Shenzhen Huatongwei International Inspection Co.,Ltd.
Huatongwei Building, keji'nan 12th Road, High-Tech Industrial Park, Nanshan District,
Shenzhen, Guangdong, China.
Phone:86-755-26715499 E-mail: cs@szhtw.com.cn Website:http://www.szhtw.com.cn

TEST REPORT

Report No. ..... :	**CHTEW21050138**	Report verificaiton:
Project No. ..... :	**SHT2101056604EW**	
FCC ID ..... :	**2ARJFLUCIA2**	
Applicant's name ..... :	**Antarus S.A.**	
Address.....:	Chemin de la Bruyere 4, 1197 Prangins, Switzerland	
Test item description ..... :	**LUCIA**	
Trade Mark .....:	Lucia	
Model/Type reference.....:	V2	
Listed Model(s) .....:	-	
Standard ..... :	**FCC 47 CFR Part2.1093** **IEEE Std C95.1, 1999 Edition** **IEEE 1528: 2013**	
Date of receipt of test sample.....:	Apr.27, 2021	
Date of testing.....:	Apr.28, 2021- Jun.25, 2021	
Date of issue.....:	Jun.25, 2021	
Result.....:	**PASS**	

Compiled by (position+printedname+signature)...:	File administrators: Fanghui Zhu	Fanghui Zhu
Supervised by (position+printedname+signature)...:	Test Engineer: Xiaodong Zhao	Patrick . Rin
Approved by (position+printedname+signature)...:	Manager: Hans Hu	Hans Hu

Testing Laboratory Name ..... :	**Shenzhen Huatongwei International Inspection Co., Ltd**
Address.....:	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

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1 . Statement of Compliance

Maximum Reported SAR (W/kg @1g)	
RF Exposure Conditions	PCE
Head	0.738
Body-worn(Dist.= 10mm)	0.932

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
648474 D04 Handset SAR v01r03: SAR Evaluation Considerations for Wireless Handsets
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	2021-06-25	Original

3. Summary

3.1. Client Information

Applicant:	Antarus S.A.
Address:	Chemin de la Bruyere 4, 1197 Prangins, Switzerland
Manufacturer:	Antarus S.A.
Address:	Chemin de la Bruyere 4, 1197 Prangins, Switzerland

3.2. Product Description

Main unit	
Name of EUT:	LUCIA
Trade Mark:	Lucia
Model No.:	V2
Listed Model(s):	-
Power supply:	DC3.85V
Device Category:	Portable
Product stage:	Production unit
RF Exposure Environment:	General Population/Uncontrolled
HTW test sample No.:	YPHT21010566011
Hardware version:	V2
Software version:	V2.x.y
Device Dimension:	Overall (Length x Width x Thickness): 140x70x20mm

3.3. RF Specification Description

LTE	
Operation Band:	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 12 FDD Band 13 FDD Band 25 FDD Band 26 FDD Band 66 TDD Band 41
Power Class:	Class 3
Operating Mode:	QPSK 16QAM
Antenna Type:	pifa antenna
Does this device support Carrier Aggregation (CA)? ☐ Yes ☒ No	
Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No	

Bluetooth	
Bluetooth version:	V5.1
Support function*2:	EDR
Modulation:	GFSK, π/4DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	ceramic Antenna
Bluetooth version:	V5.1
Support function*2:	BLE
Modulation:	GFSK
Operation frequency:	2402MHz~2480MHz
Channel number:	40
Channel separation:	2MHz
Antenna type:	ceramic Antenna
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: cs@szhtw.com.cn http://www.szhtw.com.cn	
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	2020/08/11	2021/08/10
●	Power Viewer for Windows	R&S	N/A	N/A	N/A	N/A
●	Power sensor	R&S	NRP18A	101010	2020/08/11	2021/08/10
●	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 justifcatio. 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 $\leqslant$ 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.

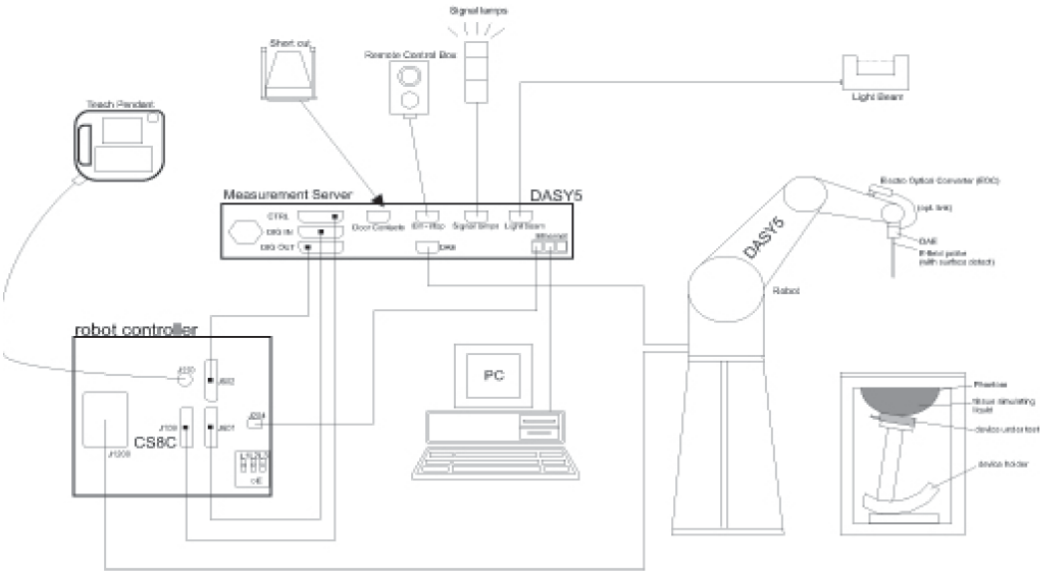
Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.

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.

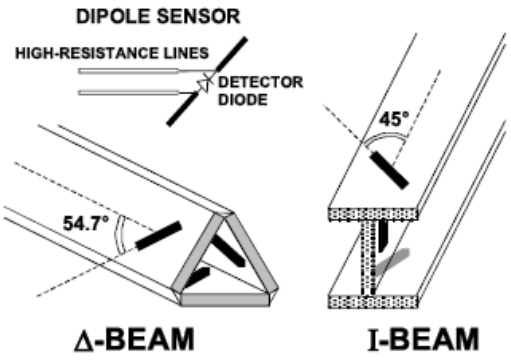
- **Probe Specification**

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: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 W/kg; Linearity: ± 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	½·$\hat{o}$·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: Δx_{Area}, Δy_{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: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ $1.5 \cdot \Delta z_{Zoom}(n-1)$ mm	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

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 ± 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/cm²], [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)
dcpi: diode compression point (DASY parameter)

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

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

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

Vi: compensated signal of channel (i = x, y, z)
Normi: sensor sensitivity of channel (i = x, y, z), [mV/(V/m)2] for E-field Probes
ConvF: sensitivity enhancement in solution
aij: sensor sensitivity factors for H-field probes
f: carrier frequency [GHz]
Ei: electric field strength of channel i in V/m
Hi: 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
σ: conductivity in [mho/m] or [Siemens/m]
ρ: equivalent tissue density in g/cm3

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

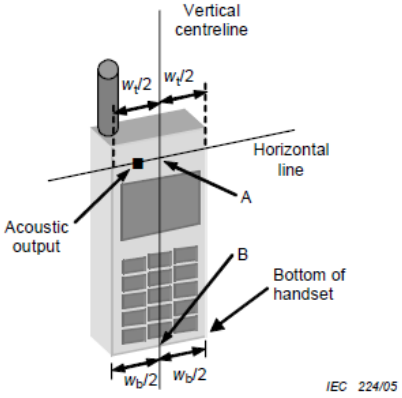
8.1. Head Position

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.

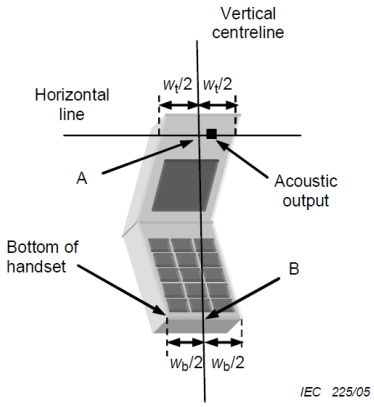
The vertical centreline passes through two points on the front side of the handset: the midpoint of the width W_t of the handset at the level of the acoustic output (point A in Figures 5a and 5b), and the midpoint of the width W_b of the bottom of the handset (point B).

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.



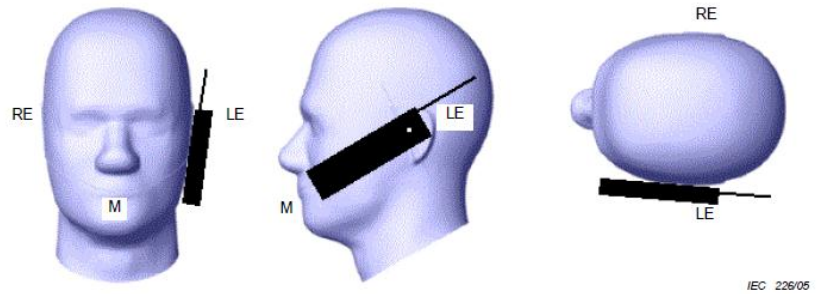
Figures 5a



Figures 5b

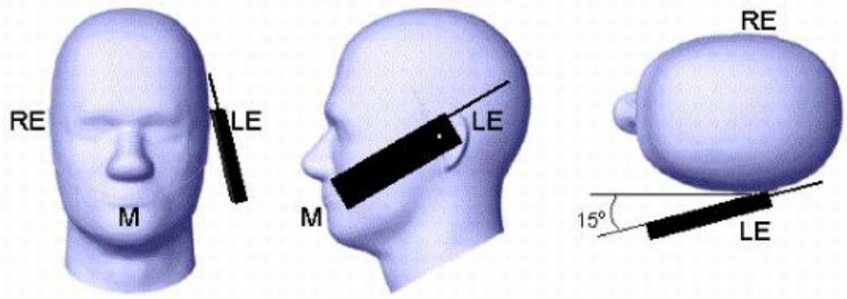
W_t Width of the handset at the level of the acoustic
W_b Width of the bottom of the handset
A Midpoint of the widthwt of the handset at the level of the acoustic output
B Midpoint of the width wb of the bottom of the handset

Cheek position



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

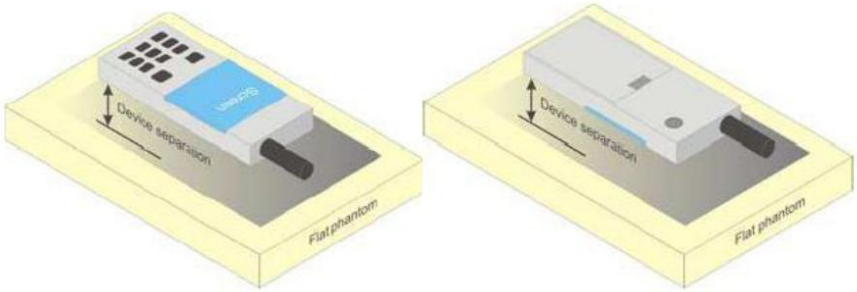
Tilt position



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 ≤ 5mm 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℃ to 25℃ and within ± 2℃ 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 (ε_r) and conductivity (σ) of typical tissue-equivalent media recipes are expected to be within ± 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 ε_r and σ may be relaxed to ± 10%. This is limited to frequencies ≤ 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	
	ε_r	σ(S/m)	ε_r	σ(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
2600	39.0	1.96	52.5	2.16

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

Dielectric Property Measurements Results:

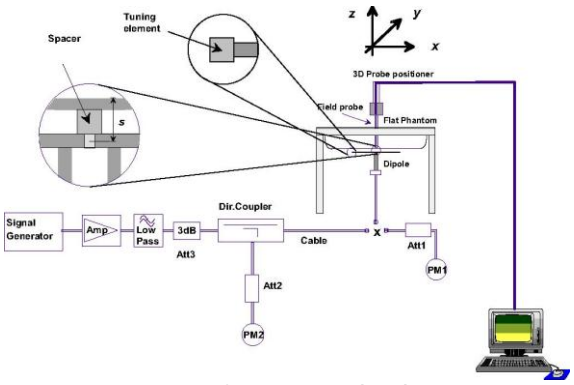
Dielectric performance of Head tissue simulating liquid									
Frequency (MHz)	ε_r		σ(S/m)		Delta (ε_r)	Delta (σ)	Limit	Temp (℃)	Date
	Target	Measured	Target	Measured					
750	41.90	40.67	0.890	0.900	-2.94%	1.12%	±5%	22.2	2021/4/29
835	41.50	40.38	0.900	0.930	-2.70%	3.36%	±5%	22.4	2021/4/30
1750	40.10	38.31	1.370	1.387	-4.46%	1.24%	±5%	22.5	2021/5/6
1900	40.00	38.11	1.400	1.447	-4.73%	3.36%	±5%	22.6	2021/5/7
2600	39.00	37.34	1.960	1.941	-4.26%	-0.97%	±5%	22.3	2021/5/8

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±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥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

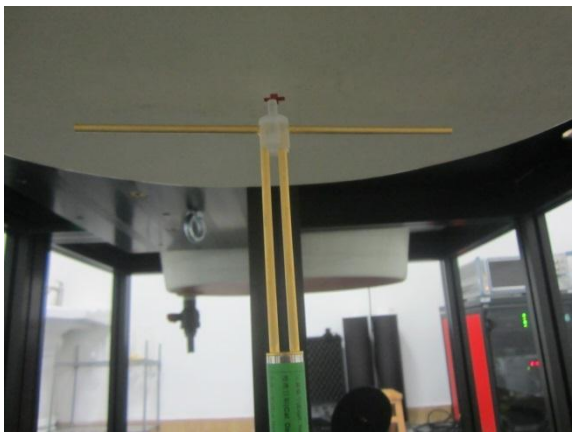


Photo of Dipole Setup

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 ±10% of the manufacturer calibrated dipole SAR target.

Head											
Frequency (MHz)	1g SAR			10g SAR			Delta (1g)	Delta (10g)	Limit	Temp (℃)	Date
	Target 1W	Normalize to 1W	Measured 250mW	Target 1W	Normalize to 1W	Measured 250mW					
750	8.43	8.64	2.16	5.59	5.64	1.41	2.49%	0.89%	±10%	22.2	2021/4/29
835	9.39	10.32	2.58	6.14	6.68	1.67	9.90%	8.79%	±10%	22.4	2021/4/30
1750	36.40	39.68	9.92	19.20	20.88	5.22	9.01%	8.75%	±10%	22.5	2021/5/6
1900	39.80	43.20	10.80	20.30	22.16	5.54	8.54%	9.16%	±10%	22.6	2021/5/7
2600	56.50	59.60	14.90	25.00	26.52	6.63	5.49%	6.08%	±10%	22.3	2021/5/8

Plots of System Performance Check

System Performance Check-Head 750MHz

DUT: D750V3; Type: D750V3; Serial: 1180
Date: 2021-04-29
Communication System: UID 0, A-CW (0); Frequency: 750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 750 MHz; σ = 0.9 S/m; ε_r = 40.672; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.4℃;Liquid Temperature:22.2℃;

DASY Configuration:

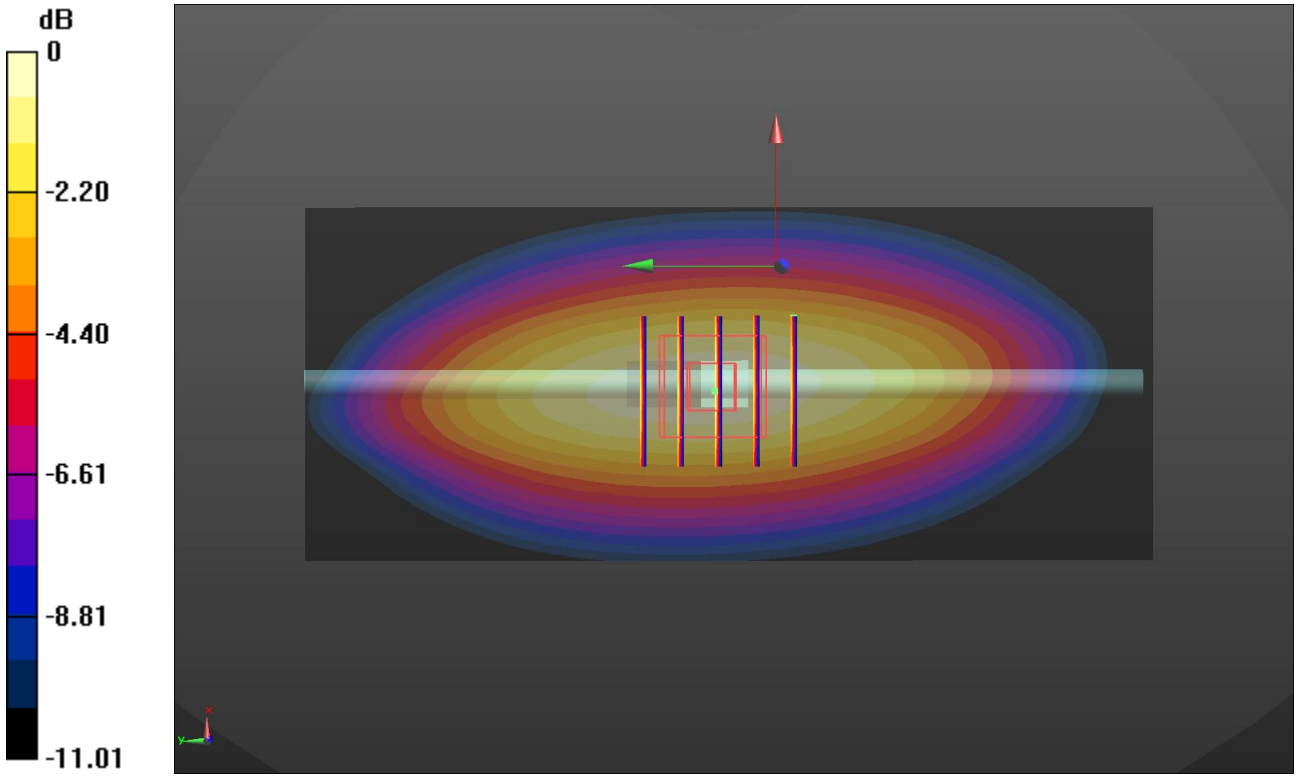
- Probe: EX3DV4 - SN7494; ConvF(10.7, 10.7, 10.7) @ 750 MHz; Calibrated: 4/9/2021
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1549; Calibrated: 3/23/2021
- Phantom: Twin-SAM V8.0 ; Type: QD 000 P41 AA; Serial: 1974
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Head/d=15mm, Pin=250mW, dist=1.4mm/Area Scan (51x121x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.92 W/kg

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

Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.43 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.40 W/kg
SAR(1 g) = 2.16 W/kg; SAR(10 g) = 1.41 W/kg
Maximum value of SAR (measured) = 2.95 W/kg



0 dB = 2.95 W/kg = 4.70 dBW/kg

System Performance Check-Head 835MHz

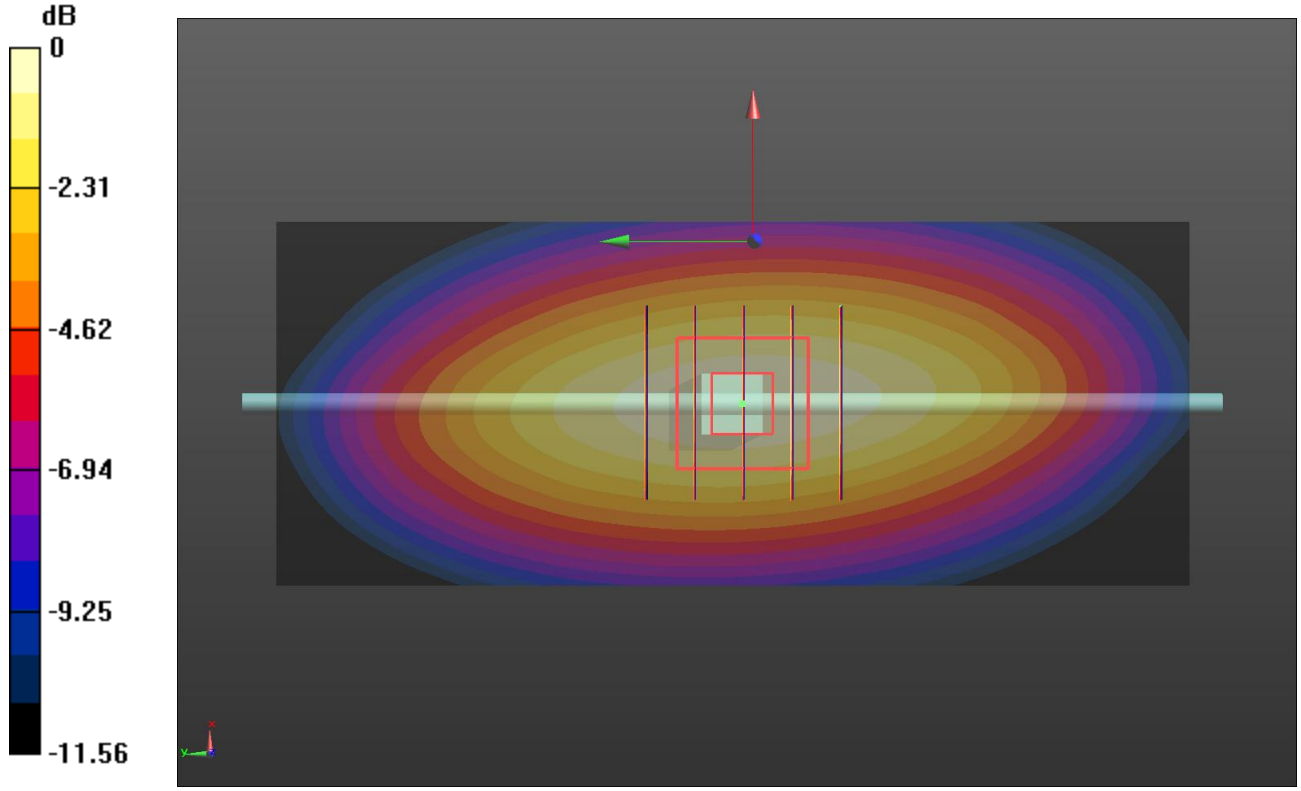
DUT: D835V2; Type: D835V2; Serial: 4d238
Date: 2021-04-30
Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium parameters used: f = 835 MHz; σ = 0.93 S/m; ε_r = 40.385; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.6℃;Liquid Temperature:22.4℃;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(10.41, 10.41, 10.41) @ 835 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=15mm, Pin=250mW/Area Scan (41x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.60 W/kg

Head/d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 62.53 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 4.25 W/kg
SAR(1 g) = 2.6 W/kg; SAR(10 g) = 1.67 W/kg
Maximum value of SAR (measured) = 3.64 W/kg



0 dB = 3.64 W/kg = 5.61 dBW/kg

System Performance Check-Head 1750MHz

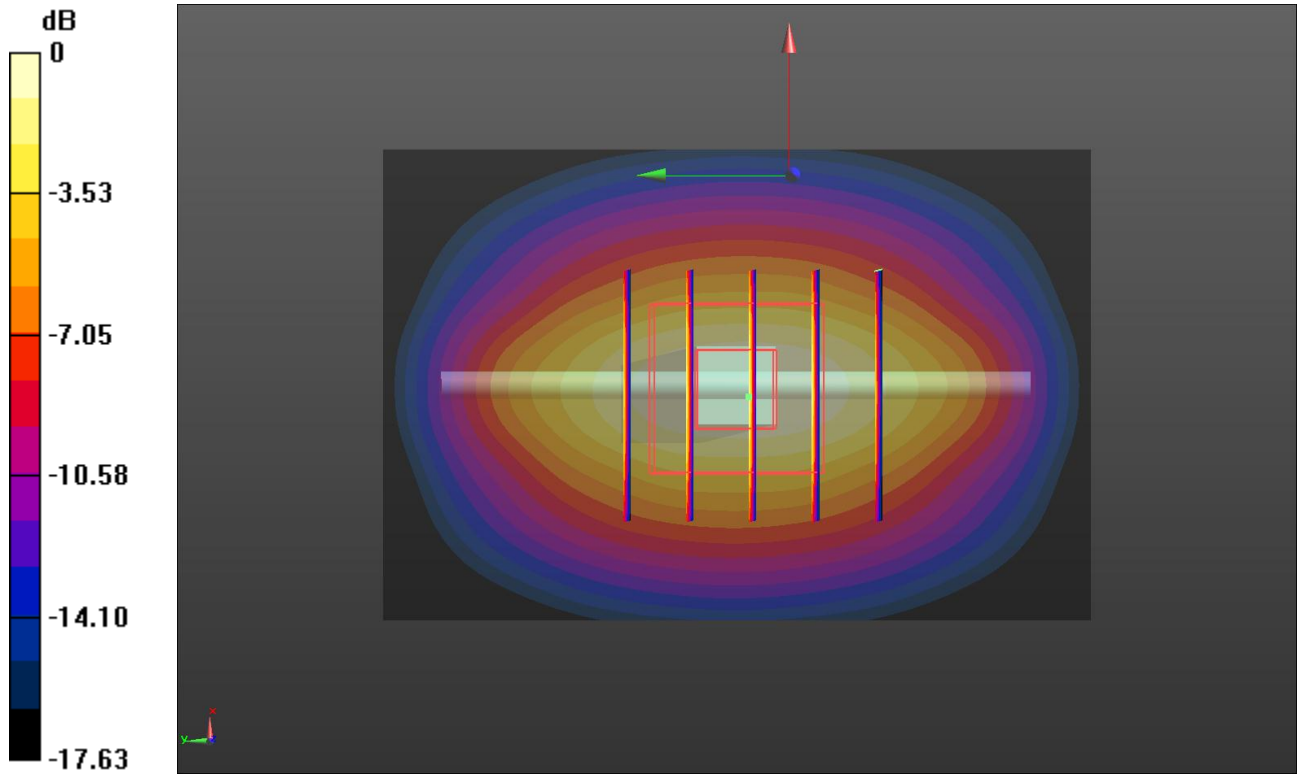
DUT: D1750V2; Type: D1750V2; Serial: 1164
Date: 2021-05-06
Communication System: UID 0, CW (0); Frequency: 1750 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1750 MHz; σ = 1.387 S/m; ε_r = 38.31; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.7℃;Liquid Temperature:22.5℃;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.88, 8.88, 8.88) @ 1750 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 (41x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 15.5 W/kg

Head/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 109.0 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 18.6 W/kg
SAR(1 g) = 9.92 W/kg; SAR(10 g) = 5.22 W/kg
Maximum value of SAR (measured) = 15.4 W/kg



0 dB = 15.4 W/kg = 11.88 dBW/kg

System Performance Check-Head 1900MHz

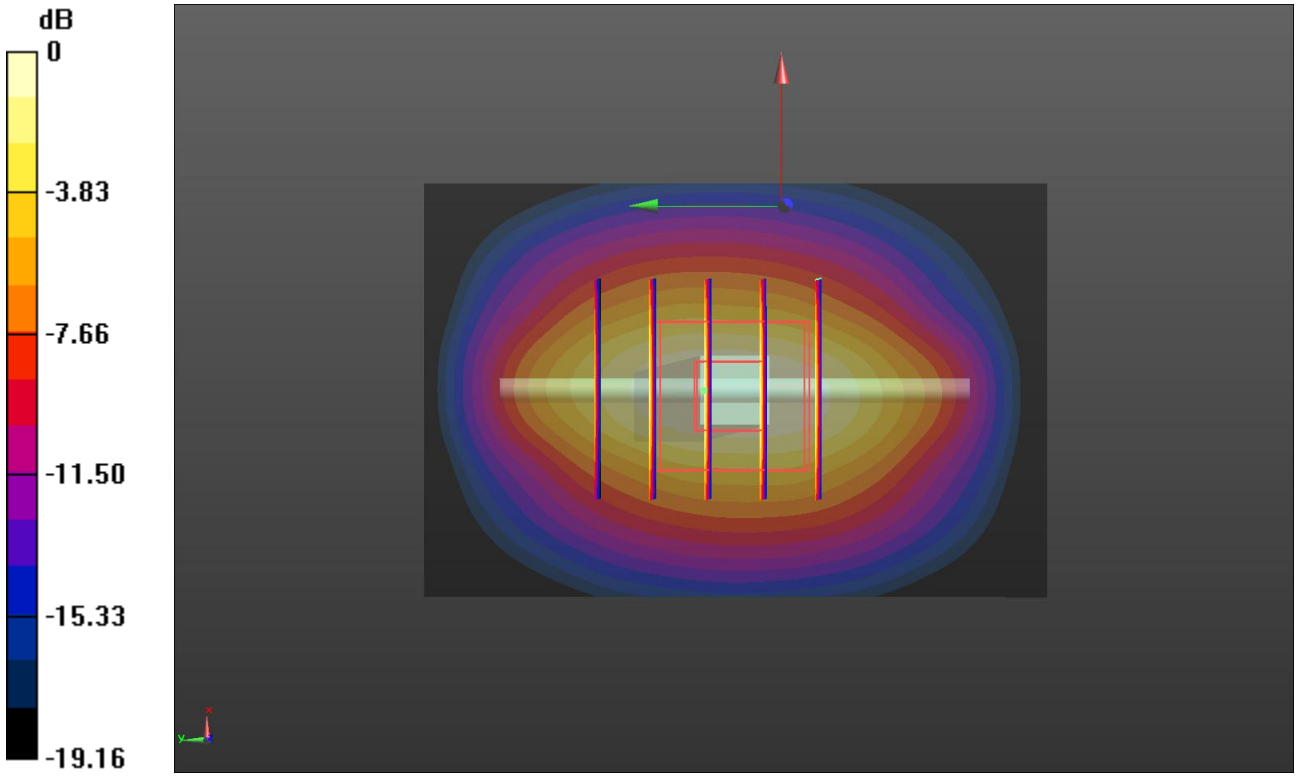
DUT: D1900V2; Type: D1900V2; Serial: 5d226
Date: 2021-05-07
Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium parameters used: f = 1900 MHz; σ = 1.447 S/m; ε_r = 38.114; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.8℃;Liquid Temperature:22.6℃;

DASY Configuration:

- Probe: EX3DV4 - SN7494; ConvF(8.55, 8.55, 8.55) @ 1900 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 (41x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 17.3 W/kg

Head/d=10mm,Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 112.3 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 20.5 W/kg
SAR(1 g) = 10.8 W/kg; SAR(10 g) = 5.54 W/kg
Maximum value of SAR (measured) = 16.7 W/kg



0 dB = 16.7 W/kg = 12.23 dBW/kg

SystemPerformanceCheck-Head 2600MHz

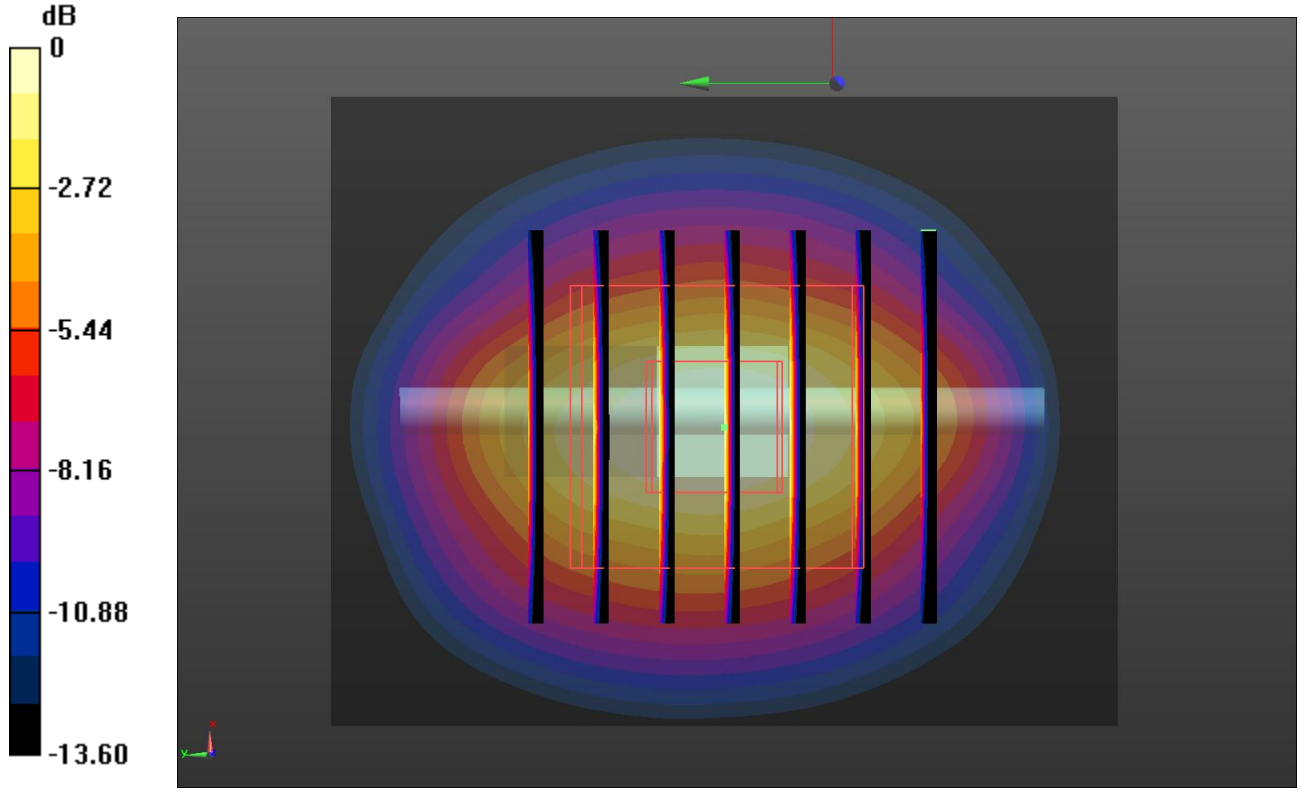
DUT: D2600V2; Type: D2600V2; Serial: 1150
Date: 2021-05-08
Communication System: UID 0, CW (0); Frequency: 2600 MHz;Duty Cycle: 1:1
Medium parameters used: f = 2600 MHz; σ = 1.941 S/m; ε_r = 37.336; ρ = 1000 kg/m^3
Phantom section: Flat Section
Ambient Temperature:22.5℃;Liquid Temperature:22.3℃;

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) = 27.4 W/kg

Head/d=10mm,Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 117.5 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 32.5 W/kg
SAR(1 g) = 14.9 W/kg; SAR(10 g) = 6.63 W/kg
Maximum value of SAR (measured) = 25.9 W/kg



0 dB = 25.9 W/kg = 14.13 dBW/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. 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 EUTtransmitting at maximum power and at different configurations which are requested to be reported to FCC, forconducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r03, when a properly configured base station simulator is used for the SAR and powermeasurements, 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 RBallocation, using the RB offset and required test channel combination with the highest maximum output power for RBoffsets 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 maximumoutput power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations andthe highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highestoutput power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also betested.
6. Per KDB 941225 D05v02r03, 16QAM output power for each RB allocation configuration is > not ½ dB higher than thesame configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225D05v02r03, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r03, smaller bandwidth output power for each RB allocation configuration is > not ½ dBhigher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supportedbandwidth is ≤ 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 ⩽ 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	23.16	23.25	23.18
			2	22.95	22.98	22.95
			5	22.66	22.72	22.70
		3	0	22.37	22.44	22.43
			1	22.08	22.21	22.21
			3	21.82	21.98	21.95
		6	0	21.52	21.69	21.75
	16QAM	1	0	22.96	23.04	22.89
			2	22.69	22.80	22.69
			5	22.46	22.59	22.47
		3	0	22.18	22.38	22.18
			1	21.92	22.12	21.88
			3	21.66	21.88	21.63
		6	0	21.37	21.61	21.34
Band-width	Modulation	RB allocation	RB offset	18615	18900	19185
				1851.5MHz	1880MHz	1908.5MHz
3MHz	QPSK	1	0	22.90	23.33	23.20
			8	22.64	23.03	22.93
			14	22.35	22.77	22.65
		8	0	22.11	22.56	22.35
			4	21.89	22.33	22.14
			7	21.66	22.07	21.86
		15	0	21.42	21.85	21.63
	16QAM	1	0	22.70	23.07	22.94
			8	22.41	22.85	22.74
			14	22.18	22.60	22.44
		8	0	21.97	22.31	22.22
			4	21.67	22.08	22.01
			7	21.44	21.81	21.73
		15	0	21.21	21.54	21.48

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	23.03	23.39	22.96
			12	22.73	23.13	22.75
			24	22.47	22.84	22.47
		12	0	22.24	22.56	22.23
			7	22.02	22.28	21.95
			13	21.81	21.99	21.74
		25	0	21.55	21.73	21.47
	16QAM	1	0	22.75	23.11	22.70
			12	22.46	22.90	22.44
			24	22.26	22.68	22.17
		12	0	22.04	22.47	21.93
			7	21.80	22.26	21.66
			13	21.53	21.97	21.45
		25	0	21.29	21.75	21.22
Band-width	Modulation	RB allocation	RB offset	18650	18900	19150
				1855MHz	1880MHz	1905MHz
10MHz	QPSK	1	0	23.05	22.95	22.86
			24	22.80	22.74	22.57
			49	22.54	22.47	22.28
		25	0	22.26	22.18	22.06
			24	21.99	21.95	21.78
			49	21.78	21.70	21.50
		50	0	21.49	21.49	21.24
	16QAM	1	0	22.46	22.36	22.27
			24	22.37	22.27	22.18
			49	22.41	22.31	22.23
		25	0	21.76	21.67	21.58
			24	21.60	21.51	21.43
			49	21.54	21.44	21.36
		50	0	21.68	21.59	21.51

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	23.18	23.37	23.38
			38	22.88	23.16	23.17
			74	22.60	22.95	22.91
		38	0	22.34	22.72	22.64
			18	22.06	22.45	22.38
			37	21.85	22.16	22.10
		75	0	21.57	21.93	21.87
	16QAM	1	0	22.59	22.77	22.78
			38	22.50	22.68	22.69
			74	22.54	22.72	22.73
		38	0	21.89	22.06	22.07
			18	21.73	21.90	21.91
			37	21.66	21.84	21.85
		75	0	21.81	21.98	21.99
Band-width	Modulation	RB allocation	RB offset	18700	18900	19100
				1860MHz	1880MHz	1900MHz
20MHz	QPSK	1	0	23.38	23.42	23.50
			49	23.12	23.18	23.28
			99	22.89	22.88	23.07
		50	0	22.67	22.62	22.82
			25	22.41	22.32	22.54
			50	22.15	22.05	22.25
		100	0	21.91	21.82	21.96
	16QAM	1	0	22.78	22.82	22.90
			49	22.69	22.73	22.81
			99	22.73	22.77	22.85
		50	0	22.07	22.11	22.19
			25	21.91	21.95	22.03
			50	21.85	21.88	21.96
		100	0	21.99	22.03	22.11

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	24.05	24.16	24.07
			2	23.78	23.88	23.86
			5	23.51	23.61	23.57
		3	0	23.22	23.36	23.34
			1	22.95	23.10	23.12
			3	22.66	22.86	22.88
		6	0	22.40	22.65	22.66
	16QAM	1	0	23.75	23.87	23.78
			2	23.55	23.64	23.50
			5	23.29	23.35	23.30
		3	0	23.03	23.12	23.05
			1	22.80	22.83	22.78
			3	22.52	22.61	22.54
		6	0	22.26	22.37	22.30
Band-width	Modulation	RB allocation	RB offset	19965	20175	20385
				1711.5MHz	1732.5MHz	1753.5MHz
3MHz	QPSK	1	0	23.82	23.88	23.88
			8	23.59	23.62	23.59
			14	23.29	23.35	23.37
		8	0	22.99	23.05	23.17
			4	22.72	22.81	22.89
			7	22.45	22.52	22.67
		15	0	22.17	22.28	22.47
	16QAM	1	0	23.53	23.66	23.59
			8	23.32	23.36	23.30
			14	23.10	23.09	23.04
		8	0	22.82	22.85	22.77
			4	22.56	22.56	22.55
			7	22.29	22.35	22.28
		15	0	22.06	22.13	21.99

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	24.11	24.11	24.21
			12	23.83	23.86	24.01
			24	23.59	23.56	23.73
		12	0	23.37	23.31	23.51
			7	23.07	23.01	23.23
			13	22.84	22.78	22.97
		25	0	22.55	22.50	22.73
	16QAM	1	0	23.83	23.86	23.93
			12	23.62	23.61	23.66
			24	23.40	23.34	23.45
		12	0	23.20	23.10	23.17
			7	22.96	22.81	22.91
			13	22.68	22.52	22.68
		25	0	22.47	22.29	22.39
Band-width	Modulation	RB allocation	RB offset	20000	20175	20350
				1715MHz	1732.5MHz	1750MHz
10MHz	QPSK	1	0	24.08	24.08	24.00
			24	23.80	23.79	23.74
			49	23.56	23.49	23.53
		25	0	23.30	23.28	23.31
			24	23.05	23.00	23.05
			49	22.75	22.76	22.77
		50	0	22.53	22.51	22.55
	16QAM	1	0	23.46	23.46	23.38
			24	23.37	23.37	23.29
			49	23.41	23.41	23.33
		25	0	22.73	22.73	22.66
			24	22.57	22.57	22.49
			49	22.50	22.50	22.43
		50	0	22.65	22.65	22.58

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	24.12	23.85	24.05
			38	23.89	23.64	23.19
			74	23.65	23.39	23.55
		38	0	23.45	23.11	23.27
			18	23.24	22.83	22.98
			37	22.95	22.63	22.77
		75	0	22.68	22.40	22.53
	16QAM	1	0	23.50	23.24	23.43
			38	23.41	23.15	23.34
			74	23.45	23.19	23.38
		38	0	22.77	22.52	22.71
			18	22.61	22.35	22.54
			37	22.54	22.29	22.47
		75	0	22.69	22.44	22.62
Band-width	Modulation	RB allocation	RB offset	20050	20175	20300
				1720MHz	1732.5MHz	1745MHz
20MHz	QPSK	1	0	24.26	24.30	24.28
			49	23.97	24.00	24.07
			99	23.72	23.73	23.79
		50	0	23.46	23.44	23.54
			25	23.17	23.20	23.27
			50	22.93	22.97	23.01
		100	0	22.70	22.77	22.74
	16QAM	1	0	23.64	23.68	23.66
			49	23.54	23.58	23.56
			99	23.59	23.63	23.61
		50	0	22.90	22.94	22.92
			25	22.74	22.78	22.76
			50	22.67	22.71	22.69
		100	0	22.82	22.86	22.84

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	24.85	24.96	24.88
			2	24.56	24.68	24.62
			5	24.29	24.48	24.39
		3	0	24.02	24.26	24.16
			1	23.79	23.99	23.89
			3	23.56	23.77	23.62
		6	0	23.30	23.50	23.38
	16QAM	1	0	24.59	24.69	24.65
			2	24.37	24.46	24.39
			5	24.14	24.19	24.19
		3	0	23.88	23.94	23.98
			1	23.62	23.66	23.70
			3	23.33	23.39	23.45
		6	0	23.10	23.16	23.19
Band-width	Modulation	RB allocation	RB offset	20415	20525	20635
				825.5MHz	836.5MHz	847.5MHz
3MHz	QPSK	1	0	24.77	24.99	24.79
			8	24.52	24.78	24.58
			14	24.25	24.49	24.34
		8	0	24.03	24.25	24.13
			4	23.81	23.98	23.85
			7	23.60	23.71	23.64
		15	0	23.31	23.49	23.43
	16QAM	1	0	24.49	24.75	24.54
			8	24.29	24.55	24.25
			14	24.04	24.30	24.05
		8	0	23.80	24.05	23.76
			4	23.52	23.79	23.49
			7	23.27	23.56	23.28
		15	0	22.99	23.33	23.03

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	24.86	24.87	24.81
			12	24.63	24.65	24.55
			24	24.39	24.36	24.28
		12	0	24.17	24.11	24.04
			7	23.96	23.90	23.83
			13	23.76	23.68	23.62
		25	0	23.51	23.44	23.37
	16QAM	1	0	24.65	24.64	24.58
			12	24.37	24.42	24.35
			24	24.16	24.13	24.06
		12	0	23.87	23.86	23.84
			7	23.65	23.56	23.57
			13	23.39	23.27	23.33
		25	0	23.09	22.99	23.13
Band-width	Modulation	RB allocation	RB offset	20450	20525	20600
				829MHz	836.5MHz	844MHz
10MHz	QPSK	1	0	25.04	25.08	25.16
			24	24.83	24.80	24.91
			49	24.57	24.50	24.65
		25	0	24.37	24.21	24.41
			24	24.11	24.00	24.21
			49	23.90	23.72	23.92
		50	0	23.67	23.50	23.68
	16QAM	1	0	24.40	24.44	24.52
			24	24.30	24.34	24.42
			49	24.35	24.38	24.46
		25	0	23.64	23.68	23.75
			24	23.47	23.51	23.58
			49	23.40	23.43	23.51
		50	0	23.56	23.59	23.67

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	23.98	23.95	23.97
			2	23.68	23.74	23.70
			5	23.47	23.52	23.47
		3	0	23.20	23.33	23.23
			1	22.95	23.09	22.95
			3	22.68	22.88	22.74
		6	0	22.46	22.66	22.53
	16QAM	1	0	23.76	23.68	23.73
			2	23.56	23.42	23.49
			5	23.32	23.16	23.21
		3	0	23.03	22.91	22.99
			1	22.80	22.66	22.70
			3	22.53	22.42	22.50
		6	0	22.30	22.16	22.22
Band-width	Modulation	RB allocation	RB offset	23025	23095	23165
				700.5MHz	707.5MHz	714.5MHz
3MHz	QPSK	1	0	24.15	24.13	24.04
			8	23.93	23.85	23.83
			14	23.73	23.63	23.58
		8	0	23.45	23.42	23.34
			4	23.22	23.12	23.11
			7	23.01	22.86	22.81
		15	0	22.77	22.61	22.54
	16QAM	1	0	23.93	23.87	23.77
			8	23.71	23.61	23.52
			14	23.42	23.38	23.23
		8	0	23.22	23.12	22.95
			4	22.96	22.91	22.68
			7	22.71	22.69	22.43
		15	0	22.51	22.47	22.20

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	24.22	24.41	24.41
			12	23.94	24.13	24.17
			24	23.66	23.84	23.92
		12	0	23.40	23.62	23.64
			7	23.12	23.39	23.39
			13	22.84	23.12	23.19
		25	0	22.55	22.87	22.92
	16QAM	1	0	23.99	24.16	24.16
			12	23.77	23.90	23.89
			24	23.50	23.64	23.61
		12	0	23.21	23.35	23.41
			7	22.93	23.06	23.12
			13	22.67	22.78	22.82
		25	0	22.41	22.57	22.61
Band-width	Modulation	RB allocation	RB offset	23060	23095	23130
				704MHz	707.5MHz	711MHz
10MHz	QPSK	1	0	24.37	24.50	24.39
			24	24.09	24.20	24.17
			49	23.83	23.93	23.93
		25	0	23.63	23.72	23.69
			24	23.38	23.45	23.47
			49	23.09	23.24	23.18
		50	0	22.86	22.96	22.88
	16QAM	1	0	23.75	23.87	23.76
			24	23.65	23.78	23.67
			49	23.69	23.82	23.71
		25	0	23.01	23.13	23.03
			24	22.84	22.96	22.86
			49	22.77	22.89	22.79
		50	0	22.93	23.05	22.94

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	22.29	22.18	22.25
			12	22.08	21.92	22.02
			24	21.86	21.68	21.76
		12	0	21.60	21.44	21.47
			7	21.39	21.19	21.25
			13	21.12	20.94	20.96
		25	0	20.92	20.66	20.71
	16QAM	1	0	22.01	21.96	21.98
			12	21.77	21.73	21.78
			24	21.49	21.44	21.55
		12	0	21.25	21.18	21.34
			7	21.01	20.91	21.10
			13	20.78	20.69	20.86
		25	0	20.58	20.46	20.57
Band-width	Modulation	RB allocation	RB offset		23230	
					782MHz	
10MHz	QPSK	1	0		22.43	
			24		22.21	
			49		22.00	
		25	0		21.78	
			24		21.52	
			49		21.26	
		50	0		21.02	
	16QAM	1	0		21.86	
			24		21.77	
			49		21.81	
		25	0		21.18	
			24		21.02	
			49		20.96	
		50	0		21.10	

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	22.73	22.53	22.68
			2	22.47	22.29	22.48
			5	22.21	22.04	22.26
		3	0	22.00	21.84	21.97
			1	21.72	21.56	21.70
			3	21.42	21.26	21.47
		6	0	21.14	21.03	21.22
	16QAM	1	0	22.45	22.26	22.41
			2	22.24	21.97	22.13
			5	21.96	21.70	21.89
		3	0	21.66	21.48	21.64
			1	21.43	21.20	21.36
			3	21.17	20.92	21.07
		6	0	20.93	20.62	20.81
Band-width	Modulation	RB allocation	RB offset	26055	26365	26675
				1851.5MHz	1882.5MHz	1913.5MHz
3MHz	QPSK	1	0	22.62	22.60	22.71
			8	22.38	22.39	22.45
			14	22.18	22.17	22.23
		8	0	21.97	21.89	21.97
			4	21.67	21.64	21.76
			7	21.46	21.39	21.55
		15	0	21.16	21.13	21.27
	16QAM	1	0	22.37	22.37	22.48
			8	22.17	22.10	22.19
			14	21.90	21.85	21.94
		8	0	21.69	21.58	21.68
			4	21.41	21.30	21.42
			7	21.18	21.08	21.20
		15	0	20.92	20.79	20.99

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	22.82	22.75	22.71
			12	22.52	22.51	22.50
			24	22.28	22.28	22.27
		12	0	22.03	22.01	22.02
			7	21.81	21.75	21.79
			13	21.54	21.50	21.50
		25	0	21.25	21.26	21.24
	16QAM	1	0	22.60	22.49	22.50
			12	22.38	22.19	22.28
			24	22.12	21.93	21.99
		12	0	21.89	21.64	21.69
			7	21.64	21.43	21.46
			13	21.39	21.23	21.25
		25	0	21.11	20.97	20.99
Band-width	Modulation	RB allocation	RB offset	26090	26365	26640
				1855MHz	1882.5MHz	1910MHz
10MHz	QPSK	1	0	22.94	22.88	22.91
			24	22.69	22.62	22.62
			49	22.40	22.40	22.38
		25	0	22.17	22.17	22.10
			24	21.88	21.90	21.81
			49	21.66	21.63	21.54
		50	0	21.38	21.36	21.31
	16QAM	1	0	22.35	22.29	22.32
			24	22.26	22.20	22.23
			49	22.30	22.25	22.28
		25	0	21.66	21.60	21.63
			24	21.50	21.44	21.47
			49	21.43	21.38	21.41
		50	0	21.58	21.52	21.55

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	23.04	23.10
			38	22.76	22.78	22.81
			74	22.54	22.50	22.51
		38	0	22.27	22.22	22.25
			18	21.98	22.01	21.97
			37	21.76	21.77	21.72
		75	0	21.55	21.52	21.49
	16QAM	1	0	22.42	22.45	22.51
			38	22.33	22.36	22.42
			74	22.37	22.40	22.46
		38	0	21.72	21.75	21.81
			18	21.57	21.59	21.65
			37	21.50	21.53	21.58
		75	0	21.65	21.67	21.73
Band-width	Modulation	RB allocation	RB offset	26140	26365	26590
				1860MHz	1882.5MHz	1905MHz
20MHz	QPSK	1	0	23.15	23.12	23.08
			49	22.95	22.89	22.87
			99	22.70	22.64	22.60
		50	0	22.47	22.39	22.35
			25	22.25	22.18	22.14
			50	22.03	21.92	21.94
		100	0	21.78	21.65	21.73
	16QAM	1	0	22.56	22.53	22.49
			49	22.47	22.44	22.40
			99	22.51	22.48	22.44
		50	0	21.86	21.83	21.79
			25	21.70	21.67	21.63
			50	21.63	21.60	21.57
		100	0	21.78	21.75	21.71

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	23.22	23.18	23.31
			2	22.98	22.88	23.11
			5	22.76	22.60	22.83
		3	0	22.54	22.34	22.60
			1	22.27	22.04	22.31
			3	22.02	21.78	22.01
		6	0	21.74	21.54	21.78
	16QAM	1	0	22.99	22.93	23.03
			2	22.76	22.65	22.82
			5	22.50	22.41	22.53
		3	0	22.25	22.12	22.30
			1	22.02	21.85	22.03
			3	21.72	21.63	21.81
		6	0	21.42	21.38	21.54
Band-width	Modulation	RB allocation	RB offset	26705	26865	27025
				815.5MHz	831.5MHz	847.5MHz
3MHz	QPSK	1	0	23.41	23.44	23.31
			8	23.15	23.21	23.07
			14	22.87	22.95	22.78
		8	0	22.64	22.70	22.56
			4	22.35	22.46	22.34
			7	22.06	22.19	22.09
		15	0	21.77	21.94	21.85
	16QAM	1	0	23.18	23.18	23.03
			8	22.90	22.90	22.81
			14	22.69	22.66	22.58
		8	0	22.39	22.40	22.33
			4	22.09	22.14	22.07
			7	21.85	21.90	21.83
		15	0	21.57	21.67	21.56

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	23.66	23.58	23.60
			12	23.36	23.37	23.31
			24	23.16	23.12	23.05
		12	0	22.95	22.90	22.81
			7	22.66	22.63	22.54
			13	22.45	22.35	22.33
		25	0	22.21	22.13	22.10
	16QAM	1	0	23.43	23.28	23.36
			12	23.14	23.03	23.13
			24	22.86	22.79	22.87
		12	0	22.61	22.52	22.66
			7	22.36	22.28	22.39
			13	22.16	22.02	22.18
		25	0	21.96	21.76	21.91
Band-width	Modulation	RB allocation	RB offset	26740	26865	26990
				819MHz	831.5MHz	844MHz
10MHz	QPSK	1	0	23.62	23.60	23.55
			24	23.37	23.37	23.26
			49	23.12	23.14	23.04
		25	0	22.90	22.91	22.75
			24	22.61	22.67	22.47
			49	22.36	22.41	22.25
		50	0	22.14	22.18	22.01
	16QAM	1	0	23.01	23.00	22.95
			24	22.92	22.90	22.85
			49	22.97	22.95	22.90
		25	0	22.30	22.28	22.23
			24	22.14	22.12	22.07
			49	22.07	22.05	22.00
		50	0	22.22	22.20	22.15

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	23.78	23.84	23.80
			38	23.51	23.55	23.51
			74	23.25	23.25	23.24
		38	0	23.01	22.95	23.00
			18	22.72	22.73	22.72
			37	22.42	22.48	22.50
		75	0	22.16	22.23	22.20
	16QAM	1	0	23.17	23.23	23.19
			38	23.08	23.14	23.10
			74	23.12	23.18	23.14
		38	0	22.45	22.51	22.47
			18	22.29	22.34	22.31
			37	22.22	22.28	22.24
		75	0	22.37	22.43	22.39

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	21.31	21.25	21.22
			2	21.01	21.04	20.98
			5	20.78	20.77	20.75
		3	0	20.50	20.47	20.47
			1	20.25	20.20	20.26
			3	19.96	19.97	20.06
		6	0	19.70	19.71	19.78
	16QAM	1	0	21.01	21.04	20.95
			2	20.76	20.82	20.72
			5	20.56	20.56	20.44
		3	0	20.33	20.36	20.24
			1	20.03	20.11	20.01
			3	19.75	19.84	19.75
		6	0	19.45	19.60	19.47
Band-width	Modulation	RB allocation	RB offset	131987	132322	132657
				1711.5MHz	1745MHz	1778.5MHz
3MHz	QPSK	1	0	21.64	21.53	21.71
			8	21.43	21.26	21.47
			14	21.22	20.99	21.25
		8	0	20.96	20.78	20.95
			4	20.75	20.58	20.67
			7	20.49	20.29	20.44
		15	0	20.24	20.04	20.15
	16QAM	1	0	21.41	21.24	21.50
			8	21.18	21.00	21.20
			14	20.90	20.79	21.00
		8	0	20.64	20.53	20.79
			4	20.36	20.27	20.59
			7	20.06	20.01	20.39
		15	0	19.77	19.75	20.18

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	21.95	21.76	21.83
			12	21.73	21.48	21.60
			24	21.49	21.21	21.30
		12	0	21.23	20.95	21.05
			7	21.00	20.71	20.84
			13	20.74	20.41	20.59
		25	0	20.53	20.19	20.33
	16QAM	1	0	21.74	21.56	21.56
			12	21.46	21.30	21.34
			24	21.25	21.02	21.04
		12	0	20.99	20.75	20.81
			7	20.76	20.49	20.53
			13	20.49	20.27	20.28
		25	0	20.24	20.06	20.07
Band-width	Modulation	RB allocation	RB offset	132022	132322	132622
				1715MHz	1745MHz	1775MHz
10MHz	QPSK	1	0	22.11	22.08	22.04
			24	21.90	21.84	21.75
			49	21.70	21.56	21.46
		25	0	21.41	21.34	21.24
			24	21.14	21.10	20.95
			49	20.84	20.86	20.75
		50	0	20.56	20.59	20.47
	16QAM	1	0	21.54	21.51	21.48
			24	21.46	21.43	21.39
			49	21.50	21.47	21.43
		25	0	20.87	20.85	20.81
			24	20.72	20.69	20.66
			49	20.66	20.63	20.59
		50	0	20.80	20.77	20.73

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	22.37	22.25	22.31
			38	22.08	22.04	22.10
			74	21.85	21.80	21.83
		38	0	21.63	21.57	21.60
			18	21.33	21.35	21.34
			37	21.13	21.14	21.08
		75	0	20.92	20.90	20.85
	16QAM	1	0	21.80	21.68	21.74
			38	21.71	21.59	21.65
			74	21.75	21.63	21.69
		38	0	21.12	21.01	21.06
			18	20.97	20.85	20.91
			37	20.90	20.79	20.85
		75	0	21.04	20.93	20.99
Band-width	Modulation	RB allocation	RB offset	132072	132322	132572
				1720MHz	1745MHz	1770MHz
20MHz	QPSK	1	0	22.61	22.78	22.67
			49	22.32	22.51	22.41
			99	22.09	22.28	22.16
		50	0	21.84	22.07	21.93
			25	21.55	21.83	21.65
			50	21.34	21.60	21.37
		100	0	21.13	21.31	21.15
	16QAM	1	0	22.03	22.20	22.09
			49	21.94	22.11	22.00
			99	21.98	22.15	22.04
		50	0	21.35	21.51	21.40
			25	21.19	21.35	21.25
			50	21.13	21.29	21.18
		100	0	21.27	21.43	21.33

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	21.97	21.92	21.83	21.70	21.75
			12	21.73	21.68	21.62	21.49	21.51
			24	21.46	21.41	21.33	21.20	21.27
		12	0	21.25	21.20	21.13	21.00	20.98
			7	20.95	20.90	20.88	20.75	20.78
			13	20.67	20.62	20.64	20.51	20.57
		25	0	20.38	20.33	20.42	20.29	20.27
	16QAM	1	0	21.74	21.69	21.59	21.46	21.46
			12	21.52	21.47	21.36	21.23	21.22
			24	21.23	21.18	21.14	21.01	21.00
		12	0	20.94	20.89	20.87	20.74	20.72
			7	20.67	20.62	20.61	20.48	20.51
			13	20.42	20.37	20.33	20.20	20.28
		25	0	20.16	20.11	20.05	19.92	20.03
Band-width	Modulation	RB allocation	RB offset	39750	40185	40620	41055	41490
				2506MHz	2549.5MHz	2593MHz	2636.5MHz	2680MHz
10MHz	QPSK	1	0	22.15	22.10	22.07	21.94	22.09
			24	21.94	21.89	21.83	21.70	21.87
			49	21.68	21.63	21.61	21.48	21.65
		25	0	21.41	21.36	21.34	21.21	21.40
			24	21.20	21.15	21.12	20.99	21.13
			49	20.95	20.90	20.91	20.78	20.85
		50	0	20.68	20.63	20.65	20.52	20.56
	16QAM	1	0	21.58	21.53	21.50	21.37	21.52
			24	21.50	21.45	21.42	21.29	21.44
			49	21.54	21.49	21.46	21.33	21.48
		25	0	20.91	20.86	20.84	20.71	20.86
			24	20.76	20.71	20.68	20.55	20.70
			49	20.70	20.65	20.62	20.49	20.64
		50	0	20.84	20.79	20.76	20.63	20.78

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	22.24	22.19	22.23	22.10	22.20
			38	22.01	21.96	22.02	21.89	21.97
			74	21.73	21.68	21.80	21.67	21.74
		38	0	21.51	21.46	21.51	21.38	21.47
			18	21.27	21.22	21.28	21.15	21.20
			37	20.98	20.93	21.02	20.89	20.96
		75	0	20.78	20.73	20.75	20.62	20.67
	16QAM	1	0	21.67	21.62	21.66	21.53	21.63
			38	21.58	21.53	21.57	21.44	21.54
			74	21.62	21.57	21.61	21.48	21.58
		38	0	21.00	20.95	20.99	20.86	20.96
			18	20.84	20.79	20.83	20.70	20.81
			37	20.78	20.73	20.77	20.64	20.74
		75	0	20.92	20.87	20.91	20.78	20.88
Band-width	Modulation	RB allocation	RB offset	39750	40185	40620	41055	41490
				2506MHz	2549.5MHz	2593MHz	2636.5MHz	2680MHz
20MHz	QPSK	1	0	22.45	22.40	22.48	22.35	22.57
			49	22.19	22.14	22.25	22.12	22.35
			99	21.92	21.87	21.95	21.82	22.06
		50	0	21.68	21.63	21.65	21.52	21.78
			25	21.42	21.37	21.42	21.29	21.51
			50	21.14	21.09	21.17	21.04	21.30
		100	0	20.86	20.81	20.97	20.84	21.08
	16QAM	1	0	21.87	21.82	21.90	21.77	21.99
			49	21.79	21.74	21.82	21.69	21.90
			99	21.83	21.78	21.86	21.73	21.94
		50	0	21.20	21.15	21.22	21.09	21.31
			25	21.04	20.99	21.07	20.94	21.15
			50	20.98	20.93	21.01	20.88	21.09
		100	0	21.12	21.07	21.15	21.02	21.23

Bluetooth

Bluetooth				
Mode	Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Conducted Average Power (dBm)
GFSK	0	2402	2.61	2.60
	39	2441	3.15	3.14
	78	2480	4.00	3.98
π/4QPSK	0	2402	2.22	2.15
	39	2441	2.68	2.65
	78	2480	3.61	3.53
8DPSK	0	2402	2.31	2.24
	39	2441	2.81	2.76
	78	2480	3.70	3.61
BLE	0	2402	-2.02	-2.05
	19	2440	-0.57	-0.58
	39	2480	-0.63	-0.65

12. Maximum Tune-up Limit

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

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 4	1.4	QPSK	1	24.50
			3	23.50
			6	23.00
		16QAM	1	24.00
			3	23.50
			6	22.50
	3	QPSK	1	24.00
			8	23.50
			15	22.50
		16QAM	1	24.00
			8	23.00
			15	22.50
	5	QPSK	1	24.50
			12	24.00
			25	23.00
		16QAM	1	24.00
			12	23.50
			25	22.50
	10	QPSK	1	24.50
			25	23.50
			50	23.00
		16QAM	1	23.50
			25	23.00
			50	23.00
	15	QPSK	1	24.50
			38	23.50
			75	23.00
		16QAM	1	23.50
			38	23.00
			75	23.00
	20	QPSK	1	24.50
			50	24.00
			100	23.00
		16QAM	1	24.00
			50	23.00
			100	23.00

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 5	1.4	QPSK	1	25.00
			3	24.50
			6	23.50
		16QAM	1	25.00
			3	24.00
			6	23.50
	3	QPSK	1	25.00
			8	24.50
			15	23.50
		16QAM	1	25.00
			8	24.50
			15	23.50
	5	QPSK	1	25.00
			12	24.50
			25	24.00
		16QAM	1	25.00
			12	24.00
			25	23.50
	10	QPSK	1	25.50
			25	24.50
			50	24.00
		16QAM	1	25.00
			25	24.00
			50	24.00

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

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 13	5	QPSK	1	22.50
			12	22.00
			25	21.00
		16QAM	1	22.50
			12	21.50
			25	21.00
	10	QPSK	1	22.50
			25	22.00
			50	21.50
		16QAM	1	22.00
			25	21.50
			50	21.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 25	1.4	QPSK	1	23.00
			3	22.00
			6	21.50
		16QAM	1	22.50
			3	22.00
			6	21.00
	3	QPSK	1	23.00
			8	22.00
			15	21.50
		16QAM	1	22.50
			8	22.00
			15	21.00
	5	QPSK	1	23.00
			12	22.50
			25	21.50
		16QAM	1	23.00
			12	22.00
			25	21.50
	10	QPSK	1	23.00
			25	22.50
			50	21.50
		16QAM	1	22.50
			25	22.00
			50	22.00
	15	QPSK	1	23.50
			38	22.50
			75	22.00
		16QAM	1	23.00
			38	22.00
			75	22.00
	20	QPSK	1	23.50
			50	22.50
			100	22.00
		16QAM	1	23.00
			50	22.00
			100	22.00

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 26	1.4	QPSK	1	23.50
			3	23.00
			6	22.00
		16QAM	1	23.50
			3	22.50
			6	22.00
	3	QPSK	1	23.50
			8	23.00
			15	22.00
		16QAM	1	23.50
			8	22.50
			15	22.00
	5	QPSK	1	24.00
			12	23.00
			25	22.50
		16QAM	1	23.50
			12	23.00
			25	22.00
	10	QPSK	1	24.00
			25	23.00
			50	22.50
		16QAM	1	23.50
			25	22.50
			50	22.50
	15	QPSK	1	24.00
			38	23.50
			75	22.50
		16QAM	1	23.50
			38	23.00
			75	22.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
FDD Band 66	1.4	QPSK	1	21.50
			3	20.50
			6	20.00
		16QAM	1	21.50
			3	20.50
			6	20.00
	3	QPSK	1	22.00
			8	21.00
			15	20.50
		16QAM	1	21.50
			8	21.00
			15	20.50
	5	QPSK	1	22.00
			12	21.50
			25	21.00
		16QAM	1	22.00
			12	21.00
			25	20.50
	10	QPSK	1	22.50
			25	21.50
			50	21.00
		16QAM	1	22.00
			25	21.00
			50	21.00
	15	QPSK	1	22.50
			38	22.00
			75	21.00
		16QAM	1	22.00
			38	21.50
			75	21.50
	20	QPSK	1	23.00
			50	22.50
			100	21.50
		16QAM	1	22.50
			50	22.00
			100	21.50

LTE				
Fequency Band	Band-width(MHz)	Modulation	RB allocation	Maximum Tune-up (dBm)
TDD Band 41	5	QPSK	1	22.00
			12	21.50
			25	20.50
		16QAM	1	22.00
			12	21.00
			25	20.50
	10	QPSK	1	22.50
			25	21.50
			50	21.00
		16QAM	1	22.00
			25	21.00
			50	21.00
	15	QPSK	1	22.50
			38	22.00
			75	21.00
		16QAM	1	22.00
			38	21.00
			75	21.00
	20	QPSK	1	23.00
			50	22.00
			100	21.50
		16QAM	1	22.00
			50	21.50
			100	21.50

The allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2-1due 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

Bluetooth

Bluetooth		
Mode	Channel	Maximum Tune-up (dBm) Conducted Average Power
GFSK	0	3.00
	39	3.50
	78	4.00
π/4 QPSK	0	2.50
	39	3.00
	78	4.00
8DPSK	0	2.50
	39	3.00
	78	4.00
BLE	0	-2.00
	19	-0.50
	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 ≦50mm are determined by:

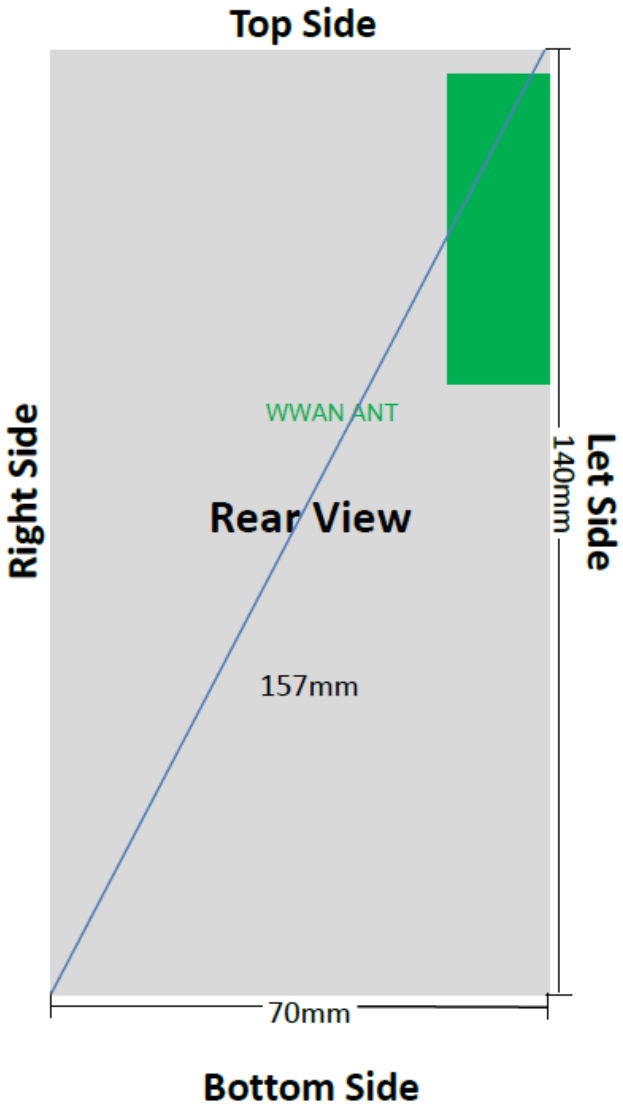
[(max. Power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * [√f(GHz)] ≦3.0 for 1-g SAR

Band/Mode	F(GHz)	Position	Separation Distance (mm)	Exclusion Thresholds	SAR test exclusion
Bluetooth	2.408	Head	0	0.8	0.104
		Body	10	0.3	0.052

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

The test exclusion thereshold is ≦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:

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

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 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.

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

LTE Band 2										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Left Cheek	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	-0.12	0.655	0.655	1
	Left Tilt	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	-0.18	0.338	0.338	-
	Right Cheek	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	0.03	0.602	0.602	-
	Right Tilt	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	-0.14	0.274	0.274	-
20M QPSK 50RB	Left Cheek	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	0.08	0.628	0.655	-
	Left Tilt	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	-0.02	0.306	0.319	-
	Right Cheek	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	-0.11	0.574	0.598	-
	Right Tilt	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	-0.17	0.226	0.236	-

LTE Band 4										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Left Cheek	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	-0.12	0.705	0.738	2
		20300	1745	24.28	24.50	1.052	-	-	-	-
	Left Tilt	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	-0.19	0.400	0.419	-
		20300	1745	24.28	24.50	1.052	-	-	-	-
	Right Cheek	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	-0.15	0.668	0.699	-
		20300	1745	24.28	24.50	1.052	-	-	-	-
	Right Tilt	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	0.07	0.355	0.372	-
		20300	1745	24.28	24.50	1.052	-	-	-	-
20M QPSK 50RB	Left Cheek	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	-0.06	0.661	0.735	-
	Left Tilt	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	-0.11	0.370	0.411	-
	Right Cheek	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	0.12	0.620	0.689	-
	Right Tilt	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	0.04	0.328	0.365	-

LTE Band 5										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Left Cheek	20450	829	25.04	25.50	1.112	-	-	-	-
		20525	836.5	25.08	25.50	1.102	-	-	-	-
		20600	844	25.16	25.50	1.081	-0.10	0.381	0.412	3
	Left Tilt	20450	829	25.04	25.50	1.112	-	-	-	-
		20525	836.5	25.08	25.50	1.102	-	-	-	-
		20600	844	25.16	25.50	1.081	-0.08	0.183	0.198	-
	Right Cheek	20450	829	25.04	25.50	1.112	-	-	-	-
		20525	836.5	25.08	25.50	1.102	-	-	-	-
		20600	844	25.16	25.50	1.081	0.13	0.326	0.353	-
	Right Tilt	20450	829	25.04	25.50	1.112	-	-	-	-
		20525	836.5	25.08	25.50	1.102	-	-	-	-
		20600	844	25.16	25.50	1.081	-0.06	0.162	0.175	-
10M QPSK 25RB	Left Cheek	20450	829	24.37	24.50	1.030	-	-	-	-
		20525	836.5	24.21	24.50	1.069	-	-	-	-
		20600	844	24.41	24.50	1.021	-0.14	0.369	0.377	-
	Left Tilt	20450	829	24.37	24.50	1.030	-	-	-	-
		20525	836.5	24.21	24.50	1.069	-	-	-	-
		20600	844	24.41	24.50	1.021	0.03	0.174	0.178	-
	Right Cheek	20450	829	24.37	24.50	1.030	-	-	-	-
		20525	836.5	24.21	24.50	1.069	-	-	-	-
		20600	844	24.41	24.50	1.021	-0.18	0.300	0.306	-
	Right Tilt	20450	829	24.37	24.50	1.030	-	-	-	-
		20525	836.5	24.21	24.50	1.069	-	-	-	-
		20600	844	24.41	24.50	1.021	0.10	0.144	0.147	-
10M QPSK 50RB	Left Cheek	20450	829	23.67	24.00	1.079	-	-	-	-
		20525	836.5	23.50	24.00	1.122	-	-	-	-
		20600	844	23.68	24.00	1.076	-0.10	0.352	0.379	-
	Left Tilt	20450	829	23.67	24.00	1.079	-	-	-	-
		20525	836.5	23.50	24.00	1.122	-	-	-	-
		20600	844	23.68	24.00	1.076	-0.08	0.163	0.175	-
	Right Cheek	20450	829	23.67	24.00	1.079	-	-	-	-
		20525	836.5	23.50	24.00	1.122	-	-	-	-
		20600	844	23.68	24.00	1.076	0.13	0.301	0.324	-
	Right Tilt	20450	829	23.67	24.00	1.079	-	-	-	-
		20525	836.5	23.50	24.00	1.122	-	-	-	-
		20600	844	23.68	24.00	1.076	-0.06	0.151	0.163	-

LTE Band 12										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Left Cheek	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	-0.10	0.085	0.085	4
		23130	711	24.39	24.50	1.026	-	-	-	-
	Left Tilt	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	-0.09	0.044	0.044	-
		23130	711	24.39	24.50	1.026	-	-	-	-
	Right Cheek	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	0.16	0.062	0.062	-
		23130	711	24.39	24.50	1.026	-	-	-	-
	Right Tilt	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	0.13	0.024	0.024	-
		23130	711	24.39	24.50	1.026	-	-	-	-
10M QPSK 25RB	Left Cheek	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	-0.04	0.076	0.081	-
		23130	711	23.69	24.00	1.074	-	-	-	-
	Left Tilt	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	-0.05	0.040	0.043	-
		23130	711	23.69	24.00	1.074	-	-	-	-
	Right Cheek	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	0.17	0.057	0.061	-
		23130	711	23.69	24.00	1.074	-	-	-	-
	Right Tilt	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	-0.08	0.020	0.021	-
		23130	711	23.69	24.00	1.074	-	-	-	-

LTE Band 13										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Left Cheek	23230	782	22.43	22.50	1.016	0.02	0.170	0.173	5
	Left Tilt	23230	782	22.43	22.50	1.016	0.18	0.072	0.073	-
	Right Cheek	23230	782	22.43	22.50	1.016	-0.06	0.155	0.158	-
	Right Tilt	23230	782	22.43	22.50	1.016	0.13	0.058	0.059	-
10M QPSK 25RB	Left Cheek	23230	782	21.78	22.00	1.052	-0.07	0.162	0.170	-
	Left Tilt	23230	782	21.78	22.00	1.052	0.00	0.067	0.070	-
	Right Cheek	23230	782	21.78	22.00	1.052	-0.13	0.148	0.156	-
	Right Tilt	23230	782	21.78	22.00	1.052	0.02	0.050	0.053	-

LTE Band 25										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Left Cheek	26140	1860	23.15	23.50	1.084	-0.01	0.672	0.728	6
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
	Left Tilt	26140	1860	23.15	23.50	1.084	0.02	0.322	0.349	-
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
	Right Cheek	26140	1860	23.15	23.50	1.084	-0.11	0.648	0.702	-
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
	Right Tilt	26140	1860	23.15	23.50	1.084	0.14	0.316	0.343	-
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
20M QPSK 50RB	Left Cheek	26140	1860	22.47	22.50	1.007	-0.06	0.668	0.673	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-
	Left Tilt	26140	1860	22.47	22.50	1.007	0.19	0.310	0.312	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-
	Right Cheek	26140	1860	22.47	22.50	1.007	-0.07	0.622	0.626	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-
	Right Tilt	26140	1860	22.47	22.50	1.007	0.13	0.301	0.303	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-

LTE Band 26										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
15M QPSK 1RB	Left Cheek	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	0.12	0.290	0.301	7
		26965	841.5	23.80	24.00	1.047	-	-	-	-
	Left Tilt	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	0.06	0.106	0.110	-
		26965	841.5	23.80	24.00	1.047	-	-	-	-
	Right Cheek	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	-0.11	0.266	0.276	-
		26965	841.5	23.80	24.00	1.047	-	-	-	-
	Right Tilt	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	0.01	0.092	0.095	-
		26965	841.5	23.80	24.00	1.047	-	-	-	-
15M QPSK 38RB	Left Cheek	26765	821.5	23.01	23.50	1.119	-0.05	0.264	0.296	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-
	Left Tilt	26765	821.5	23.01	23.50	1.119	-0.14	0.094	0.105	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-
	Right Cheek	26765	821.5	23.01	23.50	1.119	-0.08	0.244	0.273	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-
	Right Tilt	26765	821.5	23.01	23.50	1.119	-0.12	0.082	0.092	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-

LTE Band 66										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Left Cheek	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	0.13	0.393	0.413	8
		132572	1770	22.67	23.00	1.079	-	-	-	-
	Left Tilt	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	-0.17	0.154	0.162	-
		132572	1770	22.67	23.00	1.079	-	-	-	-
	Right Cheek	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	0.06	0.362	0.381	-
		132572	1770	22.67	23.00	1.079	-	-	-	-
	Right Tilt	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	-0.13	0.126	0.133	-
		132572	1770	22.67	23.00	1.079	-	-	-	-
20M QPSK 50RB	Left Cheek	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	0.04	0.368	0.406	-
		132572	1770	21.93	22.50	1.140	-	-	-	-
	Left Tilt	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	-0.05	0.133	0.147	-
		132572	1770	21.93	22.50	1.140	-	-	-	-
	Right Cheek	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	0.16	0.340	0.375	-
		132572	1770	21.93	22.50	1.140	-	-	-	-
	Right Tilt	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	-0.09	0.118	0.130	-
		132572	1770	21.93	22.50	1.140	-	-	-	-

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) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz								
20M QPSK 1RB	Left Cheek	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	-0.16	0.007	0.008	9
	Left Tilt	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	-0.19	0.004	0.004	-
	Right Cheek	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	0.16	0.005	0.006	-
	Right Tilt	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	0.13	0.002	0.002	-
20M QPSK 50RB	Left Cheek	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	-0.02	0.006	0.006	-
	Left Tilt	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	0.05	0.003	0.003	-
	Right Cheek	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	-0.08	0.004	0.004	-
	Right Tilt	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	0.13	0.001	0.001	-

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.*

14.2. Body SAR

LTE Band 2										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Front	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	0.09	0.319	0.319	-
	Rear	18700	1860	23.38	23.50	1.028	-	-	-	-
		18900	1880	23.42	23.50	1.019	-	-	-	-
		19100	1900	23.50	23.50	1.000	-0.13	0.638	0.638	10
20M QPSK 50RB	Front	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	-0.16	0.296	0.309	-
	Rear	18700	1860	22.67	23.00	1.079	-	-	-	-
		18900	1880	22.62	23.00	1.091	-	-	-	-
		19100	1900	22.82	23.00	1.042	0.02	0.607	0.633	-

LTE Band 4										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift (dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Front	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	-0.08	0.372	0.390	-
		20300	1745	24.28	24.50	1.052	-	-	-	-
	Rear	20050	1720	24.26	24.50	1.057	-	-	-	-
		20175	1732.5	24.30	24.50	1.047	-0.10	0.745	0.780	11
		20300	1745	24.28	24.50	1.052	-	-	-	-
20M QPSK 50RB	Front	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	-0.04	0.345	0.384	-
	Rear	20050	1720	23.46	24.00	1.132	-	-	-	-
		20175	1732.5	23.44	24.00	1.138	-	-	-	-
		20300	1745	23.54	24.00	1.112	-0.01	0.698	0.776	-

LTE Band 5										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Front	20450	829	25.04	25.50	1.112	-	-	-	-
		20525	836.5	25.08	25.50	1.102	-	-	-	-
		20600	844	25.16	25.50	1.081	-0.07	0.431	0.466	-
	Rear	20450	829	25.04	25.50	1.112	-0.02	0.796	0.885	-
		20525	836.5	25.08	25.50	1.102	0.13	0.828	0.912	-
		20600	844	25.16	25.50	1.081	-0.08	0.862	0.932	12
10M QPSK 25RB	Front	20450	829	24.37	24.50	1.030	-	-	-	-
		20525	836.5	24.21	24.50	1.069	-	-	-	-
		20600	844	24.41	24.50	1.021	-0.15	0.426	0.435	-
	Rear	20450	829	24.37	24.50	1.030	-0.06	0.783	0.807	-
		20525	836.5	24.21	24.50	1.069	0.11	0.810	0.866	-
		20600	844	24.41	24.50	1.021	-0.13	0.859	0.877	-
10M QPSK 50RB	Front	20450	829	23.67	24.00	1.079	-	-	-	-
		20525	836.5	23.50	24.00	1.122	-	-	-	-
		20600	844	23.68	24.00	1.076	-0.15	0.411	0.442	-
	Rear	20450	829	23.67	24.00	1.079	-0.06	0.721	0.778	-
		20525	836.5	23.50	24.00	1.122	0.11	0.769	0.863	-
		20600	844	23.68	24.00	1.076	-0.13	0.806	0.868	-

LTE Band 12										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Front	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	0.16	0.152	0.152	-
		23130	711	24.39	24.50	1.026	-	-	-	-
	Rear	23060	704	24.37	24.50	1.030	-	-	-	-
		23095	707.5	24.50	24.50	1.000	-0.06	0.305	0.305	13
		23130	711	24.39	24.50	1.026	-	-	-	-
10M QPSK 25RB	Front	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	0.03	0.142	0.151	-
		23130	711	23.69	24.00	1.074	-	-	-	-
	Rear	23060	704	23.63	24.00	1.089	-	-	-	-
		23095	707.5	23.72	24.00	1.067	-0.10	0.284	0.303	-
		23130	711	23.69	24.00	1.074	-	-	-	-

LTE Band 13										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
10M QPSK 1RB	Front	23230	782	22.43	22.50	1.016	-0.19	0.291	0.296	-
	Rear	23230	782	22.43	22.50	1.016	0.07	0.582	0.591	14
10M QPSK 25RB	Front	23230	782	21.78	22.00	1.052	0.12	0.280	0.295	-
	Rear	23230	782	21.78	22.00	1.052	-0.04	0.560	0.589	-

LTE Band 25										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Front	26140	1860	23.15	23.50	1.084	-0.18	0.278	0.301	-
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
	Rear	26140	1860	23.15	23.50	1.084	-0.11	0.557	0.604	15
		26365	1882.5	23.12	23.50	1.091	-	-	-	-
		26590	1905	23.08	23.50	1.102	-	-	-	-
20M QPSK 50RB	Front	26140	1860	22.47	22.50	1.007	0.09	0.255	0.257	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-
	Rear	26140	1860	22.47	22.50	1.007	-0.01	0.526	0.530	-
		26365	1882.5	22.39	22.50	1.026	-	-	-	-
		26590	1905	22.35	22.50	1.035	-	-	-	-

LTE Band 26										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
15M QPSK 1RB	Front	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	-0.13	0.353	0.366	-
		26965	841.5	23.80	24.00	1.047	-	-	-	-
	Rear	26765	821.5	23.78	24.00	1.052	-	-	-	-
		26865	831.5	23.84	24.00	1.038	0.07	0.706	0.732	16
		26965	841.5	23.80	24.00	1.047	-	-	-	-
15M QPSK 38RB	Front	26765	821.5	23.01	23.50	1.119	-0.19	0.316	0.354	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-
	Rear	26765	821.5	23.01	23.50	1.119	0.04	0.642	0.719	-
		26865	831.5	22.95	23.50	1.135	-	-	-	-
		26965	841.5	23.00	23.50	1.122	-	-	-	-

LTE Band 66										
Mode	Test Position	Frequency		Conducted Power (dBm)	Tune up limit (dBm)	Tune up scaling factor	Power Drift(dB)	Measured SAR(1g) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz							
20M QPSK 1RB	Front	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	0.11	0.214	0.225	-
		132572	1770	22.67	23.00	1.079	-	-	-	-
	Rear	132072	1720	22.61	23.00	1.094	-	-	-	-
		132322	1745	22.78	23.00	1.052	0.15	0.429	0.451	17
		132572	1770	22.67	23.00	1.079	-	-	-	-
20M QPSK 50RB	Front	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	0.02	0.197	0.218	-
		132572	1770	21.93	22.50	1.140	-	-	-	-
	Rear	132072	1720	21.84	22.50	1.164	-	-	-	-
		132322	1745	22.07	22.50	1.104	-0.17	0.400	0.442	-
		132572	1770	21.93	22.50	1.140	-	-	-	-

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) (W/kg)	Report SAR(1g) (W/kg)	Plot No.
		CH	MHz								
20M QPSK 1RB	Front	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	-0.07	0.015	0.017	-
	Rear	39750	2506.0	22.45	23.00	1.135	1.006	-	-	-	-
		40185	2549.5	22.40	23.00	1.148	1.006	-	-	-	-
		40620	2593.0	22.48	23.00	1.127	1.006	-	-	-	-
		41055	2636.5	22.35	23.00	1.161	1.006	-	-	-	-
		41490	2680.0	22.57	23.00	1.104	1.006	-0.18	0.021	0.023	18
20M QPSK 50RB	Front	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	0.15	0.010	0.011	-
	Rear	39750	2506.0	21.68	22.00	1.076	1.006	-	-	-	-
		40185	2549.5	21.63	22.00	1.089	1.006	-	-	-	-
		40620	2593.0	21.65	22.00	1.084	1.006	-	-	-	-
		41055	2636.5	21.52	22.00	1.117	1.006	-	-	-	-
		41490	2680.0	21.78	22.00	1.052	1.006	-0.06	0.017	0.018	-

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.*

SAR Test Data Plots to the Appendix A.

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 ≥ 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 ≥ 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 ≥ 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
LTE Band 5	Rear	20600	844	0.862	0.860	1.002	N/A	N/A

16. Simultaneous Transmission analysis

No.	Simultaneous Transmission Configurations	Head	Body-worn	Hotspot	Note
1	LTE + Bluetooth (data)	Yes	Yes	NA	

General note:

1. The reported SAR summation is calculated based on the same configuration and test position
2. For simultaneous transmission analysis, Bluetooth SAR is estimated per KDB 447498 D01 based on the formula below
   a) [(max. Power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * [√f(GHz)/x]W/kg for test separation distances ≦50mm; whetn x=7.5 for 1-g SAR, and x=18.75 for 10-g SAR.
   b) When the minimum separation distance is <5mm, 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 >50mm.

Bluetooth Max power	Exposure position	Head	Body-worn
	Test separation	0mm	10mm
4.00 dBm	Estimated SAR (W/kg)	0.104	0.052

16.1. Head

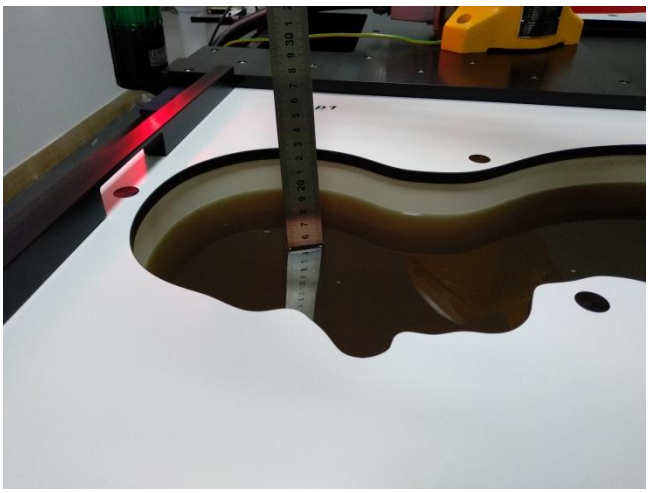
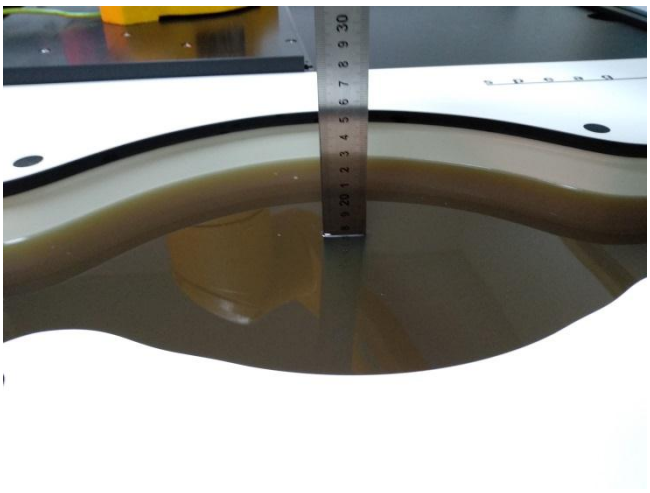
PCE + Bluetooth					
WWAN Band		Exposure Position	Standalone SAR (W/kg)		Σ 1-g SAR
			PCE	Bluetooth	(W/kg)
LTE	B2 1RB	Left Cheek	0.655	0.104	0.759
		Left Tilted	0.338	0.104	0.442
		Right Cheek	0.602	0.104	0.706
		Right Tilted	0.274	0.104	0.378
	B2 50RB	Left Cheek	0.655	0.104	0.759
		Left Tilted	0.319	0.104	0.423
		Right Cheek	0.598	0.104	0.702
		Right Tilted	0.236	0.104	0.340
	B4 1RB	Left Cheek	0.738	0.104	0.842
		Left Tilted	0.419	0.104	0.523
		Right Cheek	0.699	0.104	0.803
		Right Tilted	0.372	0.104	0.476
	B4 50RB	Left Cheek	0.735	0.104	0.839
		Left Tilted	0.411	0.104	0.515
		Right Cheek	0.689	0.104	0.793
		Right Tilted	0.365	0.104	0.469
	B5 1RB	Left Cheek	0.412	0.104	0.516
		Left Tilted	0.198	0.104	0.302
		Right Cheek	0.353	0.104	0.457
		Right Tilted	0.175	0.104	0.279
	B5 25RB	Left Cheek	0.377	0.104	0.481
		Left Tilted	0.178	0.104	0.282
		Right Cheek	0.306	0.104	0.410
		Right Tilted	0.147	0.104	0.251
	B5 50RB	Left Cheek	0.379	0.104	0.483
		Left Tilted	0.175	0.104	0.279
		Right Cheek	0.324	0.104	0.428
		Right Tilted	0.163	0.104	0.267
	B12 1RB	Left Cheek	0.085	0.104	0.189
		Left Tilted	0.044	0.104	0.148
		Right Cheek	0.062	0.104	0.166
		Right Tilted	0.024	0.104	0.128
	B12 25RB	Left Cheek	0.081	0.104	0.185
		Left Tilted	0.043	0.104	0.147
		Right Cheek	0.061	0.104	0.165
		Right Tilted	0.021	0.104	0.125

LTE	B13 1RB	Left Cheek	0.173	0.104	0.277
		Left Tilted	0.073	0.104	0.177
		Right Cheek	0.158	0.104	0.262
		Right Tilted	0.059	0.104	0.163
	B13 25RB	Left Cheek	0.170	0.104	0.274
		Left Tilted	0.070	0.104	0.174
		Right Cheek	0.156	0.104	0.260
		Right Tilted	0.053	0.104	0.157
	B25 1RB	Left Cheek	0.728	0.104	0.832
		Left Tilted	0.349	0.104	0.453
		Right Cheek	0.702	0.104	0.806
		Right Tilted	0.343	0.104	0.447
	B25 50RB	Left Cheek	0.673	0.104	0.777
		Left Tilted	0.312	0.104	0.416
		Right Cheek	0.626	0.104	0.730
		Right Tilted	0.303	0.104	0.407
	B26 1RB	Left Cheek	0.301	0.104	0.405
		Left Tilted	0.110	0.104	0.214
		Right Cheek	0.276	0.104	0.380
		Right Tilted	0.095	0.104	0.199
	B26 38RB	Left Cheek	0.296	0.104	0.400
		Left Tilted	0.105	0.104	0.209
		Right Cheek	0.273	0.104	0.377
		Right Tilted	0.092	0.104	0.196
	B66 1RB	Left Cheek	0.413	0.104	0.517
		Left Tilted	0.162	0.104	0.266
		Right Cheek	0.381	0.104	0.485
		Right Tilted	0.133	0.104	0.237
	B66 50RB	Left Cheek	0.406	0.104	0.510
		Left Tilted	0.147	0.104	0.251
		Right Cheek	0.375	0.104	0.479
		Right Tilted	0.130	0.104	0.234
	B41 1RB	Left Cheek	0.008	0.104	0.112
		Left Tilted	0.004	0.104	0.108
		Right Cheek	0.006	0.104	0.110
		Right Tilted	0.002	0.104	0.106
	B41 50RB	Left Cheek	0.006	0.104	0.110
		Left Tilted	0.003	0.104	0.107
		Right Cheek	0.004	0.104	0.108
		Right Tilted	0.001	0.104	0.105

16.2. Body-worn

PCE + Bluetooth					
WWAN Band		Exposure Position	Standalone SAR (W/kg)		Σ 1-g SAR
			PCE	Bluetooth	(W/kg)
LTE	B2 1RB	Front	0.319	0.052	0.371
		Rear	0.638	0.052	0.690
	B2 50RB	Front	0.309	0.052	0.361
		Rear	0.633	0.052	0.685
	B4 1RB	Front	0.390	0.052	0.442
		Rear	0.780	0.052	0.832
	B4 50RB	Front	0.384	0.052	0.436
		Rear	0.776	0.052	0.828
	B5 1RB	Front	0.466	0.052	0.518
		Rear	0.932	0.052	0.984
	B5 25RB	Front	0.435	0.052	0.487
		Rear	0.877	0.052	0.929
	B5 50RB	Front	0.442	0.052	0.494
		Rear	0.868	0.052	0.920
	B12 1RB	Front	0.152	0.052	0.204
		Rear	0.305	0.052	0.357
	B12 25RB	Front	0.151	0.052	0.203
		Rear	0.303	0.052	0.355
	B13 1RB	Front	0.296	0.052	0.348
		Rear	0.591	0.052	0.643
	B13 25RB	Front	0.295	0.052	0.347
		Rear	0.589	0.052	0.641
	B25 1RB	Front	0.301	0.052	0.353
		Rear	0.604	0.052	0.656
	B25 50RB	Front	0.257	0.052	0.309
		Rear	0.530	0.052	0.582
	B26 1RB	Front	0.366	0.052	0.418
		Rear	0.732	0.052	0.784
	B26 38RB	Front	0.354	0.052	0.406
		Rear	0.719	0.052	0.771
	B66 1RB	Front	0.225	0.052	0.277
		Rear	0.451	0.052	0.503
	B66 50RB	Front	0.218	0.052	0.270
		Rear	0.442	0.052	0.494
	B41 1RB	Front	0.017	0.052	0.069
		Rear	0.023	0.052	0.075
	B41 50RB	Front	0.011	0.052	0.063
		Rear	0.018	0.052	0.070

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^{o})	Right Head Tilt (15^{o})

	
Body-worn Front (10mm)	Body-worn Rear(10mm)
	
Front (10mm)	Rear (10mm)

18. External and Internal Photos of the EUT

Please reference to the report No.: CHTEW21050179

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