23.50	1.012	-0.05	0.286	0.289	-
		26590	1905	23.10	23.50	1.096	-	-	-	-
20M QPSK 50RB	Front	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	-0.02	0.203	0.214	-
		26590	1905	22.25	22.50	1.059	-	-	-	-
	Rear	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	0.05	0.285	0.300	-
		26590	1905	22.25	22.50	1.059	-	-	-	-
	with back splint	26140	1860	22.40	22.50	1.023	-	-	-	-
		26365	1882.5	22.28	22.50	1.052	-0.10	0.254	0.267	-
		26590	1905	22.25	22.50	1.059	-	-	-	-

LTE Band 26										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	26765	821.5	24.24	24.50	1.062	0.03	0.247	0.262	-
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
	Rear	26765	821.5	24.24	24.50	1.062	-0.08	0.347	0.368	32
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
	with back splint	26765	821.5	24.24	24.50	1.062	-0.06	0.269	0.286	-
		26865	831.5	23.73	24.50	1.194	-	-	-	-
		26965	841.5	23.91	24.50	1.146	-	-	-	-
20M QPSK 50RB	Front	26765	821.5	23.14	23.50	1.086	0.04	0.224	0.243	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-
	Rear	26765	821.5	23.14	23.50	1.086	-0.10	0.315	0.342	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-
	with back splint	26765	821.5	23.14	23.50	1.086	-0.09	0.288	0.313	-
		26865	831.5	22.92	23.50	1.143	-	-	-	-
		26965	841.5	22.99	23.50	1.125	-	-	-	-

LTE Band 66										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	132072	1720	23.90	24.00	1.023	0.06	0.454	0.465	-
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
	Rear	132072	1720	23.90	24.00	1.023	-0.15	0.638	0.653	33
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
	with back splint	132072	1720	23.90	24.00	1.023	-0.09	0.568	0.581	-
		132322	1745	23.51	24.00	1.119	-	-	-	-
		132572	1770	23.21	24.00	1.199	-	-	-	-
20M QPSK 50RB	Front	132072	1720	23.19	23.50	1.074	0.04	0.417	0.448	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-
	Rear	132072	1720	23.19	23.50	1.074	-0.11	0.586	0.629	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-
	with back splint	132072	1720	23.19	23.50	1.074	-0.02	0.524	0.563	-
		132322	1745	22.53	23.50	1.250	-	-	-	-
		132572	1770	22.21	23.50	1.346	-	-	-	-

LTE Band 71										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz					(W/kg)	(W/kg)	
20M QPSK 1RB	Front	133222	673	23.78	24.00	1.052	-0.02	0.197	0.207	-
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
	Rear	133222	673	23.78	24.00	1.052	0.06	0.277	0.291	34
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
	with back splint	133222	673	23.78	24.00	1.052	0.08	0.255	0.268	-
		133322	683	23.36	24.00	1.159	-	-	-	-
		133372	688	23.64	24.00	1.086	-	-	-	-
20M QPSK 50RB	Front	133222	673	22.48	23.00	1.127	-0.03	0.175	0.197	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-
	Rear	133222	673	22.48	23.00	1.127	0.09	0.246	0.277	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-
	with back splint	133222	673	22.48	23.00	1.127	0.05	0.216	0.243	-
		133322	683	22.51	23.00	1.119	-	-	-	-
		133372	688	22.45	23.00	1.135	-	-	-	-

## LTE Band 41

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz						(W/kg)	(W/kg)	
20M QPSK 1RB	Front	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	0.02	0.159	0.179	-
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
	Rear	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	-0.04	0.224	0.253	35
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
	with back splint	CH39750	2506.0	23.95	24.50	1.135	1.006	-	-	-	-
		CH40185	2549.5	23.78	24.50	1.180	1.006	-	-	-	-
		CH40620	2593.0	24.00	24.50	1.122	1.006	-0.04	0.196	0.221	-
		CH41055	2636.5	23.42	24.50	1.283	1.006	-	-	-	-
		CH41490	2680.0	23.62	24.50	1.226	1.006	-	-	-	-
20M QPSK 50RB	Front	CH39750	2506.0	22.89	23.00	1.026	1.006	0.02	0.142	0.147	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-
	Rear	CH39750	2506.0	22.89	23.00	1.026	1.006	-0.06	0.200	0.206	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
		CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-

		CH39750	2506.0	22.89	23.00	1.026	1.006	-0.13	0.156	0.161	-
		CH40185	2549.5	22.59	23.00	1.099	1.006	-	-	-	-
	with back splint	CH40620	2593.0	22.81	23.00	1.045	1.006	-	-	-	-
		CH41055	2636.5	22.26	23.00	1.186	1.006	-	-	-	-
		CH41490	2680.0	22.45	23.00	1.136	1.006	-	-	-	-

**Note:**

For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9%) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.

**WIFI 2.4G**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11b 1Mbps	Front	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	-0.10	0.142	0.144	-
	Rear	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	-0.08	0.166	0.168	36
	with back splint	1	2412	16.52	17.00	1.117	100.00%	1.00	-	-	-	-
		6	2437	16.31	16.50	1.045	100.00%	1.00	-	-	-	-
		11	2462	17.45	17.50	1.012	100.00%	1.00	-0.04	0.152	0.154	-

**WIFI 5G U-NII-1**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11a	Front	36	5180	12.93	13.00	1.016	100.00%	1.00	-0.06	0.065	0.066	-
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-
	Rear	36	5180	12.93	13.00	1.016	100.00%	1.00	-0.04	0.070	0.071	37
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-
	with back splint	36	5180	12.93	13.00	1.016	100.00%	1.00	-0.12	0.052	0.053	-
		44	5220	12.75	13.00	1.059	100.00%	1.00	-	-	-	-
		48	5240	12.71	13.00	1.069	100.00%	1.00	-	-	-	-

**WIFI 5G U-NII-3**

Mode	Test Position	Frequency		Conducted Power (dBm)	Tune-up limit (dBm)	Tune-up scaling factor	Duty Cycle	Duty Cycle Scaling Factor	Power Drift(dB)	Measured SAR(1g)	Report SAR(1g)	Plot No.
		CH	MHz							(W/kg)	(W/kg)	
802.11a	Front	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	-0.07	0.035	0.038	-
	Rear	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	-0.15	0.041	0.044	38
	with back splint	149	5745	11.36	11.50	1.033	100.00%	1.00	-	-	-	-
		157	5785	11.54	12.00	1.112	100.00%	1.00	-	-	-	-
		165	5825	11.65	12.00	1.084	100.00%	1.00	-0.11	0.038	0.041	-



## 15. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

- 1) Repeated measurement is not required when the original highest measured SAR is  $< 0.8$  or  $2$  W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is  $\geq 0.8$  or  $2$  W/kg (1-g or 10-g respectively), repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is  $> 1.20$  or when the original or repeated measurement is  $\geq 1.45$  or  $3.6$  W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
- 4) Perform a third repeated measurement only if the original, first, or second repeated measurement is  $\geq 1.5$  or  $3.75$  W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

Band	Test Position	Frequency		Highest Measured SAR (W/kg)	First Repeated		Second Repeated	
		CH	MHz		Measured SAR(W/kg)	Largest to Smallest SAR Ratio	Measured SAR(W/kg)	Largest to Smallest SAR Ratio
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## 16. Simultaneous Transmission analysis

No.	Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Note
1	WCDMA(voice) + Bluetooth (data)	Yes	Yes	NA	
2	WCDMA(voice) + WLAN (data)	Yes	Yes	NA	
3	WCDMA (data) + Bluetooth (data)	Yes	Yes	NA	
4	WCDMA (data) + WLAN (data)	Yes	Yes	NA	
5	LTE + Bluetooth (data)	Yes	Yes	NA	
6	LTE + WLAN (data)	Yes	Yes	NA	

General note:

1. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
2. EUT will choose either GSM or WCDMA LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. The reported SAR summation is calculated based on the same configuration and test position
4. For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 based on the formula below
  - a)  $[(\text{max. Power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})]^* [\sqrt{f(\text{GHz})/x}] \text{W/kg}$  for test separation distances  $\leq 50\text{mm}$ ; when  $x=7.5$  for 1-g SAR, and  $x=18.75$  for 10-g SAR.
  - b) When the minimum separation distance is  $<5\text{mm}$ , the distance is used 5mm to determine SAR test exclusion
  - c) 0.4 W/kg for 1-g SAR and 1.0W/kg for 10-g SAR, when the test separation distances is  $>50\text{mm}$ .

Bluetooth Max power	Exposure position	Head	Body-worn	with back splint
	Test separation	0mm	10mm	0mm
1.0dBm	Estimated SAR (W/kg)	0.053	0.026	0.053

**16.1. Head**

PCE + WLAN DTS					
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			PCE	WLAN DTS	(W/kg)
WCDMA	Band II	Left Cheek	0.651	0.285	0.936
		Left Tilted	0.535	0.242	0.777
		Right Cheek	0.621	0.274	0.895
		Right Tilted	0.497	0.230	0.727
	Band IV	Left Cheek	0.488	0.285	0.773
		Left Tilted	0.401	0.242	0.643
		Right Cheek	0.466	0.274	0.740
		Right Tilted	0.373	0.230	0.603
	Band V	Left Cheek	0.678	0.285	<b>0.963</b>
		Left Tilted	0.519	0.242	0.761
		Right Cheek	0.628	0.274	0.902
		Right Tilted	0.476	0.230	0.706
LTE	B2 1RB	Left Cheek	0.384	0.285	0.669
		Left Tilted	0.315	0.242	0.557
		Right Cheek	0.374	0.274	0.648
		Right Tilted	0.298	0.230	0.528
	B2 50RB	Left Cheek	0.350	0.285	0.635
		Left Tilted	0.307	0.242	0.549
		Right Cheek	0.324	0.274	0.598
		Right Tilted	0.275	0.230	0.505
	B4 1RB	Left Cheek	0.463	0.285	0.748
		Left Tilted	0.346	0.242	0.588
		Right Cheek	0.449	0.274	0.723
		Right Tilted	0.349	0.230	0.579

	B4 50RB	Left Cheek	0.418	0.285	0.703
		Left Tilted	0.330	0.242	0.572
		Right Cheek	0.379	0.274	0.653
		Right Tilted	0.269	0.230	0.499
	B5 1RB	Left Cheek	0.541	0.285	0.826
		Left Tilted	0.453	0.242	0.695
		Right Cheek	0.522	0.274	0.796
		Right Tilted	0.414	0.230	0.644
	B5 25RB	Left Cheek	0.548	0.285	0.833
		Left Tilted	0.425	0.242	0.667
		Right Cheek	0.546	0.274	0.820
		Right Tilted	0.446	0.230	0.676
	B7 1RB	Left Cheek	0.027	0.285	0.312
		Left Tilted	0.023	0.242	0.265
		Right Cheek	0.026	0.274	0.300
		Right Tilted	0.021	0.230	0.251
B7 50RB	Left Cheek	0.025	0.285	0.310	
	Left Tilted	0.019	0.242	0.261	
	Right Cheek	0.024	0.274	0.298	
	Right Tilted	0.020	0.230	0.250	
B12 1RB	Left Cheek	0.233	0.285	0.518	
	Left Tilted	0.196	0.242	0.438	
	Right Cheek	0.226	0.274	0.500	
	Right Tilted	0.179	0.230	0.409	
B12 25RB	Left Cheek	0.190	0.285	0.475	
	Left Tilted	0.147	0.242	0.389	
	Right Cheek	0.189	0.274	0.463	
	Right Tilted	0.154	0.230	0.384	

	B13 1RB	Left Cheek	0.471	0.285	0.756
		Left Tilted	0.395	0.242	0.637
		Right Cheek	0.455	0.274	0.729
		Right Tilted	0.361	0.230	0.591
	B13 25RB	Left Cheek	0.409	0.285	0.694
		Left Tilted	0.317	0.242	0.559
		Right Cheek	0.407	0.274	0.681
		Right Tilted	0.332	0.230	0.562
	B14 1RB	Left Cheek	0.389	0.285	0.674
		Left Tilted	0.326	0.242	0.568
		Right Cheek	0.376	0.274	0.650
		Right Tilted	0.298	0.230	0.528
	B14 25RB	Left Cheek	0.372	0.285	0.657
		Left Tilted	0.288	0.242	0.530
		Right Cheek	0.370	0.274	0.644
		Right Tilted	0.302	0.230	0.532
B17 1RB	Left Cheek	0.228	0.285	0.513	
	Left Tilted	0.191	0.242	0.433	
	Right Cheek	0.221	0.274	0.495	
	Right Tilted	0.175	0.230	0.405	
B17 25RB	Left Cheek	0.209	0.285	0.494	
	Left Tilted	0.162	0.242	0.404	
	Right Cheek	0.208	0.274	0.482	
	Right Tilted	0.170	0.230	0.400	
B25 1RB	Left Cheek	0.411	0.285	0.696	
	Left Tilted	0.344	0.242	0.586	
	Right Cheek	0.397	0.274	0.671	
	Right Tilted	0.315	0.230	0.545	

	B25 50RB	Left Cheek	0.405	0.285	0.690
		Left Tilted	0.314	0.242	0.556
		Right Cheek	0.403	0.274	0.677
		Right Tilted	0.329	0.230	0.559
	B26 1RB	Left Cheek	0.469	0.285	0.754
		Left Tilted	0.393	0.242	0.635
		Right Cheek	0.453	0.274	0.727
		Right Tilted	0.359	0.230	0.589
	B26 38RB	Left Cheek	0.451	0.285	0.736
		Left Tilted	0.350	0.242	0.592
		Right Cheek	0.449	0.274	0.723
		Right Tilted	0.366	0.230	0.596
	B66 1RB	Left Cheek	0.388	0.285	0.673
		Left Tilted	0.325	0.242	0.567
		Right Cheek	0.375	0.274	0.649
		Right Tilted	0.297	0.230	0.527
B66 50RB	Left Cheek	0.360	0.285	0.645	
	Left Tilted	0.279	0.242	0.521	
	Right Cheek	0.358	0.274	0.632	
	Right Tilted	0.292	0.230	0.522	
B71 1RB	Left Cheek	0.147	0.285	0.432	
	Left Tilted	0.123	0.242	0.365	
	Right Cheek	0.142	0.274	0.416	
	Right Tilted	0.113	0.230	0.343	
B71 50RB	Left Cheek	0.133	0.285	0.418	
	Left Tilted	0.103	0.242	0.345	
	Right Cheek	0.132	0.274	0.406	
	Right Tilted	0.108	0.230	0.338	

	B41 1RB	Left Cheek	0.033	0.285	0.318
		Left Tilted	0.027	0.242	0.269
		Right Cheek	0.032	0.274	0.306
		Right Tilted	0.025	0.230	0.255
	B41 50RB	Left Cheek	0.021	0.285	0.306
		Left Tilted	0.016	0.242	0.258
		Right Cheek	0.021	0.274	0.295
		Right Tilted	0.017	0.230	0.247

PCE + WLAN U-NII						
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR	
			PCE	WLAN U-NII	(W/kg)	
WCDMA	Band II	Left Cheek	0.651	0.062	0.713	
		Left Tilted	0.535	0.052	0.587	
		Right Cheek	0.621	0.059	0.680	
		Right Tilted	0.497	0.050	0.547	
	Band IV	Left Cheek	0.488	0.062	0.550	
		Left Tilted	0.401	0.052	0.453	
		Right Cheek	0.466	0.059	0.525	
		Right Tilted	0.373	0.050	0.423	
	Band V	Left Cheek	0.678	0.062	<b>0.740</b>	
		Left Tilted	0.519	0.052	0.571	
		Right Cheek	0.628	0.059	0.687	
		Right Tilted	0.476	0.050	0.526	
	LTE	B2 1RB	Left Cheek	0.384	0.062	0.446
			Left Tilted	0.315	0.052	0.367
			Right Cheek	0.374	0.059	0.433
			Right Tilted	0.298	0.050	0.348
B2 50RB		Left Cheek	0.350	0.062	0.412	
		Left Tilted	0.307	0.052	0.359	
		Right Cheek	0.324	0.059	0.383	
		Right Tilted	0.275	0.050	0.325	
B4 1RB		Left Cheek	0.463	0.062	0.525	
		Left Tilted	0.346	0.052	0.398	
		Right Cheek	0.449	0.059	0.508	
		Right Tilted	0.349	0.050	0.399	
B4 50RB		Left Cheek	0.418	0.062	0.480	



		Left Tilted	0.330	0.052	0.382
		Right Cheek	0.379	0.059	0.438
		Right Tilted	0.269	0.050	0.319
	B5 1RB	Left Cheek	0.541	0.062	0.603
		Left Tilted	0.453	0.052	0.505
		Right Cheek	0.522	0.059	0.581
		Right Tilted	0.414	0.050	0.464
	B5 25RB	Left Cheek	0.548	0.062	0.610
		Left Tilted	0.425	0.052	0.477
		Right Cheek	0.546	0.059	0.605
		Right Tilted	0.446	0.050	0.496
	B7 1RB	Left Cheek	0.027	0.062	0.089
		Left Tilted	0.023	0.052	0.075
		Right Cheek	0.026	0.059	0.085
		Right Tilted	0.021	0.050	0.071
	B7 50RB	Left Cheek	0.025	0.062	0.087
		Left Tilted	0.019	0.052	0.071
		Right Cheek	0.024	0.059	0.083
		Right Tilted	0.020	0.050	0.070
	B12 1RB	Left Cheek	0.233	0.062	0.295
		Left Tilted	0.196	0.052	0.248
		Right Cheek	0.226	0.059	0.285
		Right Tilted	0.179	0.050	0.229
	B12 25RB	Left Cheek	0.190	0.062	0.252
		Left Tilted	0.147	0.052	0.199
		Right Cheek	0.189	0.059	0.248
		Right Tilted	0.154	0.050	0.204
	B13 1RB	Left Cheek	0.471	0.062	0.533

		Left Tilted	0.395	0.052	0.447
		Right Cheek	0.455	0.059	0.514
		Right Tilted	0.361	0.050	0.411
	B13 25RB	Left Cheek	0.409	0.062	0.471
		Left Tilted	0.317	0.052	0.369
		Right Cheek	0.407	0.059	0.466
		Right Tilted	0.332	0.050	0.382
	B14 1RB	Left Cheek	0.389	0.062	0.451
		Left Tilted	0.326	0.052	0.378
		Right Cheek	0.376	0.059	0.435
		Right Tilted	0.298	0.050	0.348
	B14 25RB	Left Cheek	0.372	0.062	0.434
		Left Tilted	0.288	0.052	0.340
		Right Cheek	0.370	0.059	0.429
		Right Tilted	0.302	0.050	0.352
	B17 1RB	Left Cheek	0.228	0.062	0.290
		Left Tilted	0.191	0.052	0.243
		Right Cheek	0.221	0.059	0.280
		Right Tilted	0.175	0.050	0.225
	B17 25RB	Left Cheek	0.209	0.062	0.271
		Left Tilted	0.162	0.052	0.214
		Right Cheek	0.208	0.059	0.267
		Right Tilted	0.170	0.050	0.220
	B25 1RB	Left Cheek	0.411	0.062	0.473
		Left Tilted	0.344	0.052	0.396
		Right Cheek	0.397	0.059	0.456
		Right Tilted	0.315	0.050	0.365
	B25 50RB	Left Cheek	0.405	0.062	0.467

		Left Tilted	0.314	0.052	0.366
		Right Cheek	0.403	0.059	0.462
		Right Tilted	0.329	0.050	0.379
	B26 1RB	Left Cheek	0.469	0.062	0.531
		Left Tilted	0.393	0.052	0.445
		Right Cheek	0.453	0.059	0.512
		Right Tilted	0.359	0.050	0.409
	B26 38RB	Left Cheek	0.451	0.062	0.513
		Left Tilted	0.350	0.052	0.402
		Right Cheek	0.449	0.059	0.508
		Right Tilted	0.366	0.050	0.416
	B66 1RB	Left Cheek	0.388	0.062	0.450
		Left Tilted	0.325	0.052	0.377
		Right Cheek	0.375	0.059	0.434
		Right Tilted	0.297	0.050	0.347
	B66 50RB	Left Cheek	0.360	0.062	0.422
		Left Tilted	0.279	0.052	0.331
		Right Cheek	0.358	0.059	0.417
		Right Tilted	0.292	0.050	0.342
	B71 1RB	Left Cheek	0.147	0.062	0.209
		Left Tilted	0.123	0.052	0.175
		Right Cheek	0.142	0.059	0.201
		Right Tilted	0.113	0.050	0.163
	B71 50RB	Left Cheek	0.133	0.062	0.195
		Left Tilted	0.103	0.052	0.155
		Right Cheek	0.132	0.059	0.191
		Right Tilted	0.108	0.050	0.158
	B41 1RB	Left Cheek	0.033	0.062	0.095

		Left Tilted	0.027	0.052	0.079
		Right Cheek	0.032	0.059	0.091
		Right Tilted	0.025	0.050	0.075
	B41 50RB	Left Cheek	0.021	0.062	0.083
		Left Tilted	0.016	0.052	0.068
		Right Cheek	0.021	0.059	0.080
		Right Tilted	0.017	0.050	0.067

PCE + BT					
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			PCE	BT	(W/kg)
WCDMA	Band II	Left Cheek	0.651	0.053	0.704
		Left Tilted	0.535	0.053	0.588
		Right Cheek	0.621	0.053	0.674
		Right Tilted	0.497	0.053	0.550
	Band IV	Left Cheek	0.488	0.053	0.541
		Left Tilted	0.401	0.053	0.454
		Right Cheek	0.466	0.053	0.519
		Right Tilted	0.373	0.053	0.426
	Band V	Left Cheek	0.678	0.053	<b>0.731</b>
		Left Tilted	0.519	0.053	0.572
		Right Cheek	0.628	0.053	0.681
		Right Tilted	0.476	0.053	0.529
LTE	B2 1RB	Left Cheek	0.384	0.053	0.437
		Left Tilted	0.315	0.053	0.368
		Right Cheek	0.374	0.053	0.427
		Right Tilted	0.298	0.053	0.351
	B2 50RB	Left Cheek	0.350	0.053	0.403
		Left Tilted	0.307	0.053	0.360
		Right Cheek	0.324	0.053	0.377
		Right Tilted	0.275	0.053	0.328
	B4 1RB	Left Cheek	0.463	0.053	0.516
		Left Tilted	0.346	0.053	0.399
		Right Cheek	0.449	0.053	0.502
		Right Tilted	0.349	0.053	0.402
	B4 50RB	Left Cheek	0.418	0.053	0.471

		Left Tilted	0.330	0.053	0.383
		Right Cheek	0.379	0.053	0.432
		Right Tilted	0.269	0.053	0.322
	B5 1RB	Left Cheek	0.541	0.053	0.594
		Left Tilted	0.453	0.053	0.506
		Right Cheek	0.522	0.053	0.575
		Right Tilted	0.414	0.053	0.467
	B5 25RB	Left Cheek	0.548	0.053	0.601
		Left Tilted	0.425	0.053	0.478
		Right Cheek	0.546	0.053	0.599
		Right Tilted	0.446	0.053	0.499
	B7 1RB	Left Cheek	0.027	0.053	0.080
		Left Tilted	0.023	0.053	0.076
		Right Cheek	0.026	0.053	0.079
		Right Tilted	0.021	0.053	0.074
	B7 50RB	Left Cheek	0.025	0.053	0.078
		Left Tilted	0.019	0.053	0.072
		Right Cheek	0.024	0.053	0.077
		Right Tilted	0.020	0.053	0.073
	B12 1RB	Left Cheek	0.233	0.053	0.286
		Left Tilted	0.196	0.053	0.249
		Right Cheek	0.226	0.053	0.279
		Right Tilted	0.179	0.053	0.232
	B12 25RB	Left Cheek	0.190	0.053	0.243
		Left Tilted	0.147	0.053	0.200
		Right Cheek	0.189	0.053	0.242
		Right Tilted	0.154	0.053	0.207
	B13 1RB	Left Cheek	0.471	0.053	0.524

		Left Tilted	0.395	0.053	0.448
		Right Cheek	0.455	0.053	0.508
		Right Tilted	0.361	0.053	0.414
	B13 25RB	Left Cheek	0.409	0.053	0.462
		Left Tilted	0.317	0.053	0.370
		Right Cheek	0.407	0.053	0.460
		Right Tilted	0.332	0.053	0.385
	B14 1RB	Left Cheek	0.389	0.053	0.442
		Left Tilted	0.326	0.053	0.379
		Right Cheek	0.376	0.053	0.429
		Right Tilted	0.298	0.053	0.351
	B14 25RB	Left Cheek	0.372	0.053	0.425
		Left Tilted	0.288	0.053	0.341
		Right Cheek	0.370	0.053	0.423
		Right Tilted	0.302	0.053	0.355
	B17 1RB	Left Cheek	0.228	0.053	0.281
		Left Tilted	0.191	0.053	0.244
		Right Cheek	0.221	0.053	0.274
		Right Tilted	0.175	0.053	0.228
	B17 25RB	Left Cheek	0.209	0.053	0.262
Left Tilted		0.162	0.053	0.215	
Right Cheek		0.208	0.053	0.261	
Right Tilted		0.170	0.053	0.223	
B25 1RB	Left Cheek	0.411	0.053	0.464	
	Left Tilted	0.344	0.053	0.397	
	Right Cheek	0.397	0.053	0.450	
	Right Tilted	0.315	0.053	0.368	
B25 50RB	Left Cheek	0.405	0.053	0.458	

		Left Tilted	0.314	0.053	0.367
		Right Cheek	0.403	0.053	0.456
		Right Tilted	0.329	0.053	0.382
	B26 1RB	Left Cheek	0.469	0.053	0.522
		Left Tilted	0.393	0.053	0.446
		Right Cheek	0.453	0.053	0.506
		Right Tilted	0.359	0.053	0.412
	B26 38RB	Left Cheek	0.451	0.053	0.504
		Left Tilted	0.350	0.053	0.403
		Right Cheek	0.449	0.053	0.502
		Right Tilted	0.366	0.053	0.419
	B66 1RB	Left Cheek	0.388	0.053	0.441
		Left Tilted	0.325	0.053	0.378
		Right Cheek	0.375	0.053	0.428
		Right Tilted	0.297	0.053	0.350
	B66 50RB	Left Cheek	0.360	0.053	0.413
		Left Tilted	0.279	0.053	0.332
		Right Cheek	0.358	0.053	0.411
		Right Tilted	0.292	0.053	0.345
	B71 1RB	Left Cheek	0.147	0.053	0.200
Left Tilted		0.123	0.053	0.176	
Right Cheek		0.142	0.053	0.195	
Right Tilted		0.113	0.053	0.166	
B71 50RB	Left Cheek	0.133	0.053	0.186	
	Left Tilted	0.103	0.053	0.156	
	Right Cheek	0.132	0.053	0.185	
	Right Tilted	0.108	0.053	0.161	
B41 1RB	Left Cheek	0.033	0.053	0.086	



		Left Tilted	0.027	0.053	0.080
		Right Cheek	0.032	0.053	0.085
		Right Tilted	0.025	0.053	0.078
	B41 50RB	Left Cheek	0.021	0.053	0.074
		Left Tilted	0.016	0.053	0.069
		Right Cheek	0.021	0.053	0.074
		Right Tilted	0.017	0.053	0.070

**16.2. Body-worn**

PCE + WLAN DTS					
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			PCE	WLAN DTS	(W/kg)
WCDMA	Band II	Front	0.348	0.144	0.492
		Rear	0.489	0.168	0.657
		with back splint	0.432	0.154	0.586
	Band IV	Front	0.475	0.144	0.619
		Rear	0.667	0.168	<b>0.835</b>
		with back splint	0.616	0.154	0.770
	Band V	Front	0.409	0.144	0.553
		Rear	0.620	0.168	0.788
		with back splint	0.493	0.154	0.647
LTE	B2 1RB	Front	0.220	0.144	0.364
		Rear	0.309	0.168	0.477
		with back splint	0.258	0.154	0.412
	B2 50RB	Front	0.191	0.144	0.335
		Rear	0.269	0.168	0.437
		with back splint	0.238	0.154	0.392
	B4 1RB	Front	0.439	0.144	0.583
		Rear	0.615	0.168	0.783
		with back splint	0.467	0.154	0.621
	B4 50RB	Front	0.371	0.144	0.515
		Rear	0.522	0.168	0.690
		with back splint	0.450	0.154	0.604
	B5 1RB	Front	0.325	0.144	0.469
		Rear	0.456	0.168	0.624
		with back splint	0.400	0.154	0.554

B5 25RB	Front	0.312	0.144	0.456
	Rear	0.439	0.168	0.607
	with back splint	0.390	0.154	0.544
B7 1RB	Front	0.148	0.144	0.292
	Rear	0.207	0.168	0.375
	with back splint	0.158	0.154	0.312
B7 50RB	Front	0.135	0.144	0.279
	Rear	0.190	0.168	0.358
	with back splint	0.156	0.154	0.310
B12 1RB	Front	0.210	0.144	0.354
	Rear	0.296	0.168	0.464
	with back splint	0.250	0.154	0.404
B12 25RB	Front	0.181	0.144	0.325
	Rear	0.253	0.168	0.421
	with back splint	0.221	0.154	0.375
B13 1RB	Front	0.258	0.144	0.402
	Rear	0.362	0.168	0.530
	with back splint	0.323	0.154	0.477
B13 25RB	Front	0.220	0.144	0.364
	Rear	0.310	0.168	0.478
	with back splint	0.263	0.154	0.417
B14 1RB	Front	0.214	0.144	0.358
	Rear	0.301	0.168	0.469
	with back splint	0.256	0.154	0.410
B14 25RB	Front	0.209	0.144	0.353
	Rear	0.294	0.168	0.462
	with back splint	0.242	0.154	0.396
B17 1RB	Front	0.198	0.144	0.342

		Rear	0.278	0.168	0.446
		with back splint	0.248	0.154	0.402
	B17 25RB	Front	0.182	0.144	0.326
		Rear	0.257	0.168	0.425
		with back splint	0.222	0.154	0.376
	B25 1RB	Front	0.215	0.144	0.359
		Rear	0.303	0.168	0.471
		with back splint	0.289	0.154	0.443
	B25 50RB	Front	0.214	0.144	0.358
		Rear	0.300	0.168	0.468
		with back splint	0.267	0.154	0.421
	B26 1RB	Front	0.262	0.144	0.406
		Rear	0.368	0.168	0.536
		with back splint	0.286	0.154	0.440
	B26 38RB	Front	0.243	0.144	0.387
		Rear	0.342	0.168	0.510
		with back splint	0.313	0.154	0.467
	B66 1RB	Front	0.465	0.144	0.609
		Rear	0.653	0.168	0.821
		with back splint	0.581	0.154	0.735
	B66 50RB	Front	0.448	0.144	0.592
		Rear	0.629	0.168	0.797
		with back splint	0.563	0.154	0.717
	B71 1RB	Front	0.207	0.144	0.351
		Rear	0.291	0.168	0.459
		with back splint	0.268	0.154	0.422
	B71 50RB	Front	0.197	0.144	0.341
		Rear	0.277	0.168	0.445

		with back splint	0.243	0.154	0.397
	B41 1RB	Front	0.179	0.144	0.323
		Rear	0.253	0.168	0.421
		with back splint	0.221	0.154	0.375
	B41 50RB	Front	0.147	0.144	0.291
		Rear	0.206	0.168	0.374
		with back splint	0.161	0.154	0.315

PCE + WLAN U-NII					
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			PCE	WLAN U-NII	(W/kg)
WCDMA	Band II	Front	0.348	0.066	0.414
		Rear	0.489	0.071	0.560
		with back splint	0.432	0.053	0.485
	Band IV	Front	0.475	0.066	0.541
		Rear	0.667	0.071	<b>0.738</b>
		with back splint	0.616	0.053	0.669
	Band V	Front	0.409	0.066	0.475
		Rear	0.620	0.071	0.691
		with back splint	0.493	0.053	0.546
LTE	B2 1RB	Front	0.220	0.066	0.286
		Rear	0.309	0.071	0.380
		with back splint	0.258	0.053	0.311
	B2 50RB	Front	0.191	0.066	0.257
		Rear	0.269	0.071	0.340
		with back splint	0.238	0.053	0.291
	B4 1RB	Front	0.439	0.066	0.505
		Rear	0.615	0.071	0.686
		with back splint	0.467	0.053	0.520
	B4 50RB	Front	0.371	0.066	0.437
		Rear	0.522	0.071	0.593
		with back splint	0.450	0.053	0.503
	B5 1RB	Front	0.325	0.066	0.391
		Rear	0.456	0.071	0.527
		with back splint	0.400	0.053	0.453
B5 25RB	Front	0.312	0.066	0.378	

		Rear	0.439	0.071	0.510
		with back splint	0.390	0.053	0.443
	B7 1RB	Front	0.148	0.066	0.214
		Rear	0.207	0.071	0.278
		with back splint	0.158	0.053	0.211
	B7 50RB	Front	0.135	0.066	0.201
		Rear	0.190	0.071	0.261
		with back splint	0.156	0.053	0.209
	B12 1RB	Front	0.210	0.066	0.276
		Rear	0.296	0.071	0.367
		with back splint	0.250	0.053	0.303
	B12 25RB	Front	0.181	0.066	0.247
		Rear	0.253	0.071	0.324
		with back splint	0.221	0.053	0.274
	B13 1RB	Front	0.258	0.066	0.324
		Rear	0.362	0.071	0.433
		with back splint	0.323	0.053	0.376
	B13 25RB	Front	0.220	0.066	0.286
		Rear	0.310	0.071	0.381
		with back splint	0.263	0.053	0.316
	B14 1RB	Front	0.214	0.066	0.280
		Rear	0.301	0.071	0.372
		with back splint	0.256	0.053	0.309
	B14 25RB	Front	0.209	0.066	0.275
		Rear	0.294	0.071	0.365
		with back splint	0.242	0.053	0.295
	B17 1RB	Front	0.198	0.066	0.264
		Rear	0.278	0.071	0.349

		with back splint	0.248	0.053	0.301
B17 25RB		Front	0.182	0.066	0.248
		Rear	0.257	0.071	0.328
		with back splint	0.222	0.053	0.275
B25 1RB		Front	0.215	0.066	0.281
		Rear	0.303	0.071	0.374
		with back splint	0.289	0.053	0.342
B25 50RB		Front	0.214	0.066	0.280
		Rear	0.300	0.071	0.371
		with back splint	0.267	0.053	0.320
B26 1RB		Front	0.262	0.066	0.328
		Rear	0.368	0.071	0.439
		with back splint	0.286	0.053	0.339
B26 38RB		Front	0.243	0.066	0.309
		Rear	0.342	0.071	0.413
		with back splint	0.313	0.053	0.366
B66 1RB		Front	0.465	0.066	0.531
		Rear	0.653	0.071	0.724
		with back splint	0.581	0.053	0.634
B66 50RB		Front	0.448	0.066	0.514
		Rear	0.629	0.071	0.700
		with back splint	0.563	0.053	0.616
B71 1RB		Front	0.207	0.066	0.273
		Rear	0.291	0.071	0.362
		with back splint	0.268	0.053	0.321
B71 50RB		Front	0.197	0.066	0.263
		Rear	0.277	0.071	0.348
		with back splint	0.243	0.053	0.296



	B41 1RB	Front	0.179	0.066	0.245
		Rear	0.253	0.071	0.324
		with back splint	0.221	0.053	0.274
	B41 50RB	Front	0.147	0.066	0.213
		Rear	0.206	0.071	0.277
		with back splint	0.161	0.053	0.214

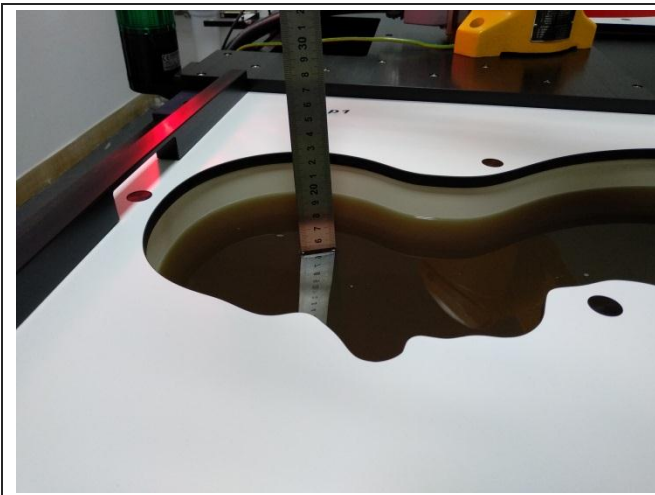
PCE + BT					
WWAN Band		Exposure Position	Max SAR (W/kg)		Summed SAR
			PCE	BT	(W/kg)
WCDMA	Band II	Front	0.348	0.026	0.374
		Rear	0.489	0.026	0.515
		with back splint	0.432	0.053	0.485
	Band IV	Front	0.475	0.026	0.501
		Rear	0.667	0.026	<b>0.693</b>
		with back splint	0.616	0.053	0.669
	Band V	Front	0.409	0.026	0.435
		Rear	0.620	0.026	0.646
		with back splint	0.493	0.053	0.546
LTE	B2 1RB	Front	0.220	0.026	0.246
		Rear	0.309	0.026	0.335
		with back splint	0.258	0.053	0.311
	B2 50RB	Front	0.191	0.026	0.217
		Rear	0.269	0.026	0.295
		with back splint	0.238	0.053	0.291
	B4 1RB	Front	0.439	0.026	0.465
		Rear	0.615	0.026	0.641
		with back splint	0.467	0.053	0.520
	B4 50RB	Front	0.371	0.026	0.397
		Rear	0.522	0.026	0.548
		with back splint	0.450	0.053	0.503
	B5 1RB	Front	0.325	0.026	0.351
		Rear	0.456	0.026	0.482
		with back splint	0.400	0.053	0.453
B5 25RB	Front	0.312	0.026	0.338	

	Rear	0.439	0.026	0.465
	with back splint	0.390	0.053	0.443
B7 1RB	Front	0.148	0.026	0.174
	Rear	0.207	0.026	0.233
	with back splint	0.158	0.053	0.211
B7 50RB	Front	0.135	0.026	0.161
	Rear	0.190	0.026	0.216
	with back splint	0.156	0.053	0.209
B12 1RB	Front	0.210	0.026	0.236
	Rear	0.296	0.026	0.322
	with back splint	0.250	0.053	0.303
B12 25RB	Front	0.181	0.026	0.207
	Rear	0.253	0.026	0.279
	with back splint	0.221	0.053	0.274
B13 1RB	Front	0.258	0.026	0.284
	Rear	0.362	0.026	0.388
	with back splint	0.323	0.053	0.376
B13 25RB	Front	0.220	0.026	0.246
	Rear	0.310	0.026	0.336
	with back splint	0.263	0.053	0.316
B14 1RB	Front	0.214	0.026	0.240
	Rear	0.301	0.026	0.327
	with back splint	0.256	0.053	0.309
B14 25RB	Front	0.209	0.026	0.235
	Rear	0.294	0.026	0.320
	with back splint	0.242	0.053	0.295
B17 1RB	Front	0.198	0.026	0.224
	Rear	0.278	0.026	0.304

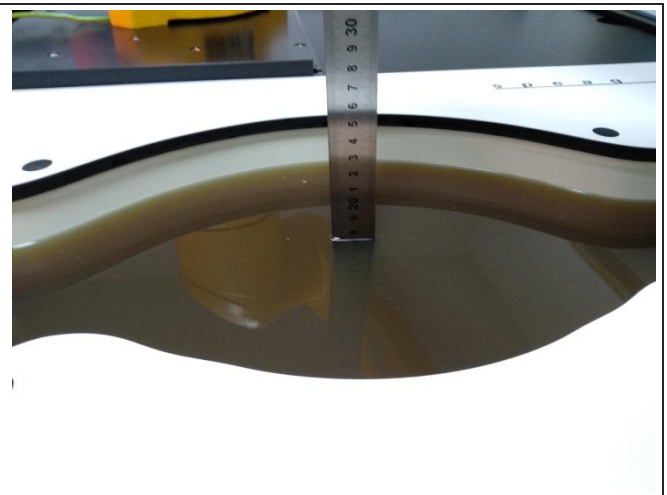
		with back splint	0.248	0.053	0.301
B17 25RB		Front	0.182	0.026	0.208
		Rear	0.257	0.026	0.283
		with back splint	0.222	0.053	0.275
B25 1RB		Front	0.215	0.026	0.241
		Rear	0.303	0.026	0.329
		with back splint	0.289	0.053	0.342
B25 50RB		Front	0.214	0.026	0.240
		Rear	0.300	0.026	0.326
		with back splint	0.267	0.053	0.320
B26 1RB		Front	0.262	0.026	0.288
		Rear	0.368	0.026	0.394
		with back splint	0.286	0.053	0.339
B26 38RB		Front	0.243	0.026	0.269
		Rear	0.342	0.026	0.368
		with back splint	0.313	0.053	0.366
B66 1RB		Front	0.465	0.026	0.491
		Rear	0.653	0.026	0.679
		with back splint	0.581	0.053	0.634
B66 50RB		Front	0.448	0.026	0.474
		Rear	0.629	0.026	0.655
		with back splint	0.563	0.053	0.616
B71 1RB		Front	0.207	0.026	0.233
		Rear	0.291	0.026	0.317
		with back splint	0.268	0.053	0.321
B71 50RB		Front	0.197	0.026	0.223
		Rear	0.277	0.026	0.303
		with back splint	0.243	0.053	0.296

	B41 1RB	Front	0.179	0.026	0.205
		Rear	0.253	0.026	0.279
		with back splint	0.221	0.053	0.274
	B41 50RB	Front	0.147	0.026	0.173
		Rear	0.206	0.026	0.232
		with back splint	0.161	0.053	0.214

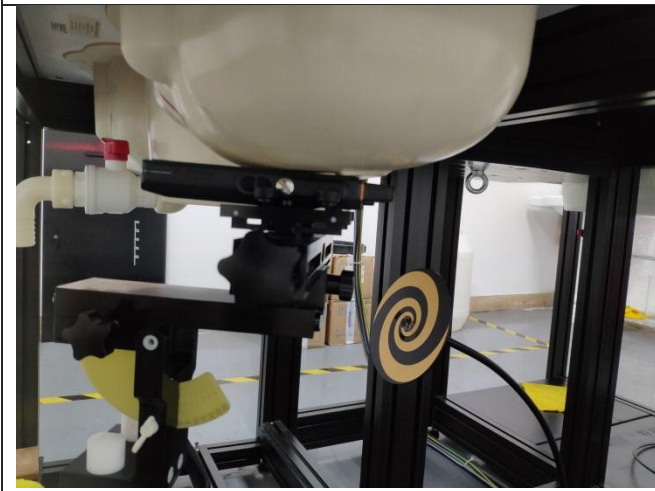
### 17. TestSetup Photos



Liquid depth in the Head phantom



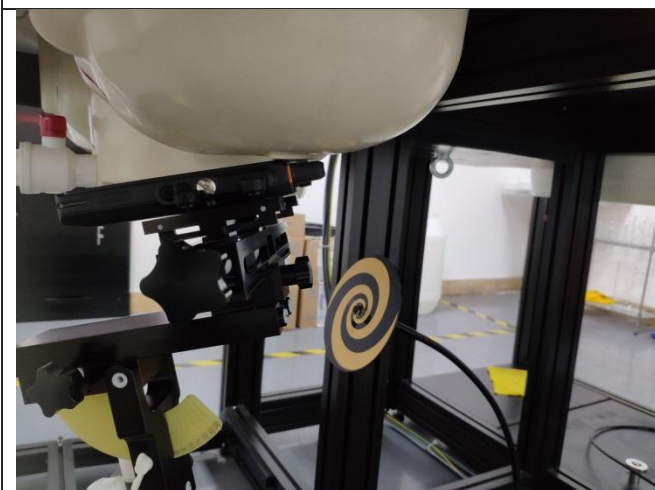
Liquid depth in the Body phantom



Left Head Touch



Right Head Touch



Left Head Tilt (15°)



Right Head Tilt (15°)

	
<p>Body-worn Front (10mm)</p>	<p>Body-worn Rear(10mm)</p>
	
<p>with back splint(0mm)</p>	

**18. External and Internal Photos of the EUT**

Please reference to the report No.: CHTEW21100001

**-----End of Report-----**