FCC SAR Test Report

FCC ID: 2AYGCCHL-LX3

Project No.	:	2012C016
Equipment	:	Smart Phone
Brand Name	:	HONOR
Test Model	:	CHL-LX3
Series Model	:	N/A
Date of Receipt	:	Dec. 04, 2020
Date of Test	:	Dec. 09, 2020 ~ Feb. 25, 2021
Issued Date	:	Mar. 04, 2021
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2020120478, DG2020120481, DG2020120483
Standard(s)	:	Please refer to page 2.
Applicant	:	Honor Device Co., Ltd.
Address	:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China
Manufacturer	:	Honor Device Co., Ltd.
Address	:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Seven Lu

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Certificate #5123.02

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Standard(s) : **ANSI Std C95.1-1992** Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz - 300 GHz. (IEEE Std C95.1-1991)

IEEE Std 1528-2013 Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques

KDB941225 D01 3G SAR Procedures v03r01
KDB941225 D05 SAR for LTE Devices v02r05
KDB941225 D06 Hotspot Mode V02r01
KDB447498 D01 General RF Exposure Guidance v06
KDB648474 D04 Handset SAR v01r03
KDB248227 D01 802.11 Wi-Fi SAR v02r02
KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
KDB865664 D02 SAR Reporting v01r02
KDB690783 D01 SAR Listings on Grants v01r03

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 04, 2021

1. GENERAL INFORMATION

1.1 STATEMENT OF COMPLIANCE

Mode	Highest Reported Head SAR-1g (W/kg)	Highest Reported Body-worn (15mm) SAR-1g (W/kg)	Highest Reported Hotspot (10mm) SAR-1g (W/kg)	Highest Reported Product Specific (0mm) SAR-10g (W/kg)	Highest Simultaneous Transmission SAR-1g (W/kg)
GSM850	0.56	0.28	0.42	/	1.29
GSM1900	0.49	0.21	0.46	/	
UMTS B2	0.86	0.36	0.61	/	
UMTS B4	0.72	0.38	0.71	/	
UMTS B5	0.78	0.36	0.62	/	
LTE B2	0.68	0.48	0.64	/	
LTE B4	0.78	0.50	0.72	/	
LTE B5	0.51	0.30	0.53	/	
LTE B7	0.66	0.38	0.51	/	
LTE B12	0.08	0.23	0.36	/	
LTE B26	0.57	0.32	0.52	/	
LTE B66	0.77	0.37	0.60	/	
2.4G WLAN	0.28	0.22	0.59	/	
5.2G WLAN	/	/	0.37	/	
5.3G WLAN	0.19	0.12	/	0.90	
5.6G WLAN	0.22	0.23	/	1.67	
5.8G WLAN	0.31	0.51	1.02	/	
Bluetooth	0.18	0.04	/	0.22	

Note:
1) The device is in compliance with Specific Absorption Rate (SAR) for general population uncontrolled exposure limits according to the FCC rule §2.1093, the ANSI C95.1:1992/IEEE C95.1:1991, the NCRP Report Number 86 for uncontrolled environment and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013.

1.2 LABORATORY ENVIRONMENT

Temperature	Min. = 18ºC, Max. = 25ºC
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

1.3 GENERAL DESCRIPTION OF EUT

Equipment	Smart Phone		
Test Model	CHL-LX3		
Series Model	N/A		
Model Difference(s)	N/A		
IMEI	Sample 1	863891050002664 / 863891050003381	
	Sample 2	863891050003035 / 863891050003753	
	Sample 3	863891050002938 / 863891050003654	
S/N	Sample 1	TDE0120B23000017	
	Sample 2	TDE0120B23000054	
	Sample 3	TDE0120B23000044	
Hardware Version	HL3CHLM		
Software Version	5.0.0.80(C900E76R1P4)		
Modulation	GSM(GMSK/8PSK), UMTS(QPSK/16QAM), LTE(QPSK/16QAM/64QAM), WiFi(DSSS/OFDM), BT(GFSK/π/4-DQPSK/8-DPSK)		
Operation Frequency Range(s)	Band	TX (MHz)	RX (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	UMTS B2	1850~1910	1930~1990
	UMTS B4	1710~1755	2110~2155
	UMTS B5	824~849	869~894
	LTE B2	1850~1910	1930~1990
	LTE B4	1710~1755	2110~2155
	LTE B5	824~849	869~894
	LTE B7	2500~2570	2620~2690
	LTE B12	699~716	729~746
	LTE B26	814~849	859~894
	LTE B66	1710~1770	2110~2170
	Bluetooth	2402~2480	
	2.4G WLAN	2412~2462	
	5.2G WLAN	5150~5250	
	5.3G WLAN	5250~5350	
	5.6G WLAN	5470~5725	
	5.8G WLAN	5725~5850	

GPRS/EDGE Multislot Class(12)	Max Number of Timeslots in Uplink:	4			
	Max Number of Timeslots in Downlink:	4			
	Max Total Timeslot:	5			
GSM Device class	Class B				
HSDPA UE Category	24				
HSUPA UE Category	7				
DC-HSDPA Category	24				
Power Class	4,tested with power level 5(GSM850)				
	1,tested with power level 0(GSM1900)				
	3, tested with power control “all up bits” (UMTS B2/4/5)				
	3, tested with power control “all Max” (LTE B2/4/5/7/12/26/66)				
Test Channels (low-mid-high)	128-190-251 (GSM850)				
	512-661-810 (GSM1900)				
	9262-9400-9538 (UMTS B2)				
	1312-1413-1513 (UMTS B4)				
	4132-4182-4233 (UMTS B5)				
	18700-18900-19100 (LTE B2 BW=20MHz)				
	20050-20175-20300 (LTE B4 BW=20MHz)				
	20450-20525-20600 (LTE B5 BW=10MHz)				
	20850-21100-21350 (LTE B7 BW=20MHz)				
	23060-23095-23130 (LTE B12 BW=10MHz)				
	26765-26865-26965 (LTE B26 BW=15MHz)				
	132072-132322-132572 (LTE B66 BW=20MHz)				
	0-39-78 (BT)				
	0-19-39 (BLE)				
	1-6-11 (2.4G WiFi 802.11b/g/n HT20)				
	3-6-9 (2.4G WiFi 802.11n HT40)				
	5G WiFi	5.2G	5.3G	5.6G	5.8G
	802.11a/n HT20/ ac VHT20	36-40-44-48	52-56-60-64	100-104-108-112-116-132-136-140	149-153-157-161-165
	802.11n HT40/ ac VHT40	38-46	54-62	102-110-134	151-159
	802.11ac VHT80	42	58	106-122	155

Antenna Gain (dBi)	Band	Main Ant & MAS Ant	Second Ant	WiFi Ant
	GSM 850	-1.6	-1.4	/
	GSM 1900	-3.5	-2.6	/
	UMTS B2	-3.5	-2.6	/
	UMTS B4	-2.2	-4.3	/
	UMTS B5	-1.6	-1.4	/
	LTE B2	-3.5	-2.6	/
	LTE B4	-2.2	-4.3	/
	LTE B5	-1.6	-1.4	/
	LTE B7	-1.4	-1.5	/
	LTE B12	-1.6	-3.3	/
	LTE B26	-1.6	-1.4	/
	LTE B66	-2.2	-4.3	/
	Bluetooth	/	/	-2.0
	WLAN 2.4G	/	/	-2.0
	WLAN 5G	/	/	-0.5
Other Information				
Battery	Model Name	Trademark / Manufacturer / Factory		Power Rating
	HB446589EFW	1# Honor Device Co., Ltd. (Manufacturer: Desay)		DC 3.87V, 3900mAh
		2# Honor Device Co., Ltd. (Manufacturer: SCUD)		
		3# Honor Device Co., Ltd. (Manufacturer: Sunwoda)		
	HB446588EFW	4# Honor Device Co., Ltd. (Manufacturer: Desay)		
		5# Honor Device Co., Ltd. (Manufacturer: SCUD)		
		6# Honor Device Co., Ltd. (Manufacturer: Sunwoda)		
		7# Honor Device Co., Ltd. (Manufacturer: NVT)		
Earphone 1	Model	1293-3283-3.5mm-339		
	Manufacturer	BOLUO COUNTY QUANCHENG ELECTRONIC CO.,LTD.		
Earphone 2	Model	MEND1532B528A11		
	Manufacturer	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.		
Earphone 3	Model	EPAB542-2WH05-DH		
	Manufacturer	FOXCONN INTERCONNECT TECHNOLOGY LIMITED		

1.4 MAIN TEST INSTRUMENTS

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	Data Acquisition Electronics	Speag	DAE4	1390	Nov. 06, 2020	1 Year
2	Data Acquisition Electronics	Speag	DAE4	1423	Dec. 11, 2020	1 Year
3	Data Acquisition Electronics	Speag	DAE3	427	Mar. 31, 2020	1 Year
4	Data Acquisition Electronics	Speag	DAE3	420	Jun. 22, 2020	1 Year
5	E-field Probe	Speag	EX3DV4	3974	Dec. 18, 2020	1 Year
6	E-field Probe	Speag	ES3DV3	3162	May 09, 2020	1 Year
7	E-field Probe	Speag	EX3DV4	7544	Oct. 29, 2020	1 Year
8	System Validation Dipole	Speag	D750V3	1095	Jun. 05, 2018	3 Years
9	System Validation Dipole	Speag	D835V2	4d160	Jun. 05, 2018	3 Years
10	System Validation Dipole	Speag	D900V2	1d158	Jun. 05, 2018	3 Years
11	System Validation Dipole	Speag	D1750V2	1101	Jun. 07, 2018	3 Years
12	System Validation Dipole	Speag	D1900V2	5d179	Jun. 07, 2018	3 Years
13	System Validation Dipole	Speag	D2450V2	919	Jun. 11, 2018	3 Years
14	System Validation Dipole	Speag	D2600V2	1067	Jun. 11, 2018	3 Years
15	System Validation Dipole	Speag	D5GHzV2	1160	Jun. 20, 2018	3 Years
16	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1469	N/A	N/A
17	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1812	N/A	N/A
18	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1811	N/A	N/A
19	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1784	N/A	N/A
20	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1896	N/A	N/A
21	Radio Communication Analyer	Anritsu	MT8821C	6261915479	Jul. 25, 2020	1 Year
22	Radio Communication Analyer	Anritsu	MT8820C	6201525877	Jul. 25, 2020	1 Year
23	Wideband Radio Communication Tester	R&S	CMW500	104462	Jul. 25, 2020	1 Year
24	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	Mar. 10, 2020	1 Year
25	Power Amplifier	Mini-Circuits	ZVE-8G+	520701341	Mar. 10, 2020	1 Year
26	DC Source metter	Iteck	IT6154	006104126768201001	Jul. 25, 2020	1 Year
27	Signal Analyzer	R&S	FSV7	103120	Jul. 25, 2020	1 Year
28	Vector Network Analyzer	Anritsu	MS46522B	1538101	Jul. 25, 2020	1 Year
29	Signal Generator	R&S	SMF100A	101214	Feb. 29, 2020	1 Year
30	Smart Power Sensor	R&S	NRP-Z21	102209	Mar. 07, 2020	1 Year

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
31	Dielectric Assessment Kit	Speag	DAK-3.5	1226	N/A	N/A
32	Directional Coupler	Woken	TS-PCC0M-05	107090019	Mar. 01, 2020	1 Year
33	Coupler	Woken	0110A05601O-10	COM5BNW1A2	Mar. 01, 2020	1 Year
34	Digital Themometer	LKM	DTM3000	3519	Jul. 02, 2020	1 Year

Remark:
1. “N/A” denotes no model name, serial No. or calibration specified.
2.
1) Per KDB865664 D01 requirements for dipole calibration, the test laboratory has adopted three-year extended calibration interval. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.
a) There is no physical damage on the dipole;
b) System check with specific dipole is within 10% of calibrated value;
c) The most recent return-loss result, measured at least annually, deviates by no more than 20% from the previous measurement;
d) The most recent measurement of the real or imaginary parts of the impedance, measured at least annually is within 5Ω from the previous measurement.
2) Network analyzer probe calibration against air, distilled water and a short block performed before measuring liquid parameters.

2. RF EMISSIONS MEASUREMENT

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is SAR room at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

2.2 MEASUREMENT UNCERTAINTY

Note: Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

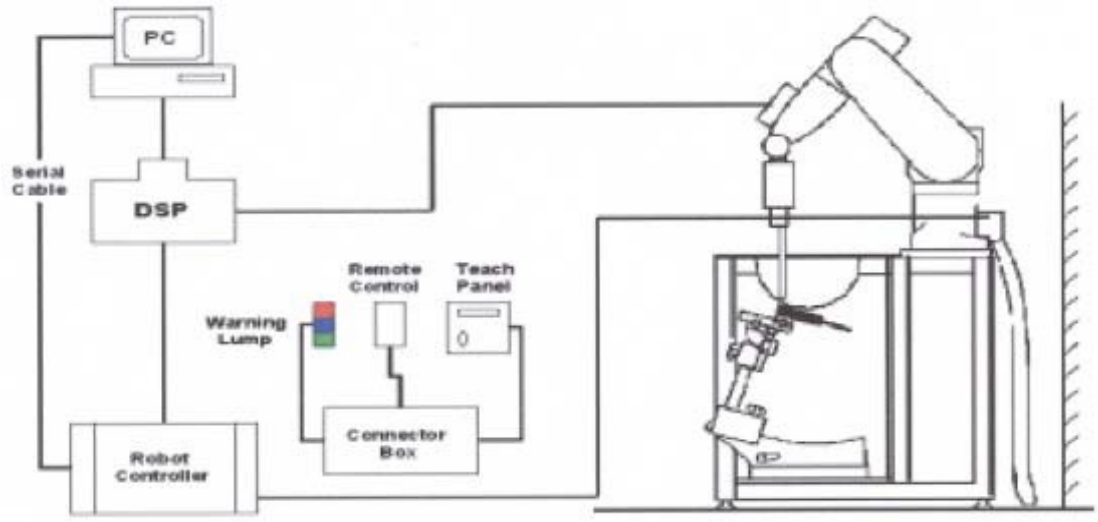
3. SAR MEASUREMENTS SYSTEM CONFIGURATION

3.1 SAR MEASUREMENT SET-UP

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

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition 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.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. 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.
6. TheDASY5 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.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

3.1.1 TEST SETUP LAYOUT



3.2 DASY5 E-FIELD PROBE SYSTEM

The SAR measurements were conducted with the dosimetric probe EX3DV4 and ES3DV3 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

3.2.1 PROBE SPECIFICATION

EX3DV4

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	10 MHz to 6 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 mW/g Linearity:± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm

ES3DV3

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	10 MHz to 4 GHz Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	5 µW/g to > 100 mW/g Linearity:± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 4 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm

E-field Probe

3.2.2 E-FIELD PROBE CALIBRATION

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ±10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

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

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m3).

3.2.3 OTHER TEST EQUIPMENT

3.2.3.1. Device Holder for Transmitters

Construction: Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices (e.g., laptops, cameras, etc.) It is light weight and fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin SAM, ELI and SAM v6.0 Phantoms.
Material: POM, Acrylic glass, Foam

3.2.3.2 Phantom

Model	Twin SAM
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.
Shell Thickness	2 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length:1000mm; Width: 500mm Height: adjustable feet
Aailable	Special

3.2.4 SCANNING PROCEDURE

The DASY5 installation includes predefined files with recommended procedures for measurements and validation. They are read-only document files and destined as fully defined but unmeasured masks. All test positions (head or body-worn) are tested with the same configuration of test steps differing only in the grid definition for the different test positions.

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure. The indicated drift is mainly the variation of the DUT’s output power and should vary max. ± 5 %.

The “surface check” measurement tests the optical surface detection system of the DASY5 system by repeatedly detecting the surface with the optical and mechanical surface detector and comparing the results. The output gives the detecting heights of both systems, the difference between the two systems and the standard deviation of the detection repeatability. Air bubbles or refraction in the liquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). To prevent wrong results tests are only executed when the liquid is free of air bubbles. The difference between the optical surface detection and the actual surface depends on the probe and is specified with each probe. (It does not depend on the surface reflectivity or the probe angle to the surface within ± 30°.)

- Area Scan

The “area scan” measures the SAR above the DUT or verification dipole on a parallel plane to the surface. It is used to locate the approximate location of the peak SAR with 2D spline interpolation. The robot performs a stepped movement along one grid axis while the local electrical field strength is measured by the probe. The probe is touching the surface of the SAM during acquisition of measurement values. The standard scan uses large grid spacing for faster measurement. Standard grid spacing for head measurements is 15 mm in x- and y- dimension (≤2GHz), 12 mm in x- and y- dimension (2-4 GHz) and 10mm in x- and y- dimension (4-6GHz). If a finer resolution is needed, the grid spacing can be reduced. Grid spacing and orientation have no influence on the SAR result. For special applications where the standard scan method does not find the peak SAR within the grid, e.g. mobile phones with flip cover, the grid can be adapted in orientation.

- Zoom Scan

A “zoom scan” measures the field in a volume around the 2D peak SAR value acquired in the previous “coarse” scan. This is a fine grid with maximum scan spatial resolution: Δx_{zoom}, Δy_{zoom}≤2GHz -≤8mm, 2-4GHz -≤5 mm and 4-6 GHz-≤4mm; Δz_{zoom}≤3GHz -≤5 mm, 3-4 GHz-≤4mm and 4-6GHz-≤2mm where the robot additionally moves the probe along the z-axis away from the bottom of the Phantom. DASY is also able to perform repeated zoom scans if more than 1 peak is found during area scan. In this document, the evaluated peak 1g and 10g averaged SAR values are shown in the 2D-graphics in Appendix B. Test results relevant for the specified standard (see chapter 1.4.) are shown in table form in chapter 7.2.

A Z-axis scan measures the total SAR value at the x-and y-position of the maximum SAR value found during the cube scan. The probe is moved away in z-direction from the bottom of the SAM phantom in 2 mm steps. This measurement shows the continuity of the liquid and can - depending in the field strength – also show the liquid depth.

The following table summarizes the area scan and zoom scan resolutions per FCC KDB 865664D01:

Frequency	Maximun Area Scan resolution (Δx_{area}, Δy_{area})	Maximun Zoom Scan spatial resolution (Δx_{Zoom}, Δy_{Zoom})	Maximun Zoom Scan spatial resolution			Minimum zoom scan volume (x,y,z)
			Uniform Grid	Graded Grad		
			$\Delta z_{Zoom}(n)$	$\Delta z_{Zoom}(1)$*	$\Delta z_{Zoom}(n>1)$*	
≤2GHz	≤15mm	≤8mm	≤5mm	≤4mm	≤1.5*Δz_{Zoom}(n-1)	≥30mm
2-3GHz	≤12mm	≤5mm	≤5mm	≤4mm	≤1.5*Δz_{Zoom}(n-1)	≥30mm
3-4GHz	≤12mm	≤5mm	≤4mm	≤3mm	≤1.5*Δz_{Zoom}(n-1)	≥28mm
4-5GHz	≤10mm	≤4mm	≤3mm	≤2.5mm	≤1.5*Δz_{Zoom}(n-1)	≥25mm
5-6GHz	≤10mm	≤4mm	≤2mm	≤2mm	≤1.5*Δz_{Zoom}(n-1)	≥22mm

3.2.5 SPATIAL PEAK SAR EVALUATION

The spatial peak SAR - value for 1 and 10 g is evaluated after the Cube measurements have been done. The basis of the evaluation are the SAR values measured at the points of the fine cube grid consisting of 5 x 5 x 7 points (with 8mm horizontal resolution) or 7 x 7 x 7 points (with 5mm horizontal resolution) or 8 x 8 x 7 points (with 4mm horizontal resolution). The algorithm that finds the maximal averaged volume is separated into three different stages.

- The data between the dipole center of the probe and the surface of the phantom are extrapolated. This data cannot be measured since the center of the dipole is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is about 1 mm (see probe calibration sheet). The extrapolated data from a cube measurement can be visualized by selecting “Graph Evaluated”.
- The maximum interpolated value is searched with a straight-forward algorithm. Around this maximum the SAR - values averaged over the spatial volumes (1g or 10 g) are computed using the 3d-spline interpolation algorithm. If the volume cannot be evaluated (i.e., if a part of the grid was cut off by the boundary of the measurement area) the evaluation will be started on the corners of the bottom plane of the cube.
- All neighboring volumes are evaluated until no neighboring volume with a higher average value is found.

Extrapolation

The extrapolation is based on a least square algorithm [W. Gander, Computer mathematic, p.168-180]. Through the points in the first 3 cm along the z-axis, polynomials of order four are calculated. These polynomials are then used to evaluate the points between the surface and the probe tip. The points, calculated from the surface, have a distance of 1 mm from each other.

Interpolation

The interpolation of the points is done with a 3d-Spline. The 3d-Spline is composed of three one-dimensional splines with the "Not a knot"-condition [W. Gander, Computer mathematic, p.141-150] (x, y and z -direction) [Numerical Recipes in C, Second Edition, p.123ff].

Volume Averaging

At First the size of the cube is calculated. Then the volume is integrated with the trapezoidal algorithm. 8000 points (20x20x20) are interpolated to calculate the average.

Advanced Extrapolation

DASY5 uses the advanced extrapolation option which is able to compensate boundary effects on E-field probes.

3.2.6 DATA STORAGE AND EVALUATION

3.2.6.1 Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), 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 “DAE”. 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], [mW/g], [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.

3.2.7 DATA EVALUATION BY SEMCAD

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, a_{i0}, a_{i1}, a_{i2}
	Conversion factor	$ConvF_i$
	Diode compression point	Dcp_i
Device parameters:	Frequency	f
	Crest factor	cf
Media parameters:	Conductivity	
	Density	

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 multi meter 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:

$$V_i = U_i + U_i^2 \cdot cf / dcp_i$$

With	V_i = compensated signal of channel i	(i = x, y, z)
	U_i = input signal of channel i	(i = x, y, z)
	cf = crest factor of exciting field	(DASY parameter)
	dcp_i = diode compression point	(DASY parameter)

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

E-field probes: $E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$

With V_i = compensated signal of channel i (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i (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]

E_i = electric field strength of channel i in V/m

H_i = magnetic field strength of channel i in A/m

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

$$E_{tot} = (E_X^2 + E_Y^2 + E_Z^2)^{1/2}$$

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

$$SAR = (E_{tot})^2 \cdot \sigma / (\rho \cdot 1000)$$

With SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m
= conductivity in [mho/m] or [Siemens/m]
= equivalent tissue density in g/cm^3

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. The power flow density is calculated assuming the excitation field to be a free space field.

$$P_{pwe} = E_{tot}^2 / 3770 \text{ or } P_{pwe} = H_{tot}^2 \cdot 37.7$$

With P_{pwe} = equivalent power density of a plane wave in mW/cm^2

E_{tot} = total field strength in V/m

H_{tot} = total magnetic field strength in A/m

4. SYSTEM VERIFICATION PROCEDURE

4.1 TISSUE VERIFICATION

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectic parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ± 5% of the target values.

The following materials are used for producing the tissue-equivalent materials.

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
Head 750	0.2	-	0.2	1.5	56.0	-	42.1	-
Head 835	0.2	-	0.2	1.5	57.0	-	41.1	-
Head 1750	-	47.0	-	0.4	-	-	52.6	-
Head 1900	-	44.5	-	0.2	-	-	55.3	-
Head 2450	-	45.0	-	0.1	-	-	54.9	-
Head 2600	-	45.1	-	0.1	-	-	54.8	-
Head 5G	-	-	-	-	-	17.2	65.5	17.3

Salt: 99+% Pure Sodium Chloride; Sugar: 98+% Pure Sucrose; Water: De-ionized, 16M + resistivity
HEC: Hydroxyethyl Cellulose; DGBE: 99+% Di(ethylene glycol) butyl ether,[2-(2-butoxyethoxy)ethanol]
Triton X-100(ultra pure): Polyethylene glycol mono [4-(1,1,3,3-tetramethylbutyl)phenyl]ether

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ) (%)	Deviation Permittivity (εr) (%)	Date
Head	750	22.3	0.889	43.005	0.89	41.9	-0.11	2.64	Dec. 12, 2020
Head	750	22.5	0.890	41.433	0.89	41.9	0.00	-1.11	Dec. 20, 2020
Head	750	22.1	0.883	43.069	0.89	41.9	-0.79	2.79	Dec. 24, 2020
Head	750	22.3	0.887	41.187	0.89	41.9	-0.34	-1.70	Feb. 21, 2021
Head	835	22.4	0.939	40.843	0.90	41.5	4.33	-1.58	Dec. 10, 2020
Head	835	22.3	0.944	42.378	0.90	41.5	4.89	2.12	Dec. 12, 2020
Head	835	22.2	0.941	40.647	0.90	41.5	4.56	-2.06	Dec. 19, 2020
Head	835	22.1	0.943	42.435	0.90	41.5	4.78	2.25	Dec. 24, 2020
Head	835	22.2	0.941	40.645	0.90	41.5	4.56	-2.06	Feb. 19, 2021
Head	835	22.4	0.942	42.411	0.90	41.5	4.67	2.20	Feb. 20, 2021
Head	1750	22.3	1.386	39.696	1.37	40.1	1.17	-1.01	Dec. 11, 2020
Head	1750	22.4	1.396	38.701	1.37	40.1	1.90	-3.49	Dec. 13, 2020
Head	1750	22.3	1.388	40.103	1.37	40.1	1.31	0.01	Dec. 18, 2020
Head	1750	22.1	1.403	39.406	1.37	40.1	2.41	-1.73	Dec. 21, 2020
Head	1750	22.3	1.413	39.426	1.37	40.1	3.14	-1.68	Feb. 05, 2021
Head	1750	22.2	1.388	39.810	1.37	40.1	1.31	-0.72	Feb. 22, 2021

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ) (%)	Deviation Permittivity (εr) (%)	Date
Head	1900	22.3	1.333	39.836	1.40	40.0	-4.79	-0.41	Dec. 09, 2020
Head	1900	22.4	1.332	39.826	1.40	40.0	-4.86	-0.43	Dec. 11, 2020
Head	1900	22.2	1.332	39.821	1.40	40.0	-4.86	-0.45	Dec. 18, 2020
Head	1900	22.4	1.335	39.045	1.40	40.0	-4.64	-2.39	Dec. 23, 2020
Head	1900	22.2	1.369	39.321	1.40	40.0	-2.21	-1.70	Feb. 04, 2021
Head	1900	22.3	1.333	40.032	1.40	40.0	-4.79	0.08	Feb. 23, 2021
Head	2450	22.4	1.875	38.950	1.80	39.2	4.17	-0.64	Dec. 16, 2020
Head	2450	22.2	1.836	39.145	1.80	39.2	2.00	-0.14	Dec. 22, 2020
Head	2450	22.3	1.820	38.480	1.80	39.2	1.11	-1.84	Feb. 24, 2021
Head	2600	22.2	1.915	37.876	1.96	39.0	-2.30	-2.88	Dec. 13, 2020
Head	2600	22.1	2.026	38.348	1.96	39.0	3.37	-1.67	Dec. 20, 2020
Head	2600	22.4	2.017	38.599	1.96	39.0	2.91	-1.03	Dec. 22, 2020
Head	2600	22.5	2.041	38.236	1.96	39.0	4.13	-1.96	Jan. 07, 2021
Head	2600	22.1	1.992	37.885	1.96	39.0	1.63	-2.86	Feb. 03, 2021
Head	5200	22.2	4.687	36.060	4.66	36.0	0.58	0.17	Dec. 16, 2020
Head	5200	22.4	4.669	36.245	4.66	36.0	0.19	0.68	Feb. 25, 2021
Head	5300	22.2	4.804	35.801	4.76	35.9	0.92	-0.28	Dec. 16, 2020
Head	5300	22.3	4.673	36.280	4.76	35.9	-1.83	1.06	Feb. 18, 2021
Head	5300	22.4	4.786	35.982	4.76	35.9	0.55	0.23	Feb. 25, 2021
Head	5500	22.2	5.035	35.302	4.96	35.6	1.51	-0.84	Dec. 16, 2020
Head	5500	22.4	5.024	35.450	4.96	35.6	1.29	-0.42	Feb. 25, 2021
Head	5600	22.2	5.164	35.043	5.07	35.5	1.85	-1.29	Dec. 16, 2020
Head	5600	22.3	5.086	34.380	5.07	35.5	0.32	-3.15	Feb. 18, 2021
Head	5600	22.4	5.152	35.165	5.07	35.5	1.62	-0.94	Feb. 25, 2021
Head	5800	22.2	5.410	34.547	5.27	35.3	2.66	-2.13	Dec. 16, 2020
Head	5800	22.3	5.393	34.704	5.27	35.3	2.33	-1.69	Feb. 18, 2021
Head	5800	22.4	5.426	34.683	5.27	35.3	2.96	-1.75	Feb. 25, 2021

Note:
1) The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.
2) KDB 865664 was ensured to be applied for probe calibration frequencies greater than or equal to 50MHz of the EUT frequencies.
3) The above measured tissue parameters were used in the DASY software to perform interpolation via the DASY software to determine actual dielectric parameters at the test frequencies. The SAR test plots may slightly differ from the table above since the DASY rounds to three significant digits.

4.2 SYSTEM CHECK

The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE Std 1528 (described above). The following table shows system check results for all frequency bands and tissue liquids used during the tests.

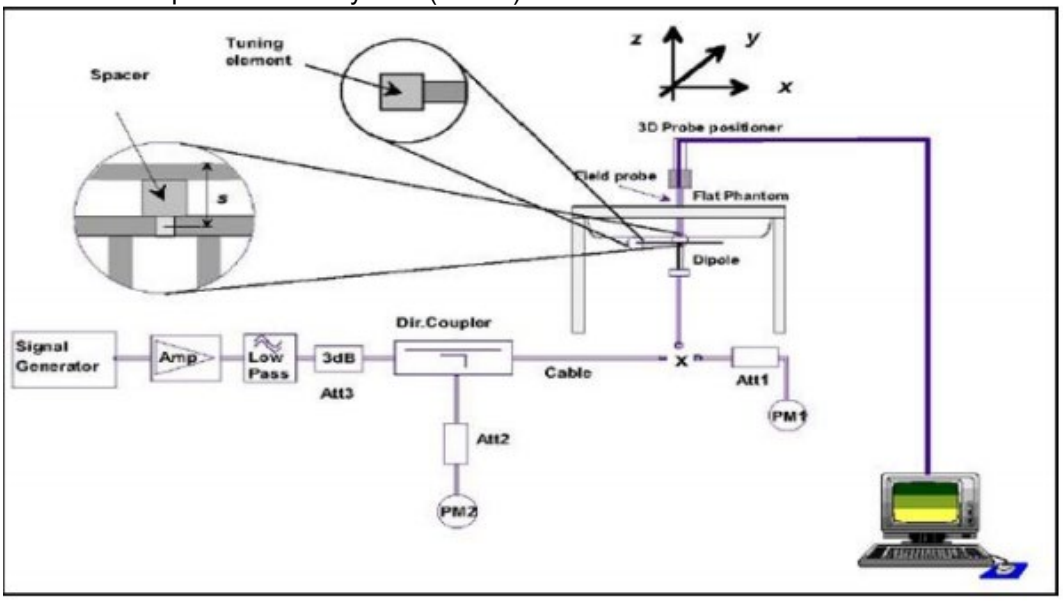
System Check	Date	Frequency (MHz)	Targeted SAR (W/kg)		Measured SAR (W/kg)		Normalized SAR (W/kg)		Deviation (%)		Dipole S/N
			1g	10g	1g	10g	1g	10g	1g	10g	
Head	Dec. 12, 2020	750	8.47	5.64	2.14	1.41	8.56	5.64	1.06	0.00	1095
Head	Dec. 20, 2020	750	8.47	5.64	2.08	1.36	8.32	5.44	-1.77	-3.55	1095
Head	Dec. 24, 2020	750	8.47	5.64	2.12	1.39	8.48	5.56	0.12	-1.42	1095
Head	Feb. 21, 2021	750	8.47	5.64	2.20	1.44	8.80	5.76	3.90	2.13	1095
Head	Dec. 10, 2020	835	9.23	6.00	2.41	1.52	9.64	6.08	4.44	1.33	4d160
Head	Dec. 12, 2020	835	9.23	6.00	2.36	1.51	9.44	6.04	2.28	0.67	4d160
Head	Dec. 19, 2020	835	9.23	6.00	2.34	1.49	9.36	5.96	1.41	-0.67	4d160
Head	Dec. 24, 2020	835	9.23	6.00	2.41	1.55	9.64	6.20	4.44	3.33	4d160
Head	Feb. 19, 2021	835	9.23	6.00	2.42	1.53	9.68	6.12	4.88	2.00	4d160
Head	Feb. 20, 2021	835	9.23	6.00	2.35	1.50	9.40	6.00	1.84	0.00	4d160
Head	Dec. 11, 2020	1750	37.00	19.90	9.47	5.08	37.88	20.32	2.38	2.11	1101
Head	Dec. 13, 2020	1750	37.00	19.90	9.03	4.74	36.12	18.96	-2.38	-4.72	1101
Head	Dec. 18, 2020	1750	37.00	19.90	9.49	5.08	37.96	20.32	2.59	2.11	1101
Head	Dec. 21, 2020	1750	37.00	19.90	9.59	5.14	38.36	20.56	3.68	3.32	1101
Head	Feb. 05, 2021	1750	37.00	19.90	9.18	4.83	36.72	19.32	-0.76	-2.91	1101
Head	Feb. 22, 2021	1750	37.00	19.90	9.32	5.14	37.28	20.56	0.76	3.32	1101
Head	Dec. 09, 2020	1900	39.50	20.70	9.74	5.16	38.96	20.64	-1.37	-0.29	5d179
Head	Dec. 11, 2020	1900	39.50	20.70	9.89	5.37	39.56	21.48	0.15	3.77	5d179
Head	Dec. 18, 2020	1900	39.50	20.70	9.95	5.41	39.80	21.64	0.76	4.54	5d179
Head	Dec. 23, 2020	1900	39.50	20.70	9.61	5.22	38.44	20.88	-2.68	0.87	5d179
Head	Feb. 04, 2021	1900	39.50	20.70	9.75	5.41	39.00	21.64	-1.27	4.54	5d179
Head	Feb. 23, 2021	1900	39.50	20.70	9.64	5.11	38.56	20.44	-2.38	-1.26	5d179
Head	Dec. 16, 2020	2450	52.10	24.60	13.60	6.35	54.40	25.40	4.41	3.25	919
Head	Dec. 22, 2020	2450	52.10	24.60	13.60	6.22	54.40	24.88	4.41	1.14	919
Head	Feb. 24, 2021	2450	52.10	24.60	13.40	6.09	53.60	24.36	2.88	-0.98	919
Head	Dec. 13, 2020	2600	56.10	25.30	13.90	6.08	55.60	24.32	-0.89	-3.87	1067
Head	Dec. 20, 2020	2600	56.10	25.30	14.60	6.42	58.40	25.68	4.10	1.50	1067
Head	Dec. 22, 2020	2600	56.10	25.30	14.70	6.46	58.80	25.84	4.81	2.13	1067
Head	Jan. 07, 2021	2600	56.10	25.30	14.69	6.54	58.76	26.16	4.74	3.40	1067
Head	Feb. 03, 2021	2600	56.10	25.30	14.50	6.38	58.00	25.52	3.39	0.87	1067

System Check	Date	Frequency (MHz)	Targeted SAR (W/kg)		Measured SAR (W/kg)		Normalized SAR (W/kg)		Deviation (%)		Dipole S/N
			1g	10g	1g	10g	1g	10g	1g	10g	
Head	Dec. 16, 2020	5200	75.30	21.70	7.71	2.19	77.10	21.90	2.39	0.92	1160
Head	Feb. 25, 2021	5200	75.30	21.70	7.48	2.15	74.80	21.50	-0.66	-0.92	1160
Head	Dec. 16, 2020	5300	76.80	22.10	7.83	2.19	78.30	21.90	1.95	-0.90	1160
Head	Feb. 18, 2021	5300	76.80	22.10	7.62	2.15	76.20	21.50	-0.78	-2.71	1160
Head	Feb. 25, 2021	5300	76.80	22.10	8.08	2.31	80.80	23.10	5.21	4.52	1160
Head	Dec. 16, 2020	5500	80.80	23.00	8.33	2.38	83.30	23.80	3.09	3.48	1160
Head	Feb. 25, 2021	5500	80.80	23.00	8.19	2.34	81.90	23.40	1.36	1.74	1160
Head	Dec. 16, 2020	5600	78.60	22.50	8.25	2.31	82.50	23.10	4.96	2.67	1160
Head	Feb. 18, 2021	5600	78.60	22.50	8.24	2.28	82.40	22.80	4.83	1.33	1160
Head	Feb. 25, 2021	5600	78.60	22.50	7.77	2.20	77.70	22.00	-1.15	-2.22	1160
Head	Dec. 16, 2020	5800	77.90	22.10	7.78	2.18	77.80	21.80	-0.13	-1.36	1160
Head	Feb. 18, 2021	5800	77.90	22.10	7.96	2.22	79.60	22.20	2.18	0.45	1160
Head	Feb. 25, 2021	5800	77.90	22.10	7.81	2.21	78.10	22.10	0.26	0.00	1160

4.3 SYSTEM CHECK PROCEDURE

The system check is performed by using a system check dipole which is positioned parallel to the planar part of the SAM phantom at the reference point. The distance of the dipole to the SAM phantom is determined by a plexiglass spacer. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 250mW (below 3GHz) or 100mW (3-6GHz). To adjust this power a power meter is used.
The power sensor is connected to the cable before the system check to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the system check to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test.

System check results have to be equal or near the values determined during dipole calibration (target SAR in table above) with the relevant liquids and test system (±10 %).



5. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

5.1 SAR MEASUREMENT VARIABILITY

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The 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 < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

The detailed repeated measurement results are shown in Section 7.2.

6. OPERATIONAL CONDITIONS DURING TEST

6.1 SAR TEST CONFIGURATION

6.1.1 GSM TEST CONFIGURATION

SAR tests for GSM850 and GSM1900, a communication link is set up with a base station by air link.
Using 8960 Series the power lever is set to “5” and “0” in SAR of GSM850 and GSM1900. The tests in the band of GSM850 and GSM1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5. The EGPRS class is 12 for this EUT, it has at most 4 timeslots in uplink, and at most 4 timeslots in downlink, the maximum total timeslot is 5.

When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8PSK.

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot.

The allowed power reduction in the multi-slot configuration is as following:

Number of timeslots in uplink assignment		Reduction of maximum output power (dB)		
Band	Time Slots	GPRS (GMSK)	EGPRS (GMSK)	EGPRS (8PSK)
GSM850	1 TX slot	0.0	0.0	6.4
	2 TX slots	3.0	3.0	9.4
	3 TX slots	4.8	4.8	11.2
	4 TX slots	6.0	6.0	12.4
GSM1900	1 TX slot	0.0	0.0	4.3
	2 TX slots	3.0	3.0	7.3
	3 TX slots	4.8	4.8	9.1
	4 TX slots	6.0	6.0	10.3

6.1.2 UMTS TEST CONFIGURATION

1. Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the procedures description in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1s" for WCDMA/HSDPA or by applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Result for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) should be tabulated in the SAR report. All configuration that are not supported by the DUT or cannot be measured due to technical or equipment limitation should be clearly identified.

2. WCDMA

(1) Head SAR Measurements

SAR for next to ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1s". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR with 3.4kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

(2) Body SAR Measurements

SAR for body-worn accessory is measured using the 12.2 kbps RMC with the TPC bits configured to all "1s". The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by handset with 12.2 kbps RMC as the primary mode.

3. HSDPA

SAR for body exposure configurations is measured according to the "Body SAR Measurements" procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as "otherwise" in the applicable procedures; SAR measurement is required for the secondary mode.

Per KDB941225 D01, the 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures for the highest reported SAR body exposure configuration in 12.2 kbps RMC.

HSDPA should be configured according to UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HAPRQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission condition, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the below table, β_{hs} for HS-DPCCH is set automatically to the correct value when ΔACK, ΔNACK, ΔCQI = 8. The variation of the β_c /β_d ratio causes a power reduction at sub-tests 2 - 4.

Sub-test	β_c	β_d	β_d (SF)	β_c /β_d	β_{hs} (1)	CM(dB)(2)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: △ACK, △NACK and △CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2 : CM=1 for β_c/β_d= 12/15, β_{hs}/β_c = 24/15. For all other combinations of DPDCH,DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 3 : For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to β_c = 11/15 and β_d = 15/15

The measurements were performed with a Fixed Reference Channel (FRC) and H-Set 1 QPSK.

Settings of required H-Set 1 QPSK acc. to 3GPP 34.121

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI"s
Number of HARQ Processes	2 Processes
Information Bit Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

HSDPA UE category

HS-DSCH Category	Maximum HS-DSCH Codes Received	Minimum Inter-TTI Interval	Maximum HS-DSCH Transport Block Bits/HS-DSCH TTI	Total Soft Channel Bits
1	5	3	7298	19200
2	5	3	7298	28800
3	5	2	7298	28800
4	5	2	7298	38400
5	5	1	7298	57600
6	5	1	7298	67200
7	10	1	14411	115200
8	10	1	14411	134400
9	15	1	25251	172800
10	15	1	27952	172800
11	5	2	3630	14400
12	5	1	3630	28800
13	15	1	34800	259200
14	15	1	42196	259200
15	15	1	23370	345600
16	15	1	27952	345600

4. HSUPA

SAR for Body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2W/kg, SAR measurement is not required for the secondary mode.

Per KDB941225 D01, the 3G SAR test reduction procedures is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures for the highest reported body exposure SAR configuration in 12.2 kbps RMC.

Due to inner loop power control requirements in HSUPA, a commercial communication test set should be used for the output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSDPA should be configured according to the values indicated below as well as other applicable procedures described in the “WCDMA Handset” and “Release 5 HSDPA Data Device” sections of 3G device.

Subtests for WCDMA Release 6 HSUPA

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_e (SF)	β_{ed} (code)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

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

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

Note 4 : For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$

Note 5 : Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g

Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Speading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	10	2SF2&2SF4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.UE categories 1 to 6 support QPSK only. UE category 7 supports QPSK and 16QAM. (TS25.306-7.3.0).

5. DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel.5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode.
Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a Second serving HS-DSCH cell are required to perform the power measurement and for the results to be acceptable.

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS 34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0
Levels for HSDPA connection setup

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

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13
The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.
The measurements were performed with a Fixed Reference Channel (FRC) H-Set 12 with QPSK

Parameter	Value
Nominal average inf. bit rate	60 kbit/s
Inter-TTI Distance	1 TTI"s
Number of HARQ Processes	6 Processes
Information Bit Payload	120 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	960 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	3200 SMLs
Coding Rate	0.15
Number of Physical Channel Codes	1

Note:
1.The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table above.
2.Maximum number of transmission is limited to 1,i.e.,retransmission is not allowed. The redundancy and constellation version 0 shall be used.

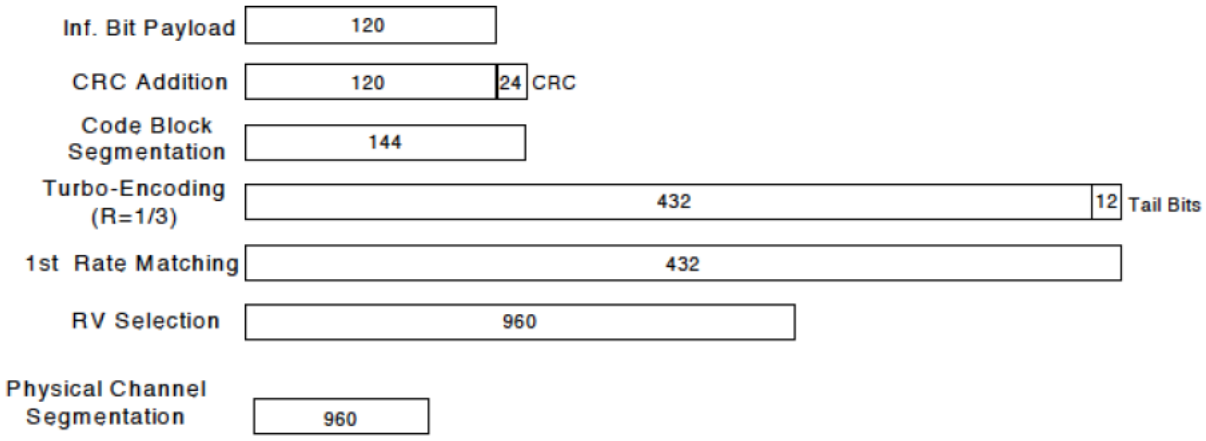


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 5 procedures. A summary of subtest settings are illustrated below:

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (1)	CM(dB)(2)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$
Note 2: CM=1 for β_c/β_d= 12/15, β_{hs}/β_c = 24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to β_c = 11/15 and β_d = 15/15

Up commands are set continuously to set the UE to Max power.

6. HSPA+

An E-DCH call is set up according to TS 34.108 [3] 7.3.9 with the following exceptions in the RADIO BEARER SETUP messages. These exceptions allow the beta values to be set according to table C.11.1.4 and each UL physical channel to be at constant power at the start of the measurement. RF parameters are set up according to table E.5.A.1. Settings for the serving cell are defined in table 5.2E.4. Uplink SRB for DCCH mapped on E-DCH and downlink SRB for DCCH on DCH. E-DCH is configured with 2ms TTI.

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

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

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

Note:
1. The Dual Carriers transmission support HSDPA and HSUPA physical channels.
2. The Dual Carriers belong to the same Node and are on adjacent carriers.
3. The Dual Carriers do not support MIMO to serve UEs configured for dual cell operation.
4. The Dual Carriers operate in the same frequency band.
5. The device doesn't support the modulation of 16QAM in uplink but 64QAM in downlink for DC-HSDPA mode.
6. The device doesn’t support carrier aggregation for it just can operate in Release 8.

6.1.3 LTE TEST CONFIGURATION

SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices. The CMW500 Wide Band Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames (Maximum TTI).

1. Spectrum Plots for RB configurations
A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

2. MPR
When MPR is implemented permanently within the UE, regardless of network requirements, only those RB configurations allowed by 3GPP for the channel bandwidth and modulation. Combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR.
The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101:

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 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

3. A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by using Network Signalling Value of “NS_01” on the base station simulator.

4. LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

ii) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in i) are applied to measure the SAR for QPSK with 50% RB allocation.

iii) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in i) and ii) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

iv) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

B) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg.

6.1.4 WIFI TEST CONFIGURATION

For WLAN / BT SAR testing, WLAN / BT engineering testing software installed on the DUT can provide continuous transmitting RF signal.

2.4G

Mode	802.11b	802.11g	802.11n (HT20/40)	BT / LE
Duty cycle	100%			
Crest factor	1			

5G

Mode	802.11a	802.11n (HT2040)	802.11ac (VH20/4080)
Duty cycle	100%		
Crest factor	1		

For WiFi SAR testing, a communication link is set up with the test mode software for WiFi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. The RF signal utilized in SAR measurement has 100% duty cycle and its crest factor is 1. The test procedures in KDB 248227 D01 are applied.

6.1.4.1 2.4G SAR Test Requirements

802.11b DSSS SAR Test Requirements
SAR is measured for 2.4 GHz 802.11b DSSS using either a fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:
1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
2) When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements
When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied. SAR is not required for the following 2.4 GHz OFDM conditions.
1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
2) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

SAR Test Requirements for OFDM configurations
When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

6.1.4.2 5G SAR Test Requirements

✧ **U-NII-1 and U-NII-2A Band**

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR. When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR.

✧ **U-NII-2C, U-NII-3 Bands**

The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification.
Unless band gap channels are permanently disabled, they must be considered for SAR testing.
To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels.11 When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

6.1.4.3 OFDM transmission mode and SAR test channel selection

For the 2.4GHz and 5GHz bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations (for example 802.11a, 802.11n and 802.11ac, or 802.11g and 802.11n, with the same channel bandwidth, modulation, and data rate, etc.), the lower order 802.11 mode (i.e.802.11a then 802.11n and 802.11ac, or 802.11g then 802.11n) is used for SAR measurement. When the maximum output power is the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

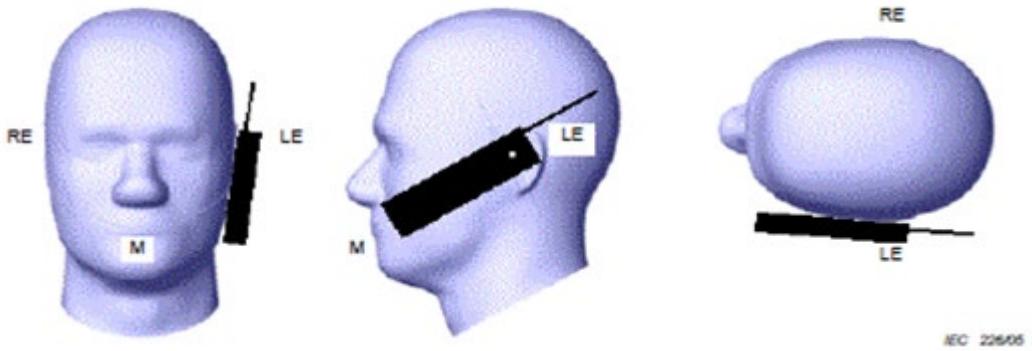
6.1.4.4 Initial test configuration procedure

For OFDM, in both 2.4GHz and 5GHz bands, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, and lowest data rate. If the average RF output powers of the highest identical transmission modes are within 0.25 dB of each other, mid channel of the transmission mode with highest average RF output powers is the initial test channel. Otherwise, the channel of the transmission mode with the highest average RF output power will be the initial test configuration.
When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurement.

6.2 TEST POSITION

6.2.1 HEAD TEST CONFIGURATION

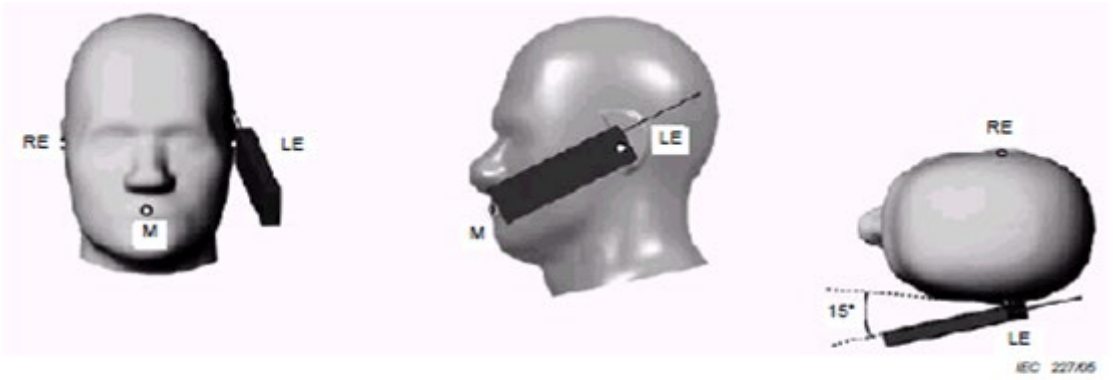
Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.



Key	
M	Mouth reference point
LE	Left ear reference point (ERP)
RE	Right ear reference point (ERP)

Figure 1 Cheek position of the wireless device on the left side of SAM

Note1: Cheek position of the wireless device on Right side of SAM also is similar to the left side represented above.



Key	
M	Mouth reference point
LE	Left ear reference point (ERP)
RE	Right ear reference point (ERP)

Figure 2 Tilt position of the wireless device on the left side of SAM

Note2: Tilt position of the wireless device on Right side of SAM also is similar to the left side represented above.

6.2.2 BODY-WORN TEST CONFIGURATION

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations. Devices with a headset output should be tested with a headset connected to the device. The distance between the device and the phantom was kept 15mm.

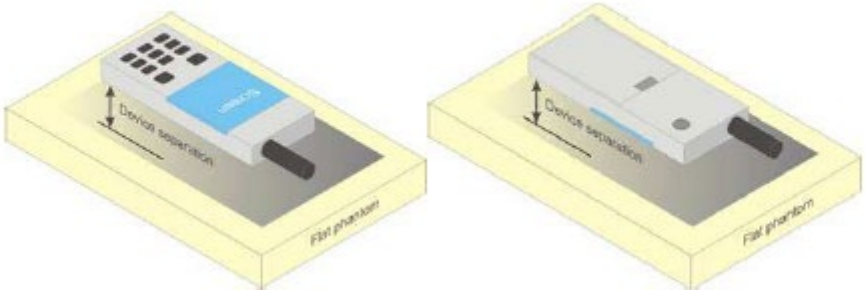


Figure 3 Test positions for body-worn device

6.2.3 HOTSPOT TEST CONFIGURATION

Per FCC KDB 941225D06, the SAR test separation distance for hotspot mode is determined according to device form factor. When the overall length and width of a device is > 9cm×5cm, a test separation distance of 10mm is required for hotspot mode SAR measurements. A test separation distance of 5mm or less is required for smaller devices. Hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25mm from that surface or edge; for the data modes, wireless technologies and frequency bands supporting hotspot mode. The SAR results are used to determine simultaneous transmission SAR test exclusion for hotspot mode; otherwise, simultaneous transmission SAR measurement is required.

6.2.4 PRODUCT SPECIFIC 10-G SAR TEST CONFIGURATION

Per KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0cm or an overall diagonal dimension > 16.0cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the device is marketed as “Phablet”.
The UMPC mini-tablets procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge, in direct contact with a flat phantom, for product specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2W/kg; when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

The location of the antenna inside EUT and the test position judgment of Hotspot/Specific 10g SAR, please refer to Appendix E.

6.3 GENERAL DESCRIPTION OF TEST PROCEDURES

Connection to the EUT is established via air interface with Anritsu MT8820C & Anritsu MT8821C & R&S CMW500, and the EUT is set to maximum output power by Anritsu MT8820C & Anritsu MT8821C & R&S CMW500. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. The antenna connected to the output of the base station simulator shall be placed at least 50cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30dB.

6.4 RECEIVER DETECTION MECHANISM

6.4.1 GENERAL DESCRIPTION OF RECEIVER DETECTION MECHANISM OF 2G&3G&4G

The device supports the receiver detection mechanism. The main purpose is to minimize triggering associated with power reduction scenarios by receiver detection mechanisms and provide enhanced user experience.
This device uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G antenna accordingly.

Table: Summery of Receiver detection mechanism

Antenna	Receiver on (Head)	Receiver off (Body-worn)	Receiver off (Hotspot & Specific 10g SAR)
Main Ant & MAS Ant (Ant 0 & Ant 1 & Ant 4)	Power Level A1	Power Level B1	Power Level B2
Second Ant (Ant 2 & Ant 3)	Power Level A2	Power Level B3	Power Level B4

Main Ant & MAS Ant Max Power (dBm)												
Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B26	LTE B66
Receiver on (Head)	34	31	24	24.4	25	24	24.4	25	23.1	25	25	24.4
Receiver off (Body-worn)	34	31	24	24	25	24	24.2	25	23.1	25	25	24.2
Receiver off (Hotspot & Specific 10g SAR)	30.1	27	21	21.4	25	21	21.4	25	22	25	25	21.4

Second Ant Max Power (dBm)												
Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B26	LTE B66
Receiver on (Head)	32.5	28	20.5	20.9	23.5	20.5	20.9	23.5	21	23.5	23.5	20.9
Receiver off (Body-worn)	34	30	22.5	21.8	25	22.5	21.8	25	22.4	25	25	21.8
Receiver off (Hotspot & Specific 10g SAR)	30.4	25	20.5	20.9	24.4	20.5	20.9	24.4	21	24.1	24.4	20.9

6.4.2 GENERAL DESCRIPTION OF RECEIVER DETECTION MECHANISM OF WIFI

Users will be in full power when using WiFi alone. When WiFi+2G/3G/4G are used simultaneously, WiFi power reduction will be triggered, i.e. WiFi will be in power level B3 state.

Antenna	WiFi Power Reduction			
	Full power (Body-worn)	Receiver on (Head)	Receiver off (Hotspot)	Receiver off (Specific 10g SAR)
WiFi Ant	Power Level B5	Power Level A3	Power Level B6	Power Level B7

WiFi Ant Max Power (dBm)												
Power scenario	2.4G				5G (5150MHz~5250MHz)				5G(Not Suport Hotspot) (5260MHz~5350MHz)			
	802.11 b	802.11 g	802.11 n20	802.11 n40	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80
Full Power (Body-worn)	19.5	19	19	13	19	19	18	8	19	19	18	11
Receiver on (Head)	14	14	14	13	14	14	14	8	14	14	14	11
Receiver off (Hotspot)	19.5	19	19	13	19	19	18	8	-	-	-	-
Receiver off (Specific 10g SAR)	19.5	19	19	13	19	19	18	8	19	19	18	11

WiFi Ant Max Power (dBm)										
Power scenario	2.4G		5G (Not Suport Hotspot) (5500MHz~5700MHz)				5G (5750MHz~5850MHz)			
	BT	BLE	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80
Full Power (Body-worn)	13	9	19	19	18	14	19	19	18	15
Receiver on (Head)	13	9	14	14	14	14	14	14	14	14
Receiver off (Hotspot)	13	9	-	-	-	-	19	19	18	15
Receiver off (Specific 10g SAR)	13	9	19	19	18	14	19	19	18	15

6.4.3 MORE DETAILS INFORMATION FOLLOWINGS

For head SAR test,
1) Standalone Head SAR of Main Ant & MAS Ant is evaluated at power level A1;
2) Standalone Head SAR of Second Ant is evaluated at power level A2;
3) Standalone Head SAR of WiFi Ant is evaluated at power level A3;
Note: As the receiver only works in voice mode when the user is making a call in head scenario, In LTE Data/ WCDMA RMC (Data) mode, the mobile phone won't ring and answer, it just can be connected with the test instrument. Therefore, for Head SAR test of UMTS and LTE, we're planning to test LTE Data/ WCDMA RMC (Data) mode through triggering the receiver on by XML test scripts in order to simulate the users' scene (LTE VOIP, WCDMA VOIP).

For body-worn & hotspot & specific 10g SAR test,
1) Standalone body-worn of Main Ant & MAS Ant is evaluated at power level B1;
2) Standalone hotspot & specific 10g SAR of Main Ant & MAS Ant is evaluated at power level B2;
3) Standalone body-worn of Second Ant is evaluated at power level B3;
4) Standalone hotspot & specific 10g SAR of Second Ant is evaluated at power level B4;
5) Standalone body-worn of WiFi Ant is evaluated at power level B5;
6) Standalone hotspot of WiFi Ant is evaluated at power level B6;
7) Standalone specific 10g SAR of WiFi Ant is evaluated at power level B7;
Note: As the receiver will not work during body-worn voice mode operation with the headset connected. When the receiver is off, the power level with headset connected is the same as those without headset connected. So body-worn & hotspot SAR with headset is tested at the body-worn & hotspot & specific 10g SAR worst case without headset connected at the same power level.

6.5 COUNTRY CODE DETECTION MECHANISM

6.5.1 GENERAL DESCRIPTION

This device supports the countries detection mechanism. The main purpose is to distinguish CE countries, FCC country and France and apply the relevant power levels accordingly. The main purpose is to provide enhanced user experience while meeting the SAR compliance for different countries.
This device uses the mobile country code (MCC) to indicate whether the users in CE countries or France or FCC countries. The selection between CE countries and France and FCC countries power levels is based on the country code detection mechanism. It can determine the countries where users are and set the relevant power level for 234G and WiFi antennas accordingly.

Table: Summary of country code detection mechanism

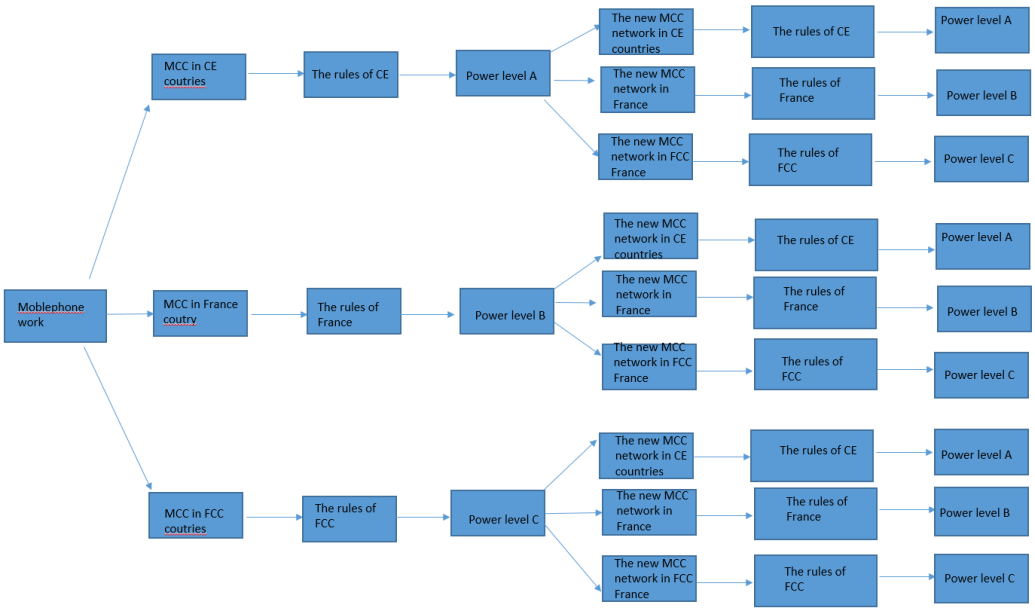
Antenna	scene	MCC OF CE COUNTRY (CE standard) power reduce(dB)	MCC OF FCC COUNTRY (FCC standard) power reduce(dB)	MCC OF France country France power reduce(dB)
LTE B7 ant1	receiver on limb	0	0	0.8
WB2 ant2	receiver on limb	0	3.5	0
WB4 ant2	receiver on limb	0	3.5	0
WB B5 ant2	receiver on limb	0	0.6	0
LTE B7 ant2	receiver on limb	1	2.3	1
LTE B5 ant2	receiver on limb	0	0.6	0
LTE B2 ant2	receiver on limb	0	3.5	0
LTE B4 ant2	receiver on limb	0	3.5	0
LTE B12 ant2	receiver on limb	0	0.6	0
LTE B66 ant2	receiver on limb	0	3.5	0
GSM1900 ant2	receiver on limb	0	2	0
2.4G WIFI	receiver on limb	3.5	5.5	3.5
5G WIFI	receiver on limb	3	5	3

Table 2: The device model and frequency Bands

Model	CHL-LX3
SIM Card	double
FCC bands	GSM850/1900 WCDMA B2/5 FDD LTE: B5/7 TDD LTE: B38 WIFi 2.4G/BT

6.5.2 COUNTRIES DETECTION MECHANISM CLARIFICATIONS

The countries on detection are accomplished by operator network as figure below shows:



The software of the device has information of CE, FCC and France so that to detect where the users are. If the users are in CE countries, the power level A is applied. If the users are in France, the power level B is applied. If the users are in FCC countries, the power level C is applied.
Note:
1) The power level A, B and C can be set to the same or different.
2) The device distinguishes different countries by MCC information. If we are close to a country border and the phone switches to a neighboring network the power reduction will follow the newest registered MCC information.
3) The default status when the device doesn't know the MCC information will be set to the Lower Power Level between A and B.
4) The full MCC list of FCC and France is provided at the end of this attachment.
5) Other countries that don't exist in the MCC list of this attachment will be executed the same max power level of CE standard countries.
6) For WIFI bands, the router also has MCC information so the device can distinguish different countries.

The device offers 3 sets SAR back off NVs to meet different complicated SAR scenarios. These NVs control max output power of main modem for 4G bands and WIFI. When certain set NVs works, the processor compare the back off NVs and original ones, and choose the lower output to apply. More details information followings:

Antenna	MCC OF CE COUNTRY (CE standard) power reduce (dB)	MCC OF FCC COUNTRY (FCC standard) power reduce (dB)	MCC OF France country France power reduce (dB)
LTE B7 ant1	power level A1	power level B1	power level C1
WB2 ant2	power level A2	power level B2	power level C2
WB4 ant2	power level A3	power level B3	power level C3
WB B5 ant2	power level A4	power level B4	power level C4
LTE B7 ant2	power level A5	power level B5	power level C5
LTE B5 ant2	power level A6	power level B6	power level C6
LTE B2 ant2	power level A7	power level B7	power level C7
LTE B4 ant2	power level A8	power level B8	power level C8
LTE B12 ant2	power level A9	power level B9	power level C9
LTE B66 ant2	power level A10	power level B10	power level C10
GSM1900 ant2	power level A11	power level B11	power level C11
2.4G WIFI	power level A12	power level B12	power level C12
5G WIFI	power level A13	power level B13	power level C13

Note: The frequency bands power level value amount in the tables above are just for reference. The final value may be adjusted according to the SAR test results in the final SAR report.

6.5.3 SUMMARY SAR TEST PLAN

Based on the summery table of countries detection mechanism above, we plan to perform the SAR test as below: For conducted power test, both the full power level and reduced power level will be tested by setting different MCC to validate that the country code detection mechanism works.

Attachment: MCC List

1	France	208,308,340,543,546,547,647,742
2	FCC	310,311,312,313,314,315,316,330,332,534,535,544,334,722,734,732, 740,730,716,748,708,710,714,744,415,363,364,362,302,704,706,368, 372,370,338,374,342,352,358,360,738,746,356,702,344,404,405,406, 736,712,432,425,450,365,350,346,366,340,354,742,376,348
3	CE	Others MCC

7. TEST RESULT

7.1 CONDUCTED POWER RESULTS

The conducted power measurement result please refer to Appendix F.

7.2 SAR TEST RESULTS

General Notes:
1) Per KDB447498 D01, all measurement SAR results are scaled to the maximum tune-up tolerance limit to demonstrate compliant.
2) Per KDB447498 D01, 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. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.
3) Per KDB865664 D01, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8W/kg; if the deviation among the repeated measurement is ≤ 20%, and the measured SAR < 1.45W/kg, only one repeated measurement is required.
4) Per KDB941225 D06, the DUT Dimension is bigger than 9 cm x 5 cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
5) Per KDB648474 D04, SAR is evaluated without a headset connected to the device. When the standalone reported body-worn SAR is ≤1.2 W/kg, no additional SAR evaluations using a headset are required.
6) Per KDB865664 D02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; Plots are also required when the measured SAR is > 1.5 W/kg, or > 7.0 W/kg for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan post-processing.

GSM Notes:
1) Per KDB648474 D04, body-worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2) Per KDB941225 D01, SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

UMTS Notes:
Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

LTE notes:
1) The LTE test configurations are determined according to KDB941225 D05 SAR for LTE Devices. The general test procedures used for SAR testing can be found in Section 7.1.3.
2) A-MPR was disabled for all SAR test by setting NS_01 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

WLAN Notes:
1. For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions. Otherwise, SAR is evaluated at the subsequent highest peak SAR position until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 for 2.4GHz WIFI single transmission chain operations, the highest measured maximum output power Channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 7.1.5 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 for 5GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed power. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2W/kg. See Section 7.1.5 for more information.

7.2.1 SAR MEASUREMENT RESULT OF HEAD

1. Head SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G01	GSM 850	GSM	190	Right Cheek	1	1	1	34	33.12	0.072	0.058	0.088
G02	GSM 850	GSM	190	Right Tilted	1	1	1	34	33.12	0.048	0.038	0.059
G03	GSM 850	GSM	190	Left Cheek	1	1	1	34	33.12	0.091	0.069	0.111
G04	GSM 850	GSM	190	Left Tilted	1	1	1	34	33.12	0.046	0.036	0.056
G05	GSM 850	GSM	190	Left Cheek	1	2	1	34	33.12	0.089	0.067	0.109
G06	GSM 850	GSM	190	Left Cheek	1	1	2	34	33.12	0.106	0.080	0.130
G07	GSM 850	GSM	190	Left Cheek	1	1	3	34	33.12	**0.119**	**0.090**	**0.146**
G100	GSM 850	GSM	190	Left Cheek	1	1	4	34	33.12	0.080	0.061	0.098
G101	GSM 850	GSM	190	Left Cheek	1	1	5	34	33.12	0.078	0.059	0.095
G102	GSM 850	GSM	190	Left Cheek	1	1	6	34	33.12	0.074	0.055	0.090
G103	GSM 850	GSM	190	Left Cheek	1	1	7	34	33.12	0.081	0.061	0.099
G09	GSM 850	GSM	190	Right Cheek	3	1	1	32.5	32.08	0.497	0.266	0.547
G10	GSM 850	GSM	190	Right Tilted	3	1	1	32.5	32.08	0.499	0.253	0.550
G11	GSM 850	GSM	190	Left Cheek	3	1	1	32.5	32.08	0.235	0.128	0.259
G12	GSM 850	GSM	190	Left Tilted	3	1	1	32.5	32.08	0.211	0.107	0.232
G13	GSM 850	GSM	190	Right Tilted	3	2	1	32.5	32.08	0.477	0.231	0.525
G14	GSM 850	GSM	190	Right Tilted	3	1	2	32.5	32.08	0.452	0.226	0.498
G15	GSM 850	GSM	190	Right Tilted	3	1	3	32.5	32.08	0.484	0.256	0.533
G104	GSM 850	GSM	190	Right Tilted	3	1	4	32.5	32.08	0.452	0.215	0.498
G105	GSM 850	GSM	190	Right Tilted	3	1	5	32.5	32.08	**0.509**	**0.246**	**0.561**
G106	GSM 850	GSM	190	Right Tilted	3	1	6	32.5	32.08	0.447	0.208	0.492
G107	GSM 850	GSM	190	Right Tilted	3	1	7	32.5	32.08	0.462	0.208	0.509
G17	GSM 1900	GSM	661	Right Cheek	0	1	1	31	29.49	0.056	0.034	0.079
G18	GSM 1900	GSM	661	Right Tilted	0	1	1	31	29.49	0.046	0.027	0.066
G19	GSM 1900	GSM	661	Left Cheek	0	1	1	31	29.49	0.059	0.037	0.083
G20	GSM 1900	GSM	661	Left Tilted	0	1	1	31	29.49	0.053	0.031	0.074
G21	GSM 1900	GSM	661	Left Cheek	0	2	1	31	29.49	0.058	0.037	0.082
G22	GSM 1900	GSM	661	Left Cheek	0	1	2	31	29.49	**0.064**	**0.040**	**0.090**
G23	GSM 1900	GSM	661	Left Cheek	0	1	3	31	29.49	0.059	0.037	0.084
G108	GSM 1900	GSM	661	Left Cheek	0	1	4	31	29.49	0.058	0.037	0.082
G109	GSM 1900	GSM	661	Left Cheek	0	1	5	31	29.49	0.060	0.036	0.084
G110	GSM 1900	GSM	661	Left Cheek	0	1	6	31	29.49	0.059	0.035	0.083
G111	GSM 1900	GSM	661	Left Cheek	0	1	7	31	29.49	0.062	0.039	0.088
G25	GSM 1900	GSM	661	Right Cheek	2	1	1	28	27.37	0.302	0.150	0.349
G26	GSM 1900	GSM	661	Right Tilted	2	1	1	28	27.37	0.383	0.196	0.443
G27	GSM 1900	GSM	661	Left Cheek	2	1	1	28	27.37	0.314	0.161	0.363
G28	GSM 1900	GSM	661	Left Tilted	2	1	1	28	27.37	0.378	0.188	0.437
G29	GSM 1900	GSM	661	Right Tilted	2	2	1	28	27.37	0.400	0.201	0.462
G30	GSM 1900	GSM	661	Right Tilted	2	2	2	28	27.37	0.378	0.180	0.437
G31	GSM 1900	GSM	661	Right Tilted	2	2	3	28	27.37	**0.422**	**0.200**	**0.488**
G112	GSM 1900	GSM	661	Right Tilted	2	2	4	28	27.37	0.289	0.153	0.334
G113	GSM 1900	GSM	661	Right Tilted	2	2	5	28	27.37	0.327	0.171	0.378
G114	GSM 1900	GSM	661	Right Tilted	2	2	6	28	27.37	0.327	0.162	0.378
G115	GSM 1900	GSM	661	Right Tilted	2	2	7	28	27.37	0.356	0.177	0.412

Note: The value with boldface is the maximum SAR Value of each test band.

2. Head SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U01	UMTS B2	RMC12.2K	9400	Right Cheek	0	1	1	24	22.7	0.101	0.062	0.136
U02	UMTS B2	RMC12.2K	9400	Right Tilted	0	1	1	24	22.7	0.089	0.053	0.121
U03	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	1	24	22.7	0.122	0.078	0.165
U04	UMTS B2	RMC12.2K	9400	Left Tilted	0	1	1	24	22.7	0.097	0.056	0.130
U05	UMTS B2	RMC12.2K	9400	Left Cheek	0	2	1	24	22.7	0.105	0.067	0.142
U06	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	2	24	22.7	0.119	0.076	0.161
U07	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	3	24	22.7	0.113	0.071	0.152
U150	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	4	24	22.7	0.107	0.067	0.144
U151	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	5	24	22.7	0.125	0.079	0.169
U152	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	6	24	22.7	0.121	0.076	0.163
U153	UMTS B2	RMC12.2K	9400	Left Cheek	0	1	7	24	22.7	**0.129**	**0.079**	**0.174**
U09	UMTS B2	RMC12.2K	9400	Right Cheek	2	1	1	20.5	19.34	0.513	0.233	0.670
U10	UMTS B2	RMC12.2K	9400	Right Tilted	2	1	1	20.5	19.34	0.606	0.290	0.792
U11	UMTS B2	RMC12.2K	9400	Left Cheek	2	1	1	20.5	19.34	0.532	0.257	0.695
U12	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	1	20.5	19.34	**0.660**	**0.348**	**0.862**
U13	UMTS B2	RMC12.2K	9262	Left Tilted	2	1	1	20.5	19.31	0.647	0.342	0.851
U14	UMTS B2	RMC12.2K	9538	Left Tilted	2	1	1	20.5	19.26	0.572	0.306	0.761
U15	UMTS B2	RMC12.2K	9400	Left Tilted	2	2	1	20.5	19.34	0.651	0.344	0.850
U16	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	2	20.5	19.34	0.562	0.275	0.734
U17	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	3	20.5	19.34	0.595	0.316	0.777
U154	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	4	20.5	19.34	0.531	0.277	0.694
U155	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	5	20.5	19.34	0.516	0.276	0.674
U156	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	6	20.5	19.34	0.554	0.294	0.724
U157	UMTS B2	RMC12.2K	9400	Left Tilted	2	1	7	20.5	19.34	0.621	0.318	0.811
U19	UMTS B4	RMC12.2K	1413	Right Cheek	0	1	1	24.4	22.6	0.099	0.062	0.150
U20	UMTS B4	RMC12.2K	1413	Right Tilted	0	1	1	24.4	22.6	0.069	0.039	0.104
U21	UMTS B4	RMC12.2K	1413	Left Cheek	0	1	1	24.4	22.6	0.145	0.088	0.219
U22	UMTS B4	RMC12.2K	1413	Left Tilted	0	1	1	24.4	22.6	0.057	0.031	0.087
U23	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	1	24.4	22.6	**0.147**	**0.089**	**0.222**
U24	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	2	24.4	22.6	0.137	0.083	0.207
U25	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	3	24.4	22.6	0.133	0.081	0.201
U158	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	4	24.4	22.6	0.109	0.068	0.165
U159	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	5	24.4	22.6	0.126	0.080	0.191
U160	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	6	24.4	22.6	0.118	0.075	0.179
U161	UMTS B4	RMC12.2K	1413	Left Cheek	0	2	7	24.4	22.6	0.135	0.084	0.204
U27	UMTS B4	RMC12.2K	1413	Right Cheek	2	1	1	20.9	19.73	0.283	0.136	0.370
U28	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	1	20.9	19.73	0.454	0.223	0.594
U29	UMTS B4	RMC12.2K	1413	Left Cheek	2	1	1	20.9	19.73	0.262	0.144	0.343
U30	UMTS B4	RMC12.2K	1413	Left Tilted	2	1	1	20.9	19.73	0.428	0.218	0.560
U31	UMTS B4	RMC12.2K	1413	Right Tilted	2	2	1	20.9	19.73	0.431	0.207	0.564
U32	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	2	20.9	19.73	0.529	0.258	0.693
U33	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	3	20.9	19.73	0.455	0.223	0.596
U162	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	4	20.9	19.73	0.445	0.226	0.583
U163	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	5	20.9	19.73	0.521	0.254	0.682
U164	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	6	20.9	19.73	**0.547**	**0.264**	**0.716**
U165	UMTS B4	RMC12.2K	1413	Right Tilted	2	1	7	20.9	19.73	0.501	0.242	0.656

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U35	UMTS B5	RMC12.2K	4182	Right Cheek	1	1	1	25	23.93	0.134	0.105	0.172
U36	UMTS B5	RMC12.2K	4182	Right Tilted	1	1	1	25	23.93	0.088	0.069	0.112
U37	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	1	25	23.93	**0.150**	**0.114**	**0.192**
U38	UMTS B5	RMC12.2K	4182	Left Tilted	1	1	1	25	23.93	0.080	0.062	0.103
U39	UMTS B5	RMC12.2K	4182	Left Cheek	1	2	1	25	23.93	0.130	0.096	0.166
U40	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	2	25	23.93	0.149	0.112	0.191
U41	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	3	25	23.93	0.138	0.103	0.177
U166	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	4	25	23.93	0.120	0.071	0.154
U167	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	5	25	23.93	0.135	0.080	0.173
U168	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	6	25	23.93	0.136	0.081	0.174
U169	UMTS B5	RMC12.2K	4182	Left Cheek	1	1	7	25	23.93	0.133	0.078	0.170
U43	UMTS B5	RMC12.2K	4182	Right Cheek	3	1	1	23.5	22.81	0.593	0.316	0.695
U44	UMTS B5	RMC12.2K	4182	Right Tilted	3	1	1	23.5	22.81	0.611	0.309	0.716
U45	UMTS B5	RMC12.2K	4182	Left Cheek	3	1	1	23.5	22.81	0.314	0.177	0.368
U46	UMTS B5	RMC12.2K	4182	Left Tilted	3	1	1	23.5	22.81	0.303	0.161	0.355
U47	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	1	23.5	22.81	**0.663**	**0.334**	**0.777**
U48	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	2	23.5	22.81	0.595	0.292	0.697
U49	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	3	23.5	22.81	0.554	0.277	0.649
U170	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	4	23.5	22.81	0.501	0.239	0.587
U171	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	5	23.5	22.81	0.528	0.254	0.619
U172	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	6	23.5	22.81	0.443	0.214	0.519
U173	UMTS B5	RMC12.2K	4182	Right Tilted	3	2	7	23.5	22.81	0.423	0.206	0.496

Note: The value with boldface is the maximum SAR Value of each test band.

3. Head SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L01	LTE B2	QPSK20M	18700	1	50	Right Cheek	0	1	1	24	22.32	0.099	0.060	0.146
L02	LTE B2	QPSK20M	18700	1	50	Right Tilted	0	1	1	24	22.32	0.082	0.048	0.120
L03	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	1	24	22.32	0.118	0.073	0.174
L04	LTE B2	QPSK20M	18700	1	50	Left Tilted	0	1	1	24	22.32	0.092	0.055	0.135
L05	LTE B2	QPSK20M	18700	50	0	Right Cheek	0	1	1	23	21.11	0.075	0.046	0.115
L06	LTE B2	QPSK20M	18700	50	0	Right Tilted	0	1	1	23	21.11	0.067	0.039	0.104
L07	LTE B2	QPSK20M	18700	50	0	Left Cheek	0	1	1	23	21.11	0.082	0.050	0.127
L08	LTE B2	QPSK20M	18700	50	0	Left Tilted	0	1	1	23	21.11	0.065	0.039	0.101
L09	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	2	1	24	22.32	0.102	0.063	0.150
L10	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	2	24	22.32	0.105	0.066	0.154
L11	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	3	24	22.32	0.108	0.069	0.159
L529	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	4	24	22.32	0.125	0.076	0.184
L530	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	5	24	22.32	**0.133**	**0.084**	**0.196**
L531	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	6	24	22.32	0.129	0.077	0.190
L532	LTE B2	QPSK20M	18700	1	50	Left Cheek	0	1	7	24	22.32	0.130	0.080	0.191
L13	LTE B2	QPSK20M	18700	1	50	Right Cheek	2	1	1	20.5	19.06	0.269	0.137	0.375
L14	LTE B2	QPSK20M	18700	1	50	Right Tilted	2	1	1	20.5	19.06	0.389	0.189	0.543
L15	LTE B2	QPSK20M	18700	1	50	Left Cheek	2	1	1	20.5	19.06	0.345	0.184	0.481
L16	LTE B2	QPSK20M	18700	1	50	Left Tilted	2	1	1	20.5	19.06	0.408	0.210	0.569
L17	LTE B2	QPSK20M	18900	50	25	Right Cheek	2	1	1	20.5	19.01	0.330	0.171	0.465
L18	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	1	20.5	19.01	0.419	0.206	0.590
L19	LTE B2	QPSK20M	18900	50	25	Left Cheek	2	1	1	20.5	19.01	0.330	0.184	0.465
L20	LTE B2	QPSK20M	18900	50	25	Left Tilted	2	1	1	20.5	19.01	0.416	0.211	0.586
L21	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	2	1	20.5	19.01	0.411	0.203	0.579
L22	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	2	20.5	19.01	0.420	0.211	0.591
L23	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	3	20.5	19.01	0.405	0.204	0.570
L533	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	4	20.5	19.01	**0.486**	**0.240**	**0.684**
L534	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	5	20.5	19.01	0.473	0.238	0.666
L535	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	6	20.5	19.01	0.465	0.232	0.655
L536	LTE B2	QPSK20M	18900	50	25	Right Tilted	2	1	7	20.5	19.01	0.461	0.228	0.649
L25	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	1	24.4	23.35	**0.149**	**0.090**	**0.190**
L26	LTE B4	QPSK20M	20300	1	50	Right Tilted	0	1	1	24.4	23.35	0.101	0.056	0.129
L27	LTE B4	QPSK20M	20300	1	50	Left Cheek	0	1	1	24.4	23.35	0.138	0.084	0.176
L28	LTE B4	QPSK20M	20300	1	50	Left Tilted	0	1	1	24.4	23.35	0.074	0.044	0.095
L29	LTE B4	QPSK20M	20175	50	25	Right Cheek	0	1	1	23.4	22.22	0.100	0.061	0.131
L30	LTE B4	QPSK20M	20175	50	25	Right Tilted	0	1	1	23.4	22.22	0.079	0.044	0.103
L31	LTE B4	QPSK20M	20175	50	25	Left Cheek	0	1	1	23.4	22.22	0.110	0.066	0.144
L32	LTE B4	QPSK20M	20175	50	25	Left Tilted	0	1	1	23.4	22.22	0.063	0.037	0.083
L33	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	2	1	24.4	23.35	0.137	0.087	0.175
L34	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	2	24.4	23.35	0.136	0.082	0.173
L35	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	3	24.4	23.35	0.134	0.079	0.171
L537	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	4	24.4	23.35	0.146	0.089	0.186
L538	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	5	24.4	23.35	0.130	0.080	0.166
L539	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	6	24.4	23.35	0.107	0.062	0.136
L540	LTE B4	QPSK20M	20300	1	50	Right Cheek	0	1	7	24.4	23.35	0.148	0.090	0.189

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L37	LTE B4	QPSK20M	20300	1	50	Right Cheek	2	1	1	20.9	19.99	0.471	0.225	0.581
L38	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	1	20.9	19.99	0.592	0.290	0.730
L39	LTE B4	QPSK20M	20300	1	50	Left Cheek	2	1	1	20.9	19.99	0.428	0.233	0.528
L40	LTE B4	QPSK20M	20300	1	50	Left Tilted	2	1	1	20.9	19.99	0.469	0.219	0.578
L41	LTE B4	QPSK20M	20175	50	25	Right Cheek	2	1	1	20.9	19.98	0.422	0.197	0.522
L42	LTE B4	QPSK20M	20175	50	25	Right Tilted	2	1	1	20.9	19.98	0.418	0.206	0.517
L43	LTE B4	QPSK20M	20175	50	25	Left Cheek	2	1	1	20.9	19.98	0.432	0.222	0.534
L44	LTE B4	QPSK20M	20175	50	25	Left Tilted	2	1	1	20.9	19.98	0.533	0.285	0.659
L45	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	2	1	20.9	19.99	0.578	0.291	0.713
L46	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	2	20.9	19.99	**0.632**	**0.308**	**0.779**
L47	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	3	20.9	19.99	0.618	0.306	0.762
L541	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	4	20.9	19.99	0.483	0.223	0.596
L542	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	5	20.9	19.99	0.579	0.279	0.714
L543	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	6	20.9	19.99	0.561	0.261	0.692
L544	LTE B4	QPSK20M	20300	1	50	Right Tilted	2	1	7	20.9	19.99	0.529	0.248	0.652
L49	LTE B5	QPSK10M	20450	1	24	Right Cheek	1	1	1	25	24.35	0.091	0.071	0.106
L50	LTE B5	QPSK10M	20450	1	24	Right Tilted	1	1	1	25	24.35	0.064	0.048	0.074
L51	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	1	25	24.35	0.121	0.091	0.141
L52	LTE B5	QPSK10M	20450	1	24	Left Tilted	1	1	1	25	24.35	0.057	0.044	0.066
L53	LTE B5	QPSK10M	20450	25	25	Right Cheek	1	1	1	24	23.34	0.069	0.053	0.080
L54	LTE B5	QPSK10M	20450	25	25	Right Tilted	1	1	1	24	23.34	0.048	0.036	0.056
L55	LTE B5	QPSK10M	20450	25	25	Left Cheek	1	1	1	24	23.34	0.094	0.070	0.109
L56	LTE B5	QPSK10M	20450	25	25	Left Tilted	1	1	1	24	23.34	0.042	0.032	0.049
L57	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	2	1	25	24.35	0.115	0.087	0.134
L58	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	2	25	24.35	0.128	0.097	0.149
L59	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	3	25	24.35	**0.139**	**0.104**	**0.161**
L545	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	4	25	24.35	0.096	0.078	0.111
L546	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	5	25	24.35	0.113	0.085	0.131
L547	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	6	25	24.35	0.091	0.071	0.105
L548	LTE B5	QPSK10M	20450	1	24	Left Cheek	1	1	7	25	24.35	0.117	0.088	0.136
L61	LTE B5	QPSK10M	20525	1	24	Right Cheek	3	1	1	23.5	23.42	0.479	0.253	0.488
L62	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	1	23.5	23.42	0.495	0.243	0.504
L63	LTE B5	QPSK10M	20525	1	24	Left Cheek	3	1	1	23.5	23.42	0.248	0.140	0.253
L64	LTE B5	QPSK10M	20525	1	24	Left Tilted	3	1	1	23.5	23.42	0.236	0.127	0.241
L65	LTE B5	QPSK10M	20450	25	25	Right Cheek	3	1	1	23.5	23.36	0.436	0.231	0.451
L66	LTE B5	QPSK10M	20450	25	25	Right Tilted	3	1	1	23.5	23.36	0.483	0.237	0.499
L67	LTE B5	QPSK10M	20450	25	25	Left Cheek	3	1	1	23.5	23.36	0.230	0.131	0.238
L68	LTE B5	QPSK10M	20450	25	25	Left Tilted	3	1	1	23.5	23.36	0.214	0.112	0.221
L69	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	2	1	23.5	23.42	0.482	0.260	0.491
L70	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	2	23.5	23.42	0.481	0.236	0.490
L71	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	3	23.5	23.42	0.442	0.219	0.450
L549	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	4	23.5	23.42	0.452	0.220	0.461
L550	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	5	23.5	23.42	**0.501**	**0.242**	**0.511**
L551	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	6	23.5	23.42	0.426	0.213	0.434
L552	LTE B5	QPSK10M	20525	1	24	Right Tilted	3	1	7	23.5	23.42	0.430	0.213	0.438

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L73	LTE B7	QPSK20M	21350	1	50	Right Cheek	0	1	1	23.1	23.09	0.064	0.029	0.064
L74	LTE B7	QPSK20M	21350	1	50	Right Tilted	0	1	1	23.1	23.09	0.063	0.029	0.063
L75	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	1	23.1	23.09	0.090	0.044	0.090
L76	LTE B7	QPSK20M	21350	1	50	Left Tilted	0	1	1	23.1	23.09	0.055	0.026	0.056
L77	LTE B7	QPSK20M	21350	50	25	Right Cheek	0	1	1	23.1	22.85	0.074	0.035	0.079
L78	LTE B7	QPSK20M	21350	50	25	Right Tilted	0	1	1	23.1	22.85	0.061	0.028	0.064
L79	LTE B7	QPSK20M	21350	50	25	Left Cheek	0	1	1	23.1	22.85	0.082	0.041	0.087
L80	LTE B7	QPSK20M	21350	50	25	Left Tilted	0	1	1	23.1	22.85	0.058	0.027	0.061
L81	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	2	1	23.1	23.09	0.071	0.036	0.071
L82	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	2	23.1	23.09	0.089	0.037	0.089
L83	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	3	23.1	23.09	**0.093**	**0.045**	**0.093**
L557	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	4	23.1	23.09	0.071	0.033	0.071
L558	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	5	23.1	23.09	0.068	0.030	0.068
L559	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	6	23.1	23.09	0.079	0.037	0.079
L560	LTE B7	QPSK20M	21350	1	50	Left Cheek	0	1	7	23.1	23.09	0.082	0.037	0.082
L85	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	1	1	21	20.47	0.441	0.184	0.499
L86	LTE B7	QPSK20M	20850	1	50	Right Tilted	2	1	1	21	20.47	0.396	0.157	0.448
L87	LTE B7	QPSK20M	20850	1	50	Left Cheek	2	1	1	21	20.47	0.319	0.124	0.361
L88	LTE B7	QPSK20M	20850	1	50	Left Tilted	2	1	1	21	20.47	0.334	0.126	0.378
L89	LTE B7	QPSK20M	21100	50	0	Right Cheek	2	1	1	21	20.34	0.396	0.149	0.461
L90	LTE B7	QPSK20M	21100	50	0	Right Tilted	2	1	1	21	20.34	0.404	0.161	0.470
L91	LTE B7	QPSK20M	21100	50	0	Left Cheek	2	1	1	21	20.34	0.328	0.127	0.382
L92	LTE B7	QPSK20M	21100	50	0	Left Tilted	2	1	1	21	20.34	0.358	0.133	0.417
L93	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	1	21	20.47	0.455	0.188	0.514
L94	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	2	21	20.47	0.445	0.176	0.503
L95	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	3	21	20.47	0.438	0.175	0.495
L561	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	4	21	20.47	0.356	0.150	0.403
L562	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	5	21	20.47	**0.475**	**0.205**	**0.537**
L563	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	6	21	20.47	0.385	0.176	0.435
L564	LTE B7	QPSK20M	20850	1	50	Right Cheek	2	2	7	21	20.47	0.335	0.137	0.379
L97	LTE B7	QPSK20M	20850	1	50	Right Cheek	4	1	1	19.5	18.77	0.335	0.142	0.396
L98	LTE B7	QPSK20M	20850	1	50	Right Tilted	4	1	1	19.5	18.77	0.160	0.089	0.189
L99	LTE B7	QPSK20M	20850	1	50	Left Cheek	4	1	1	19.5	18.77	0.179	0.084	0.212
L100	LTE B7	QPSK20M	20850	1	50	Left Tilted	4	1	1	19.5	18.77	0.077	0.040	0.091
L101	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	1	1	19.5	18.73	0.435	0.181	0.520
L102	LTE B7	QPSK20M	21100	50	0	Right Tilted	4	1	1	19.5	18.73	0.152	0.074	0.182
L103	LTE B7	QPSK20M	21100	50	0	Left Cheek	4	1	1	19.5	18.73	0.171	0.084	0.204
L104	LTE B7	QPSK20M	21100	50	0	Left Tilted	4	1	1	19.5	18.73	0.080	0.041	0.096
L105	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	1	19.5	18.73	**0.550**	**0.233**	**0.657**
L106	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	2	19.5	18.73	0.457	0.198	0.546
L107	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	3	19.5	18.73	0.526	0.201	0.628
L565	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	4	19.5	18.73	0.460	0.191	0.549
L566	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	5	19.5	18.73	0.547	0.230	0.653
L567	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	6	19.5	18.73	0.452	0.183	0.540
L568	LTE B7	QPSK20M	21100	50	0	Right Cheek	4	2	7	19.5	18.73	0.484	0.204	0.578

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L109	LTE B12	QPSK10M	23060	1	24	Right Cheek	1	1	1	25	24.03	0.064	0.050	0.080
L110	LTE B12	QPSK10M	23060	1	24	Right Tilted	1	1	1	25	24.03	0.036	0.028	0.045
L111	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	1	25	24.03	0.067	0.052	0.083
L112	LTE B12	QPSK10M	23060	1	24	Left Tilted	1	1	1	25	24.03	0.032	0.026	0.040
L113	LTE B12	QPSK10M	23060	25	25	Right Cheek	1	1	1	24	23.01	0.054	0.042	0.067
L114	LTE B12	QPSK10M	23060	25	25	Right Tilted	1	1	1	24	23.01	0.030	0.024	0.037
L115	LTE B12	QPSK10M	23060	25	25	Left Cheek	1	1	1	24	23.01	0.060	0.047	0.075
L116	LTE B12	QPSK10M	23060	25	25	Left Tilted	1	1	1	24	23.01	0.029	0.023	0.036
L117	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	2	1	25	24.03	0.062	0.048	0.077
L118	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	2	25	24.03	0.065	0.050	0.082
L119	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	3	25	24.03	**0.068**	**0.052**	**0.085**
L569	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	4	25	24.03	0.054	0.042	0.067
L570	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	5	25	24.03	0.066	0.050	0.082
L571	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	6	25	24.03	0.051	0.041	0.064
L572	LTE B12	QPSK10M	23060	1	24	Left Cheek	1	1	7	25	24.03	0.063	0.049	0.079
L121	LTE B12	QPSK10M	23095	1	24	Right Cheek	3	1	1	23.5	23.35	0.054	0.027	0.056
L122	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	1	23.5	23.35	0.055	0.027	0.057
L123	LTE B12	QPSK10M	23095	1	24	Left Cheek	3	1	1	23.5	23.35	0.034	0.022	0.035
L124	LTE B12	QPSK10M	23095	1	24	Left Tilted	3	1	1	23.5	23.35	0.029	0.018	0.030
L125	LTE B12	QPSK10M	23060	25	25	Right Cheek	3	1	1	23.5	23.24	0.053	0.027	0.056
L126	LTE B12	QPSK10M	23060	25	25	Right Tilted	3	1	1	23.5	23.24	0.047	0.023	0.049
L127	LTE B12	QPSK10M	23060	25	25	Left Cheek	3	1	1	23.5	23.24	0.026	0.016	0.027
L128	LTE B12	QPSK10M	23060	25	25	Left Tilted	3	1	1	23.5	23.24	0.023	0.014	0.024
L129	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	2	1	23.5	23.35	0.052	0.026	0.054
L130	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	2	23.5	23.35	0.061	0.030	0.063
L131	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	3	23.5	23.35	0.060	0.029	0.062
L573	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	4	23.5	23.35	0.066	0.030	0.069
L574	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	5	23.5	23.35	0.066	0.030	0.069
L575	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	6	23.5	23.35	0.063	0.030	0.065
L576	LTE B12	QPSK10M	23095	1	24	Right Tilted	3	1	7	23.5	23.35	**0.075**	**0.036**	**0.078**
L133	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	1	25	24.20	0.114	0.088	0.137
L134	LTE B26	QPSK15M	26765	1	37	Right Tilted	1	1	1	25	24.20	0.055	0.043	0.066
L135	LTE B26	QPSK15M	26765	1	37	Left Cheek	1	1	1	25	24.20	0.087	0.069	0.105
L136	LTE B26	QPSK15M	26765	1	37	Left Tilted	1	1	1	25	24.20	0.061	0.047	0.073
L137	LTE B26	QPSK15M	26965	36	0	Right Cheek	1	1	1	24	23.25	0.103	0.079	0.122
L138	LTE B26	QPSK15M	26965	36	0	Right Tilted	1	1	1	24	23.25	0.053	0.040	0.063
L139	LTE B26	QPSK15M	26965	36	0	Left Cheek	1	1	1	24	23.25	0.113	0.085	0.134
L140	LTE B26	QPSK15M	26965	36	0	Left Tilted	1	1	1	24	23.25	0.050	0.039	0.059
L141	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	2	1	25	24.20	0.085	0.067	0.102
L142	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	2	25	24.20	0.114	0.088	0.137
L143	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	3	25	24.20	**0.123**	**0.094**	**0.148**
L577	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	4	25	24.20	0.104	0.084	0.125
L578	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	5	25	24.20	0.108	0.086	0.130
L579	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	6	25	24.20	0.112	0.088	0.135
L580	LTE B26	QPSK15M	26765	1	37	Right Cheek	1	1	7	25	24.20	0.109	0.087	0.131

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L145	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	1	23.5	23.40	**0.553**	**0.288**	**0.566**
L146	LTE B26	QPSK15M	26765	1	37	Right Tilted	3	1	1	23.5	23.40	0.539	0.267	0.552
L147	LTE B26	QPSK15M	26765	1	37	Left Cheek	3	1	1	23.5	23.40	0.287	0.160	0.294
L148	LTE B26	QPSK15M	26765	1	37	Left Tilted	3	1	1	23.5	23.40	0.248	0.130	0.254
L149	LTE B26	QPSK15M	26765	36	0	Right Cheek	3	1	1	23.5	23.29	0.510	0.265	0.535
L150	LTE B26	QPSK15M	26765	36	0	Right Tilted	3	1	1	23.5	23.29	0.393	0.197	0.413
L151	LTE B26	QPSK15M	26765	36	0	Left Cheek	3	1	1	23.5	23.29	0.224	0.125	0.235
L152	LTE B26	QPSK15M	26765	36	0	Left Tilted	3	1	1	23.5	23.29	0.194	0.103	0.204
L153	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	2	1	23.5	23.40	0.503	0.255	0.515
L154	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	2	23.5	23.40	0.487	0.257	0.498
L155	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	3	23.5	23.40	0.538	0.258	0.551
L581	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	4	23.5	23.40	0.430	0.215	0.440
L582	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	5	23.5	23.40	0.529	0.265	0.541
L583	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	6	23.5	23.40	0.508	0.255	0.520
L584	LTE B26	QPSK15M	26765	1	37	Right Cheek	3	1	7	23.5	23.40	0.470	0.237	0.481
L157	LTE B66	QPSK20M	132072	1	50	Right Cheek	0	1	1	24.4	23.20	0.109	0.066	0.144
L158	LTE B66	QPSK20M	132072	1	50	Right Tilted	0	1	1	24.4	23.20	0.053	0.030	0.070
L159	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	1	24.4	23.20	**0.122**	**0.074**	**0.161**
L160	LTE B66	QPSK20M	132072	1	50	Left Tilted	0	1	1	24.4	23.20	0.052	0.030	0.069
L161	LTE B66	QPSK20M	132072	50	25	Right Cheek	0	1	1	23.4	22.05	0.071	0.043	0.096
L162	LTE B66	QPSK20M	132072	50	25	Right Tilted	0	1	1	23.4	22.05	0.045	0.026	0.061
L163	LTE B66	QPSK20M	132072	50	25	Left Cheek	0	1	1	23.4	22.05	0.096	0.058	0.131
L164	LTE B66	QPSK20M	132072	50	25	Left Tilted	0	1	1	23.4	22.05	0.048	0.027	0.066
L165	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	2	1	24.4	23.20	0.119	0.072	0.157
L166	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	2	24.4	23.20	0.116	0.071	0.153
L167	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	3	24.4	23.20	0.110	0.070	0.145
L585	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	4	24.4	23.20	0.074	0.047	0.097
L586	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	5	24.4	23.20	0.105	0.067	0.138
L587	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	6	24.4	23.20	0.114	0.071	0.150
L588	LTE B66	QPSK20M	132072	1	50	Left Cheek	0	1	7	24.4	23.20	0.074	0.046	0.097
L169	LTE B66	QPSK20M	132072	1	50	Right Cheek	2	1	1	20.9	19.96	0.271	0.135	0.336
L170	LTE B66	QPSK20M	132072	1	50	Right Tilted	2	1	1	20.9	19.96	0.399	0.193	0.495
L171	LTE B66	QPSK20M	132072	1	50	Left Cheek	2	1	1	20.9	19.96	0.354	0.185	0.439
L172	LTE B66	QPSK20M	132072	1	50	Left Tilted	2	1	1	20.9	19.96	0.249	0.133	0.309
L173	LTE B66	QPSK20M	132572	50	0	Right Cheek	2	1	1	20.9	19.89	0.375	0.187	0.473
L174	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	1	1	20.9	19.89	0.510	0.250	0.644
L175	LTE B66	QPSK20M	132572	50	0	Left Cheek	2	1	1	20.9	19.89	0.367	0.193	0.463
L176	LTE B66	QPSK20M	132572	50	0	Left Tilted	2	1	1	20.9	19.89	0.365	0.193	0.461
L177	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	1	20.9	19.89	0.542	0.259	0.684
L178	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	2	20.9	19.89	0.517	0.252	0.653
L179	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	3	20.9	19.89	0.499	0.246	0.630
L589	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	4	20.9	19.89	0.477	0.228	0.602
L590	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	5	20.9	19.89	**0.612**	**0.294**	**0.773**
L591	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	6	20.9	19.89	0.601	0.286	0.759
L592	LTE B66	QPSK20M	132572	50	0	Right Tilted	2	2	7	20.9	19.89	0.516	0.251	0.651

Note: The value with boldface is the maximum SAR Value of each test band.

4. Head SAR test results of 2.4G WiFi

Test No.	Band	Channel	Test Position	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W01	802.11b	11	Right Cheek	1	1	14	13.81	0.056	0.028	0.058
W02	802.11b	11	Right Tilted	1	1	14	13.81	0.018	0.004	0.018
W03	802.11b	11	Left Cheek	1	1	14	13.81	0.199	0.084	0.208
W04	802.11b	11	Left Tilted	1	1	14	13.81	0.068	0.033	0.071
W05	802.11b	11	Left Cheek	2	1	14	13.81	0.165	0.070	0.172
W06	802.11b	11	Left Cheek	3	1	14	13.81	0.166	0.069	0.173
W91	802.11b	11	Left Cheek	4	1	14	13.81	**0.263**	**0.111**	**0.275**
W92	802.11b	11	Left Cheek	5	1	14	13.81	0.256	0.105	0.267
W93	802.11b	11	Left Cheek	6	1	14	13.81	0.231	0.100	0.241
W94	802.11b	11	Left Cheek	7	1	14	13.81	0.252	0.103	0.263

Note: The value with boldface is the maximum SAR Value of each test band.

5. Head SAR test results of BT

Test No.	Band	Channel	Test Position	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
B01	BT DH5	39	Right Cheek	1	1	13	12.46	0.032	0.014	0.036
B02	BT DH5	39	Right Tilted	1	1	13	12.46	0.027	0.011	0.031
B03	BT DH5	39	Left Cheek	1	1	13	12.46	0.116	0.034	0.131
B04	BT DH5	39	Left Tilted	1	1	13	12.46	0.034	0.016	0.039
B05	BT DH5	39	Left Cheek	2	1	13	12.46	0.127	0.043	0.144
B06	BT DH5	39	Left Cheek	3	1	13	12.46	0.132	0.049	0.149
B18	BT DH5	39	Left Cheek	4	1	13	12.46	**0.162**	**0.067**	**0.183**
B19	BT DH5	39	Left Cheek	5	1	13	12.46	0.143	0.057	0.162
B20	BT DH5	39	Left Cheek	6	1	13	12.46	0.042	0.016	0.047
B21	BT DH5	39	Left Cheek	7	1	13	12.46	0.157	0.065	0.178

Note: The value with boldface is the maximum SAR Value of each test band.

6. Head SAR test results of 5G WiFi

Test No.	Band	Channel	Test Position	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W08	802.11a	52	Right Cheek	1	6	14	13.86	0.060	0.022	0.062
W09	802.11a	52	Right Tilted	1	6	14	13.86	0.022	0.007	0.022
W10	802.11a	52	Left Cheek	1	6	14	13.86	0.131	0.039	0.135
W11	802.11a	52	Left Tilted	1	6	14	13.86	0.050	0.017	0.051
W12	802.11a	52	Left Cheek	2	6	14	13.86	0.141	0.043	0.146
W13	802.11a	52	Left Cheek	3	6	14	13.86	0.146	0.053	0.151
W96	802.11a	52	Left Cheek	4	6	14	13.86	**0.188**	**0.060**	**0.194**
W97	802.11a	52	Left Cheek	5	6	14	13.86	0.175	0.055	0.181
W98	802.11a	52	Left Cheek	6	6	14	13.86	0.172	0.057	0.178
W99	802.11a	52	Left Cheek	7	6	14	13.86	0.181	0.061	0.187
W15	802.11a	104	Right Cheek	1	6	14	13.88	0.076	0.029	0.078
W16	802.11a	104	Right Tilted	1	6	14	13.88	0.047	0.016	0.048
W17	802.11a	104	Left Cheek	1	6	14	13.88	0.139	0.046	0.143
W18	802.11a	104	Left Tilted	1	6	14	13.88	0.078	0.024	0.081
W19	802.11a	104	Left Cheek	2	6	14	13.88	0.146	0.045	0.150
W20	802.11a	104	Left Cheek	3	6	14	13.88	0.192	0.060	0.197
W101	802.11a	104	Left Cheek	4	6	14	13.88	**0.211**	**0.060**	**0.217**
W102	802.11a	104	Left Cheek	5	6	14	13.88	0.183	0.043	0.188
W103	802.11a	104	Left Cheek	6	6	14	13.88	0.191	0.049	0.196
W104	802.11a	104	Left Cheek	7	6	14	13.88	0.198	0.052	0.204
W22	802.11ac VHT40	159	Right Cheek	1	MCS0	14	13.91	0.050	0.021	0.051
W23	802.11ac VHT40	159	Right Tilted	1	MCS0	14	13.91	0.023	0.008	0.023
W24	802.11ac VHT40	159	Left Cheek	1	MCS0	14	13.91	0.135	0.042	0.138
W25	802.11ac VHT40	159	Left Tilted	1	MCS0	14	13.91	0.047	0.015	0.048
W26	802.11ac VHT40	159	Left Cheek	2	MCS0	14	13.91	0.134	0.040	0.137
W27	802.11ac VHT40	159	Left Cheek	3	MCS0	14	13.91	0.106	0.036	0.108
W106	802.11ac VHT40	159	Right Cheek	4	MCS0	14	13.91	0.111	0.040	0.113
W107	802.11ac VHT40	159	Right Tilted	4	MCS0	14	13.91	0.051	0.015	0.052
W108	802.11ac VHT40	159	Left Cheek	4	MCS0	14	13.91	**0.299**	**0.080**	**0.305**
W109	802.11ac VHT40	159	Left Tilted	4	MCS0	14	13.91	0.104	0.028	0.106
W110	802.11ac VHT40	159	Left Cheek	5	MCS0	14	13.91	0.276	0.069	0.282
W111	802.11ac VHT40	159	Left Cheek	6	MCS0	14	13.91	0.286	0.070	0.292
W112	802.11ac VHT40	159	Left Cheek	7	MCS0	14	13.91	0.289	0.075	0.295

Note: The value with boldface is the maximum SAR Value of each test band.

7.2.2 SAR MEASUREMENT RESULT OF BODY-WORN

1. Body-worn SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G32	GSM 850	GSM	190	Front Face	1.5	1	1	1	1	34	33.12	0.134	0.092	0.164
G33	GSM 850	GSM	190	Rear Face	1.5	1	1	1	1	34	33.12	0.185	0.128	0.227
G34	GSM 850	GSM	190	Rear Face	1.5	1	2	1	1	34	33.12	0.159	0.115	0.195
G35	GSM 850	GSM	190	Rear Face	1.5	1	1	2	1	34	33.12	0.178	0.118	0.218
G36	GSM 850	GSM	190	Rear Face	1.5	1	1	3	1	34	33.12	0.161	0.116	0.197
G37	GSM 850	GSM	190	Rear Face	1.5	1	1	1	2	34	33.12	**0.193**	**0.134**	**0.236**
G38	GSM 850	GSM	190	Rear Face	1.5	1	1	1	3	34	33.12	0.163	0.117	0.200
G116	GSM 850	GSM	190	Rear Face	1.5	1	1	1	4	34	33.12	0.173	0.111	0.212
G117	GSM 850	GSM	190	Rear Face	1.5	1	1	1	5	34	33.12	0.185	0.124	0.227
G118	GSM 850	GSM	190	Rear Face	1.5	1	1	1	6	34	33.12	0.171	0.106	0.209
G119	GSM 850	GSM	190	Rear Face	1.5	1	1	1	7	34	33.12	0.179	0.112	0.219
G49	GSM 850	GSM	190	Front Face	1.5	3	1	1	1	34	33.49	0.091	0.055	0.102
G50	GSM 850	GSM	190	Rear Face	1.5	3	1	1	1	34	33.49	0.224	0.129	0.252
G51	GSM 850	GSM	190	Rear Face	1.5	3	2	1	1	34	33.49	0.237	0.145	0.267
G52	GSM 850	GSM	190	Rear Face	1.5	3	2	2	1	34	33.49	0.233	0.133	0.262
G53	GSM 850	GSM	190	Rear Face	1.5	3	2	3	1	34	33.49	0.238	0.144	0.268
G54	GSM 850	GSM	190	Rear Face	1.5	3	2	3	2	34	33.49	**0.247**	**0.145**	**0.278**
G55	GSM 850	GSM	190	Rear Face	1.5	3	2	3	3	34	33.49	0.206	0.115	0.232
G120	GSM 850	GSM	190	Rear Face	1.5	3	2	3	4	34	33.49	0.214	0.114	0.241
G121	GSM 850	GSM	190	Rear Face	1.5	3	2	3	5	34	33.49	0.205	0.103	0.231
G122	GSM 850	GSM	190	Rear Face	1.5	3	2	3	6	34	33.49	0.226	0.129	0.254
G123	GSM 850	GSM	190	Rear Face	1.5	3	2	3	7	34	33.49	0.195	0.107	0.219
G65	GSM 1900	GSM	661	Front Face	1.5	0	1	1	1	31	29.49	0.073	0.044	0.103
G66	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	1	31	29.49	0.117	0.071	0.166
G67	GSM 1900	GSM	661	Rear Face	1.5	0	2	1	1	31	29.49	0.114	0.070	0.161
G68	GSM 1900	GSM	661	Rear Face	1.5	0	1	2	1	31	29.49	0.109	0.064	0.154
G69	GSM 1900	GSM	661	Rear Face	1.5	0	1	3	1	31	29.49	0.113	0.068	0.160
G70	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	2	31	29.49	0.112	0.069	0.159
G71	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	3	31	29.49	0.106	0.064	0.150
G124	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	4	31	29.49	0.135	0.081	0.191
G125	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	5	31	29.49	**0.144**	**0.087**	**0.204**
G126	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	6	31	29.49	0.141	0.084	0.200
G127	GSM 1900	GSM	661	Rear Face	1.5	0	1	1	7	31	29.49	0.132	0.080	0.187
G82	GSM 1900	GSM	661	Front Face	1.5	2	1	1	1	30	29.3	0.104	0.063	0.122
G83	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	1	30	29.3	**0.181**	**0.105**	**0.213**
G84	GSM 1900	GSM	661	Rear Face	1.5	2	2	1	1	30	29.3	0.167	0.099	0.196
G85	GSM 1900	GSM	661	Rear Face	1.5	2	1	2	1	30	29.3	0.172	0.102	0.202
G86	GSM 1900	GSM	661	Rear Face	1.5	2	1	3	1	30	29.3	0.178	0.103	0.209
G87	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	2	30	29.3	0.164	0.095	0.193
G88	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	3	30	29.3	0.174	0.098	0.204
G128	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	4	30	29.3	0.138	0.076	0.162
G129	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	5	30	29.3	0.135	0.074	0.159
G130	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	6	30	29.3	0.142	0.081	0.167
G131	GSM 1900	GSM	661	Rear Face	1.5	2	1	1	7	30	29.3	0.145	0.086	0.170

Note: The value with boldface is the maximum SAR Value of each test band.

2. Body-worn SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U50	UMTS B2	RMC12.2K	9400	Front Face	1.5	0	1	1	1	24	22.7	0.123	0.075	0.166
U51	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	1	24	22.7	0.219	0.132	0.295
U52	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	2	1	1	24	22.7	0.180	0.110	0.243
U53	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	2	1	24	22.7	0.208	0.125	0.281
U54	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	3	1	24	22.7	0.212	0.129	0.286
U55	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	2	24	22.7	0.174	0.105	0.235
U56	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	3	24	22.7	**0.222**	**0.136**	**0.299**
U174	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	4	24	22.7	0.216	0.131	0.291
U175	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	5	24	22.7	0.212	0.131	0.286
U176	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	6	24	22.7	0.207	0.121	0.279
U177	UMTS B2	RMC12.2K	9400	Rear Face	1.5	0	1	1	7	24	22.7	0.148	0.0912	0.200
U67	UMTS B2	RMC12.2K	9400	Front Face	1.5	2	1	1	1	22.5	21.32	0.140	0.084	0.184
U68	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	1	22.5	21.32	0.262	0.151	0.344
U69	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	2	1	1	22.5	21.32	0.236	0.135	0.310
U70	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	2	1	22.5	21.32	0.203	0.114	0.266
U71	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	3	1	22.5	21.32	0.207	0.119	0.272
U72	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	2	22.5	21.32	0.182	0.106	0.239
U73	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	3	22.5	21.32	**0.272**	**0.157**	**0.357**
U178	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	4	22.5	21.32	0.209	0.124	0.274
U179	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	5	22.5	21.32	0.215	0.126	0.282
U180	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	6	22.5	21.32	0.184	0.108	0.241
U181	UMTS B2	RMC12.2K	9400	Rear Face	1.5	2	1	1	7	22.5	21.32	0.195	0.122	0.256
U83	UMTS B4	RMC12.2K	1413	Front Face	1.5	0	1	1	1	24	22.68	0.196	0.130	0.266
U84	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	1	24	22.68	**0.279**	**0.173**	**0.378**
U85	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	2	1	1	24	22.68	0.198	0.133	0.268
U86	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	2	1	24	22.68	0.268	0.167	0.363
U87	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	3	1	24	22.68	0.273	0.169	0.370
U88	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	2	24	22.68	0.270	0.168	0.366
U89	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	3	24	22.68	0.161	0.109	0.218
U182	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	4	24	22.68	0.192	0.127	0.260
U183	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	5	24	22.68	0.224	0.143	0.304
U184	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	6	24	22.68	0.21	0.133	0.285
U185	UMTS B4	RMC12.2K	1413	Rear Face	1.5	0	1	1	7	24	22.68	0.173	0.112	0.234
U100	UMTS B4	RMC12.2K	1413	Front Face	1.5	2	1	1	1	21.8	20.74	0.073	0.044	0.093
U101	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	1	1	1	21.8	20.74	0.147	0.083	0.188
U102	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	1	21.8	20.74	**0.161**	**0.093**	**0.206**
U103	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	2	1	21.8	20.74	0.146	0.083	0.186
U104	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	3	1	21.8	20.74	0.159	0.089	0.203
U105	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	2	21.8	20.74	0.123	0.069	0.157
U106	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	3	21.8	20.74	0.150	0.086	0.191
U186	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	4	21.8	20.74	0.144	0.0717	0.184
U187	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	5	21.8	20.74	0.157	0.089	0.200
U188	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	6	21.8	20.74	0.123	0.0591	0.157
U189	UMTS B4	RMC12.2K	1413	Rear Face	1.5	2	2	1	7	21.8	20.74	0.139	0.0771	0.177

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U116	UMTS B5	RMC12.2K	4182	Front Face	1.5	1	1	1	1	25	23.93	0.235	0.157	0.301
U117	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	1	25	23.93	0.269	0.184	0.344
U118	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	2	1	1	25	23.93	0.263	0.179	0.336
U119	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	2	1	25	23.93	0.261	0.178	0.334
U120	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	3	1	25	23.93	0.265	0.181	0.339
U121	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	2	25	23.93	0.266	0.183	0.340
U122	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	3	25	23.93	**0.270**	**0.184**	**0.345**
U190	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	4	25	23.93	0.187	0.122	0.239
U191	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	5	25	23.93	0.234	0.154	0.299
U192	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	6	25	23.93	0.225	0.138	0.288
U193	UMTS B5	RMC12.2K	4182	Rear Face	1.5	1	1	1	7	25	23.93	0.192	0.127	0.246
U133	UMTS B5	RMC12.2K	4182	Front Face	1.5	3	1	1	1	25	23.63	0.132	0.074	0.181
U134	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	1	1	1	25	23.63	0.230	0.135	0.315
U135	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	1	1	25	23.63	0.251	0.143	0.344
U136	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	2	1	25	23.63	0.243	0.142	0.333
U137	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	1	25	23.63	**0.261**	**0.154**	**0.358**
U138	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	2	25	23.63	0.199	0.119	0.273
U139	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	3	25	23.63	0.231	0.132	0.317
U194	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	4	25	23.63	0.211	0.115	0.289
U195	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	5	25	23.63	0.245	0.141	0.336
U196	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	6	25	23.63	0.213	0.129	0.292
U197	UMTS B5	RMC12.2K	4182	Rear Face	1.5	3	2	3	7	25	23.63	0.199	0.115	0.273

Note: The value with boldface is the maximum SAR Value of each test band.

3. Body-worn SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L180	LTE B2	QPSK20M	18700	1	50	Front Face	1.5	0	1	1	1	24	22.32	0.141	0.087	0.207
L181	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	1	24	22.32	0.189	0.115	0.278
L182	LTE B2	QPSK20M	18700	50	0	Front Face	1.5	0	1	1	1	23	21.11	0.116	0.075	0.179
L183	LTE B2	QPSK20M	18700	50	0	Rear Face	1.5	0	1	1	1	23	21.11	0.147	0.090	0.227
L184	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	2	1	1	24	22.32	0.186	0.113	0.274
L185	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	2	1	24	22.32	0.181	0.106	0.266
L186	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	3	1	24	22.32	0.175	0.101	0.257
L187	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	2	24	22.32	0.219	0.136	0.322
L188	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	3	24	22.32	0.224	0.137	0.330
L593	LTE B2	QPSK20M	18700	1	50	Front Face	1.5	0	1	1	4	24	22.32	0.205	0.125	0.302
L594	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	4	24	22.32	0.307	0.195	0.452
L595	LTE B2	QPSK20M	18700	50	0	Front Face	1.5	0	1	1	4	23	21.11	0.194	0.111	0.299
L596	LTE B2	QPSK20M	18700	50	0	Rear Face	1.5	0	1	1	4	23	21.11	0.288	0.154	0.445
L597	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	2	1	4	24	22.32	0.193	0.108	0.284
L598	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	2	4	24	22.32	0.201	0.117	0.296
L599	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	3	4	24	22.32	0.198	0.111	0.291
L600	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	5	24	22.32	**0.326**	**0.190**	**0.480**
L601	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	6	24	22.32	0.270	0.175	0.397
L602	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	0	1	1	7	24	22.32	0.248	0.161	0.365
L204	LTE B2	QPSK20M	18700	1	50	Front Face	1.5	2	1	1	1	22.5	21.17	0.132	0.069	0.179
L205	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	1	22.5	21.17	0.282	0.164	0.383
L206	LTE B2	QPSK20M	18700	50	25	Front Face	1.5	2	1	1	1	22.5	21.05	0.134	0.071	0.187
L207	LTE B2	QPSK20M	18700	50	25	Rear Face	1.5	2	1	1	1	22.5	21.05	0.242	0.141	0.338
L208	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	2	1	1	22.5	21.17	0.235	0.137	0.319
L209	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	2	1	22.5	21.17	0.271	0.135	0.368
L210	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	3	1	22.5	21.17	0.264	0.134	0.358
L211	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	2	22.5	21.17	0.268	0.138	0.364
L212	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	3	22.5	21.17	**0.283**	**0.163**	**0.384**
L603	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	4	22.5	21.17	0.262	0.147	0.356
L604	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	5	22.5	21.17	0.256	0.148	0.348
L605	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	6	22.5	21.17	0.249	0.142	0.338
L606	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	2	1	1	7	22.5	21.17	0.272	0.157	0.369
L226	LTE B4	QPSK20M	20300	1	50	Front Face	1.5	0	1	1	1	24.2	23.30	0.324	0.191	0.399
L227	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	1	1	1	24.2	23.30	0.404	0.236	0.497
L228	LTE B4	QPSK20M	20175	50	25	Front Face	1.5	0	1	1	1	23.4	22.41	0.252	0.148	0.316
L229	LTE B4	QPSK20M	20175	50	25	Rear Face	1.5	0	1	1	1	23.4	22.41	0.297	0.174	0.373
L230	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	1	24.2	23.30	**0.407**	**0.238**	**0.501**
L231	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	2	1	24.2	23.30	0.397	0.231	0.488
L232	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	3	1	24.2	23.30	0.401	0.234	0.493
L233	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	2	24.2	23.30	0.355	0.214	0.437
L234	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	3	24.2	23.30	0.325	0.181	0.400
L607	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	4	24.2	23.30	0.011	0.002	0.014
L608	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	5	24.2	23.30	0.011	0.002	0.014
L609	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	6	24.2	23.30	0.009	0.002	0.011
L610	LTE B4	QPSK20M	20300	1	50	Rear Face	1.5	0	2	1	7	24.2	23.30	0.237	0.143	0.292

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L250	LTE B4	QPSK20M	20050	1	50	Front Face	1.5	2	1	1	1	21.8	20.98	0.065	0.037	0.078
L251	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	2	1	1	1	21.8	20.98	0.155	0.086	0.187
L252	LTE B4	QPSK20M	20175	50	0	Front Face	1.5	2	1	1	1	21.8	20.93	0.092	0.051	0.112
L253	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	1	21.8	20.93	0.165	0.092	0.202
L254	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	2	1	1	21.8	20.93	0.161	0.084	0.197
L255	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	2	1	21.8	20.93	0.156	0.086	0.191
L256	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	3	1	21.8	20.93	0.157	0.082	0.192
L257	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	2	21.8	20.93	0.184	0.104	0.225
L258	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	3	21.8	20.93	0.167	0.091	0.204
L611	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	4	21.8	20.93	0.223	0.124	0.273
L612	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	5	21.8	20.93	**0.228**	**0.133**	**0.279**
L613	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	6	21.8	20.93	0.221	0.127	0.270
L614	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	2	1	1	7	21.8	20.93	0.167	0.099	0.204
L272	LTE B5	QPSK10M	20450	1	24	Front Face	1.5	1	1	1	1	25	24.35	0.134	0.092	0.156
L273	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	1	1	1	25	24.35	0.215	0.147	0.250
L274	LTE B5	QPSK10M	20450	25	25	Front Face	1.5	1	1	1	1	24	23.34	0.131	0.091	0.152
L275	LTE B5	QPSK10M	20450	25	25	Rear Face	1.5	1	1	1	1	24	23.34	0.166	0.113	0.193
L276	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	1	25	24.35	0.218	0.148	0.253
L277	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	2	1	25	24.35	0.215	0.146	0.250
L278	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	3	1	25	24.35	0.217	0.149	0.252
L279	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	2	25	24.35	0.231	0.159	0.268
L280	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	3	25	24.35	0.205	0.140	0.238
L615	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	4	25	24.35	0.201	0.135	0.233
L616	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	5	25	24.35	0.245	0.166	0.285
L617	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	6	25	24.35	**0.254**	**0.171**	**0.295**
L618	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	1	2	1	7	25	24.35	0.234	0.159	0.272
L296	LTE B5	QPSK10M	20525	1	24	Front Face	1.5	3	1	1	1	25	24.34	0.094	0.057	0.109
L297	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	1	1	25	24.34	0.205	0.213	0.239
L298	LTE B5	QPSK10M	20450	25	25	Front Face	1.5	3	1	1	1	24	23.64	0.082	0.049	0.089
L299	LTE B5	QPSK10M	20450	25	25	Rear Face	1.5	3	1	1	1	24	23.64	0.171	0.101	0.186
L300	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	2	1	1	25	24.34	0.202	0.118	0.235
L301	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	2	1	25	24.34	0.204	0.121	0.238
L302	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	1	25	24.34	**0.220**	**0.130**	**0.256**
L303	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	2	25	24.34	0.206	0.123	0.240
L304	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	3	25	24.34	0.183	0.109	0.213
L619	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	4	25	24.34	0.183	0.103	0.213
L620	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	5	25	24.34	0.201	0.117	0.234
L621	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	6	25	24.34	0.196	0.111	0.228
L622	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	3	1	3	7	25	24.34	0.163	0.089	0.190

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L321	LTE B7	QPKS20M	21350	1	50	Front Face	1.5	0	1	1	1	23.1	23.09	0.156	0.082	0.156
L322	LTE B7	QPKS20M	21350	1	50	Rear Face	1.5	0	1	1	1	23.1	23.09	0.223	0.112	0.224
L323	LTE B7	QPKS20M	21350	50	25	Front Face	1.5	0	1	1	1	23.1	22.85	0.162	0.084	0.172
L324	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	1	1	23.1	22.85	0.224	0.113	0.237
L327	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	2	1	1	23.1	22.85	0.221	0.113	0.234
L328	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	2	1	23.1	22.85	0.226	0.115	0.239
L329	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	1	23.1	22.85	0.231	0.122	0.245
L330	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	2	23.1	22.85	0.229	0.118	0.243
L331	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	3	23.1	22.85	**0.241**	**0.123**	**0.255**
L623	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	4	23.1	22.85	0.177	0.091	0.187
L624	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	5	23.1	22.85	0.202	0.100	0.214
L625	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	6	23.1	22.85	0.178	0.083	0.189
L626	LTE B7	QPKS20M	21350	50	25	Rear Face	1.5	0	1	3	7	23.1	22.85	0.180	0.090	0.191
L348	LTE B7	QPKS20M	21350	1	50	Front Face	1.5	2	1	1	1	22.4	21.91	0.051	0.026	0.057
L349	LTE B7	QPKS20M	21350	1	50	Rear Face	1.5	2	1	1	1	22.4	21.91	0.066	0.037	0.073
L350	LTE B7	QPKS20M	21100	50	0	Front Face	1.5	2	1	1	1	22.4	21.65	0.059	0.031	0.070
L351	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	1	1	22.4	21.65	0.096	0.052	0.114
L352	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	2	1	1	22.4	21.65	0.087	0.045	0.103
L353	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	2	1	22.4	21.65	0.076	0.040	0.091
L354	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	1	22.4	21.65	**0.105**	**0.053**	**0.125**
L355	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	2	22.4	21.65	0.101	0.052	0.120
L356	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	3	22.4	21.65	0.085	0.045	0.101
L627	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	4	22.4	21.65	0.033	0.017	0.040
L628	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	5	22.4	21.65	0.045	0.025	0.054
L629	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	6	22.4	21.65	0.037	0.020	0.044
L630	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	2	1	3	7	22.4	21.65	0.034	0.018	0.041
L370	LTE B7	QPKS20M	21350	1	50	Front Face	1.5	4	1	1	1	21.8	20.98	0.102	0.052	0.123
L371	LTE B7	QPKS20M	21350	1	50	Rear Face	1.5	4	1	1	1	21.8	20.98	0.273	0.130	0.330
L372	LTE B7	QPKS20M	21100	50	0	Front Face	1.5	4	1	1	1	21.8	20.79	0.118	0.061	0.149
L373	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	1	21.8	20.79	**0.299**	**0.143**	**0.377**
L374	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	2	1	1	21.8	20.79	0.276	0.132	0.348
L375	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	2	1	21.8	20.79	0.266	0.124	0.336
L376	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	3	1	21.8	20.79	0.279	0.135	0.352
L377	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	2	21.8	20.79	0.266	0.121	0.336
L378	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	3	21.8	20.79	0.237	0.115	0.299
L631	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	4	21.8	20.79	0.123	0.060	0.155
L632	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	5	21.8	20.79	0.170	0.084	0.215
L633	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	6	21.8	20.79	0.140	0.070	0.177
L634	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	4	1	1	7	21.8	20.79	0.181	0.089	0.228

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L390	LTE B12	QPSK10M	23060	1	24	Front Face	1.5	1	1	1	1	25	24.03	0.125	0.091	0.156
L391	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	1	25	24.03	0.169	0.120	0.211
L392	LTE B12	QPSK10M	23060	25	25	Front Face	1.5	1	1	1	1	24	23.01	0.103	0.075	0.129
L393	LTE B12	QPSK10M	23060	25	25	Rear Face	1.5	1	1	1	1	24	23.01	0.143	0.101	0.180
L394	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	2	1	1	25	24.03	0.167	0.120	0.209
L395	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	2	1	25	24.03	0.158	0.112	0.198
L396	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	3	1	25	24.03	0.163	0.116	0.204
L397	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	2	25	24.03	**0.183**	**0.131**	**0.229**
L398	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	3	25	24.03	0.181	0.129	0.226
L635	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	4	25	24.03	0.146	0.095	0.183
L636	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	5	25	24.03	0.142	0.092	0.178
L637	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	6	25	24.03	0.138	0.091	0.173
L638	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	1	1	1	7	25	24.03	0.152	0.100	0.190
L414	LTE B12	QPSK10M	23130	1	24	Front Face	1.5	3	1	1	1	25	24.43	0.007	0.005	0.008
L415	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	1	25	24.43	0.025	0.015	0.029
L416	LTE B12	QPSK10M	23130	25	0	Front Face	1.5	3	1	1	1	24	23.87	0.008	0.004	0.008
L417	LTE B12	QPSK10M	23130	25	0	Rear Face	1.5	3	1	1	1	24	23.87	0.016	0.009	0.016
L418	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	2	1	1	25	24.43	0.021	0.011	0.024
L419	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	2	1	25	24.43	0.025	0.019	0.028
L420	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	3	1	25	24.43	0.014	0.007	0.016
L421	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	2	25	24.43	0.033	0.020	0.037
L422	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	3	25	24.43	0.028	0.013	0.032
L639	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	4	25	24.43	**0.038**	**0.022**	**0.043**
L640	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	5	25	24.43	0.0147	0.00613	0.017
L641	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	6	25	24.43	0.0231	0.0113	0.026
L642	LTE B12	QPSK10M	23130	1	24	Rear Face	1.5	3	1	1	7	25	24.43	0.0172	0.00876	0.020
L436	LTE B26	QPSK15M	26765	1	37	Front Face	1.5	1	1	1	1	25	24.20	0.169	0.116	0.203
L437	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	1	25	24.20	0.234	0.161	0.281
L438	LTE B26	QPSK15M	26965	36	0	Front Face	1.5	1	1	1	1	24	23.25	0.135	0.090	0.161
L439	LTE B26	QPSK15M	26965	36	0	Rear Face	1.5	1	1	1	1	24	23.25	0.208	0.141	0.247
L440	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	2	1	1	25	24.20	0.231	0.157	0.278
L441	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	2	1	25	24.20	0.228	0.151	0.274
L442	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	3	1	25	24.20	0.219	0.146	0.263
L443	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	2	25	24.20	**0.252**	**0.173**	**0.303**
L444	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	3	25	24.20	0.231	0.162	0.278
L643	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	4	25	24.20	0.205	0.136	0.247
L644	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	5	25	24.20	0.188	0.115	0.226
L645	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	6	25	24.20	0.250	0.167	0.301
L646	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	1	1	1	7	25	24.20	0.232	0.146	0.279

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Earphone	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L460	LTE B26	QPSK15M	26765	1	37	Front Face	1.5	3	1	1	1	25	24.38	0.081	0.050	0.094
L461	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	1	1	25	24.38	0.194	0.121	0.224
L462	LTE B26	QPSK15M	26765	36	0	Front Face	1.5	3	1	1	1	24	23.47	0.064	0.040	0.072
L463	LTE B26	QPSK15M	26765	36	0	Rear Face	1.5	3	1	1	1	24	23.47	0.166	0.100	0.187
L464	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	2	1	1	25	24.38	0.186	0.115	0.215
L465	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	2	1	25	24.38	0.212	0.131	0.245
L466	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	1	25	24.38	0.213	0.126	0.246
L467	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	2	25	24.38	0.216	0.127	0.249
L468	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	3	25	24.38	0.191	0.114	0.220
L647	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	4	25	24.38	**0.274**	**0.154**	**0.316**
L648	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	5	25	24.38	0.184	0.11	0.212
L649	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	6	25	24.38	0.191	0.115	0.220
L650	LTE B26	QPSK15M	26765	1	37	Rear Face	1.5	3	1	3	7	25	24.38	0.212	0.115	0.245
L484	LTE B66	QPSK20M	132072	1	50	Front Face	1.5	0	1	1	1	24.2	23.20	0.151	0.089	0.190
L485	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	1	24.2	23.20	**0.292**	**0.175**	**0.368**
L486	LTE B66	QPSK20M	132072	50	25	Front Face	1.5	0	1	1	1	23.4	22.55	0.185	0.111	0.225
L487	LTE B66	QPSK20M	132072	50	25	Rear Face	1.5	0	1	1	1	23.4	22.55	0.231	0.138	0.281
L488	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	2	1	1	24.2	23.20	0.231	0.139	0.291
L489	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	2	1	24.2	23.20	0.254	0.161	0.320
L490	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	3	1	24.2	23.20	0.261	0.165	0.329
L491	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	2	24.2	23.20	0.258	0.157	0.325
L492	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	3	24.2	23.20	0.251	0.149	0.316
L651	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	4	24.2	23.20	0.214	0.136	0.270
L652	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	5	24.2	23.20	0.243	0.15	0.306
L653	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	6	24.2	23.20	0.191	0.121	0.241
L654	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	0	1	1	7	24.2	23.20	0.246	0.154	0.310
L508	LTE B66	QPSK20M	132072	1	50	Front Face	1.5	2	1	1	1	21.8	20.87	0.089	0.052	0.110
L509	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	2	1	1	1	21.8	20.87	0.135	0.076	0.167
L510	LTE B66	QPSK20M	132322	50	25	Front Face	1.5	2	1	1	1	21.8	20.76	0.084	0.050	0.107
L511	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	1	21.8	20.76	0.161	0.092	0.204
L512	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	2	1	1	21.8	20.76	0.156	0.088	0.198
L513	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	3	1	2	1	21.8	20.76	0.151	0.083	0.192
L514	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	3	1	3	1	21.8	20.76	0.122	0.067	0.155
L515	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	2	21.8	20.76	0.157	0.087	0.199
L516	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	3	21.8	20.76	0.159	0.091	0.202
L655	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	4	21.8	20.76	**0.178**	**0.102**	**0.226**
L656	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	5	21.8	20.76	0.144	0.086	0.183
L657	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	6	21.8	20.76	0.122	0.073	0.155
L658	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	2	1	1	7	21.8	20.76	0.113	0.067	0.144

Note: The value with boldface is the maximum SAR Value of each test band.

4. Body-worn SAR test results of 2.4G WiFi

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W28	802.11b	6	Front Face	1.5	1	1	19.5	19.44	0.100	0.051	0.101
W29	802.11b	6	Rear Face	1.5	1	1	19.5	19.44	**0.214**	**0.107**	**0.217**
W30	802.11b	6	Rear Face	1.5	2	1	19.5	19.44	0.192	0.096	0.195
W31	802.11b	6	Rear Face	1.5	3	1	19.5	19.44	0.212	0.106	0.215
W114	802.11b	6	Rear Face	1.5	4	1	19.5	19.44	0.187	0.094	0.190
W115	802.11b	6	Rear Face	1.5	5	1	19.5	19.44	0.169	0.087	0.171
W116	802.11b	6	Rear Face	1.5	6	1	19.5	19.44	0.161	0.082	0.163
W117	802.11b	6	Rear Face	1.5	7	1	19.5	19.44	0.183	0.091	0.186

Note: The value with boldface is the maximum SAR Value of each test band.

5. Body-worn SAR test results of BT

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
B07	BT DH5	39	Front Face	1.5	1	1	13	12.46	0.018	0.080	0.020
B08	BT DH5	39	Rear Face	1.5	1	1	13	12.46	0.026	0.012	0.029
B09	BT DH5	39	Rear Face	1.5	2	1	13	12.46	0.028	0.013	0.032
B10	BT DH5	39	Rear Face	1.5	3	1	13	12.46	0.027	0.011	0.030
B22	BT DH5	39	Rear Face	1.5	4	1	13	12.46	**0.032**	**0.015**	**0.036**
B23	BT DH5	39	Rear Face	1.5	5	1	13	12.46	0.026	0.012	0.029
B24	BT DH5	39	Rear Face	1.5	6	1	13	12.46	0.013	0.006	0.015
B25	BT DH5	39	Rear Face	1.5	7	1	13	12.46	0.029	0.013	0.033

Note: The value with boldface is the maximum SAR Value of each test band.

6. Body-worn SAR test results of 5G WiFi

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W47	802.11a	52	Front Face	1.5	1	6	19	18.63	0.044	0.019	0.048
W48	802.11a	52	Rear Face	1.5	1	6	19	18.63	**0.109**	**0.044**	**0.119**
W49	802.11a	52	Rear Face	1.5	2	6	19	18.63	0.101	0.040	0.110
W50	802.11a	52	Rear Face	1.5	3	6	19	18.63	0.106	0.041	0.115
W131	802.11a	52	Rear Face	1.5	4	6	19	18.63	0.069	0.028	0.075
W132	802.11a	52	Rear Face	1.5	5	6	19	18.63	0.092	0.031	0.100
W133	802.11a	52	Rear Face	1.5	6	6	19	18.63	0.099	0.039	0.108
W134	802.11a	52	Rear Face	1.5	7	6	19	18.63	0.086	0.033	0.094
W59	802.11a	108	Front Face	1.5	1	6	19	18.88	0.100	0.041	0.103
W60	802.11a	108	Rear Face	1.5	1	6	19	18.88	**0.221**	**0.088**	**0.227**
W61	802.11a	108	Rear Face	1.5	2	6	19	18.88	0.193	0.077	0.198
W62	802.11a	108	Rear Face	1.5	3	6	19	18.88	0.188	0.074	0.193
W141	802.11a	108	Rear Face	1.5	4	6	19	18.88	0.201	0.079	0.207
W142	802.11a	108	Rear Face	1.5	5	6	19	18.88	0.196	0.077	0.201
W143	802.11a	108	Rear Face	1.5	6	6	19	18.88	0.203	0.072	0.209
W144	802.11a	108	Rear Face	1.5	7	6	19	18.88	0.209	0.084	0.215
W71	802.11ac VHT20	153	Front Face	1.5	1	MCS0	19	18.81	0.146	0.054	0.153
W72	802.11ac VHT20	153	Rear Face	1.5	1	MCS0	19	18.81	0.243	0.094	0.254
W73	802.11ac VHT20	153	Rear Face	1.5	2	MCS0	19	18.81	0.276	0.103	0.288
W74	802.11ac VHT20	153	Rear Face	1.5	3	MCS0	19	18.81	0.317	0.123	0.331
W151	802.11ac VHT20	153	Front Face	1.5	4	MCS0	19	18.81	0.167	0.071	0.174
W152	802.11ac VHT20	153	Rear Face	1.5	4	MCS0	19	18.81	0.357	0.137	0.373
W153	802.11ac VHT20	153	Rear Face	1.5	5	MCS0	19	18.81	0.412	0.167	0.430
W154	802.11ac VHT20	153	Rear Face	1.5	6	MCS0	19	18.81	**0.491**	**0.180**	**0.513**
W155	802.11ac VHT20	153	Rear Face	1.5	7	MCS0	19	18.81	0.445	0.171	0.465

Note: The value with boldface is the maximum SAR Value of each test band.

7.2.3 SAR MEASUREMENT RESULT OF HOTSPOT

1. Hotspot SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G40	GSM 850	GPRS2TX	190	Front Face	1	1	1	1	30.1	29.08	0.160	0.102	0.202
G41	GSM 850	GPRS2TX	190	Rear Face	1	1	1	1	30.1	29.08	0.235	0.153	0.297
G42	GSM 850	GPRS2TX	190	Left Side	1	1	1	1	30.1	29.08	0.059	0.041	0.075
G43	GSM 850	GPRS2TX	190	Right Side	1	1	1	1	30.1	29.08	0.125	0.087	0.158
G44	GSM 850	GPRS2TX	190	Bottom Side	1	1	1	1	30.1	29.08	0.116	0.066	0.147
G45	GSM 850	GPRS2TX	190	Rear Face	1	1	2	1	30.1	29.08	0.192	0.121	0.243
G46	GSM 850	GPRS2TX	190	Rear Face	1	1	1	2	30.1	29.08	**0.248**	**0.162**	**0.314**
G47	GSM 850	GPRS2TX	190	Rear Face	1	1	1	3	30.1	29.08	0.182	0.120	0.230
G132	GSM 850	GPRS2TX	190	Rear Face	1	1	1	4	30.1	29.08	0.205	0.133	0.259
G133	GSM 850	GPRS2TX	190	Rear Face	1	1	1	5	30.1	29.08	0.224	0.144	0.283
G134	GSM 850	GPRS2TX	190	Rear Face	1	1	1	6	30.1	29.08	0.221	0.141	0.280
G135	GSM 850	GPRS2TX	190	Rear Face	1	1	1	7	30.1	29.08	0.193	0.128	0.244
G57	GSM 850	GPRS2TX	190	Front Face	1	3	1	1	30.4	29.64	0.177	0.101	0.211
G58	GSM 850	GPRS2TX	190	Rear Face	1	3	1	1	30.4	29.64	**0.348**	**0.195**	**0.415**
G59	GSM 850	GPRS2TX	190	Left Side	1	3	1	1	30.4	29.64	0.229	0.117	0.273
G60	GSM 850	GPRS2TX	190	Top Side	1	3	1	1	30.4	29.64	0.191	0.094	0.228
G61	GSM 850	GPRS2TX	190	Rear Face	1	3	2	1	30.4	29.64	0.328	0.185	0.391
G62	GSM 850	GPRS2TX	190	Rear Face	1	3	1	2	30.4	29.64	0.333	0.187	0.397
G63	GSM 850	GPRS2TX	190	Rear Face	1	3	1	3	30.4	29.64	0.295	0.166	0.351
G136	GSM 850	GPRS2TX	190	Rear Face	1	3	1	4	30.4	29.64	0.301	0.162	0.359
G137	GSM 850	GPRS2TX	190	Rear Face	1	3	1	5	30.4	29.64	0.268	0.127	0.319
G138	GSM 850	GPRS2TX	190	Rear Face	1	3	1	6	30.4	29.64	0.282	0.147	0.336
G139	GSM 850	GPRS2TX	190	Rear Face	1	3	1	7	30.4	29.64	0.265	0.124	0.316
G73	GSM 1900	GPRS2TX	661	Front Face	1	0	1	1	27	25.53	0.110	0.067	0.154
G74	GSM 1900	GPRS2TX	661	Rear Face	1	0	1	1	27	25.53	0.205	0.123	0.288
G75	GSM 1900	GPRS2TX	661	Left Side	1	0	1	1	27	25.53	0.041	0.023	0.057
G76	GSM 1900	GPRS2TX	661	Right Side	1	0	1	1	27	25.53	0.026	0.014	0.036
G77	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	1	27	25.53	0.317	0.172	0.445
G78	GSM 1900	GPRS2TX	661	Bottom Side	1	0	2	1	27	25.53	0.314	0.162	0.440
G79	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	2	27	25.53	**0.328**	**0.178**	**0.460**
G80	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	3	27	25.53	0.322	0.178	0.452
G140	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	4	27	25.53	0.151	0.083	0.212
G141	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	5	27	25.53	0.155	0.087	0.217
G142	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	6	27	25.53	0.131	0.081	0.184
G143	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	7	27	25.53	0.146	0.079	0.205
G90	GSM 1900	GPRS2TX	661	Front Face	1	2	1	1	25	24.43	0.089	0.052	0.102
G91	GSM 1900	GPRS2TX	661	Rear Face	1	2	1	1	25	24.43	0.214	0.120	0.244
G92	GSM 1900	GPRS2TX	661	Left Side	1	2	1	1	25	24.43	0.008	0.003	0.009
G93	GSM 1900	GPRS2TX	661	Top Side	1	2	1	1	25	24.43	0.283	0.150	0.323
G94	GSM 1900	GPRS2TX	661	Top Side	1	2	2	1	25	24.43	**0.302**	**0.161**	**0.344**
G95	GSM 1900	GPRS2TX	661	Top Side	1	2	2	2	25	24.43	0.270	0.145	0.308
G96	GSM 1900	GPRS2TX	661	Top Side	1	2	2	3	25	24.43	0.290	0.155	0.330
G144	GSM 1900	GPRS2TX	661	Top Side	1	2	2	4	25	24.43	0.124	0.069	0.141
G145	GSM 1900	GPRS2TX	661	Top Side	1	2	2	5	25	24.43	0.127	0.072	0.145
G146	GSM 1900	GPRS2TX	661	Top Side	1	2	2	6	25	24.43	0.115	0.060	0.131
G147	GSM 1900	GPRS2TX	661	Top Side	1	2	2	7	25	24.43	0.120	0.064	0.137

Note: The value with boldface is the maximum SAR Value of each test band.

2. Hotspot SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U58	UMTS B2	RMC12.2K	9400	Front Face	1	0	1	1	21	19.72	0.141	0.083	0.189
U59	UMTS B2	RMC12.2K	9400	Rear Face	1	0	1	1	21	19.72	0.239	0.137	0.321
U60	UMTS B2	RMC12.2K	9400	Left Side	1	0	1	1	21	19.72	0.045	0.024	0.060
U61	UMTS B2	RMC12.2K	9400	Right Side	1	0	1	1	21	19.72	0.023	0.016	0.031
U62	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	1	21	19.72	0.382	0.210	0.513
U63	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	2	1	21	19.72	0.378	0.208	0.508
U64	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	2	21	19.72	0.403	0.219	0.541
U65	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	3	21	19.72	0.346	0.186	0.465
U198	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	4	21	19.72	**0.442**	**0.239**	**0.594**
U199	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	5	21	19.72	0.426	0.221	0.572
U200	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	6	21	19.72	0.425	0.221	0.571
U201	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	7	21	19.72	0.405	0.203	0.544
U75	UMTS B2	RMC12.2K	9400	Front Face	1	2	1	1	20.5	19.34	0.137	0.083	0.179
U76	UMTS B2	RMC12.2K	9400	Rear Face	1	2	1	1	20.5	19.34	0.384	0.214	0.502
U77	UMTS B2	RMC12.2K	9400	Left Side	1	2	1	1	20.5	19.34	0.043	0.026	0.057
U78	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	1	20.5	19.34	**0.469**	**0.253**	**0.613**
U79	UMTS B2	RMC12.2K	9400	Top Side	1	2	2	1	20.5	19.34	0.443	0.239	0.579
U80	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	2	20.5	19.34	0.409	0.225	0.534
U81	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	3	20.5	19.34	0.420	0.225	0.549
U202	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	4	20.5	19.34	0.356	0.194	0.465
U203	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	5	20.5	19.34	0.323	0.175	0.422
U204	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	6	20.5	19.34	0.400	0.215	0.522
U205	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	7	20.5	19.34	0.383	0.211	0.500
U91	UMTS B4	RMC12.2K	1413	Front Face	1	0	1	1	21.4	19.97	0.185	0.120	0.257
U92	UMTS B4	RMC12.2K	1413	Rear Face	1	0	1	1	21.4	19.97	0.291	0.174	0.404
U93	UMTS B4	RMC12.2K	1413	Left Side	1	0	1	1	21.4	19.97	0.053	0.032	0.074
U94	UMTS B4	RMC12.2K	1413	Right Side	1	0	1	1	21.4	19.97	0.069	0.041	0.096
U95	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	1	21.4	19.97	**0.508**	**0.268**	**0.706**
U96	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	2	1	21.4	19.97	0.444	0.238	0.617
U97	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	2	21.4	19.97	0.487	0.254	0.677
U98	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	3	21.4	19.97	0.375	0.208	0.521
U206	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	4	21.4	19.97	0.457	0.236	0.635
U207	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	5	21.4	19.97	0.490	0.257	0.681
U208	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	6	21.4	19.97	0.417	0.216	0.580
U209	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	7	21.4	19.97	0.464	0.222	0.645
U108	UMTS B4	RMC12.2K	1413	Front Face	1	2	1	1	20.9	19.73	0.117	0.067	0.153
U109	UMTS B4	RMC12.2K	1413	Rear Face	1	2	1	1	20.9	19.73	0.249	0.139	0.326
U110	UMTS B4	RMC12.2K	1413	Left Side	1	2	1	1	20.9	19.73	0.045	0.026	0.059
U111	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	1	20.9	19.73	0.415	0.218	0.543
U112	UMTS B4	RMC12.2K	1413	Top Side	1	2	2	1	20.9	19.73	0.401	0.207	0.525
U113	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	2	20.9	19.73	**0.479**	**0.253**	**0.627**
U114	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	3	20.9	19.73	0.396	0.204	0.518
U210	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	4	20.9	19.73	0.314	0.179	0.411
U211	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	5	20.9	19.73	0.434	0.255	0.568
U212	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	6	20.9	19.73	0.351	0.204	0.460
U213	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	7	20.9	19.73	0.372	0.219	0.487

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U124	UMTS B5	RMC12.2K	4182	Front Face	1	1	1	1	25	23.93	0.332	0.212	0.425
U125	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	1	25	23.93	0.412	0.275	0.527
U126	UMTS B5	RMC12.2K	4182	Left Side	1	1	1	1	25	23.93	0.092	0.063	0.118
U127	UMTS B5	RMC12.2K	4182	Right Side	1	1	1	1	25	23.93	0.214	0.144	0.274
U128	UMTS B5	RMC12.2K	4182	Bottom Side	1	1	1	1	25	23.93	0.287	0.155	0.367
U129	UMTS B5	RMC12.2K	4182	Rear Face	1	1	2	1	25	23.93	0.409	0.271	0.523
U130	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	2	25	23.93	0.466	0.308	0.596
U131	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	3	25	23.93	**0.470**	**0.303**	**0.601**
U214	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	4	25	23.93	0.398	0.241	0.509
U215	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	5	25	23.93	0.418	0.258	0.535
U216	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	6	25	23.93	0.391	0.235	0.500
U217	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	7	25	23.93	0.396	0.252	0.507
U141	UMTS B5	RMC12.2K	4182	Front Face	1	3	1	1	24.4	22.81	0.181	0.102	0.261
U142	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	1	24.4	22.81	0.338	0.189	0.487
U143	UMTS B5	RMC12.2K	4182	Left Side	1	3	1	1	24.4	22.81	0.204	0.105	0.294
U144	UMTS B5	RMC12.2K	4182	Top Side	1	3	1	1	24.4	22.81	0.177	0.084	0.255
U145	UMTS B5	RMC12.2K	4182	Rear Face	1	3	2	1	24.4	22.81	0.335	0.187	0.483
U146	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	2	24.4	22.81	0.298	0.168	0.430
U147	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	3	24.4	22.81	0.322	0.180	0.464
U218	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	4	24.4	22.81	0.409	0.203	0.590
U219	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	5	24.4	22.81	**0.432**	**0.229**	**0.623**
U220	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	6	24.4	22.81	0.396	0.189	0.571
U221	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	7	24.4	22.81	0.371	0.196	0.535

Note: The value with boldface is the maximum SAR Value of each test band.

3. Hotspot SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L190	LTE B2	QPSK20M	18700	1	50	Front Face	1	0	1	1	21	19.57	0.111	0.067	0.154
L191	LTE B2	QPSK20M	18700	1	50	Rear Face	1	0	1	1	21	19.57	0.190	0.108	0.264
L192	LTE B2	QPSK20M	18700	1	50	Left Side	1	0	1	1	21	19.57	0.064	0.037	0.089
L193	LTE B2	QPSK20M	18700	1	50	Right Side	1	0	1	1	21	19.57	0.054	0.032	0.074
L194	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	1	21	19.57	0.360	0.195	0.500
L195	LTE B2	QPSK20M	19100	50	50	Front Face	1	0	1	1	21	19.54	0.095	0.056	0.133
L196	LTE B2	QPSK20M	19100	50	50	Rear Face	1	0	1	1	21	19.54	0.185	0.107	0.259
L197	LTE B2	QPSK20M	19100	50	50	Left Side	1	0	1	1	21	19.54	0.046	0.025	0.065
L198	LTE B2	QPSK20M	19100	50	50	Right Side	1	0	1	1	21	19.54	0.046	0.027	0.064
L199	LTE B2	QPSK20M	19100	50	50	Bottom Side	1	0	1	1	21	19.54	0.351	0.188	0.492
L200	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	2	1	21	19.57	0.308	0.160	0.428
L201	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	2	21	19.57	0.332	0.172	0.461
L202	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	3	21	19.57	0.371	0.200	0.516
L661	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	4	21	19.57	**0.463**	**0.244**	**0.643**
L662	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	5	21	19.57	0.446	0.225	0.620
L663	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	6	21	19.57	0.355	0.188	0.493
L664	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	7	21	19.57	0.410	0.209	0.570
L214	LTE B2	QPSK20M	18700	1	0	Front Face	1	2	1	1	20.5	19.54	0.156	0.091	0.195
L215	LTE B2	QPSK20M	18700	1	0	Rear Face	1	2	1	1	20.5	19.54	0.379	0.207	0.473
L216	LTE B2	QPSK20M	18700	1	0	Left Side	1	2	1	1	20.5	19.54	0.043	0.025	0.053
L217	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	1	20.5	19.54	**0.511**	**0.266**	**0.638**
L218	LTE B2	QPSK20M	18900	50	25	Front Face	1	2	1	1	20.5	19.46	0.155	0.089	0.197
L219	LTE B2	QPSK20M	18900	50	25	Rear Face	1	2	1	1	20.5	19.46	0.362	0.203	0.460
L220	LTE B2	QPSK20M	18900	50	25	Left Side	1	2	1	1	20.5	19.46	0.048	0.028	0.061
L221	LTE B2	QPSK20M	18900	50	25	Top Side	1	2	1	1	20.5	19.46	0.495	0.257	0.629
L222	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	2	1	20.5	19.54	0.434	0.225	0.542
L223	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	2	20.5	19.54	0.421	0.000	0.526
L224	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	3	20.5	19.54	0.460	0.243	0.574
L665	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	4	20.5	19.54	0.343	0.192	0.428
L666	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	5	20.5	19.54	0.326	0.201	0.407
L667	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	6	20.5	19.54	0.354	0.191	0.442
L668	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	7	20.5	19.54	0.330	0.177	0.412
L236	LTE B4	QPSK20M	20050	1	50	Front Face	1	0	1	1	21.4	20.64	0.233	0.147	0.278
L237	LTE B4	QPSK20M	20050	1	50	Rear Face	1	0	1	1	21.4	20.64	0.341	0.201	0.407
L238	LTE B4	QPSK20M	20050	1	50	Left Side	1	0	1	1	21.4	20.64	0.168	0.099	0.200
L239	LTE B4	QPSK20M	20050	1	50	Right Side	1	0	1	1	21.4	20.64	0.051	0.024	0.061
L240	LTE B4	QPSK20M	20050	1	50	Bottom Side	1	0	1	1	21.4	20.64	0.538	0.279	0.641
L241	LTE B4	QPSK20M	20050	50	25	Front Face	1	0	1	1	21.4	20.37	0.190	0.097	0.241
L242	LTE B4	QPSK20M	20050	50	25	Rear Face	1	0	1	1	21.4	20.37	0.339	0.201	0.430
L243	LTE B4	QPSK20M	20050	50	25	Left Side	1	0	1	1	21.4	20.37	0.146	0.086	0.185
L244	LTE B4	QPSK20M	20050	50	25	Right Side	1	0	1	1	21.4	20.37	0.048	0.022	0.061
L245	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	1	21.4	20.37	**0.532**	**0.275**	**0.674**
L246	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	2	1	21.4	20.37	0.530	0.273	0.672
L247	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	2	21.4	20.37	0.518	0.270	0.656
L248	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	3	21.4	20.37	0.529	0.275	0.670
L669	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	4	21.4	20.37	0.381	0.199	0.483
L670	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	5	21.4	20.37	0.381	0.207	0.483
L671	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	6	21.4	20.37	0.311	0.167	0.394
L672	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	7	21.4	20.37	0.405	0.219	0.513

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L260	LTE B4	QPSK20M	20300	1	50	Front Face	1	2	1	1	20.9	19.99	0.146	0.088	0.180
L261	LTE B4	QPSK20M	20300	1	50	Rear Face	1	2	1	1	20.9	19.99	0.401	0.223	0.495
L262	LTE B4	QPSK20M	20300	1	50	Left Side	1	2	1	1	20.9	19.99	0.033	0.019	0.041
L263	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	1	20.9	19.99	0.525	0.282	0.647
L264	LTE B4	QPSK20M	20175	50	25	Front Face	1	2	1	1	20.9	19.98	0.123	0.076	0.152
L265	LTE B4	QPSK20M	20175	50	25	Rear Face	1	2	1	1	20.9	19.98	0.357	0.201	0.441
L266	LTE B4	QPSK20M	20175	50	25	Left Side	1	2	1	1	20.9	19.98	0.031	0.018	0.039
L267	LTE B4	QPSK20M	20175	50	25	Top Side	1	2	1	1	20.9	19.98	0.501	0.261	0.620
L268	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	2	1	20.9	19.99	0.490	0.257	0.604
L269	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	2	20.9	19.99	**0.586**	**0.309**	**0.723**
L270	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	3	20.9	19.99	0.421	0.220	0.519
L673	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	4	20.9	19.99	0.506	0.269	0.624
L674	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	5	20.9	19.99	0.417	0.210	0.514
L675	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	6	20.9	19.99	0.483	0.258	0.596
L676	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	7	20.9	19.99	0.426	0.222	0.525
L282	LTE B5	QPSK10M	20450	1	24	Front Face	1	1	1	1	25	24.35	0.274	0.170	0.318
L283	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	1	25	24.35	0.369	0.242	0.429
L284	LTE B5	QPSK10M	20450	1	24	Left Side	1	1	1	1	25	24.35	0.101	0.069	0.117
L285	LTE B5	QPSK10M	20450	1	24	Right Side	1	1	1	1	25	24.35	0.102	0.068	0.118
L286	LTE B5	QPSK10M	20450	1	24	Bottom Side	1	1	1	1	25	24.35	0.180	0.100	0.209
L287	LTE B5	QPSK10M	20450	25	25	Front Face	1	1	1	1	24	23.34	0.213	0.132	0.248
L288	LTE B5	QPSK10M	20450	25	25	Rear Face	1	1	1	1	24	23.34	0.285	0.184	0.332
L289	LTE B5	QPSK10M	20450	25	25	Left Side	1	1	1	1	24	23.34	0.075	0.052	0.088
L290	LTE B5	QPSK10M	20450	25	25	Right Side	1	1	1	1	24	23.34	0.081	0.053	0.094
L291	LTE B5	QPSK10M	20450	25	25	Bottom Side	1	1	1	1	24	23.34	0.131	0.073	0.152
L292	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	2	1	25	24.35	0.366	0.238	0.425
L293	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	2	25	24.35	0.385	0.251	0.447
L294	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	3	25	24.35	**0.412**	**0.267**	**0.479**
L678	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	4	25	24.35	0.349	0.211	0.405
L679	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	5	25	24.35	0.334	0.204	0.388
L680	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	6	25	24.35	0.385	0.237	0.447
L681	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	7	25	24.35	0.363	0.221	0.422
L306	LTE B5	QPSK10M	20525	1	24	Front Face	1	3	1	1	24.4	23.51	0.183	0.106	0.225
L307	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	1	24.4	23.51	0.365	0.204	0.448
L308	LTE B5	QPSK10M	20525	1	24	Left Side	1	3	1	1	24.4	23.51	0.191	0.094	0.235
L309	LTE B5	QPSK10M	20525	1	24	Top Side	1	3	1	1	24.4	23.51	0.220	0.112	0.270
L310	LTE B5	QPSK10M	20450	25	25	Front Face	1	3	1	1	24	23.49	0.228	0.136	0.257
L311	LTE B5	QPSK10M	20450	25	25	Rear Face	1	3	1	1	24	23.49	0.358	0.200	0.403
L312	LTE B5	QPSK10M	20450	25	25	Left Side	1	3	1	1	24	23.49	0.256	0.130	0.288
L313	LTE B5	QPSK10M	20450	25	25	Top Side	1	3	1	1	24	23.49	0.319	0.162	0.359
L316	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	2	1	24.4	23.51	0.344	0.194	0.422
L317	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	2	24.4	23.51	0.282	0.157	0.346
L318	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	3	24.4	23.51	0.329	0.183	0.404
L683	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	4	24.4	23.51	0.365	0.196	0.448
L684	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	5	24.4	23.51	**0.428**	**0.224**	**0.526**
L685	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	6	24.4	23.51	0.401	0.213	0.492
L686	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	7	24.4	23.51	0.376	0.199	0.462

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L334	LTE B7	QPSK20M	21100	1	99	Front Face	1	0	1	1	22	21.30	0.131	0.070	0.154
L335	LTE B7	QPSK20M	21100	1	99	Rear Face	1	0	1	1	22	21.30	0.236	0.117	0.277
L336	LTE B7	QPSK20M	21100	1	99	Left Side	1	0	1	1	22	21.30	0.087	0.045	0.102
L337	LTE B7	QPSK20M	21100	1	99	Right Side	1	0	1	1	22	21.30	0.061	0.034	0.071
L338	LTE B7	QPSK20M	21100	1	99	Bottom Side	1	0	1	1	22	21.30	0.373	0.178	0.438
L339	LTE B7	QPSK20M	20850	50	50	Front Face	1	0	1	1	22	21.17	0.123	0.066	0.149
L340	LTE B7	QPSK20M	20850	50	50	Rear Face	1	0	1	1	22	21.17	0.152	0.079	0.184
L341	LTE B7	QPSK20M	20850	50	50	Left Side	1	0	1	1	22	21.17	0.075	0.040	0.091
L342	LTE B7	QPSK20M	20850	50	50	Right Side	1	0	1	1	22	21.17	0.060	0.034	0.073
L343	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	1	22	21.17	0.368	0.175	0.445
L344	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	2	1	22	21.17	0.334	0.162	0.404
L345	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	2	22	21.17	0.293	0.136	0.354
L346	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	3	22	21.17	0.365	0.172	0.442
L688	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	4	22	21.17	0.327	0.157	0.396
L689	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	5	22	21.17	**0.413**	**0.195**	**0.500**
L690	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	6	22	21.17	0.317	0.153	0.384
L691	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	7	22	21.17	0.391	0.193	0.473
L358	LTE B7	QPSK20M	20850	1	50	Front Face	1	2	1	1	21	20.47	0.138	0.071	0.156
L359	LTE B7	QPSK20M	20850	1	50	Rear Face	1	2	1	1	21	20.47	0.256	0.132	0.289
L360	LTE B7	QPSK20M	20850	1	50	Left Side	1	2	1	1	21	20.47	0.074	0.037	0.084
L361	LTE B7	QPSK20M	20850	1	50	Top Side	1	2	1	1	21	20.47	0.223	0.107	0.252
L362	LTE B7	QPSK20M	21100	50	0	Front Face	1	2	1	1	21	20.34	0.129	0.065	0.150
L363	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	1	1	21	20.34	0.262	0.134	0.305
L364	LTE B7	QPSK20M	21100	50	0	Left Side	1	2	1	1	21	20.34	0.068	0.034	0.079
L365	LTE B7	QPSK20M	21100	50	0	Top Side	1	2	1	1	21	20.34	0.221	0.105	0.257
L366	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	1	21	20.34	**0.343**	**0.171**	**0.399**
L367	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	2	21	20.34	0.299	0.155	0.348
L368	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	3	21	20.34	0.312	0.159	0.363
L693	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	4	21	20.34	0.134	0.070	0.156
L694	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	5	21	20.34	0.159	0.082	0.185
L695	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	6	21	20.34	0.097	0.050	0.113
L696	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	7	21	20.34	0.141	0.076	0.164
L380	LTE B7	QPSK20M	20850	1	50	Front Face	1	4	1	1	19.5	18.77	0.129	0.060	0.153
L381	LTE B7	QPSK20M	20850	1	50	Rear Face	1	4	1	1	19.5	18.77	0.284	0.123	0.336
L382	LTE B7	QPSK20M	20850	1	50	Left Side	1	4	1	1	19.5	18.77	0.300	0.129	0.355
L383	LTE B7	QPSK20M	21100	50	0	Front Face	1	4	1	1	19.5	18.73	0.132	0.063	0.158
L384	LTE B7	QPSK20M	21100	50	0	Rear Face	1	4	1	1	19.5	18.73	0.276	0.125	0.330
L385	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	1	19.5	18.73	0.359	0.154	0.429
L386	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	2	1	19.5	18.73	0.347	0.153	0.414
L387	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	2	19.5	18.73	0.295	0.122	0.352
L388	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	3	19.5	18.73	**0.425**	**0.184**	**0.508**
L698	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	4	19.5	18.73	0.317	0.126	0.379
L699	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	5	19.5	18.73	0.272	0.109	0.325
L700	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	6	19.5	18.73	0.211	0.083	0.252
L701	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	7	19.5	18.73	0.295	0.098	0.352

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L400	LTE B12	QPSK10M	23060	1	24	Front Face	1	1	1	1	25	24.03	0.179	0.115	0.224
L401	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	1	1	25	24.03	0.271	0.176	0.339
L402	LTE B12	QPSK10M	23060	1	24	Left Side	1	1	1	1	25	24.03	0.096	0.067	0.121
L403	LTE B12	QPSK10M	23060	1	24	Right Side	1	1	1	1	25	24.03	0.108	0.059	0.135
L404	LTE B12	QPSK10M	23060	1	24	Bottom Side	1	1	1	1	25	24.03	0.123	0.059	0.154
L405	LTE B12	QPSK10M	23060	25	25	Front Face	1	1	1	1	24	23.01	0.140	0.091	0.176
L406	LTE B12	QPSK10M	23060	25	25	Rear Face	1	1	1	1	24	23.01	0.227	0.147	0.285
L407	LTE B12	QPSK10M	23060	25	25	Left Side	1	1	1	1	24	23.01	0.058	0.039	0.073
L408	LTE B12	QPSK10M	23060	25	25	Right Side	1	1	1	1	24	23.01	0.085	0.045	0.107
L409	LTE B12	QPSK10M	23060	25	25	Bottom Side	1	1	1	1	24	23.01	0.098	0.047	0.124
L410	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	1	25	24.03	0.272	0.175	0.340
L411	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	2	25	24.03	**0.287**	**0.187**	**0.359**
L412	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	3	25	24.03	0.273	0.177	0.341
L703	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	4	25	24.03	0.184	0.115	0.230
L704	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	5	25	24.03	0.200	0.128	0.250
L705	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	6	25	24.03	0.179	0.111	0.224
L706	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	7	25	24.03	0.186	0.117	0.233
L424	LTE B12	QPSK10M	23095	1	24	Front Face	1	3	1	1	24.1	23.35	0.015	0.010	0.018
L425	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	1	1	24.1	23.35	0.032	0.018	0.038
L426	LTE B12	QPSK10M	23095	1	24	Left Side	1	3	1	1	24.1	23.35	0.031	0.011	0.036
L427	LTE B12	QPSK10M	23095	1	24	Top Side	1	3	1	1	24.1	23.35	0.029	0.010	0.035
L428	LTE B12	QPSK10M	23060	25	25	Front Face	1	3	1	1	24	23.24	0.014	0.009	0.017
L429	LTE B12	QPSK10M	23060	25	25	Rear Face	1	3	1	1	24	23.24	0.031	0.017	0.037
L430	LTE B12	QPSK10M	23060	25	25	Left Side	1	3	1	1	24	23.24	0.022	0.026	0.026
L431	LTE B12	QPSK10M	23060	25	25	Top Side	1	3	1	1	24	23.24	0.020	0.012	0.024
L432	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	1	24.1	23.35	0.042	0.023	0.050
L433	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	2	24.1	23.35	0.050	0.029	0.059
L434	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	3	24.1	23.35	0.043	0.023	0.051
L708	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	4	24.1	23.35	0.052	0.026	0.061
L709	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	5	24.1	23.35	0.047	0.025	0.056
L710	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	6	24.1	23.35	0.049	0.026	0.059
L711	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	7	24.1	23.35	**0.060**	**0.031**	**0.071**
L446	LTE B26	QPSK15M	26765	1	37	Front Face	1	1	1	1	25	24.20	0.274	0.176	0.329
L447	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	1	25	24.20	0.411	0.268	0.494
L448	LTE B26	QPSK15M	26765	1	37	Left Side	1	1	1	1	25	24.20	0.069	0.048	0.082
L449	LTE B26	QPSK15M	26765	1	37	Right Side	1	1	1	1	25	24.20	0.099	0.067	0.119
L450	LTE B26	QPSK15M	26765	1	37	Bottom Side	1	1	1	1	25	24.20	0.165	0.101	0.198
L451	LTE B26	QPSK15M	26965	36	0	Front Face	1	1	1	1	24	23.25	0.236	0.151	0.281
L452	LTE B26	QPSK15M	26965	36	0	Rear Face	1	1	1	1	24	23.25	0.381	0.247	0.453
L453	LTE B26	QPSK15M	26965	36	0	Left Side	1	1	1	1	24	23.25	0.085	0.055	0.100
L454	LTE B26	QPSK15M	26965	36	0	Right Side	1	1	1	1	24	23.25	0.094	0.064	0.111
L455	LTE B26	QPSK15M	26965	36	0	Bottom Side	1	1	1	1	24	23.25	0.169	0.098	0.201
L456	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	2	1	25	24.20	0.380	0.251	0.457
L457	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	2	25	24.20	**0.414**	**0.272**	**0.498**
L458	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	3	25	24.20	0.376	0.246	0.452
L713	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	4	25	24.20	0.361	0.224	0.434
L714	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	5	25	24.20	0.379	0.236	0.456
L715	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	6	25	24.20	0.411	0.255	0.494
L716	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	7	25	24.20	0.372	0.232	0.447

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L470	LTE B26	QPSK15M	26765	1	37	Front Face	1	3	1	1	24.4	23.48	0.214	0.124	0.265
L471	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	1	24.4	23.48	0.354	0.197	0.438
L472	LTE B26	QPSK15M	26765	1	37	Left Side	1	3	1	1	24.4	23.48	0.215	0.105	0.266
L473	LTE B26	QPSK15M	26765	1	37	Top Side	1	3	1	1	24.4	23.48	0.293	0.138	0.362
L474	LTE B26	QPSK15M	26765	36	0	Front Face	1	3	1	1	24	23.29	0.201	0.113	0.237
L475	LTE B26	QPSK15M	26765	36	0	Rear Face	1	3	1	1	24	23.29	0.319	0.177	0.376
L476	LTE B26	QPSK15M	26765	36	0	Left Side	1	3	1	1	24	23.29	0.201	0.101	0.237
L477	LTE B26	QPSK15M	26765	36	0	Top Side	1	3	1	1	24	23.29	0.235	0.118	0.277
L480	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	2	1	24.4	23.48	0.346	0.184	0.428
L481	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	2	24.4	23.48	0.364	0.201	0.450
L482	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	3	24.4	23.48	0.360	0.202	0.445
L718	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	4	24.4	23.48	0.399	0.204	0.493
L719	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	5	24.4	23.48	0.376	0.197	0.465
L720	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	6	24.4	23.48	0.412	0.218	0.509
L721	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	7	24.4	23.48	**0.420**	**0.223**	**0.519**
L494	LTE B66	QPSK20M	132072	1	50	Front Face	1	0	1	1	21.4	20.61	0.176	0.111	0.211
L495	LTE B66	QPSK20M	132072	1	50	Rear Face	1	0	1	1	21.4	20.61	0.249	0.142	0.299
L496	LTE B66	QPSK20M	132072	1	50	Left Side	1	0	1	1	21.4	20.61	0.100	0.058	0.120
L497	LTE B66	QPSK20M	132072	1	50	Right Side	1	0	1	1	21.4	20.61	0.061	0.037	0.073
L498	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	1	21.4	20.61	0.426	0.222	0.511
L499	LTE B66	QPSK20M	132072	50	25	Front Face	1	0	1	1	21.4	20.41	0.166	0.103	0.209
L500	LTE B66	QPSK20M	132072	50	25	Rear Face	1	0	1	1	21.4	20.41	0.185	0.106	0.232
L501	LTE B66	QPSK20M	132072	50	25	Left Side	1	0	1	1	21.4	20.41	0.098	0.057	0.123
L502	LTE B66	QPSK20M	132072	50	25	Right Side	1	0	1	1	21.4	20.41	0.065	0.038	0.081
L503	LTE B66	QPSK20M	132072	50	25	Bottom Side	1	0	1	1	21.4	20.41	0.404	0.211	0.508
L504	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	2	1	21.4	20.61	0.401	0.207	0.481
L505	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	2	21.4	20.61	**0.500**	**0.261**	**0.600**
L506	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	3	21.4	20.61	0.448	0.231	0.537
L723	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	4	21.4	20.61	0.404	0.214	0.485
L724	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	5	21.4	20.61	0.320	0.167	0.384
L725	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	6	21.4	20.61	0.305	0.161	0.366
L726	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	7	21.4	20.61	0.385	0.204	0.462
L518	LTE B66	QPSK20M	132072	1	50	Front Face	1	2	1	1	20.9	19.96	0.079	0.045	0.098
L519	LTE B66	QPSK20M	132072	1	50	Rear Face	1	2	1	1	20.9	19.96	0.244	0.129	0.303
L520	LTE B66	QPSK20M	132072	1	50	Left Side	1	2	1	1	20.9	19.96	0.051	0.025	0.064
L521	LTE B66	QPSK20M	132072	1	50	Top Side	1	2	1	1	20.9	19.96	0.361	0.188	0.448
L522	LTE B66	QPSK20M	132572	50	0	Front Face	1	2	1	1	20.9	19.89	0.112	0.065	0.141
L523	LTE B66	QPSK20M	132572	50	0	Rear Face	1	2	1	1	20.9	19.89	0.306	0.163	0.386
L524	LTE B66	QPSK20M	132572	50	0	Left Side	1	2	1	1	20.9	19.89	0.043	0.025	0.054
L525	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	1	1	20.9	19.89	0.442	0.230	0.558
L526	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	1	20.9	19.89	**0.470**	**0.243**	**0.593**
L527	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	2	20.9	19.89	0.377	0.197	0.476
L528	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	3	20.9	19.89	0.394	0.201	0.497
L728	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	4	20.9	19.89	0.398	0.227	0.502
L729	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	5	20.9	19.89	0.373	0.211	0.471
L730	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	6	20.9	19.89	0.413	0.237	0.521
L731	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	7	20.9	19.89	0.422	0.229	0.533

Note: The value with boldface is the maximum SAR Value of each test band.

4. Hotspot SAR test results of 2.4G WiFi

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W33	802.11b	6	Front Face	1	1	1	19.5	19.44	0.224	0.111	0.227
W34	802.11b	6	Rear Face	1	1	1	19.5	19.44	0.461	0.215	0.467
W35	802.11b	6	Right Side	1	1	1	19.5	19.44	**0.582**	**0.255**	**0.590**
W36	802.11b	6	Top Side	1	1	1	19.5	19.44	0.051	0.027	0.052
W37	802.11b	6	Right Side	1	2	1	19.5	19.44	0.459	0.208	0.465
W38	802.11b	6	Right Side	1	3	1	19.5	19.44	0.565	0.247	0.573
W119	802.11b	6	Right Side	1	4	1	19.5	19.44	0.461	0.202	0.467
W120	802.11b	6	Right Side	1	5	1	19.5	19.44	0.467	0.208	0.473
W121	802.11b	6	Right Side	1	6	1	19.5	19.44	0.492	0.215	0.499
W122	802.11b	6	Right Side	1	7	1	19.5	19.44	0.472	0.211	0.479

Note: The value with boldface is the maximum SAR Value of each test band.

5. Hotspot SAR test results of 5G WiFi

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W40	802.11a	48	Front Face	1	1	6	19	18.89	0.078	0.032	0.080
W41	802.11a	48	Rear Face	1	1	6	19	18.89	0.171	0.063	0.175
W42	802.11a	48	Right Side	1	1	6	19	18.89	0.251	0.086	0.257
W43	802.11a	48	Top Side	1	1	6	19	18.89	0.066	0.028	0.068
W44	802.11a	48	Right Side	1	2	6	19	18.89	0.202	0.074	0.207
W45	802.11a	48	Right Side	1	3	6	19	18.89	0.179	0.069	0.184
W125	802.11a	48	Right Side	1	4	6	19	18.89	**0.365**	**0.127**	**0.374**
W126	802.11a	48	Right Side	1	5	6	19	18.89	0.330	0.105	0.338
W127	802.11a	48	Right Side	1	6	6	19	18.89	0.350	0.112	0.359
W128	802.11a	48	Right Side	1	7	6	19	18.89	0.347	0.107	0.356
W76	802.11ac VHT20	153	Front Face	1	1	MCS0	19	18.81	0.244	0.091	0.255
W77	802.11ac VHT20	153	Rear Face	1	1	MCS0	19	18.81	0.479	0.170	0.500
W78	802.11ac VHT20	153	Right Side	1	1	MCS0	19	18.81	0.763	0.277	0.797
W79	802.11ac VHT20	153	Top Side	1	1	MCS0	19	18.81	0.111	0.455	0.116
W80	802.11ac VHT20	149	Right Side	1	1	MCS0	19	18.77	0.75	0.271	0.791
W81	802.11ac VHT20	165	Right Side	1	1	MCS0	19	18.66	0.725	0.254	0.784
W82	802.11ac VHT20	153	Right Side	1	2	MCS0	19	18.81	0.856	0.295	0.894
W83	802.11ac VHT20	153	Right Side	1	3	MCS0	19	18.81	0.848	0.273	0.886
W158	802.11ac VHT20	153	Front Face	1	4	MCS0	19	18.81	0.232	0.078	0.242
W159	802.11ac VHT20	153	Rear Face	1	4	MCS0	19	18.81	0.470	0.148	0.491
W160	802.11ac VHT20	153	Right Side	1	4	MCS0	19	18.81	0.756	0.254	0.790
W161	802.11ac VHT20	153	Top Side	1	4	MCS0	19	18.81	0.082	0.030	0.086
W162	802.11ac VHT20	149	Right Side	1	4	MCS0	19	18.77	0.737	0.246	0.777
W163	802.11ac VHT20	165	Right Side	1	4	MCS0	19	18.66	0.728	0.246	0.787
W164	802.11ac VHT20	153	Right Side	1	5	MCS0	19	18.81	0.789	0.239	0.824
W165	802.11ac VHT20	153	Right Side	1	6	MCS0	19	18.81	**0.974**	**0.302**	**1.018**
W166	802.11ac VHT20	153	Right Side	1	7	MCS0	19	18.81	0.775	0.253	0.810
W167	802.11ac VHT20	153	Right Side (Repeated)	1	6	MCS0	19	18.81	0.956	0.294	0.999

Note: The value with boldface is the maximum SAR Value of each test band.

Note: Per KDB248227 D01, the highest SAR measured for the initial test position or initial test configuration should be used to determine SAR test exclusion according to the sum of 1-g SAR and SAR peak to location ratio provisions in KDB 447498. In addition, a test lab may also choose to perform standalone SAR measurements for test positions and 802.11 configurations that are not required by the initial test position or initial test configuration procedures and apply the results to determine simultaneous transmission SAR test exclusion, according to sum of 1-g and SAR peak to location ratio requirements to reduce the number of simultaneous transmission SAR measurements.

7.2.4 SAR MEASUREMENT RESULT OF PRODUCT SPECIFIC 10-G SAR

Per KDB648474D04, when hotspot mode applies, product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold:

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
G40	GSM 850	GPRS2TX	190	Front Face	1	1	1	1	30.1	29.08	0.160	0.102	0.202	YES
G41	GSM 850	GPRS2TX	190	Rear Face	1	1	1	1	30.1	29.08	0.235	0.153	0.297	YES
G42	GSM 850	GPRS2TX	190	Left Side	1	1	1	1	30.1	29.08	0.059	0.041	0.075	YES
G43	GSM 850	GPRS2TX	190	Right Side	1	1	1	1	30.1	29.08	0.125	0.087	0.158	YES
G44	GSM 850	GPRS2TX	190	Bottom Side	1	1	1	1	30.1	29.08	0.116	0.066	0.147	YES
G45	GSM 850	GPRS2TX	190	Rear Face	1	1	2	1	30.1	29.08	0.192	0.121	0.243	YES
G46	GSM 850	GPRS2TX	190	Rear Face	1	1	1	2	30.1	29.08	**0.248**	**0.162**	**0.314**	YES
G47	GSM 850	GPRS2TX	190	Rear Face	1	1	1	3	30.1	29.08	0.182	0.120	0.230	YES
G132	GSM 850	GPRS2TX	190	Rear Face	1	1	1	4	30.1	29.08	0.205	0.133	0.259	YES
G133	GSM 850	GPRS2TX	190	Rear Face	1	1	1	5	30.1	29.08	0.224	0.144	0.283	YES
G134	GSM 850	GPRS2TX	190	Rear Face	1	1	1	6	30.1	29.08	0.221	0.141	0.280	YES
G135	GSM 850	GPRS2TX	190	Rear Face	1	1	1	7	30.1	29.08	0.193	0.128	0.244	YES
G57	GSM 850	GPRS2TX	190	Front Face	1	3	1	1	30.4	29.64	0.177	0.101	0.211	YES
G58	GSM 850	GPRS2TX	190	Rear Face	1	3	1	1	30.4	29.64	**0.348**	**0.195**	**0.415**	YES
G59	GSM 850	GPRS2TX	190	Left Side	1	3	1	1	30.4	29.64	0.229	0.117	0.273	YES
G60	GSM 850	GPRS2TX	190	Top Side	1	3	1	1	30.4	29.64	0.191	0.094	0.228	YES
G61	GSM 850	GPRS2TX	190	Rear Face	1	3	2	1	30.4	29.64	0.328	0.185	0.391	YES
G62	GSM 850	GPRS2TX	190	Rear Face	1	3	1	2	30.4	29.64	0.333	0.187	0.397	YES
G63	GSM 850	GPRS2TX	190	Rear Face	1	3	1	3	30.4	29.64	0.295	0.166	0.351	YES
G136	GSM 850	GPRS2TX	190	Rear Face	1	3	1	4	30.4	29.64	0.301	0.162	0.359	YES
G137	GSM 850	GPRS2TX	190	Rear Face	1	3	1	5	30.4	29.64	0.268	0.127	0.319	YES
G138	GSM 850	GPRS2TX	190	Rear Face	1	3	1	6	30.4	29.64	0.282	0.147	0.336	YES
G139	GSM 850	GPRS2TX	190	Rear Face	1	3	1	7	30.4	29.64	0.265	0.124	0.316	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
G73	GSM 1900	GPRS2TX	661	Front Face	1	0	1	1	27	25.53	0.110	0.067	0.154	YES
G74	GSM 1900	GPRS2TX	661	Rear Face	1	0	1	1	27	25.53	0.205	0.123	0.288	YES
G75	GSM 1900	GPRS2TX	661	Left Side	1	0	1	1	27	25.53	0.041	0.023	0.057	YES
G76	GSM 1900	GPRS2TX	661	Right Side	1	0	1	1	27	25.53	0.026	0.014	0.036	YES
G77	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	1	27	25.53	0.317	0.172	0.445	YES
G78	GSM 1900	GPRS2TX	661	Bottom Side	1	0	2	1	27	25.53	0.314	0.162	0.440	YES
G79	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	2	27	25.53	**0.328**	**0.178**	**0.460**	YES
G80	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	3	27	25.53	0.322	0.178	0.452	YES
G140	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	4	27	25.53	0.151	0.083	0.212	YES
G141	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	5	27	25.53	0.155	0.087	0.217	YES
G142	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	6	27	25.53	0.131	0.081	0.184	YES
G143	GSM 1900	GPRS2TX	661	Bottom Side	1	0	1	7	27	25.53	0.146	0.079	0.205	YES
G90	GSM 1900	GPRS2TX	661	Front Face	1	2	1	1	25	24.43	0.089	0.052	0.102	YES
G91	GSM 1900	GPRS2TX	661	Rear Face	1	2	1	1	25	24.43	0.214	0.120	0.244	YES
G92	GSM 1900	GPRS2TX	661	Left Side	1	2	1	1	25	24.43	0.008	0.003	0.009	YES
G93	GSM 1900	GPRS2TX	661	Top Side	1	2	1	1	25	24.43	0.283	0.150	0.323	YES
G94	GSM 1900	GPRS2TX	661	Top Side	1	2	2	1	25	24.43	**0.302**	**0.161**	**0.344**	YES
G95	GSM 1900	GPRS2TX	661	Top Side	1	2	2	2	25	24.43	0.270	0.145	0.308	YES
G96	GSM 1900	GPRS2TX	661	Top Side	1	2	2	3	25	24.43	0.290	0.155	0.330	YES
G144	GSM 1900	GPRS2TX	661	Top Side	1	2	2	4	25	24.43	0.124	0.069	0.141	YES
G145	GSM 1900	GPRS2TX	661	Top Side	1	2	2	5	25	24.43	0.127	0.072	0.145	YES
G146	GSM 1900	GPRS2TX	661	Top Side	1	2	2	6	25	24.43	0.115	0.060	0.131	YES
G147	GSM 1900	GPRS2TX	661	Top Side	1	2	2	7	25	24.43	0.120	0.064	0.137	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U58	UMTS B2	RMC12.2K	9400	Front Face	1	0	1	1	21	19.72	0.141	0.083	0.189	YES
U59	UMTS B2	RMC12.2K	9400	Rear Face	1	0	1	1	21	19.72	0.239	0.137	0.321	YES
U60	UMTS B2	RMC12.2K	9400	Left Side	1	0	1	1	21	19.72	0.045	0.024	0.060	YES
U61	UMTS B2	RMC12.2K	9400	Right Side	1	0	1	1	21	19.72	0.023	0.016	0.031	YES
U62	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	1	21	19.72	0.382	0.210	0.513	YES
U63	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	2	1	21	19.72	0.378	0.208	0.508	YES
U64	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	2	21	19.72	0.403	0.219	0.541	YES
U65	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	3	21	19.72	0.346	0.186	0.465	YES
U198	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	4	21	19.72	**0.442**	**0.239**	**0.594**	YES
U199	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	5	21	19.72	0.426	0.221	0.572	YES
U200	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	6	21	19.72	0.425	0.221	0.571	YES
U201	UMTS B2	RMC12.2K	9400	Bottom Side	1	0	1	7	21	19.72	0.405	0.203	0.544	YES
U75	UMTS B2	RMC12.2K	9400	Front Face	1	2	1	1	20.5	19.34	0.137	0.083	0.179	YES
U76	UMTS B2	RMC12.2K	9400	Rear Face	1	2	1	1	20.5	19.34	0.384	0.214	0.502	YES
U77	UMTS B2	RMC12.2K	9400	Left Side	1	2	1	1	20.5	19.34	0.043	0.026	0.057	YES
U78	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	1	20.5	19.34	**0.469**	**0.253**	**0.613**	YES
U79	UMTS B2	RMC12.2K	9400	Top Side	1	2	2	1	20.5	19.34	0.443	0.239	0.579	YES
U80	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	2	20.5	19.34	0.409	0.225	0.534	YES
U81	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	3	20.5	19.34	0.420	0.225	0.549	YES
U202	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	4	20.5	19.34	0.356	0.194	0.465	YES
U203	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	5	20.5	19.34	0.323	0.175	0.422	YES
U204	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	6	20.5	19.34	0.400	0.215	0.522	YES
U205	UMTS B2	RMC12.2K	9400	Top Side	1	2	1	7	20.5	19.34	0.383	0.211	0.500	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U91	UMTS B4	RMC12.2K	1413	Front Face	1	0	1	1	21.4	19.97	0.185	0.120	0.257	YES
U92	UMTS B4	RMC12.2K	1413	Rear Face	1	0	1	1	21.4	19.97	0.291	0.174	0.404	YES
U93	UMTS B4	RMC12.2K	1413	Left Side	1	0	1	1	21.4	19.97	0.053	0.032	0.074	YES
U94	UMTS B4	RMC12.2K	1413	Right Side	1	0	1	1	21.4	19.97	0.069	0.041	0.096	YES
U95	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	1	21.4	19.97	**0.508**	**0.268**	**0.706**	YES
U96	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	2	1	21.4	19.97	0.444	0.238	0.617	YES
U97	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	2	21.4	19.97	0.487	0.254	0.677	YES
U98	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	3	21.4	19.97	0.375	0.208	0.521	YES
U206	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	4	21.4	19.97	0.457	0.236	0.635	YES
U207	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	5	21.4	19.97	0.490	0.257	0.681	YES
U208	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	6	21.4	19.97	0.417	0.216	0.580	YES
U209	UMTS B4	RMC12.2K	1413	Bottom Side	1	0	1	7	21.4	19.97	0.464	0.222	0.645	YES
U108	UMTS B4	RMC12.2K	1413	Front Face	1	2	1	1	20.9	19.73	0.117	0.067	0.153	YES
U109	UMTS B4	RMC12.2K	1413	Rear Face	1	2	1	1	20.9	19.73	0.249	0.139	0.326	YES
U110	UMTS B4	RMC12.2K	1413	Left Side	1	2	1	1	20.9	19.73	0.045	0.026	0.059	YES
U111	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	1	20.9	19.73	0.415	0.218	0.543	YES
U112	UMTS B4	RMC12.2K	1413	Top Side	1	2	2	1	20.9	19.73	0.401	0.207	0.525	YES
U113	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	2	20.9	19.73	**0.479**	**0.253**	**0.627**	YES
U114	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	3	20.9	19.73	0.396	0.204	0.518	YES
U210	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	4	20.9	19.73	0.314	0.179	0.411	YES
U211	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	5	20.9	19.73	0.434	0.255	0.568	YES
U212	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	6	20.9	19.73	0.351	0.204	0.460	YES
U213	UMTS B4	RMC12.2K	1413	Top Side	1	2	1	7	20.9	19.73	0.372	0.219	0.487	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U124	UMTS B5	RMC12.2K	4182	Front Face	1	1	1	1	25	23.93	0.332	0.212	0.425	YES
U125	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	1	25	23.93	0.412	0.275	0.527	YES
U126	UMTS B5	RMC12.2K	4182	Left Side	1	1	1	1	25	23.93	0.092	0.063	0.118	YES
U127	UMTS B5	RMC12.2K	4182	Right Side	1	1	1	1	25	23.93	0.214	0.144	0.274	YES
U128	UMTS B5	RMC12.2K	4182	Bottom Side	1	1	1	1	25	23.93	0.287	0.155	0.367	YES
U129	UMTS B5	RMC12.2K	4182	Rear Face	1	1	2	1	25	23.93	0.409	0.271	0.523	YES
U130	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	2	25	23.93	0.466	0.308	0.596	YES
U131	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	3	25	23.93	**0.470**	**0.303**	**0.601**	YES
U214	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	4	25	23.93	0.398	0.241	0.509	YES
U215	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	5	25	23.93	0.418	0.258	0.535	YES
U216	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	6	25	23.93	0.391	0.235	0.500	YES
U217	UMTS B5	RMC12.2K	4182	Rear Face	1	1	1	7	25	23.93	0.396	0.252	0.507	YES
U141	UMTS B5	RMC12.2K	4182	Front Face	1	3	1	1	24.4	22.81	0.181	0.102	0.261	YES
U142	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	1	24.4	22.81	0.338	0.189	0.487	YES
U143	UMTS B5	RMC12.2K	4182	Left Side	1	3	1	1	24.4	22.81	0.204	0.105	0.294	YES
U144	UMTS B5	RMC12.2K	4182	Top Side	1	3	1	1	24.4	22.81	0.177	0.084	0.255	YES
U145	UMTS B5	RMC12.2K	4182	Rear Face	1	3	2	1	24.4	22.81	0.335	0.187	0.483	YES
U146	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	2	24.4	22.81	0.298	0.168	0.430	YES
U147	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	3	24.4	22.81	0.322	0.180	0.464	YES
U218	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	4	24.4	22.81	0.409	0.203	0.590	YES
U219	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	5	24.4	22.81	**0.432**	**0.229**	**0.623**	YES
U220	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	6	24.4	22.81	0.396	0.189	0.571	YES
U221	UMTS B5	RMC12.2K	4182	Rear Face	1	3	1	7	24.4	22.81	0.371	0.196	0.535	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L190	LTE B2	QPSK20M	18700	1	50	Front Face	1	0	1	1	21	19.57	0.111	0.067	0.154	YES
L191	LTE B2	QPSK20M	18700	1	50	Rear Face	1	0	1	1	21	19.57	0.190	0.108	0.264	YES
L192	LTE B2	QPSK20M	18700	1	50	Left Side	1	0	1	1	21	19.57	0.064	0.037	0.089	YES
L193	LTE B2	QPSK20M	18700	1	50	Right Side	1	0	1	1	21	19.57	0.054	0.032	0.074	YES
L194	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	1	21	19.57	0.360	0.195	0.500	YES
L195	LTE B2	QPSK20M	19100	50	50	Front Face	1	0	1	1	21	19.54	0.095	0.056	0.133	YES
L196	LTE B2	QPSK20M	19100	50	50	Rear Face	1	0	1	1	21	19.54	0.185	0.107	0.259	YES
L197	LTE B2	QPSK20M	19100	50	50	Left Side	1	0	1	1	21	19.54	0.046	0.025	0.065	YES
L198	LTE B2	QPSK20M	19100	50	50	Right Side	1	0	1	1	21	19.54	0.046	0.027	0.064	YES
L199	LTE B2	QPSK20M	19100	50	50	Bottom Side	1	0	1	1	21	19.54	0.351	0.188	0.492	YES
L200	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	2	1	21	19.57	0.308	0.160	0.428	YES
L201	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	2	21	19.57	0.332	0.172	0.461	YES
L202	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	3	21	19.57	0.371	0.200	0.516	YES
L661	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	4	21	19.57	**0.463**	**0.244**	**0.643**	YES
L662	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	5	21	19.57	0.446	0.225	0.620	YES
L663	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	6	21	19.57	0.355	0.188	0.493	YES
L664	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	0	1	7	21	19.57	0.410	0.209	0.570	YES
L214	LTE B2	QPSK20M	18700	1	0	Front Face	1	2	1	1	20.5	19.54	0.156	0.091	0.195	YES
L215	LTE B2	QPSK20M	18700	1	0	Rear Face	1	2	1	1	20.5	19.54	0.379	0.207	0.473	YES
L216	LTE B2	QPSK20M	18700	1	0	Left Side	1	2	1	1	20.5	19.54	0.043	0.025	0.053	YES
L217	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	1	20.5	19.54	**0.511**	**0.266**	**0.638**	YES
L218	LTE B2	QPSK20M	18900	50	25	Front Face	1	2	1	1	20.5	19.46	0.155	0.089	0.197	YES
L219	LTE B2	QPSK20M	18900	50	25	Rear Face	1	2	1	1	20.5	19.46	0.362	0.203	0.460	YES
L220	LTE B2	QPSK20M	18900	50	25	Left Side	1	2	1	1	20.5	19.46	0.048	0.028	0.061	YES
L221	LTE B2	QPSK20M	18900	50	25	Top Side	1	2	1	1	20.5	19.46	0.495	0.257	0.629	YES
L222	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	2	1	20.5	19.54	0.434	0.225	0.542	YES
L223	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	2	20.5	19.54	0.421	0.000	0.526	YES
L224	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	3	20.5	19.54	0.460	0.243	0.574	YES
L665	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	4	20.5	19.54	0.343	0.192	0.428	YES
L666	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	5	20.5	19.54	0.326	0.201	0.407	YES
L667	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	6	20.5	19.54	0.354	0.191	0.442	YES
L668	LTE B2	QPSK20M	18700	1	0	Top Side	1	2	1	7	20.5	19.54	0.330	0.177	0.412	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L236	LTE B4	QPSK20M	20050	1	50	Front Face	1	0	1	1	21.4	20.64	0.233	0.147	0.278	YES
L237	LTE B4	QPSK20M	20050	1	50	Rear Face	1	0	1	1	21.4	20.64	0.341	0.201	0.407	YES
L238	LTE B4	QPSK20M	20050	1	50	Left Side	1	0	1	1	21.4	20.64	0.168	0.099	0.200	YES
L239	LTE B4	QPSK20M	20050	1	50	Right Side	1	0	1	1	21.4	20.64	0.051	0.024	0.061	YES
L240	LTE B4	QPSK20M	20050	1	50	Bottom Side	1	0	1	1	21.4	20.64	0.538	0.279	0.641	YES
L241	LTE B4	QPSK20M	20050	50	25	Front Face	1	0	1	1	21.4	20.37	0.190	0.097	0.241	YES
L242	LTE B4	QPSK20M	20050	50	25	Rear Face	1	0	1	1	21.4	20.37	0.339	0.201	0.430	YES
L243	LTE B4	QPSK20M	20050	50	25	Left Side	1	0	1	1	21.4	20.37	0.146	0.086	0.185	YES
L244	LTE B4	QPSK20M	20050	50	25	Right Side	1	0	1	1	21.4	20.37	0.048	0.022	0.061	YES
L245	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	1	21.4	20.37	**0.532**	**0.275**	**0.674**	YES
L246	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	2	1	21.4	20.37	0.530	0.273	0.672	YES
L247	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	2	21.4	20.37	0.518	0.270	0.656	YES
L248	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	3	21.4	20.37	0.529	0.275	0.670	YES
L669	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	4	21.4	20.37	0.381	0.199	0.483	YES
L670	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	5	21.4	20.37	0.381	0.207	0.483	YES
L671	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	6	21.4	20.37	0.311	0.167	0.394	YES
L672	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	0	1	7	21.4	20.37	0.405	0.219	0.513	YES
L260	LTE B4	QPSK20M	20300	1	50	Front Face	1	2	1	1	20.9	19.99	0.146	0.088	0.180	YES
L261	LTE B4	QPSK20M	20300	1	50	Rear Face	1	2	1	1	20.9	19.99	0.401	0.223	0.495	YES
L262	LTE B4	QPSK20M	20300	1	50	Left Side	1	2	1	1	20.9	19.99	0.033	0.019	0.041	YES
L263	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	1	20.9	19.99	0.525	0.282	0.647	YES
L264	LTE B4	QPSK20M	20175	50	25	Front Face	1	2	1	1	20.9	19.98	0.123	0.076	0.152	YES
L265	LTE B4	QPSK20M	20175	50	25	Rear Face	1	2	1	1	20.9	19.98	0.357	0.201	0.441	YES
L266	LTE B4	QPSK20M	20175	50	25	Left Side	1	2	1	1	20.9	19.98	0.031	0.018	0.039	YES
L267	LTE B4	QPSK20M	20175	50	25	Top Side	1	2	1	1	20.9	19.98	0.501	0.261	0.620	YES
L268	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	2	1	20.9	19.99	0.490	0.257	0.604	YES
L269	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	2	20.9	19.99	**0.586**	**0.309**	**0.723**	YES
L270	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	3	20.9	19.99	0.421	0.220	0.519	YES
L673	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	4	20.9	19.99	0.506	0.269	0.624	YES
L674	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	5	20.9	19.99	0.417	0.210	0.514	YES
L675	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	6	20.9	19.99	0.483	0.258	0.596	YES
L676	LTE B4	QPSK20M	20300	1	50	Top Side	1	2	1	7	20.9	19.99	0.426	0.222	0.525	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L282	LTE B5	QPSK10M	20450	1	24	Front Face	1	1	1	1	25	24.35	0.274	0.170	0.318	YES
L283	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	1	25	24.35	0.369	0.242	0.429	YES
L284	LTE B5	QPSK10M	20450	1	24	Left Side	1	1	1	1	25	24.35	0.101	0.069	0.117	YES
L285	LTE B5	QPSK10M	20450	1	24	Right Side	1	1	1	1	25	24.35	0.102	0.068	0.118	YES
L286	LTE B5	QPSK10M	20450	1	24	Bottom Side	1	1	1	1	25	24.35	0.180	0.100	0.209	YES
L287	LTE B5	QPSK10M	20450	25	25	Front Face	1	1	1	1	24	23.34	0.213	0.132	0.248	YES
L288	LTE B5	QPSK10M	20450	25	25	Rear Face	1	1	1	1	24	23.34	0.285	0.184	0.332	YES
L289	LTE B5	QPSK10M	20450	25	25	Left Side	1	1	1	1	24	23.34	0.075	0.052	0.088	YES
L290	LTE B5	QPSK10M	20450	25	25	Right Side	1	1	1	1	24	23.34	0.081	0.053	0.094	YES
L291	LTE B5	QPSK10M	20450	25	25	Bottom Side	1	1	1	1	24	23.34	0.131	0.073	0.152	YES
L292	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	2	1	25	24.35	0.366	0.238	0.425	YES
L293	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	2	25	24.35	0.385	0.251	0.447	YES
L294	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	3	25	24.35	**0.412**	**0.267**	**0.479**	YES
L678	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	4	25	24.35	0.349	0.211	0.405	YES
L679	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	5	25	24.35	0.334	0.204	0.388	YES
L680	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	6	25	24.35	0.385	0.237	0.447	YES
L681	LTE B5	QPSK10M	20450	1	24	Rear Face	1	1	1	7	25	24.35	0.363	0.221	0.422	YES
L306	LTE B5	QPSK10M	20525	1	24	Front Face	1	3	1	1	24.4	23.51	0.183	0.106	0.225	YES
L307	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	1	24.4	23.51	0.365	0.204	0.448	YES
L308	LTE B5	QPSK10M	20525	1	24	Left Side	1	3	1	1	24.4	23.51	0.191	0.094	0.235	YES
L309	LTE B5	QPSK10M	20525	1	24	Top Side	1	3	1	1	24.4	23.51	0.220	0.112	0.270	YES
L310	LTE B5	QPSK10M	20450	25	25	Front Face	1	3	1	1	24	23.49	0.228	0.136	0.257	YES
L311	LTE B5	QPSK10M	20450	25	25	Rear Face	1	3	1	1	24	23.49	0.358	0.200	0.403	YES
L312	LTE B5	QPSK10M	20450	25	25	Left Side	1	3	1	1	24	23.49	0.256	0.130	0.288	YES
L313	LTE B5	QPSK10M	20450	25	25	Top Side	1	3	1	1	24	23.49	0.319	0.162	0.359	YES
L316	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	2	1	24.4	23.51	0.344	0.194	0.422	YES
L317	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	2	24.4	23.51	0.282	0.157	0.346	YES
L318	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	3	24.4	23.51	0.329	0.183	0.404	YES
L683	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	4	24.4	23.51	0.365	0.196	0.448	YES
L684	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	5	24.4	23.51	**0.428**	**0.224**	**0.526**	YES
L685	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	6	24.4	23.51	0.401	0.213	0.492	YES
L686	LTE B5	QPSK10M	20525	1	24	Rear Face	1	3	1	7	24.4	23.51	0.376	0.199	0.462	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L334	LTE B7	QPSK20M	21100	1	99	Front Face	1	0	1	1	22	21.30	0.131	0.070	0.154	YES
L335	LTE B7	QPSK20M	21100	1	99	Rear Face	1	0	1	1	22	21.30	0.236	0.117	0.277	YES
L336	LTE B7	QPSK20M	21100	1	99	Left Side	1	0	1	1	22	21.30	0.087	0.045	0.102	YES
L337	LTE B7	QPSK20M	21100	1	99	Right Side	1	0	1	1	22	21.30	0.061	0.034	0.071	YES
L338	LTE B7	QPSK20M	21100	1	99	Bottom Side	1	0	1	1	22	21.30	0.373	0.178	0.438	YES
L339	LTE B7	QPSK20M	20850	50	50	Front Face	1	0	1	1	22	21.17	0.123	0.066	0.149	YES
L340	LTE B7	QPSK20M	20850	50	50	Rear Face	1	0	1	1	22	21.17	0.152	0.079	0.184	YES
L341	LTE B7	QPSK20M	20850	50	50	Left Side	1	0	1	1	22	21.17	0.075	0.040	0.091	YES
L342	LTE B7	QPSK20M	20850	50	50	Right Side	1	0	1	1	22	21.17	0.060	0.034	0.073	YES
L343	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	1	22	21.17	0.368	0.175	0.445	YES
L344	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	2	1	22	21.17	0.334	0.162	0.404	YES
L345	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	2	22	21.17	0.293	0.136	0.354	YES
L346	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	3	22	21.17	0.365	0.172	0.442	YES
L688	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	4	22	21.17	0.327	0.157	0.396	YES
L689	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	5	22	21.17	**0.413**	**0.195**	**0.500**	YES
L690	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	6	22	21.17	0.317	0.153	0.384	YES
L691	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	0	1	7	22	21.17	0.391	0.193	0.473	YES
L358	LTE B7	QPSK20M	20850	1	50	Front Face	1	2	1	1	21	20.47	0.138	0.071	0.156	YES
L359	LTE B7	QPSK20M	20850	1	50	Rear Face	1	2	1	1	21	20.47	0.256	0.132	0.289	YES
L360	LTE B7	QPSK20M	20850	1	50	Left Side	1	2	1	1	21	20.47	0.074	0.037	0.084	YES
L361	LTE B7	QPSK20M	20850	1	50	Top Side	1	2	1	1	21	20.47	0.223	0.107	0.252	YES
L362	LTE B7	QPSK20M	21100	50	0	Front Face	1	2	1	1	21	20.34	0.129	0.065	0.150	YES
L363	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	1	1	21	20.34	0.262	0.134	0.305	YES
L364	LTE B7	QPSK20M	21100	50	0	Left Side	1	2	1	1	21	20.34	0.068	0.034	0.079	YES
L365	LTE B7	QPSK20M	21100	50	0	Top Side	1	2	1	1	21	20.34	0.221	0.105	0.257	YES
L366	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	1	21	20.34	**0.343**	**0.171**	**0.399**	YES
L367	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	2	21	20.34	0.299	0.155	0.348	YES
L368	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	3	21	20.34	0.312	0.159	0.363	YES
L693	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	4	21	20.34	0.134	0.070	0.156	YES
L694	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	5	21	20.34	0.159	0.082	0.185	YES
L695	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	6	21	20.34	0.097	0.050	0.113	YES
L696	LTE B7	QPSK20M	21100	50	0	Rear Face	1	2	2	7	21	20.34	0.141	0.076	0.164	YES
L380	LTE B7	QPSK20M	20850	1	50	Front Face	1	4	1	1	19.5	18.77	0.129	0.060	0.153	YES
L381	LTE B7	QPSK20M	20850	1	50	Rear Face	1	4	1	1	19.5	18.77	0.284	0.123	0.336	YES
L382	LTE B7	QPSK20M	20850	1	50	Left Side	1	4	1	1	19.5	18.77	0.300	0.129	0.355	YES
L383	LTE B7	QPSK20M	21100	50	0	Front Face	1	4	1	1	19.5	18.73	0.132	0.063	0.158	YES
L384	LTE B7	QPSK20M	21100	50	0	Rear Face	1	4	1	1	19.5	18.73	0.276	0.125	0.330	YES
L385	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	1	19.5	18.73	0.359	0.154	0.429	YES
L386	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	2	1	19.5	18.73	0.347	0.153	0.414	YES
L387	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	2	19.5	18.73	0.295	0.122	0.352	YES
L388	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	3	19.5	18.73	**0.425**	**0.184**	**0.508**	YES
L698	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	4	19.5	18.73	0.317	0.126	0.379	YES
L699	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	5	19.5	18.73	0.272	0.109	0.325	YES
L700	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	6	19.5	18.73	0.211	0.083	0.252	YES
L701	LTE B7	QPSK20M	21100	50	0	Left Side	1	4	1	7	19.5	18.73	0.295	0.098	0.352	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L400	LTE B12	QPSK10M	23060	1	24	Front Face	1	1	1	1	25	24.03	0.179	0.115	0.224	YES
L401	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	1	1	25	24.03	0.271	0.176	0.339	YES
L402	LTE B12	QPSK10M	23060	1	24	Left Side	1	1	1	1	25	24.03	0.096	0.067	0.121	YES
L403	LTE B12	QPSK10M	23060	1	24	Right Side	1	1	1	1	25	24.03	0.108	0.059	0.135	YES
L404	LTE B12	QPSK10M	23060	1	24	Bottom Side	1	1	1	1	25	24.03	0.123	0.059	0.154	YES
L405	LTE B12	QPSK10M	23060	25	25	Front Face	1	1	1	1	24	23.01	0.140	0.091	0.176	YES
L406	LTE B12	QPSK10M	23060	25	25	Rear Face	1	1	1	1	24	23.01	0.227	0.147	0.285	YES
L407	LTE B12	QPSK10M	23060	25	25	Left Side	1	1	1	1	24	23.01	0.058	0.039	0.073	YES
L408	LTE B12	QPSK10M	23060	25	25	Right Side	1	1	1	1	24	23.01	0.085	0.045	0.107	YES
L409	LTE B12	QPSK10M	23060	25	25	Bottom Side	1	1	1	1	24	23.01	0.098	0.047	0.124	YES
L410	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	1	25	24.03	0.272	0.175	0.340	YES
L411	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	2	25	24.03	**0.287**	**0.187**	**0.359**	YES
L412	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	3	25	24.03	0.273	0.177	0.341	YES
L703	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	4	25	24.03	0.184	0.115	0.230	YES
L704	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	5	25	24.03	0.200	0.128	0.250	YES
L705	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	6	25	24.03	0.179	0.111	0.224	YES
L706	LTE B12	QPSK10M	23060	1	24	Rear Face	1	1	2	7	25	24.03	0.186	0.117	0.233	YES
L424	LTE B12	QPSK10M	23095	1	24	Front Face	1	3	1	1	24.1	23.35	0.015	0.010	0.018	YES
L425	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	1	1	24.1	23.35	0.032	0.018	0.038	YES
L426	LTE B12	QPSK10M	23095	1	24	Left Side	1	3	1	1	24.1	23.35	0.031	0.011	0.036	YES
L427	LTE B12	QPSK10M	23095	1	24	Top Side	1	3	1	1	24.1	23.35	0.029	0.010	0.035	YES
L428	LTE B12	QPSK10M	23060	25	25	Front Face	1	3	1	1	24	23.24	0.014	0.009	0.017	YES
L429	LTE B12	QPSK10M	23060	25	25	Rear Face	1	3	1	1	24	23.24	0.031	0.017	0.037	YES
L430	LTE B12	QPSK10M	23060	25	25	Left Side	1	3	1	1	24	23.24	0.022	0.026	0.026	YES
L431	LTE B12	QPSK10M	23060	25	25	Top Side	1	3	1	1	24	23.24	0.020	0.012	0.024	YES
L432	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	1	24.1	23.35	0.042	0.023	0.050	YES
L433	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	2	24.1	23.35	0.050	0.029	0.059	YES
L434	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	3	24.1	23.35	0.043	0.023	0.051	YES
L708	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	4	24.1	23.35	0.052	0.026	0.061	YES
L709	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	5	24.1	23.35	0.047	0.025	0.056	YES
L710	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	6	24.1	23.35	0.049	0.026	0.059	YES
L711	LTE B12	QPSK10M	23095	1	24	Rear Face	1	3	2	7	24.1	23.35	**0.060**	**0.031**	**0.071**	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L446	LTE B26	QPSK15M	26765	1	37	Front Face	1	1	1	1	25	24.20	0.274	0.176	0.329	YES
L447	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	1	25	24.20	0.411	0.268	0.494	YES
L448	LTE B26	QPSK15M	26765	1	37	Left Side	1	1	1	1	25	24.20	0.069	0.048	0.082	YES
L449	LTE B26	QPSK15M	26765	1	37	Right Side	1	1	1	1	25	24.20	0.099	0.067	0.119	YES
L450	LTE B26	QPSK15M	26765	1	37	Bottom Side	1	1	1	1	25	24.20	0.165	0.101	0.198	YES
L451	LTE B26	QPSK15M	26965	36	0	Front Face	1	1	1	1	24	23.25	0.236	0.151	0.281	YES
L452	LTE B26	QPSK15M	26965	36	0	Rear Face	1	1	1	1	24	23.25	0.381	0.247	0.453	YES
L453	LTE B26	QPSK15M	26965	36	0	Left Side	1	1	1	1	24	23.25	0.085	0.055	0.100	YES
L454	LTE B26	QPSK15M	26965	36	0	Right Side	1	1	1	1	24	23.25	0.094	0.064	0.111	YES
L455	LTE B26	QPSK15M	26965	36	0	Bottom Side	1	1	1	1	24	23.25	0.169	0.098	0.201	YES
L456	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	2	1	25	24.20	0.380	0.251	0.457	YES
L457	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	2	25	24.20	**0.414**	**0.272**	**0.498**	YES
L458	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	3	25	24.20	0.376	0.246	0.452	YES
L713	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	4	25	24.20	0.361	0.224	0.434	YES
L714	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	5	25	24.20	0.379	0.236	0.456	YES
L715	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	6	25	24.20	0.411	0.255	0.494	YES
L716	LTE B26	QPSK15M	26765	1	37	Rear Face	1	1	1	7	25	24.20	0.372	0.232	0.447	YES
L470	LTE B26	QPSK15M	26765	1	37	Front Face	1	3	1	1	24.4	23.48	0.214	0.124	0.265	YES
L471	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	1	24.4	23.48	0.354	0.197	0.438	YES
L472	LTE B26	QPSK15M	26765	1	37	Left Side	1	3	1	1	24.4	23.48	0.215	0.105	0.266	YES
L473	LTE B26	QPSK15M	26765	1	37	Top Side	1	3	1	1	24.4	23.48	0.293	0.138	0.362	YES
L474	LTE B26	QPSK15M	26765	36	0	Front Face	1	3	1	1	24	23.29	0.201	0.113	0.237	YES
L475	LTE B26	QPSK15M	26765	36	0	Rear Face	1	3	1	1	24	23.29	0.319	0.177	0.376	YES
L476	LTE B26	QPSK15M	26765	36	0	Left Side	1	3	1	1	24	23.29	0.201	0.101	0.237	YES
L477	LTE B26	QPSK15M	26765	36	0	Top Side	1	3	1	1	24	23.29	0.235	0.118	0.277	YES
L480	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	2	1	24.4	23.48	0.346	0.184	0.428	YES
L481	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	2	24.4	23.48	0.364	0.201	0.450	YES
L482	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	3	24.4	23.48	0.360	0.202	0.445	YES
L718	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	4	24.4	23.48	0.399	0.204	0.493	YES
L719	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	5	24.4	23.48	0.376	0.197	0.465	YES
L720	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	6	24.4	23.48	0.412	0.218	0.509	YES
L721	LTE B26	QPSK15M	26765	1	37	Rear Face	1	3	1	7	24.4	23.48	**0.420**	**0.223**	**0.519**	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L494	LTE B66	QPSK20M	132072	1	50	Front Face	1	0	1	1	21.4	20.61	0.176	0.111	0.211	YES
L495	LTE B66	QPSK20M	132072	1	50	Rear Face	1	0	1	1	21.4	20.61	0.249	0.142	0.299	YES
L496	LTE B66	QPSK20M	132072	1	50	Left Side	1	0	1	1	21.4	20.61	0.100	0.058	0.120	YES
L497	LTE B66	QPSK20M	132072	1	50	Right Side	1	0	1	1	21.4	20.61	0.061	0.037	0.073	YES
L498	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	1	21.4	20.61	0.426	0.222	0.511	YES
L499	LTE B66	QPSK20M	132072	50	25	Front Face	1	0	1	1	21.4	20.41	0.166	0.103	0.209	YES
L500	LTE B66	QPSK20M	132072	50	25	Rear Face	1	0	1	1	21.4	20.41	0.185	0.106	0.232	YES
L501	LTE B66	QPSK20M	132072	50	25	Left Side	1	0	1	1	21.4	20.41	0.098	0.057	0.123	YES
L502	LTE B66	QPSK20M	132072	50	25	Right Side	1	0	1	1	21.4	20.41	0.065	0.038	0.081	YES
L503	LTE B66	QPSK20M	132072	50	25	Bottom Side	1	0	1	1	21.4	20.41	0.404	0.211	0.508	YES
L504	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	2	1	21.4	20.61	0.401	0.207	0.481	YES
L505	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	2	21.4	20.61	**0.500**	**0.261**	**0.600**	YES
L506	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	3	21.4	20.61	0.448	0.231	0.537	YES
L723	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	4	21.4	20.61	0.404	0.214	0.485	YES
L724	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	5	21.4	20.61	0.320	0.167	0.384	YES
L725	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	6	21.4	20.61	0.305	0.161	0.366	YES
L726	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	0	1	7	21.4	20.61	0.385	0.204	0.462	YES
L518	LTE B66	QPSK20M	132072	1	50	Front Face	1	2	1	1	20.9	19.96	0.079	0.045	0.098	YES
L519	LTE B66	QPSK20M	132072	1	50	Rear Face	1	2	1	1	20.9	19.96	0.244	0.129	0.303	YES
L520	LTE B66	QPSK20M	132072	1	50	Left Side	1	2	1	1	20.9	19.96	0.051	0.025	0.064	YES
L521	LTE B66	QPSK20M	132072	1	50	Top Side	1	2	1	1	20.9	19.96	0.361	0.188	0.448	YES
L522	LTE B66	QPSK20M	132572	50	0	Front Face	1	2	1	1	20.9	19.89	0.112	0.065	0.141	YES
L523	LTE B66	QPSK20M	132572	50	0	Rear Face	1	2	1	1	20.9	19.89	0.306	0.163	0.386	YES
L524	LTE B66	QPSK20M	132572	50	0	Left Side	1	2	1	1	20.9	19.89	0.043	0.025	0.054	YES
L525	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	1	1	20.9	19.89	0.442	0.230	0.558	YES
L526	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	1	20.9	19.89	**0.470**	**0.243**	**0.593**	YES
L527	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	2	20.9	19.89	0.377	0.197	0.476	YES
L528	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	3	20.9	19.89	0.394	0.201	0.497	YES
L728	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	4	20.9	19.89	0.398	0.227	0.502	YES
L729	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	5	20.9	19.89	0.373	0.211	0.471	YES
L730	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	6	20.9	19.89	0.413	0.237	0.521	YES
L731	LTE B66	QPSK20M	132572	50	0	Top Side	1	2	2	7	20.9	19.89	0.422	0.229	0.533	YES

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
W33	802.11b	6	Front Face	1	1	1	19.5	19.44	0.224	0.111	0.227	YES
W34	802.11b	6	Rear Face	1	1	1	19.5	19.44	0.461	0.215	0.467	YES
W35	802.11b	6	Right Side	1	1	1	19.5	19.44	**0.582**	**0.255**	**0.590**	YES
W36	802.11b	6	Top Side	1	1	1	19.5	19.44	0.051	0.027	0.052	YES
W37	802.11b	6	Right Side	1	2	1	19.5	19.44	0.459	0.208	0.465	YES
W38	802.11b	6	Right Side	1	3	1	19.5	19.44	0.565	0.247	0.573	YES
W119	802.11b	6	Right Side	1	4	1	19.5	19.44	0.461	0.202	0.467	YES
W120	802.11b	6	Right Side	1	5	1	19.5	19.44	0.467	0.208	0.473	YES
W121	802.11b	6	Right Side	1	6	1	19.5	19.44	0.492	0.215	0.499	YES
W122	802.11b	6	Right Side	1	7	1	19.5	19.44	0.472	0.211	0.479	YES
W40	802.11a	48	Front Face	1	1	6	19	18.89	0.078	0.032	0.080	YES
W41	802.11a	48	Rear Face	1	1	6	19	18.89	0.171	0.063	0.175	YES
W42	802.11a	48	Right Side	1	1	6	19	18.89	0.251	0.086	0.257	YES
W43	802.11a	48	Top Side	1	1	6	19	18.89	0.066	0.028	0.068	YES
W44	802.11a	48	Right Side	1	2	6	19	18.89	0.202	0.074	0.207	YES
W45	802.11a	48	Right Side	1	3	6	19	18.89	0.179	0.069	0.184	YES
W125	802.11a	48	Right Side	1	4	6	19	18.89	**0.365**	**0.127**	**0.374**	YES
W126	802.11a	48	Right Side	1	5	6	19	18.89	0.330	0.105	0.338	YES
W127	802.11a	48	Right Side	1	6	6	19	18.89	0.350	0.112	0.359	YES
W128	802.11a	48	Right Side	1	7	6	19	18.89	0.347	0.107	0.356	YES
W76	802.11ac VHT20	153	Front Face	1	1	MCS0	19	18.81	0.244	0.091	0.255	YES
W77	802.11ac VHT20	153	Rear Face	1	1	MCS0	19	18.81	0.479	0.170	0.500	YES
W78	802.11ac VHT20	153	Right Side	1	1	MCS0	19	18.81	0.763	0.277	0.797	YES
W79	802.11ac VHT20	153	Top Side	1	1	MCS0	19	18.81	0.111	0.455	0.116	YES
W80	802.11ac VHT20	149	Right Side	1	1	MCS0	19	18.77	0.75	0.271	0.791	YES
W81	802.11ac VHT20	165	Right Side	1	1	MCS0	19	18.66	0.725	0.254	0.784	YES
W82	802.11ac VHT20	153	Right Side	1	2	MCS0	19	18.81	0.856	0.295	0.894	YES
W83	802.11ac VHT20	153	Right Side	1	3	MCS0	19	18.81	0.848	0.273	0.886	YES
W158	802.11ac VHT20	153	Front Face	1	4	MCS0	19	18.81	0.232	0.078	0.242	YES
W159	802.11ac VHT20	153	Rear Face	1	4	MCS0	19	18.81	0.470	0.148	0.491	YES
W160	802.11ac VHT20	153	Right Side	1	4	MCS0	19	18.81	0.756	0.254	0.790	YES
W161	802.11ac VHT20	153	Top Side	1	4	MCS0	19	18.81	0.082	0.030	0.086	YES
W162	802.11ac VHT20	149	Right Side	1	4	MCS0	19	18.77	0.737	0.246	0.777	YES
W163	802.11ac VHT20	165	Right Side	1	4	MCS0	19	18.66	0.728	0.246	0.787	YES
W164	802.11ac VHT20	153	Right Side	1	5	MCS0	19	18.81	0.789	0.239	0.824	YES
W165	802.11ac VHT20	153	Right Side	1	6	MCS0	19	18.81	**0.974**	**0.302**	**1.018**	YES
W166	802.11ac VHT20	153	Right Side	1	7	MCS0	19	18.81	0.775	0.253	0.810	YES
W167	802.11ac VHT20	153	Right Side (Repeated)	1	6	MCS0	19	18.81	0.956	0.294	0.999	YES

Product specific 10-g SAR test results

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR
B12	BT DH5	39	Front Face	0	1	1	13	12.46	0.202	0.083	0.094
B13	BT DH5	39	Rear Face	0	1	1	13	12.46	0.314	0.125	0.142
B14	BT DH5	39	Right Side	0	1	1	13	12.46	0.429	0.140	0.159
B15	BT DH5	39	Top Side	0	1	1	13	12.46	0.043	0.019	0.022
B16	BT DH5	39	Right Side	0	2	1	13	12.46	0.455	0.148	0.168
B17	BT DH5	39	Right Side	0	3	1	13	12.46	0.439	0.177	0.200
B26	BT DH5	39	Right Side	0	4	1	13	12.46	**0.620**	**0.197**	**0.223**
B27	BT DH5	39	Right Side	0	5	1	13	12.46	0.433	0.172	0.195
B28	BT DH5	39	Right Side	0	6	1	13	12.46	0.252	0.079	0.089
B29	BT DH5	39	Right Side	0	7	1	13	12.46	0.569	0.183	0.207
W52	802.11a	52	Front Face	0	1	6	19	18.63	0.685	0.232	0.253
W53	802.11a	52	Rear Face	0	1	6	19	18.63	0.924	0.301	0.328
W54	802.11a	52	Right Side	0	1	6	19	18.63	3.610	0.820	0.893
W55	802.11a	52	Top Side	0	1	6	19	18.63	0.209	0.066	0.072
W56	802.11a	52	Right Side	0	2	6	19	18.63	2.840	0.698	0.760
W57	802.11a	52	Right Side	0	3	6	19	18.63	3.400	0.788	0.858
W136	802.11a	52	Right Side	0	4	6	19	18.63	**3.260**	**0.831**	**0.905**
W137	802.11a	52	Right Side	0	5	6	19	18.63	2.570	0.735	0.800
W138	802.11a	52	Right Side	0	6	6	19	18.63	2.350	0.724	0.788
W139	802.11a	52	Right Side	0	7	6	19	18.63	2.630	0.756	0.823
W64	802.11a	108	Front Face	0	1	6	19	18.88	2.120	0.510	0.524
W65	802.11a	108	Rear Face	0	1	6	19	18.88	2.960	0.740	0.761
W66	802.11a	108	Right Side	0	1	6	19	18.88	6.250	1.430	1.470
W67	802.11a	108	Top Side	0	1	6	19	18.88	0.484	0.136	0.140
W68	802.11a	108	Right Side	0	2	6	19	18.88	5.960	1.300	1.336
W69	802.11a	108	Right Side	0	3	6	19	18.88	6.000	1.380	1.419
W146	802.11a	108	Right Side	0	4	6	19	18.88	5.170	1.400	1.439
W147	802.11a	108	Right Side	0	5	6	19	18.88	5.670	1.430	1.470
W148	802.11a	108	Right Side	0	6	6	19	18.88	**7.000**	**1.620**	**1.665**
W149	802.11a	108	Right Side	0	7	6	19	18.88	6.380	1.510	1.552

Note: The value with boldface is the maximum SAR Value of each test band.

7.3 MULTIPLE TRANSMITTER EVALUATION

The following tables list information which is relevant for the decision if a simultaneous transmit evaluation is necessary according to FCC KDB 447498D01 General RF Exposure Guidance v06.

The location of the antenna inside EUT, please refer to Appendix E.

7.3.1 SIMULTANEOUS TRANSMISSION CONDITIONS

Per FCC KDB 447498 D01, SAR compliance for simultaneous transmission must be considered when the maximum duration of overlapping transmissions, including network hand-offs, is greater than 30 seconds. This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis.

The Simultaneous Transmission Possibilities of this device are as below:

NO.	Simultaneous Tx Combination	Head	Body-worn (15mm)	Hotspot (10mm)	Product specific 10-g (0mm)
1	GSM Voice(Main Ant) + BT	Yes	Yes	N/A	Yes
2	GSM DATA(Main Ant) + BT	N/A	Yes	N/A	Yes
3	GSM Voice(Second Ant) + BT	Yes	Yes	N/A	Yes
4	GSM DATA(Second Ant) + BT	N/A	Yes	N/A	Yes
5	GSM Voice(Main Ant) + WiFi 2.4G	Yes	Yes	N/A	Yes
6	GSM DATA(Main Ant) + WiFi 2.4G	N/A	Yes	Yes	Yes
7	GSM Voice(Second Ant) + WiFi 2.4G	Yes	Yes	N/A	Yes
8	GSM DATA(Second Ant) + WiFi 2.4G	N/A	Yes	Yes	Yes
9	GSM Voice(Main Ant) + WiFi 5G	Yes	Yes	N/A	Yes
10	GSM DATA(Main Ant) + WiFi 5G	N/A	Yes	Yes	Yes
11	GSM Voice(Second Ant) + WiFi 5G	Yes	Yes	N/A	Yes
12	GSM DATA(Second Ant) + WiFi 5G	N/A	Yes	Yes	Yes
13	UMTS(Main Ant) + BT	Yes	Yes	N/A	Yes
14	UMTS(Second Ant) + BT	Yes	Yes	N/A	Yes
15	UMTS(Main Ant) + WiFi 2.4G	Yes	Yes	Yes	Yes
16	UMTS(Second Ant) + WiFi 2.4G	Yes	Yes	Yes	Yes
17	UMTS(Main Ant) + WiFi 5G	Yes	Yes	Yes	Yes
18	UMTS(Second Ant) + WiFi 5G	Yes	Yes	Yes	Yes
19	LTE(Main Ant) + BT	Yes	Yes*	N/A	Yes
20	LTE(Second Ant) + BT	Yes	Yes*	N/A	Yes
21	LTE(Main Ant) + WiFi 2.4G	Yes*	Yes*	Yes	Yes
22	LTE(Second Ant) + WiFi 2.4G	Yes*	Yes*	Yes	Yes
23	LTE(Main Ant) + WiFi 5G	Yes	Yes	Yes	Yes
24	LTE(Second Ant) + WiFi 5G	Yes	Yes	Yes	Yes

Note:
1) WiFi 2.4G and Bluetooth can't transmit simultaneously.
2) WiFi 5G and Bluetooth can't transmit simultaneously.
3) WiFi 2.4G and 5G can't transmit simultaneously.
4) 2G&3G&4G Main antenna and Second antenna can't transmit simultaneously.
5) For WiFi 5G, U-NII-2A(5250-5350MHz) and U-NII-2C(5470-5725MHz) bands does not support hotspot function.
6) * VoLTE or pre-installed VOIP applications are considered.
7) Held to ear configurations are not applicable to Bluetooth and therefore were not considered for simultaneous transmission.
8) The device does not support DTM function.

7.3.2 SAR SUMMATION SCENARIO

About BT/WiFi Ant and GSM/UMTS/LTE Main Ant

Position	Head				Bodyworn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	0.088	0.059	0.146	0.056	0.164	0.236	0.202	0.314	0.075	0.158	\	0.147
GSM 1900	0.079	0.066	0.090	0.074	0.103	0.204	0.154	0.288	0.057	0.036	\	0.460
UMTS B2	0.136	0.121	0.174	0.130	0.166	0.299	0.189	0.321	0.060	0.031	\	0.594
UMTS B4	0.150	0.104	0.222	0.087	0.266	0.378	0.257	0.404	0.074	0.096	\	0.706
UMTS B5	0.172	0.112	0.192	0.103	0.301	0.345	0.425	0.601	0.118	0.274	\	0.367
LTE B2	0.146	0.120	0.196	0.135	0.302	0.480	0.154	0.264	0.089	0.074	\	0.643
LTE B4	0.190	0.129	0.176	0.095	0.399	0.501	0.278	0.430	0.200	0.061	\	0.674
LTE B5	0.106	0.074	0.161	0.066	0.156	0.295	0.318	0.479	0.117	0.118	\	0.209
LTE B7	0.079	0.064	0.093	0.061	0.156	0.255	0.154	0.277	0.102	0.073	\	0.500
LTE B12	0.080	0.045	0.085	0.040	0.156	0.229	0.224	0.359	0.121	0.135	\	0.154
LTE B26	0.148	0.066	0.134	0.073	0.203	0.303	0.329	0.498	0.100	0.119	\	0.201
LTE B66	0.144	0.070	0.161	0.069	0.225	0.368	0.211	0.299	0.123	0.081	\	0.600
802.11b/g	0.058	0.018	0.275	0.071	0.101	0.217	0.227	0.467	\	0.590	0.052	\
5.2G	\	\	\	\	\	\	0.080	0.175	\	0.374	0.068	\
5.3G	0.062	0.022	0.194	0.051	0.048	0.119	\	\	\	\	\	\
5.6G	0.078	0.048	0.217	0.081	0.103	0.227	\	\	\	\	\	\
5.8G	0.113	0.052	0.305	0.106	0.174	0.513	0.255	0.500	\	1.018	0.116	\
Bluetooth	0.036	0.031	0.183	0.039	0.020	0.036	0.229	0.356	\	\	\	\
Max. SAR Summation	**0.303**	**0.181**	**0.527**	**0.241**	**0.573**	**1.014**	**0.680**	**1.101**	**0.200**	**1.292**	**0.116**	**0.706**

About BT/WiFi Ant and GSM/UMTS/LTE Second Ant

Position	Head				Bodyworn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	0.547	0.561	0.259	0.232	0.102	0.278	0.211	0.415	0.273	\	0.228	\
GSM 1900	0.349	0.488	0.363	0.437	0.122	0.213	0.102	0.244	0.009	\	0.344	\
UMTS B2	0.670	0.792	0.695	0.862	0.184	0.357	0.179	0.502	0.057	\	0.613	\
UMTS B4	0.370	0.716	0.343	0.560	0.093	0.206	0.153	0.326	0.059	\	0.627	\
UMTS B5	0.695	0.777	0.368	0.355	0.181	0.358	0.261	0.487	0.294	\	0.623	\
LTE B2	0.465	0.684	0.481	0.586	0.187	0.384	0.197	0.473	0.061	\	0.638	\
LTE B4	0.581	0.779	0.534	0.659	0.112	0.279	0.180	0.495	0.041	\	0.723	\
LTE B5	0.488	0.511	0.253	0.241	0.109	0.256	0.257	0.526	0.288	\	0.359	\
LTE B7	0.537	0.470	0.382	0.417	0.070	0.125	0.156	0.399	0.084	\	0.257	\
LTE B12	0.056	0.078	0.035	0.030	0.008	0.043	0.018	0.071	0.036	\	0.035	\
LTE B26	0.566	0.552	0.294	0.254	0.094	0.316	0.265	0.519	0.266	\	0.362	\
LTE B66	0.473	0.773	0.463	0.461	0.110	0.226	0.141	0.386	0.064	\	0.593	\
802.11b/g	0.058	0.018	0.275	0.071	0.101	0.217	0.227	0.467	\	0.590	0.052	\
5.2G	\	\	\	\	\	\	0.080	0.175	\	0.374	0.068	\
5.3G	0.062	0.022	0.194	0.051	0.048	0.119	\	\	\	\	\	\
5.6G	0.078	0.048	0.217	0.081	0.103	0.227	\	\	\	\	\	\
5.8G	0.113	0.052	0.305	0.106	0.174	0.513	0.255	0.500	\	1.018	0.116	\
Bluetooth	0.036	0.031	0.183	0.039	0.020	0.036	0.229	0.356	\	\	\	\
Max. SAR Summation	**0.808**	**0.844**	**1.000**	**0.968**	**0.361**	**0.897**	**0.520**	**1.026**	**0.294**	**1.018**	**0.839**	**0.000**

About BT/WiFi Ant and LTE MAS Ant

Position	Head				Bodyworn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	\	\	\	\	\	\	\	\	\	\	\	\
GSM 1900	\	\	\	\	\	\	\	\	\	\	\	\
UMTS B2	\	\	\	\	\	\	\	\	\	\	\	\
UMTS B4	\	\	\	\	\	\	\	\	\	\	\	\
UMTS B5	\	\	\	\	\	\	\	\	\	\	\	\
LTE B2	\	\	\	\	\	\	\	\	\	\	\	\
LTE B4	\	\	\	\	\	\	\	\	\	\	\	\
LTE B5	\	\	\	\	\	\	\	\	\	\	\	\
LTE B7	0.657	0.189	0.212	0.096	0.149	0.377	0.158	0.336	0.508	\	\	\
LTE B12	\	\	\	\	\	\	\	\	\	\	\	\
LTE B26	\	\	\	\	\	\	\	\	\	\	\	\
LTE B66	\	\	\	\	\	\	\	\	\	\	\	\
802.11b/g	0.058	0.018	0.275	0.071	0.101	0.217	0.227	0.467	\	0.590	0.052	\
5.2G	\	\	\	\	\	\	0.080	0.175	\	0.374	0.068	\
5.3G	0.062	0.022	0.194	0.051	0.048	0.119	\	\	\	\	\	\
5.6G	0.078	0.048	0.217	0.081	0.103	0.227	\	\	\	\	\	\
5.8G	0.113	0.052	0.305	0.106	0.174	0.513	0.255	0.500	\	1.018	0.116	\
Bluetooth	0.036	0.031	0.183	0.039	0.020	0.036	0.229	0.356	\	\	\	\
Max. SAR Summation	**0.770**	**0.241**	**0.517**	**0.202**	**0.323**	**0.890**	**0.413**	**0.836**	**0.508**	**1.018**	**0.116**	**0.000**

Note: MAX. $\sum SAR_{1g}$ = 1.292W/Kg <1.6W/Kg, so the SAR to peak location separation ratio should not be considered.

3. About product specific 10g SAR

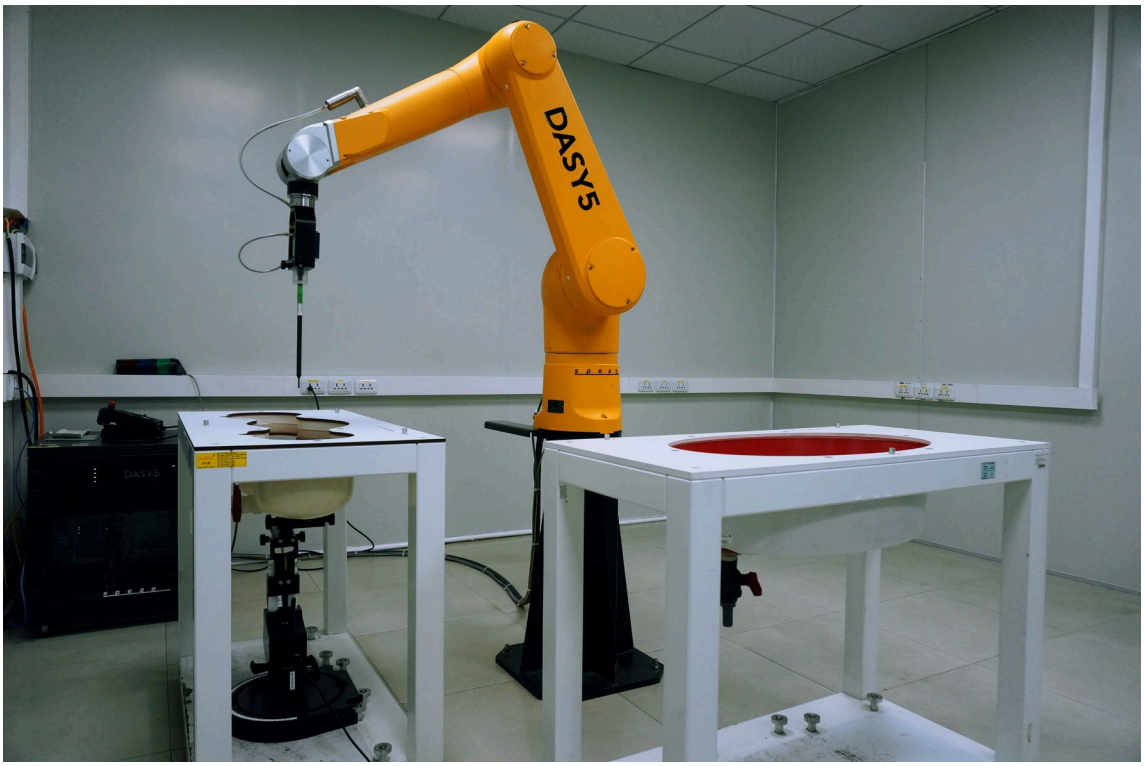
Position	Specific 10g SAR					
	Front Face (0cm)	Rear Face (0cm)	Left Side (0cm)	Right Side (0cm)	Top Side (0cm)	Bottom Side (0cm)
GSM 850	/	/	/	/	/	/
GSM 1900	/	/	/	/	/	/
UMTS B2	/	/	/	/	/	/
UMTS B4	/	/	/	/	/	/
UMTS B5	/	/	/	/	/	/
LTE B2	/	/	/	/	/	/
LTE B4	/	/	/	/	/	/
LTE B5	/	/	/	/	/	/
LTE B7	/	/	/	/	/	/
LTE B12	/	/	/	/	/	/
LTE B26	/	/	/	/	/	/
LTE B66	/	/	/	/	/	/
WiFi 2.4G	/	/	/	/	/	/
WiFi 5.2G	/	/	/	/	/	/
WiFi 5.3G	0.253	0.328	/	0.905	0.072	/
WiFi 5.6G	0.524	0.761	/	1.665	0.140	/
WiFi 5.8G	/	/	/	/	/	/
BT	0.094	0.142	/	0.223	0.022	/
Max. SAR Summation	0.524	0.761	0.000	1.665	0.140	0.000

Note:
The Simultaneous SAR of product Specific 10-g SAR is 1.665W/Kg which less than 4.0W/Kg, so the Simultaneous SAR is not required to calculate.

APPENDIX

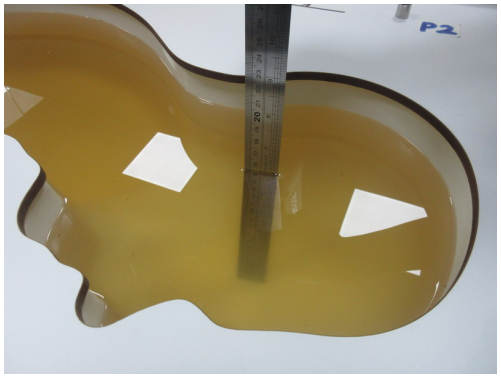
1. TEST LAYOUT

Specific Absorption Rate Test Layout

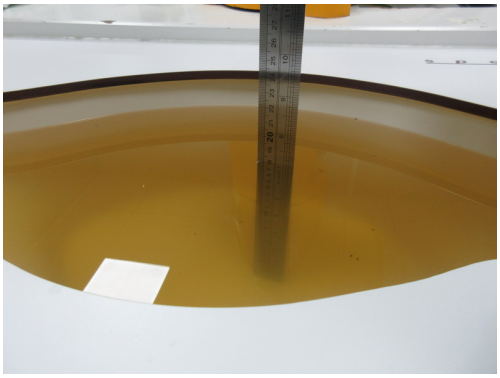


Liquid depth in the flat Phantom (≥15cm depth)

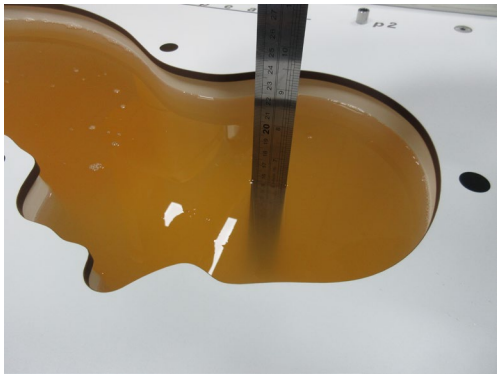
HSL_750MHz_Head_15.5cm



HSL_750MHz_Body_18.1cm



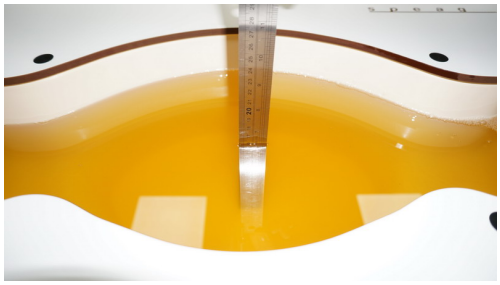
HSL_810MHz-920MHz_Head_15.6cm



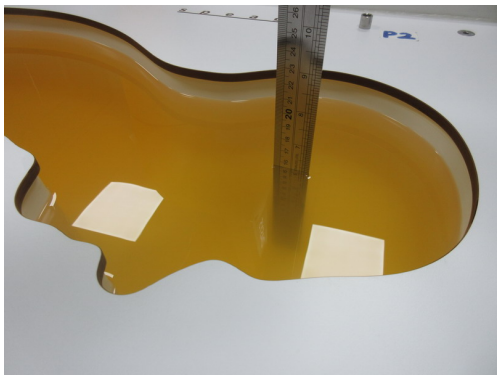
HSL_810MHz-920MHz_Body_18.8cm

HSL_1700MHz-1900MHz_Head_15.5cm

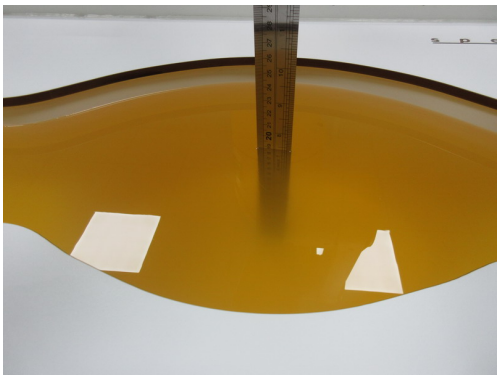
HSL_1700MHz-1900MHz_Body_16.2cm



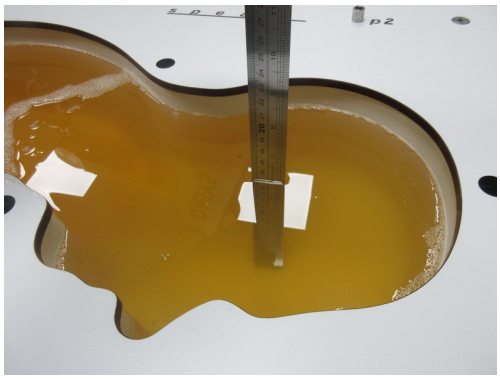
HSL_1900MHz-2300MHz_Head_15.5cm



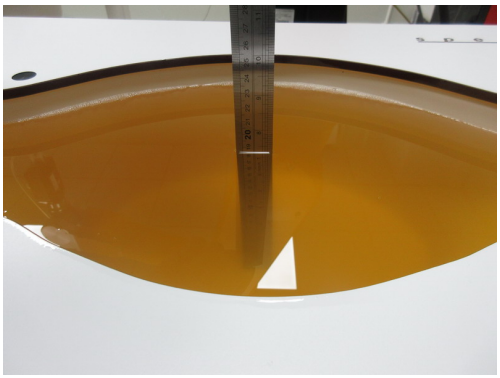
HSL_1900MHz-2300MHz_Body_18.8cm



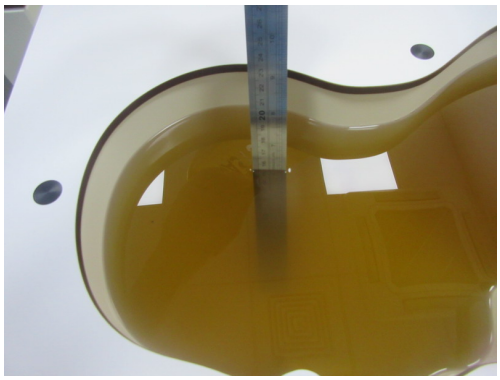
HSL_2300MHz-2700MHz_Head_15.3cm



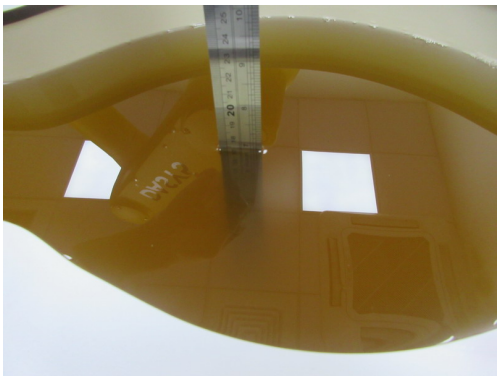
HSL_2300MHz-2700MHz_Body_18.5cm



HSL_5GHz_Head_15.6cm



HSL_5GHz_Body_17.5cm



Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-1-2012C016_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-1-2012C016_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-1-2012C016_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-1-2012C016_Appendix D.)

Appendix E. Antenna location

(Pls See BTL-FCC SAR-1-2012C016_Appendix E.)

Appendix F. Conducted Power Measurement Result

(Pls See BTL-FCC SAR-1-2012C016_Appendix F.)

End of Test Report