



FCC SAR Test Report

FCC ID: 2AUCY-V2604

Project No. : 2603C245
Equipment : Mobile Phone
Brand Name : vivo
Model Name : V2604
Date of Receipt : Mar. 30, 2026
Date of Test : Mar. 30, 2026 ~ Apr. 21, 2026
Issued Date : Apr. 24, 2026
Test Sample : Engineering Sample No.: DG920260330113, DG920260330111
Standard(s) : Please refer to page 2.
Applicant : vivo Mobile Communication Co., Ltd.
Address : No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Manufacturer : vivo Mobile Communication Co., Ltd.
Address : No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

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

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- Standard(s)** : **IEEE Std C95.1:2019** IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 kHz to 300 GHz
- IEEE Std 1528TM-2013** IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- KDB447498 D01** General RF Exposure Guidance v06
KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- Test method** : **KDB865664 D02** SAR Reporting v01r02
KDB941225 D01 3G SAR Procedures v03r01
KDB941225 D05 SAR for LTE Devices v02r05
KDB941225 D06 Hotspot Mode V02r01
KDB248227 D01 802.11 Wi-Fi SAR v02r02
KDB648474 D04 Handset SAR v01r03
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** assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**. The report must not be used by the client to claim product certification, approval, or endorsement by A2LA or any agency of the U.S. Government.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 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.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

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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REVISION HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCC SAR-1-2603C245	R00	Original Report.	Apr. 22, 2026	Invalid
BTL-FCC SAR-1-2603C245	R01	This report added note 2) description in page 10. It is a revision of the report BTL-FCC SAR-1-2603C245 R00. This is a newly released report, replacing the BTL-FCC SAR-1-2603C245 R00 report.	Apr. 24, 2026	Valid

1. GENERAL INFORMATION

1.1 STATEMENT OF COMPLIANCE

Mode	Highest Reported Head SAR-1g (W/kg)	Highest Reported Body-worn SAR-1g (W/kg)	Highest Reported Hotspot SAR-1g (W/kg)	Highest Reported Sensor SAR-1g (W/kg)
GSM850	0.951	0.698	1.004	/
GSM1900	0.853	0.274	0.678	1.048
UMTS B2	0.613	0.431	0.607	1.047
UMTS B4	0.640	0.512	0.516	1.017
UMTS B5	0.637	0.722	0.609	/
LTE B2	0.654	0.405	0.789	1.034
LTE B4	0.696	0.452	0.454	0.893
LTE B5	0.846	0.623	0.623	/
LTE B7	0.875	0.356	0.683	0.938
LTE B13	0.251	0.247	0.494	/
LTE B26	0.827	0.567	0.886	/
LTE B38	0.776	0.314	0.427	0.897
LTE B41	0.832	0.388	0.533	1.040
LTE B66	0.681	0.427	0.496	0.912
WLAN 2.4G	0.481	0.195	0.241	/
WLAN 5.2G	0.469	0.230	0.401	/
WLAN 5.3G	0.497	0.289	0.397	/
WLAN 5.6G	0.430	0.154	0.318	/
WLAN 5.8G	0.385	0.159	0.356	/
Bluetooth	0.179	0.022	0.042	/

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/IEEE C95.1, 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™.

1.2 LABORATORY ENVIRONMENT

Temperature	Min. = 18°C, Max. = 25°C
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	Mobile Phone	
Brand Name	vivo	
Test Model	V2604	
Model Name	V2604	
Model Difference(s)	N/A	
IMEI Code	860256081964790 860256081965870	
S/N	10AG3F0ES6000ZC 10AG3F0ENT000ZC	
Hardware Version	MP_0.1	
Software Version	PD2558F_EX_A_16.0.7.1.W30	
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)
	GSM850	824~849
	GSM1900	1850~1910
	UMTS B2	1850~1910
	UMTS B4	1710~1755
	UMTS B5	824~849
	LTE B2	1850~1910
	LTE B4	1710~1755
	LTE B5	824~849
	LTE B7	2500~2570
	LTE B13	777~787
	LTE B26	814~849
	LTE B38	2570~2620
	LTE B41	2496~2690
	LTE B66	1710~1780
	Bluetooth	2400~2483.5
	WLAN 2.4G	2400~2483.5
	WLAN 5.2G	5150~5250
	WLAN 5.3G	5250~5350
	WLAN 5.6G	5470~5725
	WLAN 5.8G	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
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 B2/4/5/7/13/26/38/41/66)	

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)				
	23230 (LTE B13 BW=10MHz)				
	26765-26865-26965 (LTE B26 BW=15MHz)				
	37850-38000-38150 (LTE B38 BW=20MHz)				
	39750-40185-40620-41055-41490 (LTE B41 BW=20MHz)				
	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/ac VHT20)				
	3-6-9 (2.4G WiFi 802.11n HT40/ac VHT40)				
	5G WiFi	5.2G	5.3G	5.6G	5.8G
	802.11a/n HT20/ ac VHT20	36-48	52-64	100-120-140	149-157-165
	802.11n HT40/ ac VHT40	38-46	54-62	102-118-134	151-159
	802.11ac VHT80	42	58	106-122	155

Antenna Information	Manufacturer	Model Name	Antenna Type	Ant. No.	Gain (dBi)	Band			
	N/A	N/A	Monopole	Ant 11#	-1.69	GSM850			
					-1.69	UMTS B5			
					-1.69	LTE B5			
					-5.82	LTE B13			
					-1.69	LTE B26			
		N/A	PIFA	Ant 14#	-2.46	GSM1900			
					-2.46	UMTS B2			
					-1.82	UMTS B4			
					-2.46	LTE B2			
					-1.82	LTE B4			
					-0.75	LTE B7			
					-0.89	LTE B38			
					-0.75	LTE B41			
					-1.21	LTE B66			
					N/A	PIFA	Ant 31#	-5.47	GSM850
								-5.47	UMTS B5
								-5.47	LTE B5
								-6.17	LTE B13
		-5.47	LTE B26						
		N/A	PIFA	Ant 41#	-1.21	GSM1900			
					-1.21	UMTS B2			
					-3.44	UMTS B4			
					-1.21	LTE B2			
					-3.44	LTE B4			
					-1.13	LTE B7			
					-1.29	LTE B38			
					-1.13	LTE B41			
					-2.21	LTE B66			
	Dongguan Zhouhuang Plastic Hardware Products Co., Ltd.	ET3091B	IFA	Ant 22#	-1.95	Bluetooth			
				Ant 23#	-1.95	WLAN 2.4G			
					0.41	WLAN 5G			
Other Information									
Battery	Trademark	vivo							
	Model Name	BB65							
	Power Rating	DC 3.92V, 7920mAh, 31.05Wh							
	Manufacturer	Sunwoda Electronic CO.,LTD.							
USB-C Cable	Trademark	vivo							
	Model Name	BK-C-49-B							

Note:

- 1) The antenna gain is provided by the manufacturer.
- 2) According to BTL-FCCP-10-2603C245_NFC R00 report, the maximum electric field strength tested was 47.28 dBuV/m. This translates to 0.00001816 mW. Reference KDB447498-D04 specifies that the electric field intensity is less than 1mW, NFC can directly eliminate evaluation tests.

1.4 MAIN TEST INSTRUMENTS

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	DASY5 System	Speag	DASY 5	N/A	N/A	N/A
2	Data Acquisition Electronics	Speag	DAE4	1717	Jun. 19, 2025	1 Year
3	Data Acquisition Electronics	Speag	DAE4	1390	Nov. 19, 2025	1 Year
4	E-field Probe	Speag	EX3DV4	7544	Jun. 19, 2025	1 Year
5	E-field Probe	Speag	EX3DV4	7693	Nov. 26, 2025	1 Year
6	System Validation Dipole	Speag	D750V3	1095	Sep. 16, 2024	3 Years
7	System Validation Dipole	Speag	D835V2	4d160	Apr. 25, 2024	3 Years
8	System Validation Dipole	Speag	D1750V2	1101	Apr. 25, 2024	3 Years
9	System Validation Dipole	Speag	D1900V2	5d179	Apr. 25, 2024	3 Years
10	System Validation Dipole	Speag	D2300V2	1033	Sep. 13, 2024	3 Years
11	System Validation Dipole	Speag	D2450V2	919	Apr. 22, 2024	3 Years
12	System Validation Dipole	Speag	D2600V2	1067	Apr. 22, 2024	3 Years
13	System Validation Dipole	Speag	D5GHzV2	1160	Apr. 25, 2024	3 Years
14	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1469	N/A	N/A
15	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1896	N/A	N/A
16	Wideband Radio Communication Tester	R&S	CMW500	165848	Dec. 20, 2025	1 Year
17	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	May 29, 2025	1 Year
18	Power Amplifier	Mini-Circuits	ZVE-8G+	520701341	Dec. 20, 2025	1 Year
19	DC Source metter	Iteck	IT6154	006104126768201001	May 29, 2025	1 Year
20	Vector Network Analyzer	Agilent	E5071C	MY46102965	Dec. 20, 2025	1 Year
21	Signal Generator	Agilent	N5172B	MY53050758	Dec. 20, 2025	1 Year
22	Smart Power Sensor	R&S	NRP-Z21	102209	Dec. 20, 2025	1 Year
23	3.5mm Economy Calibration Kit	Agilent	85052D	MY43252246	Nov. 20, 2025	1 Year
24	Dielectric Assessment Kit	Speag	DAK-3.5	1226	Feb. 19, 2026	1 Year
25	Directional Coupler	Talent Microwave	TC-05180-20S	210628013	Dec. 20, 2025	1 Year
26	Coupler	Woken	ATD10-400M-6G-A2	2021008	May 29, 2025	1 Year
27	Liquid Thermometer	Nscing Es	YZ6021S	/	Nov. 13, 2025	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, Dalang, Dongguan, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969.

BTL's Designation Number for FCC: CN1377.

2.2 MEASUREMENT UNCERTAINTY

Note: The test uses more than one Probe, and only the worst uncertainty result is presented.

Uncertainty Budget for Frequency range of 300 MHz to 3 GHz

Symbol	Input quantity X_i (source of uncertainty)	Unc. Value	Prob. Dist.	Div.	c_i (1g)	c_i (10g)	Std.Unc. (1g) (±%)	Std.Unc. (10g) (±%)
Measurement system errors								
CF	Probe calibration(±%)	13.0	N	2	1	1	6.5	6.5
CF_{drift}	Probe calibration drift(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
LIN	Probe linearity and detection limit(±%)	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
BBS	Broadband signal(±%)	3.0	R	$\sqrt{3}$	1	1	1.7	1.7
ISO	Probe isotropy(±%)	7.6	R	$\sqrt{3}$	1	1	4.4	4.4
DAE	Other probe and data acquisition errors(±%)	0.7	N	1	1	1	0.7	0.7
AMB	RF ambient and noise(±%)	1.8	N	1	1	1	1.8	1.8
Δ_{xyz}	Probe positioning errors(±mm)	0.006	N	1	0.14	0.14	0.08	0.08
DAT	Data processing errors(±%)	1.2	N	1	1	1	1.2	1.2
Phantom and device (DUT or validation antenna) errors								
LIQ(σ)	Conductivity (meas.)(±%)	0.8	N	1	0.78	0.71	0.7	0.6
LIQ(T_c)	Conductivity (temp.)(±%)	4.16	R	$\sqrt{3}$	0.78	0.71	1.9	1.7
EPS	Phantom Permittivity(±%)	14	R	$\sqrt{3}$	0	0	0.0	0.0
DIS	Distance DUT - TSL(±%)	2	N	1	2	2	4.0	4.0
D_{xyz}	Device Positioning(±%)	0.1	N	1	1	1	0.1	0.1
H	Device Holder(±%)	2.1	N	1	1	1	2.1	2.1
MOD	DUT Modulationm(±%)	2.4	R	$\sqrt{3}$	1	1	1.4	1.4
TAS	Time-average SAR(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
RF_{drift}	DUT drift(±%)	1.3	N	1	1	1	1.3	1.3
VAL	Val Antenna Unc.(±%)	0	N	1	1	1	0.0	0.0
P_{in}	Unc. Input Power(±%)	0	N	1	1	1	0.0	0.0
Corrections to the SAR result								
$C(\epsilon', \sigma)$	Deviation to Target(±%)	1.9	N	1	1	0.84	1.9	1.6
$C(R)$	SAR scaling(±%)	0	R	$\sqrt{3}$	1	1	0.0	0.0
$u(\Delta SAR)$	Combined uncertainty						10.5	10.4
	Coverage Factor for 95%						k=2	k=2
U	Expanded uncertainty					U =	21.0	20.9

a Other probability distributions and divisors may be used if they better represent available knowledge of the quantities concerned.

Uncertainty Budget for Frequency range of 3 GHz to 6 GHz

Symbol	Input quantity X_i (source of uncertainty)	Unc. Value	Prob. Dist.	Div.	ci (1g)	ci (10g)	Std.Unc. (1g) (±%)	Std.Unc. (10g) (±%)
Measurement system errors								
CF	Probe calibration(±%)	14.0	N	2	1	1	7.0	7.0
CF_{drift}	Probe calibration drift(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
LIN	Probe linearity and detection limit(±%)	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
BBS	Broadband signal(±%)	2.6	R	$\sqrt{3}$	1	1	1.5	1.5
ISO	Probe isotropy(±%)	7.6	R	$\sqrt{3}$	1	1	4.4	4.4
DAE	Other probe and data acquisition errors(±%)	1.2	N	1	1	1	1.2	1.2
AMB	RF ambient and noise(±%)	1.8	N	1	1	1	1.8	1.8
Δ_{xyz}	Probe positioning errors(±mm)	0.005	N	1	0.29	0.29	0.15	0.15
DAT	Data processing errors(±%)	2.3	N	1	1	1	2.3	2.3
Phantom and device (DUT or validation antenna) errors								
LIQ(σ)	Conductivity (meas.)(±%)	0.7	N	1	0.78	0.71	0.6	0.5
LIQ(T_c)	Conductivity (temp.)(±%)	2.45	R	$\sqrt{3}$	0.78	0.71	1.1	1.0
EPS	Phantom Permittivity(±%)	14	R	$\sqrt{3}$	0.25	0.25	2.0	2.0
DIS	Distance DUT - TSL(±%)	2	N	1	2	2	4.0	4.0
D_{xyz}	Device Positioning(±%)	0.5	N	1	1	1	0.5	0.5
H	Device Holder(±%)	1.9	N	1	1	1	1.9	1.9
MOD	DUT Modulationm(±%)	2.4	R	$\sqrt{3}$	1	1	1.4	1.4
TAS	Time-average SAR(±%)	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
RF_{drift}	DUT drift(±%)	1.1	N	1	1	1	1.1	1.1
VAL	Val Antenna Unc.(±%)	0	N	1	1	1	0.0	0.0
P_{in}	Unc. Input Power(±%)	0	N	1	1	1	0.0	0.0
Corrections to the SAR result								
$C(\epsilon', \sigma)$	Deviation to Target(±%)	1.9	N	1	1	0.84	1.9	1.6
$C(R)$	SAR scaling(±%)	0	R	$\sqrt{3}$	1	1	0.0	0.0
$u(\Delta SAR)$	Combined uncertainty						11.0	11.0
	Coverage Factor for 95%						k=2	k=2
U	Expanded uncertainty					U =	22.1	22.0
a Other probability distributions and divisors may be used if they better represent available knowledge of the quantities concerned.								

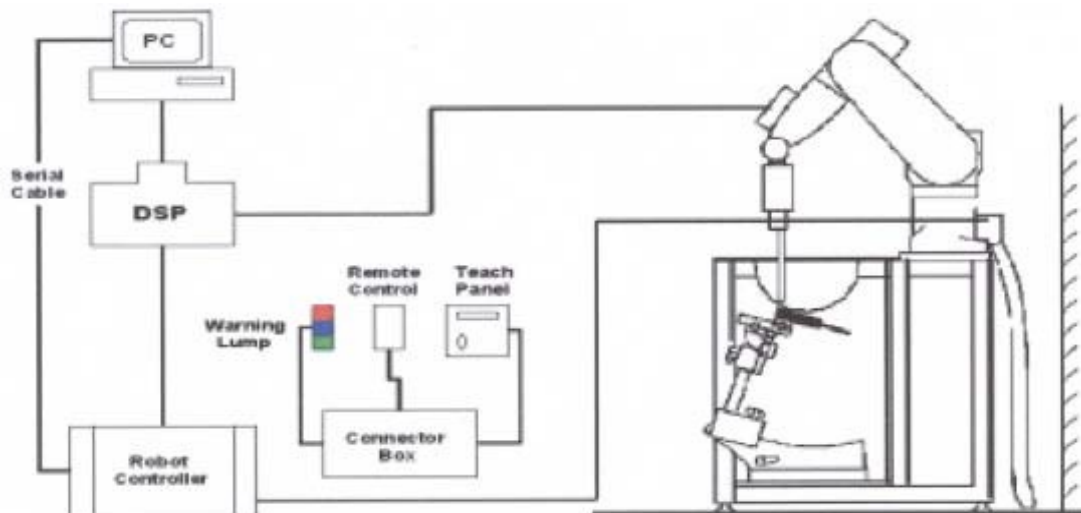
3. SAR MEASUREMENTS SYSTEM CONFIGURATION

3.1 SAR MEASUREMENT SET-UP

The DASY 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 DASY measurement server.
6. The DASY 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. DASY 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 DASY E-FIELD PROBE SYSTEM

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

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	4 MHz to 10 GHz Linearity: ± 0.2 dB (30 MHz to 10 GHz)
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1.0 mm

Note: This size is only the standard information for the E-Field Probe device. For the exact dimensions, please refer to the calibration report in the appendix.



E-field Probe

3.2.2 E-FIELD PROBE CALIBRATION

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than $\pm 10\%$. The spherical isotropy was evaluated and found to be better than $\pm 0.25\text{dB}$. 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 below 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.

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

Where: Δt = Exposure time (30 seconds),

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

ΔT = Temperature increase due to RF exposure.

Or

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

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

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 lightweight 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 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 IEC/IEEE 62209-1528. 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 the liquid from evaporating. 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	
Available	Special	

3.2.4 SCANNING PROCEDURE

The DASYS system 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. $\pm 5\%$.

Both area scanning and zoom scanning comply with the IEC/IEEE 62209-1528 standard.

- Area Scan

Table 3 – Area scan parameters

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface (z_{M1} in Figure 20 in mm)	5 ± 1	$\delta \ln(2)/2 \pm 0,5^a$
Maximum spacing between adjacent measured points in mm (see O.8.3.1) ^b	20, or half of the corresponding zoom scan length, whichever is smaller	$60/f$, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20) ^c	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space. ^b See Clause O.8 on how Δx and Δy may be selected for individual area scan requirements. ^c The probe angle relative to the phantom surface normal is restricted due to the degradation in the measurement accuracy in fields with steep spatial gradients. The measurement accuracy decreases with increasing probe angle and increasing frequency. This is the reason for the tighter probe angle restriction at frequencies above 3 GHz.		

- Zoom Scan

Table 4 – Zoom scan parameters

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 20 and Table 3, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x - and y -directions (Δx and Δy , in mm)	8	$24/f^b$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	5	$10/(f - 1)$
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	4	$12/f$
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 20)	1,5	1,5
Minimum edge length of the zoom scan volume in the x - and y -directions (L_z in O.8.3.2, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_n in O.8.3.2 in mm)	30	22
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space.		
^b This is the maximum spacing allowed, which might not work for all circumstances.		

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 if the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within $\pm 5\%$ 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 2300	-	44.9	-	0.1	-	-	55.0	-
Head 2450	-	45.0	-	0.1	-	-	54.9	-
Head 2600	-	45.1	-	0.1	-	-	54.8	-
Head 5G	-	-	-	-	-	17.2	65.5	17.3

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Targeted Conductivity (σ)	Targeted Permittivity (ϵ_r)	Deviation Conductivity (σ) (%)	Deviation Permittivity (ϵ_r) (%)	Date
Head	750	22.2	0.878	41.465	0.89	41.9	-1.35	-1.04	Apr. 07, 2026
Head	750	22.3	0.886	41.702	0.89	41.9	-0.45	-0.47	Apr. 08, 2026
Head	750	22.5	0.880	41.598	0.89	41.9	-1.12	-0.72	Apr. 09, 2026
Head	750	22.4	0.896	42.203	0.89	41.9	0.67	0.72	Apr. 10, 2026
Head	835	22.1	0.916	42.015	0.90	41.5	1.78	1.24	Apr. 02, 2026
Head	835	22.4	0.940	43.122	0.90	41.5	4.44	3.91	Apr. 03, 2026
Head	835	22.4	0.927	41.088	0.90	41.5	3.00	-0.99	Apr. 07, 2026
Head	835	22.3	0.912	41.020	0.90	41.5	1.33	-1.16	Apr. 08, 2026
Head	835	22.5	0.906	40.917	0.90	41.5	0.67	-1.40	Apr. 09, 2026
Head	835	22.4	0.923	41.521	0.90	41.5	2.56	0.05	Apr. 10, 2026
Head	835	22.6	0.932	42.966	0.90	41.5	3.56	3.53	Apr. 11, 2026
Head	1750	22.6	1.337	39.206	1.37	40.1	-2.41	-2.23	Apr. 06, 2026
Head	1750	22.8	1.313	39.177	1.37	40.1	-4.16	-2.30	Apr. 07, 2026
Head	1750	22.6	1.336	39.107	1.37	40.1	-2.48	-2.48	Apr. 08, 2026
Head	1750	22.7	1.340	39.180	1.37	40.1	-2.19	-2.29	Apr. 12, 2026
Head	1750	22.8	1.314	39.184	1.37	40.1	-4.09	-2.28	Apr. 13, 2026
Head	1900	22.6	1.339	39.059	1.40	40.0	-4.36	-2.35	Apr. 04, 2026
Head	1900	22.7	1.339	39.063	1.40	40.0	-4.36	-2.34	Apr. 05, 2026
Head	1900	22.5	1.332	39.589	1.40	40.0	-4.86	-1.03	Apr. 06, 2026
Head	1900	22.5	1.343	39.858	1.40	40.0	-4.07	-0.36	Apr. 13, 2026
Head	2450	22.1	1.848	37.445	1.80	39.2	2.67	-4.48	Apr. 10, 2026
Head	2600	22.5	2.057	37.881	1.96	39.0	4.95	-2.87	Apr. 06, 2026
Head	2600	22.6	2.037	37.545	1.96	39.0	3.93	-3.73	Apr. 09, 2026
Head	2600	22.4	2.007	39.261	1.96	39.0	2.40	0.67	Apr. 12, 2026
Head	2600	22.5	1.994	39.420	1.96	39.0	1.73	1.08	Apr. 13, 2026
Head	5250	22.5	4.711	35.509	4.71	36.0	0.02	-1.23	Apr. 11, 2026
Head	5600	22.5	5.119	34.692	5.07	35.5	0.97	-2.28	Apr. 11, 2026
Head	5750	22.5	5.299	34.355	5.22	35.4	1.51	-2.81	Apr. 11, 2026

Sensor

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Targeted Conductivity (σ)	Targeted Permittivity (ϵ_r)	Deviation Conductivity (σ) (%)	Deviation Permittivity (ϵ_r) (%)	Date
Head	1750	22.8	1.324	38.926	1.37	40.1	-3.36	-2.93	Apr. 14, 2026
Head	1900	22.6	1.342	39.135	1.40	40.0	-4.14	-2.16	Apr. 16, 2026
Head	2600	22.5	2.000	38.240	1.96	39.0	2.04	-1.95	Apr. 15, 2026

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) 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 1528TM (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 1g (W/kg)	Measured SAR 1g (W/kg)	normalized SAR 1g (W/kg)	Deviation 1g (%)	Dipole S/N
Head	Apr. 07, 2026	750	8.48	0.874	8.74	3.07	1095
Head	Apr. 08, 2026	750	8.48	0.845	8.45	-0.35	1095
Head	Apr. 09, 2026	750	8.48	0.851	8.51	0.35	1095
Head	Apr. 10, 2026	750	8.48	0.842	8.42	-0.71	1095
Head	Apr. 02, 2026	835	9.83	0.953	9.53	-3.05	4d160
Head	Apr. 03, 2026	835	9.83	0.991	9.91	0.81	4d160
Head	Apr. 07, 2026	835	9.83	0.975	9.75	-0.81	4d160
Head	Apr. 08, 2026	835	9.83	0.966	9.66	-1.73	4d160
Head	Apr. 09, 2026	835	9.83	0.981	9.81	-0.20	4d160
Head	Apr. 10, 2026	835	9.83	0.990	9.90	0.71	4d160
Head	Apr. 11, 2026	835	9.83	0.969	9.69	-1.42	4d160
Head	Apr. 06, 2026	1750	37.00	3.660	36.60	-1.08	1101
Head	Apr. 07, 2026	1750	37.00	3.690	36.90	-0.27	1101
Head	Apr. 08, 2026	1750	37.00	3.590	35.90	-2.97	1101
Head	Apr. 12, 2026	1750	37.00	3.670	36.70	-0.81	1101
Head	Apr. 13, 2026	1750	37.00	3.590	35.90	-2.97	1101
Head	Apr. 04, 2026	1900	39.40	4.010	40.10	1.78	5d179
Head	Apr. 05, 2026	1900	39.40	3.930	39.30	-0.25	5d179
Head	Apr. 06, 2026	1900	39.40	3.910	39.10	-0.76	5d179
Head	Apr. 13, 2026	1900	39.40	3.780	37.80	-4.06	5d179
Head	Apr. 10, 2026	2450	53.10	5.20	52.00	-2.07	919
Head	Apr. 06, 2026	2600	56.80	5.880	58.80	3.52	1067
Head	Apr. 09, 2026	2600	56.80	5.480	54.80	-3.52	1067
Head	Apr. 12, 2026	2600	56.80	5.520	55.20	-2.82	1067
Head	Apr. 13, 2026	2600	56.80	5.470	54.70	-3.70	1067
Head	Apr. 11, 2026	5250	78.70	7.63	76.30	-3.05	1160
Head	Apr. 11, 2026	5600	81.80	8.13	81.30	-0.61	1160
Head	Apr. 11, 2026	5750	78.70	7.66	76.60	-2.67	1160

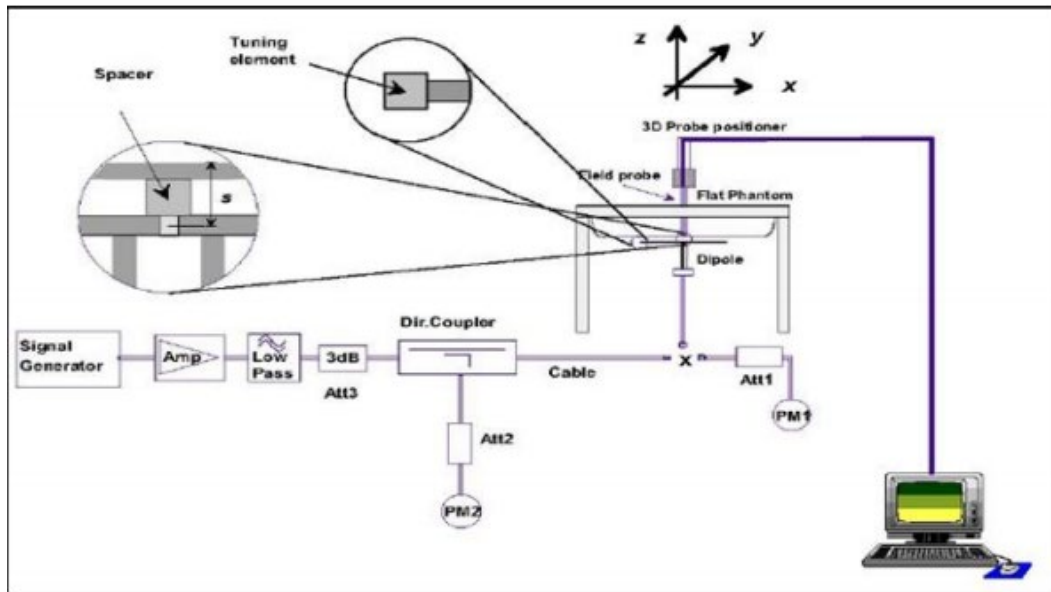
Sensor

System Check	Date	Frequency (MHz)	Targeted SAR 1g (W/kg)	Measured SAR 1g (W/kg)	normalized SAR 1g (W/kg)	Deviation 1g (%)	Dipole S/N
Head	Apr. 14, 2026	1750	37.00	3.70	37.00	0.00	1101
Head	Apr. 16, 2026	1900	39.40	4.01	40.10	1.78	5d179
Head	Apr. 15, 2026	2600	56.80	5.56	55.60	-2.11	1067

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 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. The forward power supplied to the system check antenna shall produce a psSAR of at least 0,4 W/kg. The 1 g or 10 g psSAR range is 0,4 W/kg to 10 W/kg.

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 ($\pm 10\%$).



5. OPERATIONAL CONDITIONS DURING TEST

5.1 GENERAL DESCRIPTION OF TEST PROCEDURES

Connection to the EUT is established via air interface with R&S CMW500, and the EUT is Set to maximum output power by 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.

5.2 SAR TEST CONFIGURATION

5.2.1 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

5.2.2 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 $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/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 , $\Delta NACK$, $\Delta CQI = 8$. The variation of the β_c / β_d ratio causes a power reduction at sub-tests 2 - 4.

Sub-test ^o	β_c ^o	β_d ^o	β_d (SF) ^o	β_c / β_d ^o	β_{hs} (1) ^o	CM(dB)(2) ^o	MPR (dB) ^o
1 ^o	2/15 ^o	15/15 ^o	64 ^o	2/15 ^o	4/15 ^o	0.0 ^o	0 ^o
2 ^o	12/15(3) ^o	15/15(3) ^o	64 ^o	12/15(3) ^o	24/15 ^o	1.0 ^o	0 ^o
3 ^o	15/15 ^o	8/15 ^o	64 ^o	15/8 ^o	30/15 ^o	1.5 ^o	0.5 ^o
4 ^o	15/15 ^o	4/15 ^o	64 ^o	15/4 ^o	30/15 ^o	1.5 ^o	0.5 ^o
Note 1: ΔACK, $\Delta NACK$ and $\Delta CQI = 8$ $A_{hs} = \beta_{hs} / \beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$ Note 2: CM=1 for $\beta_c / \beta_d = 12/15$, $\beta_{hs} / \beta_c = 24/15$. For all other combinations of DPDCH, DPCCH 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.^o 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 $\beta_c = 11/15$ and $\beta_d = 15/15$^o							

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 $\leq 1/4$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is $\leq 1.2W/kg$, 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 ¹	β_c ²	β_d ²	β_d (SF) ²	β_c/β_d ²	β_{hs} ⁽¹⁾	β_{ec} ²	β_{ed} ²	β_{ec} (SF) ²	β_{ed} (code) ²	CM ⁽²⁾ (dB) ²	MP R ² (dB) ²	AG ⁽⁴⁾ Index ²	E-TFC I ²
1 ²	11/15 ⁽³⁾	15/15 ⁽³⁾	64 ²	11/15 ⁽³⁾	22/15 ²	209/225 ²	1039/225 ²	4 ²	1 ²	1.0 ²	0.0 ²	20 ²	75 ²
2 ²	6/15 ²	15/15 ²	64 ²	6/15 ²	12/15 ²	12/15 ²	94/75 ²	4 ²	1 ²	3.0 ²	2.0 ²	12 ²	67 ²
3 ²	15/15 ²	9/15 ²	64 ²	15/9 ²	30/15 ²	30/15 ²	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$ ²	4 ²	2 ²	2.0 ²	1.0 ²	15 ²	92 ²
4 ²	2/15 ²	15/15 ²	64 ²	2/15 ²	4/15 ²	2/15 ²	56/75 ²	4 ²	1 ²	3.0 ²	2.0 ²	17 ²	71 ²
5 ²	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64 ²	15/15 ⁽⁴⁾	30/15 ²	24/15 ²	134/15 ²	4 ²	1 ²	1.0 ²	0.0 ²	21 ²	81 ²

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

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 difference²

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 $\beta_d = 15/15$ ²

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 $\beta_d = 15/15$ ²

Note 5 : Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g²

Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.²

HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Spreading 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.

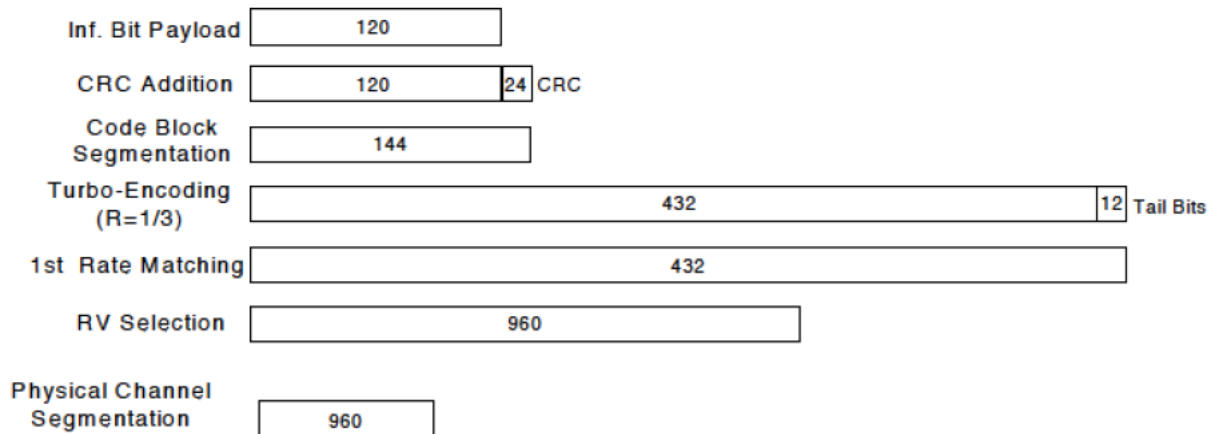


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

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

Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH 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 $\beta_c = 11/15$ and $\beta_d = 15/15$.

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 (Note 3)	β_d	β_{HS} (Note 1)	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	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105
Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0). Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ 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.

5.2.3 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 $> \frac{1}{2}$ 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 $> \frac{1}{2}$ 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.

LTE (TDD) Test Configuration

According to KDB 941225 D05 SAR for LTE Devices V02r05, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE B38/41 supports 3GPP TS 36 for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE B38/41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Figure 4.2-1: Frame structure type 2

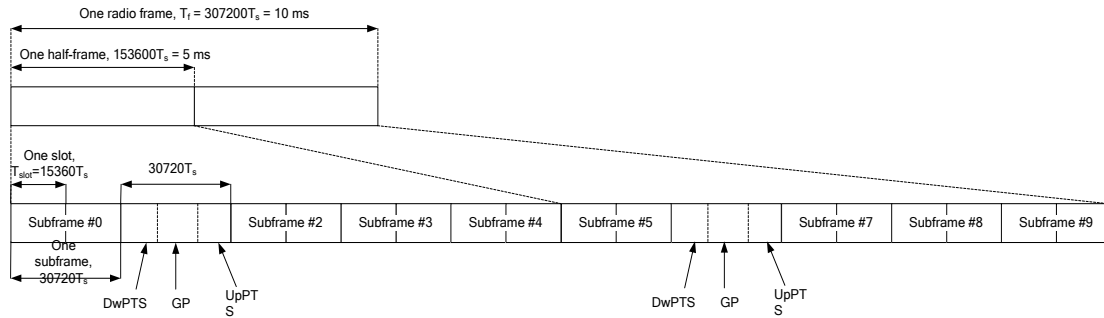


Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations

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

According to Figure 4.2-1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table 4.2-2:

$$\text{Duty cycle} = (30720T_s \cdot \text{Ups} + \text{Uplink Component} \cdot \text{Specials}) / (307200T_s)$$

About the uplink component of Special subframes, we can figure out by Table 4.2-1:

$$\text{Uplink Component} = \text{UpPTS}$$

In conclusion, for the TDD LTE B38/41, Duty Cycle can be calculated with formula as below. All these sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720T_s \cdot \text{Ups}) + \text{UpPTS} \cdot \text{Specials}] / (307200T_s)$$

And we can get different Duty cycles under different configurations:

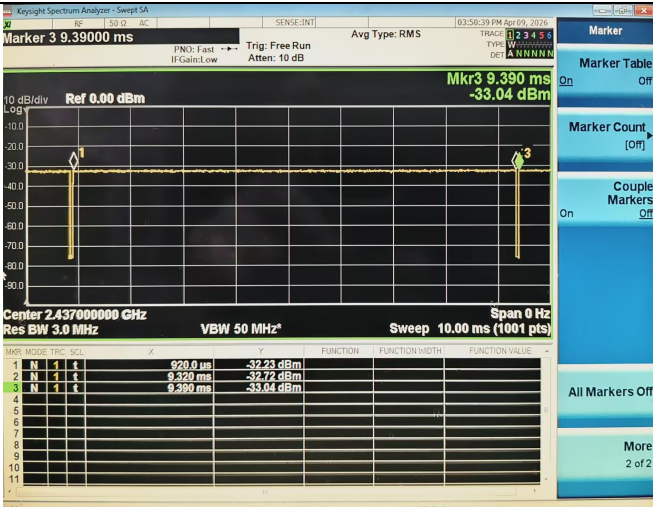
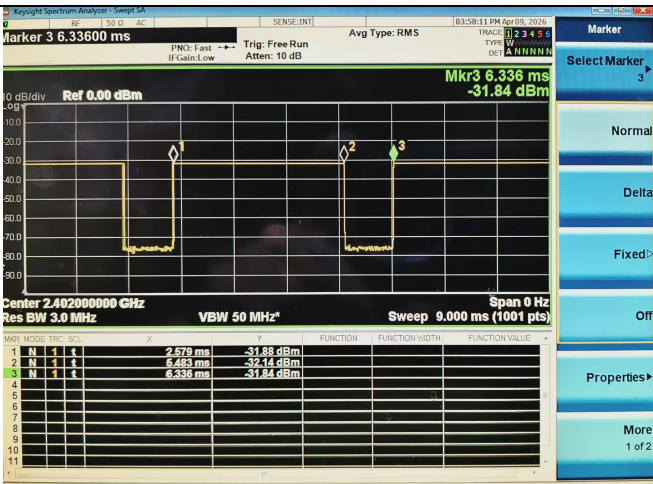
Uplink-downlink configuration	Subframe number			Configuration of special subframe							
				Normal cyclic prefix in downlink				Extended cyclic prefix in downlink			
				Normal cyclic prefix in uplink		Extended cyclic prefix in uplink		Normal cyclic prefix in uplink		Extended cyclic prefix in uplink	
	D	S	U	configuration 0-4	configuration 5-9	configuration 0-4	configuration 5-9	configuration 0-3	configuration 4-7	configuration 0-3	configuration 4-7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type 2.

5.2.4 WIFI TEST CONFIGURATION

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

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.

Duty Cycle	Duty Cycle
WiFi 2.4G	WiFi 5G
99.17%	95.80%
	
Duty Cycle	
BT	
77.30%	
	

5.2.4.1 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.

5.2.4.2 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.

5.2.4.3 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.

5.2.4.4 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.

5.3 TEST POSITION

5.3.1 HEAD TEST CONFIGURATION

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

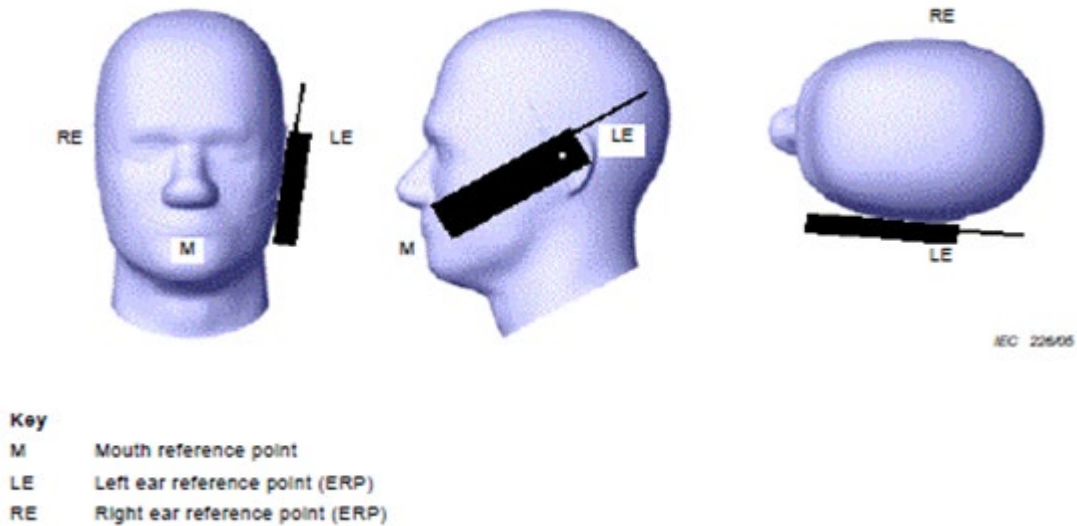


Figure 1 Cheek position of the wireless device on the left side of SAM

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

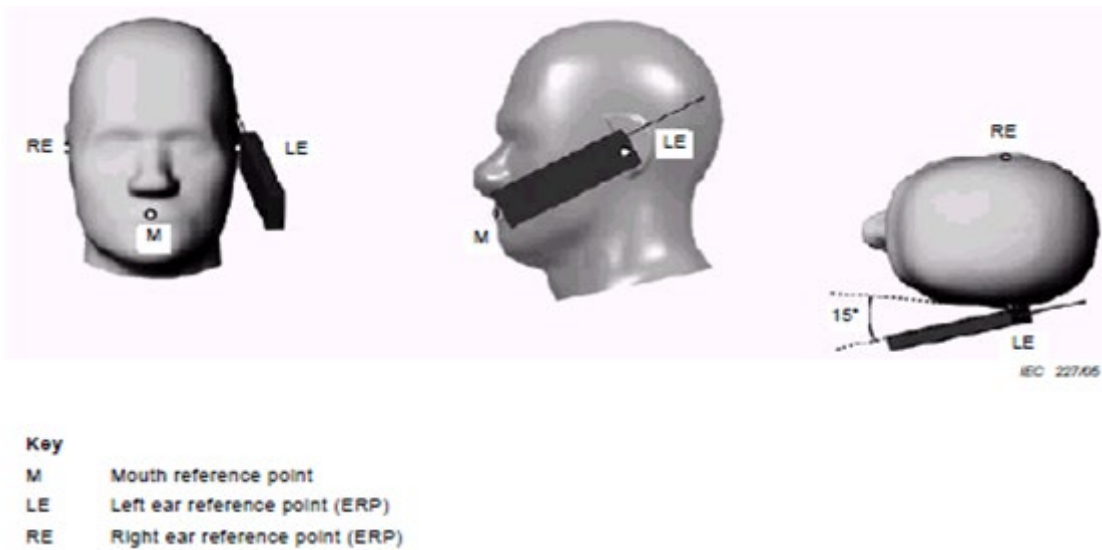


Figure 2 Tilt position of the wireless device on the left side of SAM

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

5.3.2 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.

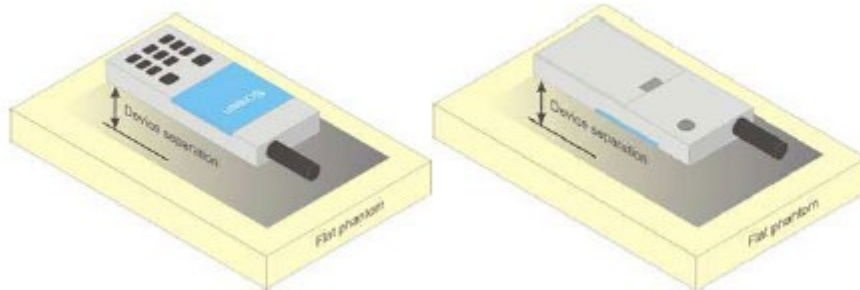


Figure 3 Test positions for body-worn device

5.3.3 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 $> 9\text{cm} \times 5\text{cm}$, 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.

5.3.4 PRODUCT SPECIFIC 10-G SAR TEST CONFIGURATION

Per KDB 648474 D04, for smart phones with a display diagonal dimension $> 15.0\text{cm}$ or an overall diagonal dimension $> 16.0\text{cm}$ 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 $\leq 25\text{mm}$ 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 $> 1.2\text{W/kg}$; 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 length of the overall diagonal dimension of the EUT is $173.6\text{mm} > 160\text{mm}$.

5.4 RECEIVER DETECTION MECHANISM SPECIFICATION

DSI	Test conditions	Test scenario	Antenna	Test surface
DSI2	Receiver on	Head Standalone	All Ant	Head
DSI3	Receiver on+WLAN	Head Simultaneous	All Ant	Head
DSI4	Receiver off+Sensor on	Body Standalone	Ant 14#	Body
DSI5	Receiver off+WLAN+Sensor on	Body Simultaneous	Ant 14#	Body
DSI6	Receiver off+WLAN+Sensor off	Body/Hotspot Simultaneous	All Ant	Body/Hotspot
DSI7	Receiver off+Sensor off	Body Standalone	All Ant	Body

Power level	Power scenario	WWAN_Ant 11#(dBm)				
		GSM 850	UMTS B5	LTE B5	LTE B13	LTE B26
DSI2	Head (Receiver on) Standalone	33.2	21.7	22.7	23.7	22.7
DSI3	Head (Receiver on+WLAN) Simultaneous	33.2	21.2	21.7	23.7	22.7
DSI6	Body/Hotspot (Receiver off+WLAN+Sensor off) Simultaneous	32.2	20.7	21.2	23.7	21.7
DSI7	Body (Receiver off+Sensor off) Standalone	33.2	23.7	24.7	23.7	23.7

Power level	Power scenario	WWAN_Ant 14#(dBm)								
		GSM 1900	UMTS B2	UMTS B4	LTE B2	LTE B4	LTE B7	LTE B38	LTE B41	LTE B66
DSI2	Head (Receiver on) Standalone	27.7	17.7	17.2	17.2	18.2	17.2	18	18	17.7
DSI3	Head (Receiver on+WLAN) Simultaneous	27.7	17.7	16.2	16.2	17.7	16.2	18	18	17.2
DSI4	Body (Receiver off+Sensor on) Standalone	30.7	23.2	22.7	22.7	22.2	20.2	23	23	21.7
DSI5	Body (Receiver off+WLAN+Sensor on) Simultaneous	30.7	21.2	20.7	21.2	21.2	18.7	21	21	21.2
DSI6	Body/Hotspot (Receiver off+WLAN+Sensor off) Simultaneous	30.7	21.2	20.7	21.2	21.2	18.7	21	21	21.2
DSI7	Body (Receiver off+Sensor off) Standalone (Sensor Trigger Distance -1mm)	30.7	24.2	24.2	24.2	24.2	22.7	25	25	24.2

Power level	Power scenario	WWAN_Ant 31#(dBm)				
		GSM 850	UMTS B5	LTE B5	LTE B13	LTE B26
DSI2	Head (Receiver on) Standalone	33.2	24.7	24.7	23.7	24.7
DSI3	Head (Receiver on+WLAN) Simultaneous	33.2	24.7	24.7	23.7	24.7
DSI6	Body/Hotspot (Receiver off+WLAN+Sensor off) Simultaneous	33.2	23.7	23.7	23.7	23.7
DSI7	Body (Receiver off+Sensor off) Standalone	33.2	24.7	24.7	23.7	24.7

Power level	Power scenario	WWAN_Ant 41#(dBm)								
		GSM 1900	UMTS B2	UMTS B4	LTE B2	LTE B4	LTE B7	LTE B38	LTE B41	LTE B66
DSI2	Head (Receiver on) Standalone	30.7	24.2	24.7	24.2	24.2	24.2	25	25	24.2
DSI3	Head (Receiver on+WLAN) Simultaneous	30.7	24.2	24.7	24.2	24.2	24.2	25	25	24.2
DSI6	Body/Hotspot (Receiver off+WLAN+Sensor off) Simultaneous	30.7	20.7	21.7	20.7	21.7	19.2	21	21	21.2
DSI7	Body (Receiver off+Sensor off) Standalone	30.7	22.2	22.7	22.2	22.7	20.7	23.5	23.5	22.2

Power level	Power scenario	WiFi 2.4G_Ant22#(dBm)							
		802.11 b	802.11 g	802.11 n20	802.11 n40	802.11 ac20	802.11 ac40	BT	LE
Level 1	Head (Receiver on) Standalone	14	14	14	14	14	14	11	9
Level 2	Head (Receiver on) Simultaneous	14	14	14	14	14	14	11	9
Level 3	Body (Receiver off) Standalone	19	19	18	18	18	18	11	9
Level 4	Body/Hotspot (Receiver off) Simultaneous	17	17	17	17	17	17	11	9

Power level	Power scenario	WiFi 5G_Ant23# (dBm) UNII_1 (5.15-5.25GHz)						WiFi 5G_Ant23# (dBm) UNII_2A (5.25-5.35GHz)					
		802.11 a	802.11 n20	802.11 n40	802.11 ac20	802.11 ac40	802.11 ac80	802.11 a	802.11 n20	802.11 n40	802.11 ac20	802.11 ac40	802.11 ac80
Level 1	Head (Receiver on) Standalone	12	12	12	12	12	12	12	12	12	12	12	12
Level 2	Head (Receiver on) Simultaneous	12	12	12	12	12	12	12	12	12	12	12	12
Level 3	Body (Receiver off) Standalone	16	16	16	16	16	13.5	16	16	16	16	16	14.5
Level 4	Body/Hotspot (Receiver off) Simultaneous	14	14	14	14	14	13.5	14	14	14	14	14	14

Power level	Power scenario	WiFi 5G_Ant23# (dBm) UNII_2C (5.47-5.725GHz)						WiFi 5G_Ant23# (dBm) UNII_3 (5.725-5.85GHz)					
		802.11 a	802.11 n20	802.11 n40	802.11 ac20	802.11 ac40	802.11 ac80	802.11 a	802.11 n20	802.11 n40	802.11 ac20	802.11 ac40	802.11 ac80
Level 1	Head (Receiver on) Standalone	13	13	13	13	13	13	15	15	15	15	15	15
Level 2	Head (Receiver on) Simultaneous	13	13	13	13	13	13	15	15	15	15	15	15
Level 3	Body (Receiver off) Standalone	15	15	15	15	15	15	15	15	15	15	15	15
Level 4	Body/Hotspot (Receiver off) Simultaneous	13	13	13	13	13	13	13	13	13	13	13	13

5.5 PROXIMITY SENSOR CONFIGURATION

5.5.1 GENERAL PROXIMITY SENSORS IMPLEMENTATION DESCRIPTION

The device uses one proximity sensors to reduce the maximum output power in selected wireless mode and operating configurations to ensure SAR compliance. The sensor implementation can identify and facilitate triggering different max power levels for different scenarios including the device held by hand (Extremity) and different exposure test positions test positions when the device is closed to a user's body. The main purpose for the implementation is to distinguish the scenarios of Body and Extremity, minimize triggering associated with power reduction for different scenarios and provide enhanced user experience.

This device uses a proximity sensor that share the same metallic electrode as the transmitting antenna to facilitate triggering in typical user interactivity with the device.

Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the tablet is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes to ensure SAR compliance for the following scenarios: To reduce the output power of main antennas during body operating configurations. It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure the SAR requirements can still be satisfied.

The specific device(s) covered by the inquiry and basic frequency bands information are as below table:

Model	PD2558
Frequency Bands	GSM850/900/1800/1900 UMTS B1/B2/B4/B5/B8 FDD LTE: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B26/B28/B66 TDD LTE: B38/B40/B41 WiFi 2.4G/5G/BT
Antenna Bands supporting proximity sensor power reduction	Ant 14#: GSM1800/1900 UMTS B1/B2/B4 FDD LTE: B1/B2/B3/B4/B7/B66 TDD LTE: B38/B40/B41

5.5.2 ANTENNAS AND SENSOR PLACEMENT DETAILS

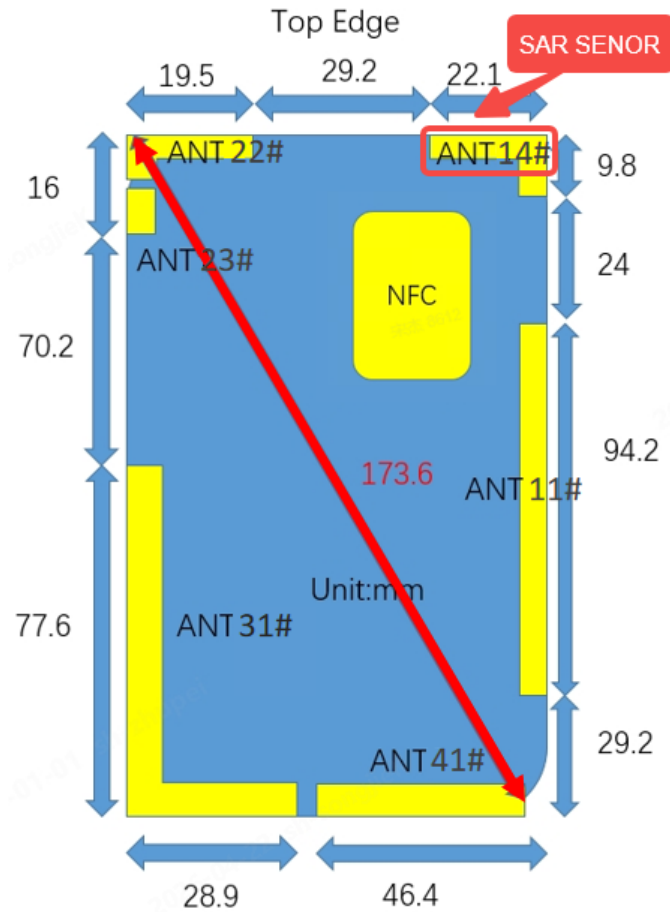


Figure1: The location of the antennas and sensor

Note: main antenna and Secondary antenna can't transmit simultaneously which will be chosen based on the RSSI. Only one antenna can be used for 2G/3G/4G transmission at a time.

Table: Antenna/Sensor Triggering distances(back view)

Tx Antenna	Antenna/Sensor Triggering distances (unit: mm)					
	Front side	Back side	Left side	Right side	Top side	Bottom side
2G&3G&4G Ant 14#	8	12	/	/	15	/

5.5.3 PROXIMITY SENSORS CLARIFICATION

5.5.3.1 Description of proximity sensor Techniques

The proximity sensor is triggered by capacitance changes due to objects in the vicinity of the sensing element. Capacitive proximity sensor share a metallic electrode with the GSM、WCDMA and LTE antenna radiator. The metallic electrode and SAR sensor chip works as a sensor.

The proximity sensor or the power reduction cannot be intentionally or unintentionally turned-off by the user.

The expected capacitance trigger values are programmed in each device for each power back-off stage.

Capacitance trigger value is C1

When a certain object or human body approaches the DUT, if the measured capacitance is lower than C1, proximity sensor is not triggered. If the measured capacitance is equal to C1 or higher than C1, the power back-off is triggered.

5.5.3.2 Power Reduction operation table for the specific device

The device use Unisoc platform, which have some special NVs for SAR related max power back off, These NVs are used to set a new max power limit based proximity information and call configuration. When human body is in proximity and is detected by sensor, a new max power limit is set using the values stored in the NV. If Base station requests the higher output power above the limit, the power control algorithm inside modem chip will limit the power up to the preset power limit. If base station requests a lower output power less than the limit, the out power is controlled by base station.

Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount(dB)	Target Power level (dBm)	Level
GSM1900	Extremity SAR (front/back/top)	0<distance≤15mm	0	30.7	level D4
	Front side	0<distance≤8mm	0	30.7	level D4
	Back side	0<distance≤12mm	0	30.7	level D4
	Top side	0<distance≤15mm	0	30.7	level D4
	Left side	ALL	0	30.7	level D7
	Right side	ALL	0	30.7	level D7
	Bottom side	ALL	0	30.7	level D7
UMTS B2	Extremity SAR (front/back/top)	held by hand 0mm	1	23.2	level D4
	Front side	0<distance≤8mm	1	23.2	level D4
	Back side	0<distance≤12mm	1	23.2	level D4
	Top side	0<distance≤15mm	1	23.2	level D4
	Left side	ALL	0	24.2	level D7
	Right side	ALL	0	24.2	level D7
	Bottom side	ALL	0	24.2	level D7
UMTS B4	Extremity SAR (front/back/top)	0<distance≤15mm	2	22.7	level D4
	Front side	0<distance≤8mm	2	22.7	level D4
	Back side	0<distance≤12mm	2	22.7	level D4
	Top side	0<distance≤15mm	2	22.7	level D4
	Left side	ALL	0.5	24.2	level D7
	Right side	ALL	0.5	24.2	level D7
	Bottom side	ALL	0.5	24.2	level D7

Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount(dB)	Target Power level (dBm)	Level
LTE B2	Extremity SAR (front/back/top)	0<distance≤15mm	1.5	22.7	level D4
	Front side	0<distance≤8mm	1.5	22.7	level D4
	Back side	0<distance≤12mm	1.5	22.7	level D4
	Top side	0<distance≤15mm	1.5	22.7	level D4
	Left side	ALL	0	24.2	level D7
	Right side	ALL	0	24.2	level D7
	Bottom side	ALL	0	24.2	level D7
LTE B4	Extremity SAR (front/back/top)	0<distance≤15mm	2	22.2	level D4
	Front side	0<distance≤8mm	2	22.2	level D4
	Back side	0<distance≤12mm	2	22.2	level D4
	Top side	0<distance≤15mm	2	22.2	level D4
	Left side	ALL	0	24.2	level D7
	Right side	ALL	0	24.2	level D7
	Bottom side	ALL	0	24.2	level D7
LTE B7	Extremity SAR (front/back/top)	0<distance≤15mm	4	20.2	level D4
	Front side	0<distance≤8mm	4	20.2	level D4
	Back side	0<distance≤12mm	4	20.2	level D4
	Top side	0<distance≤15mm	4	20.2	level D4
	Left side	ALL	1.5	22.7	level D7
	Right side	ALL	1.5	22.7	level D7
	Bottom side	ALL	1.5	22.7	level D7
LTE B38	Extremity SAR (front/back/top)	0<distance≤15mm	2	23	level D4
	Front side	0<distance≤8mm	2	23	level D4
	Back side	0<distance≤12mm	2	23	level D4
	Top side	0<distance≤15mm	2	23	level D4
	Left side	ALL	0	25	level D7
	Right side	ALL	0	25	level D7
	Bottom side	ALL	0	25	level D7
LTE B40	Extremity SAR (front/back/top)	0<distance≤15mm	0.5	23.7	level D4
	Front side	0<distance≤8mm	0.5	23.7	level D4
	Back side	0<distance≤12mm	0.5	23.7	level D4
	Top side	0<distance≤15mm	0.5	23.7	level D4
	Left side	ALL	0	24.2	level D7
	Right side	ALL	0	24.2	level D7
	Bottom side	ALL	0	24.2	level D7

Band	Test position	Sensor Trigger Distance range (DUT to Phantom)	Power reduction amount(dB)	Target Power level (dBm)	Level
LTE B41	Extremity SAR (front/back/top)	0<distance≤15mm	2	23	level D4
	Front side	0<distance≤8mm	2	23	level D4
	Back side	0<distance≤12mm	2	23	level D4
	Top side	0<distance≤15mm	2	23	level D4
	Left side	ALL	0	25	level D7
	Right side	ALL	0	25	level D7
	Bottom side	ALL	0	25	level D7
LTE B66	Extremity SAR (front/back/top)	0<distance≤15mm	2.5	21.7	level D4
	Front side	0<distance≤8mm	2.5	21.7	level D4
	Back side	0<distance≤12mm	2.5	21.7	level D4
	Top side	0<distance≤15mm	2.5	21.7	level D4
	Left side	ALL	0	24.2	level D7
	Right side	ALL	0	24.2	level D7
	Bottom side	ALL	0	24.2	level D7

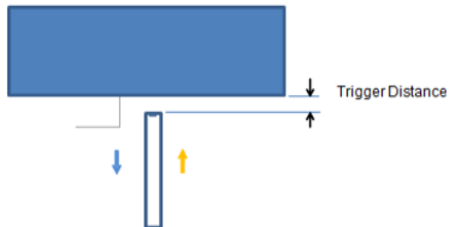
Note:

- 1) The power Value and frequency in the tables above are just for reference. The final value and frequency may be adjusted according to the SAR test results in the final SAR report.

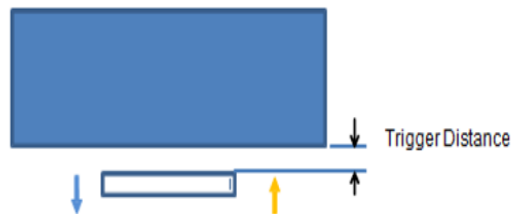
5.5.4 PROXIMITY SENSOR COVERAGE, TRIGGERING DISTANCE AND ANGLE INFLUENCE PROCEDURE AND VALIDATION DATA

5.5.4.1 Procedures and validation data for determining proximity sensor triggering distances

The device was tested by the test lab to determine the proximity sensor triggering distances for the front side, back side and bottom side of the device. To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering minus 1 mm, must be used as the test separation distance for SAR testing. The proximity sensor triggering distance measurement method are as below:



Picture: Proximity sensor triggering distances assessment Bottom Side



Picture: Proximity sensor triggering distances assessment Front Side and Back side

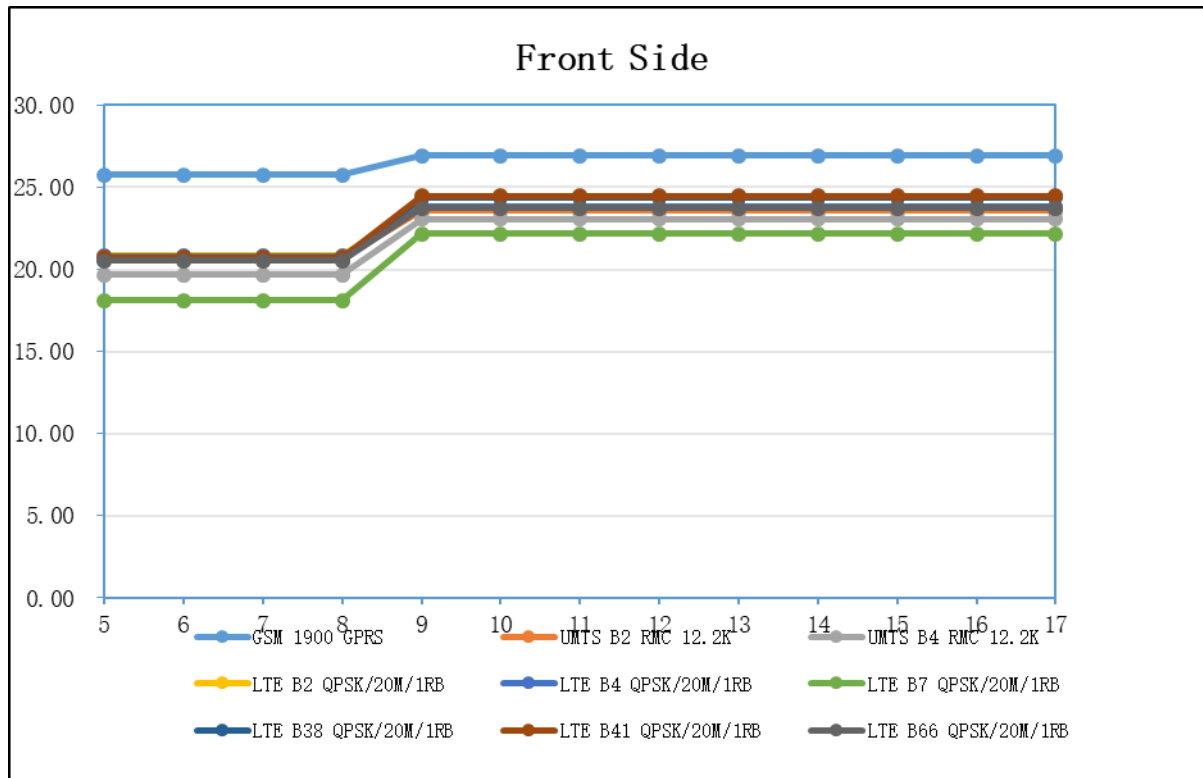
Figure: proximity sensor triggering distances assessment

5.5.4.2 Procedures for determining antenna and proximity sensor coverage

The proximity sensor and main antenna use same metallic electrode, there is no spatial offset, procedures and validation data for determining proximity sensor coverage is not required.

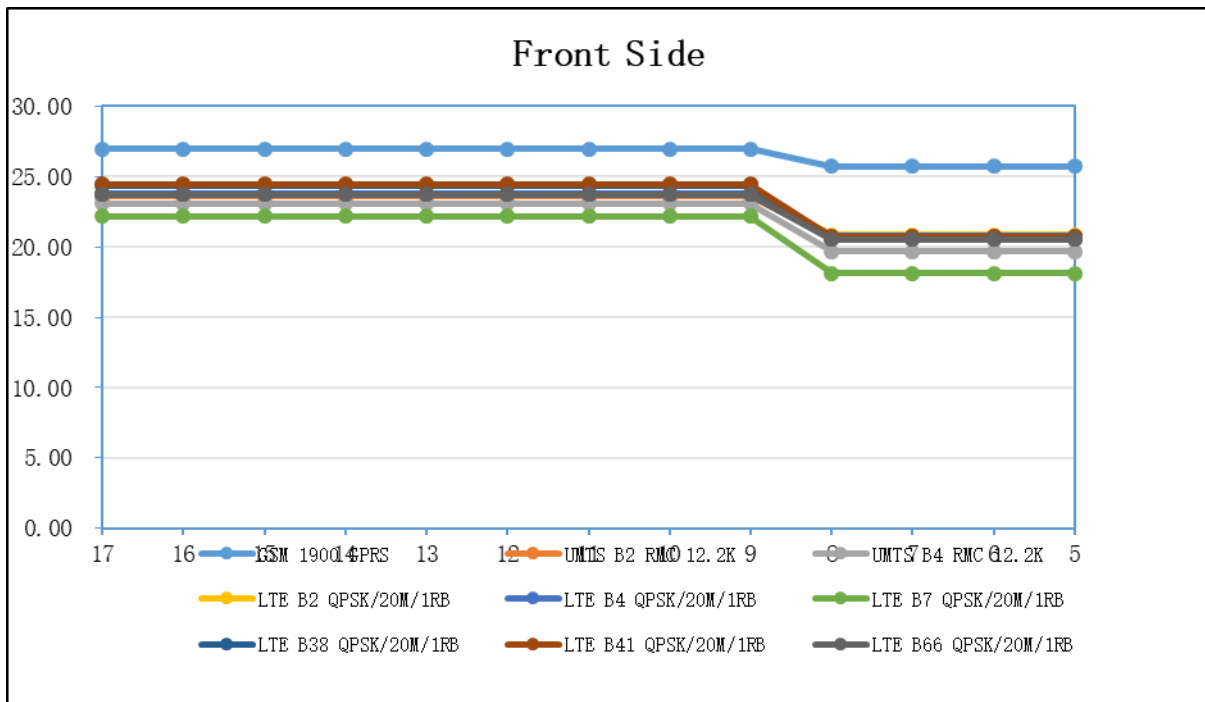
1) Front Side (moving away from the phantom)

mode		distance(mm)												
		Front Side												
		Sensor on				Sensor off								
		5	6	7	8	9	10	11	12	13	14	15	16	17
GSM 1900	GPRS	25.74	25.74	25.74	25.74	26.94	26.94	26.94	26.94	26.94	26.94	26.94	26.94	26.94
UMTS B2	RMC 12.2K	20.70	20.70	20.70	20.70	23.58	23.58	23.58	23.58	23.58	23.58	23.58	23.58	23.58
UMTS B4	RMC 12.2K	19.67	19.67	19.67	19.67	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08
LTE B2	QPSK/20M/1RB	20.85	20.85	20.85	20.85	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81
LTE B4	QPSK/20M/1RB	20.78	20.78	20.78	20.78	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79
LTE B7	QPSK/20M/1RB	18.12	18.12	18.12	18.12	22.17	22.17	22.17	22.17	22.17	22.17	22.17	22.17	22.17
LTE B38	QPSK/20M/1RB	20.57	20.57	20.57	20.57	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.37
LTE B41	QPSK/20M/1RB	20.72	20.72	20.72	20.72	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47
LTE B66	QPSK/20M/1RB	20.53	20.53	20.53	20.53	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73



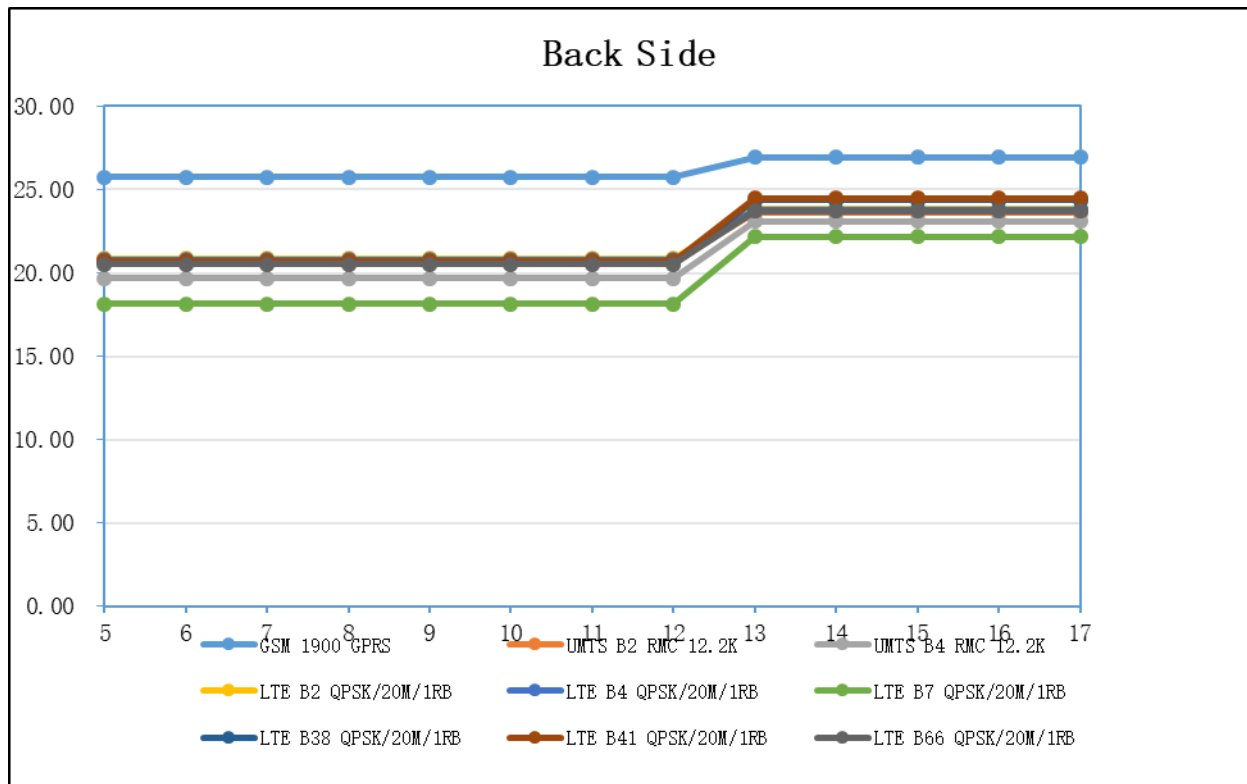
2) Front Side (moving toward from the phantom)

mode		distance(mm)												
		Front Side												
		Sensor off										Sensor on		
		17	16	15	14	13	12	11	10	9	8	7	6	5
GSM 1900	GPRS	26.94	26.94	26.94	26.94	26.94	26.94	26.94	26.94	26.94	25.74	25.74	25.74	25.74
UMTS B2	RMC 12.2K	23.58	23.58	23.58	23.58	23.58	23.58	23.58	23.58	23.58	20.70	20.70	20.70	20.70
UMTS B4	RMC 12.2K	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	23.08	19.67	19.67	19.67	19.67
LTE B2	QPSK/20M/1RB	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	23.81	20.85	20.85	20.85	20.85
LTE B4	QPSK/20M/1RB	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	23.79	20.78	20.78	20.78	20.78
LTE B7	QPSK/20M/1RB	22.17	22.17	22.17	22.17	22.17	22.17	22.17	22.17	22.17	18.12	18.12	18.12	18.12
LTE B38	QPSK/20M/1RB	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.37	24.37	20.57	20.57	20.57	20.57
LTE B41	QPSK/20M/1RB	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47	24.47	20.72	20.72	20.72	20.72
LTE B66	QPSK/20M/1RB	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	23.73	20.53	20.53	20.53	20.53



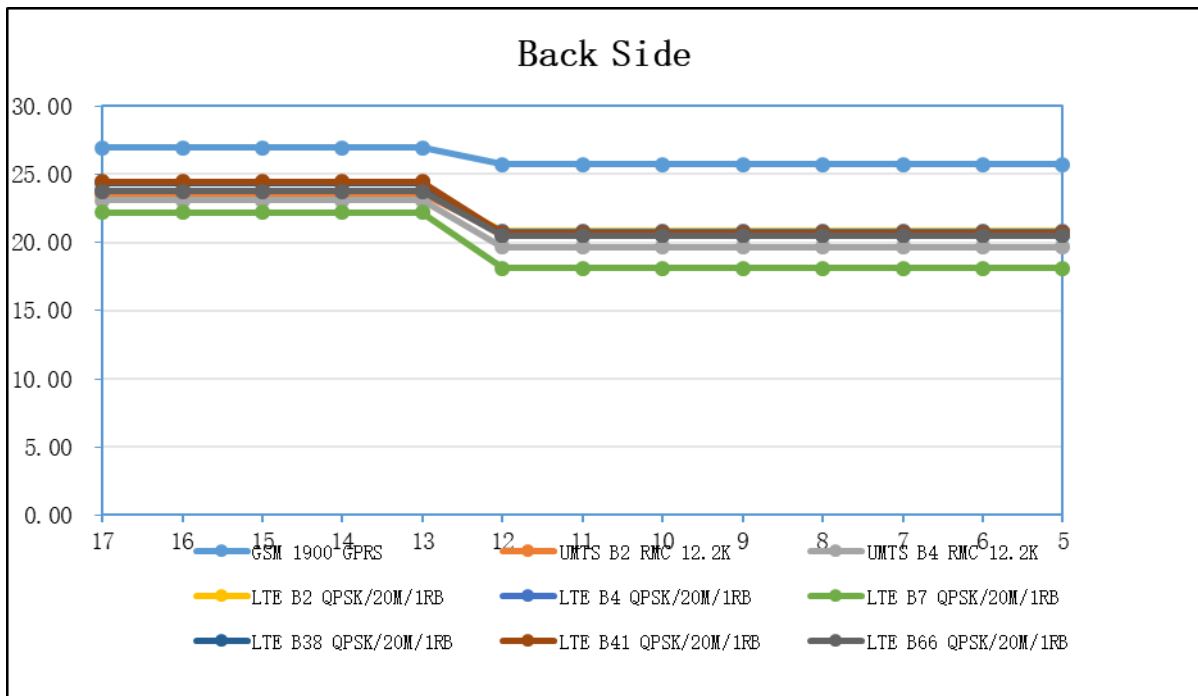
3) Back Side (moving away from the phantom)

mode		distance(mm)												
		Back Side												
		Sensor on								Sensor off				
		5	6	7	8	9	10	11	12	13	14	15	16	17
GSM 1900	GPRS	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	26.94	26.94	26.94	26.94	26.94
UMTS B2	RMC 12.2K	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	23.58	23.58	23.58	23.58	23.58
UMTS B4	RMC 12.2K	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	23.08	23.08	23.08	23.08	23.08
LTE B2	QPSK/20M/1RB	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	23.81	23.81	23.81	23.81	23.81
LTE B4	QPSK/20M/1RB	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	23.79	23.79	23.79	23.79	23.79
LTE B7	QPSK/20M/1RB	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	22.17	22.17	22.17	22.17	22.17
LTE B38	QPSK/20M/1RB	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	24.37	24.37	24.37	24.37	24.37
LTE B41	QPSK/20M/1RB	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	24.47	24.47	24.47	24.47	24.47
LTE B66	QPSK/20M/1RB	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	23.73	23.73	23.73	23.73	23.73



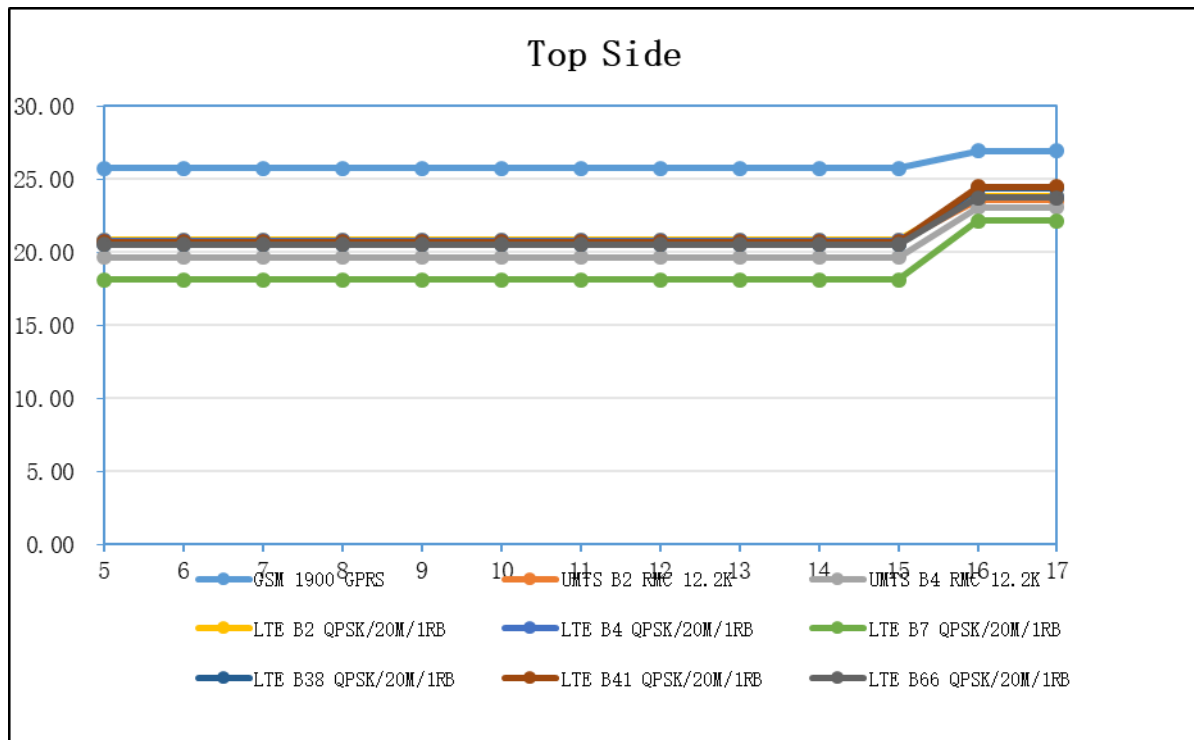
4) Back Side (moving toward from the phantom)

mode		distance(mm)												
		Back Side												
		Sensor off					Sensor on							
		17	16	15	14	13	12	11	10	9	8	7	6	5
GSM 1900	GPRS	26.94	26.94	26.94	26.94	26.94	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74
UMTS B2	RMC 12.2K	23.58	23.58	23.58	23.58	23.58	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70
UMTS B4	RMC 12.2K	23.08	23.08	23.08	23.08	23.08	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67
LTE B2	QPSK/20M/1RB	23.81	23.81	23.81	23.81	23.81	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85
LTE B4	QPSK/20M/1RB	23.79	23.79	23.79	23.79	23.79	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78
LTE B7	QPSK/20M/1RB	22.17	22.17	22.17	22.17	22.17	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12
LTE B38	QPSK/20M/1RB	24.37	24.37	24.37	24.37	24.37	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57
LTE B41	QPSK/20M/1RB	24.47	24.47	24.47	24.47	24.47	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72
LTE B66	QPSK/20M/1RB	23.73	23.73	23.73	23.73	23.73	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53



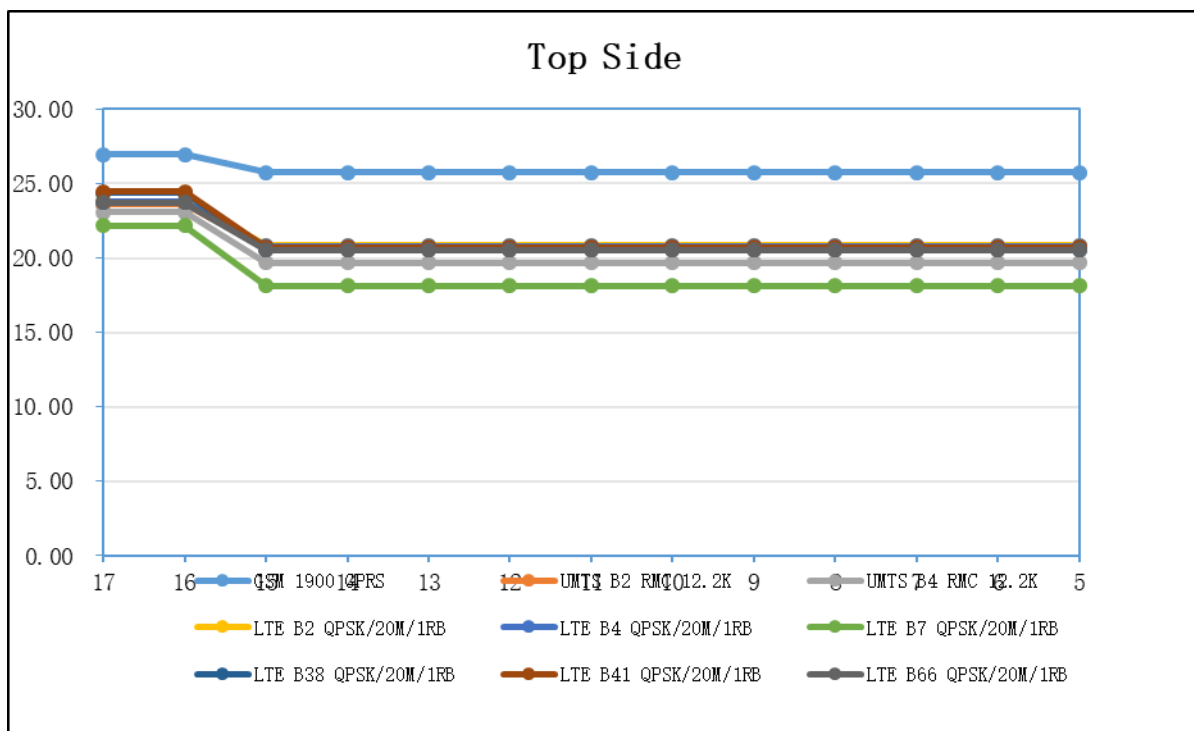
5) Top Side (moving away from the phantom)

mode		distance(mm)												
		Top Side												
		Sensor on											Sensor off	
		5	6	7	8	9	10	11	12	13	14	15	16	17
GSM 1900	GPRS	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	26.94	26.94
UMTS B2	RMC 12.2K	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	23.58	23.58
UMTS B4	RMC 12.2K	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	23.08	23.08
LTE B2	QPSK/20M/1RB	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	23.81	23.81
LTE B4	QPSK/20M/1RB	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	23.79	23.79
LTE B7	QPSK/20M/1RB	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	22.17	22.17
LTE B38	QPSK/20M/1RB	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	24.37	24.37
LTE B41	QPSK/20M/1RB	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	24.47	24.47
LTE B66	QPSK/20M/1RB	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	23.73	23.73



6) Top Side (moving toward from the phantom)

mode		distance(mm)												
		Top Side												
		Sensor off		Sensor on										
		17	16	15	14	13	12	11	10	9	8	7	6	5
GSM 1900	GPRS	26.94	26.94	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74	25.74
UMTS B2	RMC 12.2K	23.58	23.58	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70	20.70
UMTS B4	RMC 12.2K	23.08	23.08	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67	19.67
LTE B2	QPSK/20M/1RB	23.81	23.81	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85	20.85
LTE B4	QPSK/20M/1RB	23.79	23.79	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78	20.78
LTE B7	QPSK/20M/1RB	22.17	22.17	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12	18.12
LTE B38	QPSK/20M/1RB	24.37	24.37	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57	20.57
LTE B41	QPSK/20M/1RB	24.47	24.47	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72	20.72
LTE B66	QPSK/20M/1RB	23.73	23.73	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53	20.53



5.5.4.3 Procedures and validation data for determining device tilt angle influences to proximity sensor triggering

The Procedures for determining device tilt angle influences to proximity sensor triggering are as below:

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Top Side parallel to the base of the flat phantom for each band.

The EUT was rotated about Top Side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to $\pm 45^\circ$.

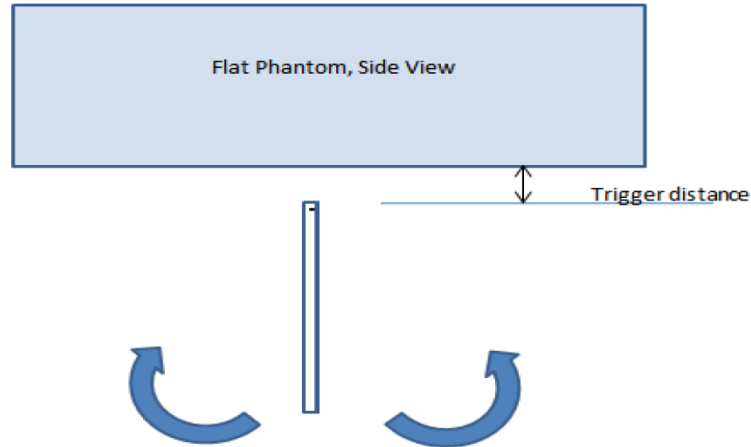


Figure: proximity sensor coverage assesment(Top Side)

Table: Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Top Side)

Band(MHz)	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status											
		-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°	
Ant 14: GSM1900 UMTS B2/B4 FDD LTE B2/B4/B7/B66 TDD LTE B38/B41	Top Side 15mm	on	on	on	on	on	on	on	on	on	on	on	

Conclusion: As is shown from the validation data, it can be ensured that the proximity sensor can be valid triggered for the DUT tilt coverage exposure condition.

5.5.4.4 Summary additional SAR test Plan for Proximity sensor power reduction

To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tilt positions for all usage conditions, minus 1 mm, must be used as the test separation distance for additional SAR testing with sensor off.

For this device, as proximity sensor power reduction supports multiple power stages, so we plan that the additional SAR should be considered at the conservative distance, minus 1 mm, for each power stage.

6. TEST RESULT

6.1 CONDUCTED POWER RESULTS

The conducted power measurement result please refer to Appendix E.

6.2 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 $> \frac{1}{2}$ 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 ≥ 0.8 W/kg; if the deviation among the repeated measurement is $\leq 20\%$, and the measured SAR < 1.45 W/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 $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 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.

6.2.1 SAR MEASUREMENT RESULT OF HEAD

1. Head SAR test results of GSM

DSI2

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
G01	GSM 850	GSM	190	Right Cheek	Ant 11	1	33.20	32.74	-0.04	0.855	0.497	0.951
G02	GSM 850	GSM	190	Right Tilted	Ant 11	1	33.20	32.74	-0.17	0.259	0.171	0.288
G03	GSM 850	GSM	190	Left Cheek	Ant 11	1	33.20	32.74	-0.18	0.612	0.369	0.680
G04	GSM 850	GSM	190	Left Tilted	Ant 11	1	33.20	32.74	0.19	0.211	0.156	0.235
G05	GSM 850	GSM	128	Left Cheek	Ant 11	1	33.20	32.61	0.1	0.686	0.396	0.786
G06	GSM 850	GSM	251	Left Cheek	Ant 11	1	33.20	32.69	0.17	0.691	0.421	0.777
G08	GSM 850	GSM	190	Right Cheek	Ant 31	1	33.20	32.34	-0.13	0.171	0.121	0.208
G09	GSM 850	GSM	190	Right Tilted	Ant 31	1	33.20	32.34	0.11	0.080	0.065	0.098
G10	GSM 850	GSM	190	Left Cheek	Ant 31	1	33.20	32.34	0.12	0.098	0.073	0.119
G11	GSM 850	GSM	190	Left Tilted	Ant 31	1	33.20	32.34	-0.09	0.060	0.046	0.074
G12	GSM 850	GSM	128	Right Cheek	Ant 31	1	33.20	32.21	0.15	0.145	0.104	0.182
G13	GSM 850	GSM	251	Right Cheek	Ant 31	1	33.20	32.26	0.02	0.216	0.153	0.268
G15	GSM 1900	GSM	512	Right Cheek	Ant 14	1	27.70	26.73	-0.08	0.633	0.354	0.791
G16	GSM 1900	GSM	512	Right Tilted	Ant 14	1	27.70	26.73	-0.16	0.615	0.341	0.769
G17	GSM 1900	GSM	512	Left Cheek	Ant 14	1	27.70	26.73	0.05	0.425	0.261	0.531
G18	GSM 1900	GSM	512	Left Tilted	Ant 14	1	27.70	26.73	0.14	0.507	0.289	0.634
G19	GSM 1900	GSM	661	Right Cheek	Ant 14	1	27.70	26.89	0.03	0.670	0.373	0.807
G20	GSM 1900	GSM	810	Right Cheek	Ant 14	1	27.70	26.67	0.16	0.673	0.364	0.853
G22	GSM 1900	GSM	661	Right Cheek	Ant 41	1	30.70	29.49	0.07	0.050	0.030	0.065
G23	GSM 1900	GSM	661	Right Tilted	Ant 41	1	30.70	29.49	0.09	<0.001	<0.001	<0.001
G24	GSM 1900	GSM	661	Left Cheek	Ant 41	1	30.70	29.49	0.15	0.045	0.027	0.059
G25	GSM 1900	GSM	661	Left Tilted	Ant 41	1	30.70	29.49	0.18	0.030	0.018	0.040
G26	GSM 1900	GSM	512	Right Cheek	Ant 41	1	30.70	29.33	0.05	0.056	0.034	0.077
G27	GSM 1900	GSM	810	Right Cheek	Ant 41	1	30.70	29.46	-0.09	0.049	0.030	0.065

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

2. Head SAR test results of UMTS

DSI2

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
U01	UMTS B2	RMC12.2K	9400	Right Cheek	Ant 14	1	17.70	16.78	0.13	0.447	0.241	0.552
U02	UMTS B2	RMC12.2K	9400	Right Tilted	Ant 14	1	17.70	16.78	0.11	0.415	0.225	0.513
U03	UMTS B2	RMC12.2K	9400	Left Cheek	Ant 14	1	17.70	16.78	0	0.325	0.198	0.402
U04	UMTS B2	RMC12.2K	9400	Left Tilted	Ant 14	1	17.70	16.78	-0.15	0.429	0.237	0.530
U05	UMTS B2	RMC12.2K	9262	Right Cheek	Ant 14	1	17.70	16.76	0.02	0.494	0.267	0.613
U06	UMTS B2	RMC12.2K	9538	Right Cheek	Ant 14	1	17.70	16.64	-0.11	0.424	0.228	0.541
U08	UMTS B2	RMC12.2K	9400	Right Cheek	Ant 41	1	24.20	23.11	-0.11	0.227	0.121	0.292
U09	UMTS B2	RMC12.2K	9400	Right Tilted	Ant 41	1	24.20	23.11	-0.01	0.092	0.043	0.118
U10	UMTS B2	RMC12.2K	9400	Left Cheek	Ant 41	1	24.20	23.11	0.01	0.231	0.124	0.297
U11	UMTS B2	RMC12.2K	9400	Left Tilted	Ant 41	1	24.20	23.11	0.1	0.145	0.077	0.186
U12	UMTS B2	RMC12.2K	9262	Left Cheek	Ant 41	1	24.20	23.06	-0.02	0.214	0.117	0.278
U13	UMTS B2	RMC12.2K	9538	Left Cheek	Ant 41	1	24.20	23.09	0	0.233	0.126	0.301
U15	UMTS B4	RMC12.2K	1413	Right Cheek	Ant 14	1	17.20	16.04	-0.02	0.334	0.207	0.436
U16	UMTS B4	RMC12.2K	1413	Right Tilted	Ant 14	1	17.20	16.04	0.18	0.299	0.190	0.391
U17	UMTS B4	RMC12.2K	1413	Left Cheek	Ant 14	1	17.20	16.04	0.01	0.196	0.132	0.256
U18	UMTS B4	RMC12.2K	1413	Left Tilted	Ant 14	1	17.20	16.04	0.08	0.224	0.146	0.293
U19	UMTS B4	RMC12.2K	1312	Right Cheek	Ant 14	1	17.20	16.03	0.19	0.337	0.204	0.441
U20	UMTS B4	RMC12.2K	1513	Right Cheek	Ant 14	1	17.20	16.10	-0.04	0.497	0.273	0.640
U22	UMTS B4	RMC12.2K	1413	Right Cheek	Ant 41	1	24.70	23.91	0.09	0.108	0.064	0.130
U23	UMTS B4	RMC12.2K	1413	Right Tilted	Ant 41	1	24.70	23.91	0.03	0.042	0.024	0.050
U24	UMTS B4	RMC12.2K	1413	Left Cheek	Ant 41	1	24.70	23.91	-0.15	0.088	0.055	0.105
U25	UMTS B4	RMC12.2K	1413	Left Tilted	Ant 41	1	24.70	23.91	-0.1	0.042	0.026	0.051
U26	UMTS B4	RMC12.2K	1312	Right Cheek	Ant 41	1	24.70	23.88	0.04	0.121	0.072	0.146
U27	UMTS B4	RMC12.2K	1513	Right Cheek	Ant 41	1	24.70	23.85	-0.09	0.115	0.067	0.140
U29	UMTS B5	RMC12.2K	4182	Right Cheek	Ant 11	1	21.70	20.42	0.02	0.395	0.217	0.530
U30	UMTS B5	RMC12.2K	4182	Right Tilted	Ant 11	1	21.70	20.42	-0.06	0.146	0.093	0.196
U31	UMTS B5	RMC12.2K	4182	Left Cheek	Ant 11	1	21.70	20.42	-0.13	0.372	0.224	0.500
U32	UMTS B5	RMC12.2K	4182	Left Tilted	Ant 11	1	21.70	20.42	-0.06	0.118	0.082	0.158
U33	UMTS B5	RMC12.2K	4132	Right Cheek	Ant 11	1	21.70	20.36	-0.03	0.339	0.188	0.462
U34	UMTS B5	RMC12.2K	4233	Right Cheek	Ant 11	1	21.70	20.35	0.02	0.467	0.259	0.637
U36	UMTS B5	RMC12.2K	4182	Right Cheek	Ant 31	1	24.70	23.66	-0.16	0.150	0.113	0.191
U37	UMTS B5	RMC12.2K	4182	Right Tilted	Ant 31	1	24.70	23.66	-0.12	0.109	0.094	0.138
U38	UMTS B5	RMC12.2K	4182	Left Cheek	Ant 31	1	24.70	23.66	0.11	0.122	0.098	0.155
U39	UMTS B5	RMC12.2K	4182	Left Tilted	Ant 31	1	24.70	23.66	-0.07	0.087	0.075	0.110
U40	UMTS B5	RMC12.2K	4132	Right Cheek	Ant 31	1	24.70	23.65	0.17	0.177	0.136	0.225
U41	UMTS B5	RMC12.2K	4233	Right Cheek	Ant 31	1	24.70	23.55	0.09	0.225	0.163	0.293

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

3. Head SAR test results of LTE

DSI2

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L01	LTE B2	QPSK20M	19100	1	0	Right Cheek	Ant 14	1	17.20	16.83	0.09	0.601	0.316	0.654
L02	LTE B2	QPSK20M	19100	1	0	Right Tilted	Ant 14	1	17.20	16.83	-0.04	0.574	0.295	0.625
L03	LTE B2	QPSK20M	19100	1	0	Left Cheek	Ant 14	1	17.20	16.83	0.19	0.364	0.208	0.396
L04	LTE B2	QPSK20M	19100	1	0	Left Tilted	Ant 14	1	17.20	16.83	-0.06	0.485	0.255	0.528
L05	LTE B2	QPSK20M	18900	50	0	Right Cheek	Ant 14	1	17.20	16.68	-0.04	0.514	0.254	0.579
L06	LTE B2	QPSK20M	18900	50	0	Right Tilted	Ant 14	1	17.20	16.68	0.01	0.504	0.264	0.568
L07	LTE B2	QPSK20M	18900	50	0	Left Cheek	Ant 14	1	17.20	16.68	0.19	0.304	0.172	0.343
L08	LTE B2	QPSK20M	18900	50	0	Left Tilted	Ant 14	1	17.20	16.68	0.12	0.390	0.211	0.440
L09	LTE B2	QPSK20M	18900	1	99	Right Cheek	Ant 14	1	17.20	16.70	0.04	0.541	0.283	0.607
L10	LTE B2	QPSK20M	18700	1	99	Right Cheek	Ant 14	1	17.20	16.64	0.08	0.556	0.289	0.633
L11	LTE B2	QPSK20M	18700	50	50	Right Cheek	Ant 14	1	17.20	16.57	-0.08	0.540	0.285	0.624
L12	LTE B2	QPSK20M	19100	50	0	Right Cheek	Ant 14	1	17.20	16.60	0.09	0.550	0.290	0.631
L14	LTE B2	QPSK20M	18700	1	99	Right Cheek	Ant 41	1	24.20	23.55	0	0.111	0.075	0.129
L15	LTE B2	QPSK20M	18700	1	99	Right Tilted	Ant 41	1	24.20	23.55	-0.06	0.035	0.021	0.040
L16	LTE B2	QPSK20M	18700	1	99	Left Cheek	Ant 41	1	24.20	23.55	-0.08	0.067	0.045	0.078
L17	LTE B2	QPSK20M	18700	1	99	Left Tilted	Ant 41	1	24.20	23.55	0.15	0.057	0.038	0.066
L18	LTE B2	QPSK20M	18900	50	25	Right Cheek	Ant 41	1	23.20	22.10	-0.15	0.061	0.041	0.078
L19	LTE B2	QPSK20M	18900	50	25	Right Tilted	Ant 41	1	23.20	22.10	-0.14	0.029	0.017	0.037
L20	LTE B2	QPSK20M	18900	50	25	Left Cheek	Ant 41	1	23.20	22.10	0	0.054	0.037	0.069
L21	LTE B2	QPSK20M	18900	50	25	Left Tilted	Ant 41	1	23.20	22.10	0.11	0.045	0.030	0.058
L22	LTE B2	QPSK20M	18900	1	0	Right Cheek	Ant 41	1	24.20	23.29	0.14	0.080	0.055	0.099
L23	LTE B2	QPSK20M	19100	1	50	Right Cheek	Ant 41	1	24.20	23.38	-0.03	0.080	0.054	0.096
L24	LTE B2	QPSK20M	18700	50	50	Right Cheek	Ant 41	1	23.20	22.05	0	0.061	0.041	0.079
L25	LTE B2	QPSK20M	19100	50	25	Right Cheek	Ant 41	1	23.20	22.01	0	0.061	0.041	0.080
L27	LTE B4	QPSK20M	20300	1	0	Right Cheek	Ant 14	1	18.20	17.66	-0.04	0.531	0.285	0.601
L28	LTE B4	QPSK20M	20300	1	0	Right Tilted	Ant 14	1	18.20	17.66	-0.06	0.500	0.269	0.566
L29	LTE B4	QPSK20M	20300	1	0	Left Cheek	Ant 14	1	18.20	17.66	-0.11	0.334	0.198	0.378
L30	LTE B4	QPSK20M	20300	1	0	Left Tilted	Ant 14	1	18.20	17.66	0.05	0.400	0.222	0.453
L31	LTE B4	QPSK20M	20300	50	0	Right Cheek	Ant 14	1	18.20	17.17	-0.08	0.528	0.290	0.669
L32	LTE B4	QPSK20M	20300	50	0	Right Tilted	Ant 14	1	18.20	17.17	-0.03	0.503	0.264	0.638
L33	LTE B4	QPSK20M	20300	50	0	Left Cheek	Ant 14	1	18.20	17.17	-0.14	0.309	0.184	0.392
L34	LTE B4	QPSK20M	20300	50	0	Left Tilted	Ant 14	1	18.20	17.17	-0.04	0.385	0.214	0.488
L35	LTE B4	QPSK20M	20050	1	99	Right Cheek	Ant 14	1	18.20	17.34	-0.02	0.571	0.310	0.696
L36	LTE B4	QPSK20M	20175	1	50	Right Cheek	Ant 14	1	18.20	17.17	-0.11	0.478	0.263	0.606
L37	LTE B4	QPSK20M	20050	50	50	Right Cheek	Ant 14	1	18.20	17.05	-0.13	0.526	0.289	0.685
L38	LTE B4	QPSK20M	20175	50	0	Right Cheek	Ant 14	1	18.20	17.98	0.02	0.499	0.273	0.525
L40	LTE B4	QPSK20M	20050	1	0	Right Cheek	Ant 41	1	24.20	23.65	0.06	0.080	0.048	0.090
L41	LTE B4	QPSK20M	20050	1	0	Right Tilted	Ant 41	1	24.20	23.65	0.01	0.033	0.020	0.037
L42	LTE B4	QPSK20M	20050	1	0	Left Cheek	Ant 41	1	24.20	23.65	-0.04	0.066	0.042	0.075
L43	LTE B4	QPSK20M	20050	1	0	Left Tilted	Ant 41	1	24.20	23.65	0.19	0.031	0.019	0.035
L44	LTE B4	QPSK20M	20050	50	0	Right Cheek	Ant 41	1	23.20	22.10	0.02	0.059	0.036	0.076
L45	LTE B4	QPSK20M	20050	50	0	Right Tilted	Ant 41	1	23.20	22.10	0.07	0.012	0.007	0.015
L46	LTE B4	QPSK20M	20050	50	0	Left Cheek	Ant 41	1	23.20	22.10	0.06	0.048	0.031	0.062
L47	LTE B4	QPSK20M	20050	50	0	Left Tilted	Ant 41	1	23.20	22.10	0.06	0.020	0.012	0.026
L48	LTE B4	QPSK20M	20175	1	0	Right Cheek	Ant 41	1	24.20	23.58	-0.07	0.074	0.045	0.086
L49	LTE B4	QPSK20M	20300	1	50	Right Cheek	Ant 41	1	24.20	23.51	0.15	0.073	0.045	0.085
L50	LTE B4	QPSK20M	20175	50	0	Right Cheek	Ant 41	1	23.20	22.09	0.08	0.059	0.036	0.076
L51	LTE B4	QPSK20M	20300	50	25	Right Cheek	Ant 41	1	23.20	22.09	-0.06	0.058	0.036	0.075

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L53	LTE B5	QPSK10M	20600	1	24	Right Cheek	Ant 11	1	22.70	22.30	0.02	0.772	0.434	0.846
L54	LTE B5	QPSK10M	20600	1	24	Right Tilted	Ant 11	1	22.70	22.30	0.07	0.245	0.152	0.269
L55	LTE B5	QPSK10M	20600	1	24	Left Cheek	Ant 11	1	22.70	22.30	0.18	0.657	0.376	0.720
L56	LTE B5	QPSK10M	20600	1	24	Left Tilted	Ant 11	1	22.70	22.30	-0.02	0.195	0.132	0.214
L57	LTE B5	QPSK10M	20450	25	12	Right Cheek	Ant 11	1	22.70	21.98	0.03	0.552	0.309	0.652
L58	LTE B5	QPSK10M	20450	25	12	Right Tilted	Ant 11	1	22.70	21.98	-0.04	0.152	0.094	0.179
L59	LTE B5	QPSK10M	20450	25	12	Left Cheek	Ant 11	1	22.70	21.98	0.02	0.404	0.232	0.477
L60	LTE B5	QPSK10M	20450	25	12	Left Tilted	Ant 11	1	22.70	21.98	0.03	0.127	0.086	0.150
L61	LTE B5	QPSK10M	20525	1	24	Right Cheek	Ant 11	1	22.70	22.02	-0.02	0.681	0.382	0.796
L62	LTE B5	QPSK10M	20450	1	0	Right Cheek	Ant 11	1	22.70	22.27	0.05	0.496	0.280	0.548
L63	LTE B5	QPSK10M	20525	25	0	Right Cheek	Ant 11	1	22.70	21.96	-0.13	0.643	0.361	0.762
L64	LTE B5	QPSK10M	20600	25	12	Right Cheek	Ant 11	1	22.70	21.89	-0.18	0.700	0.392	0.844
L66	LTE B5	QPSK10M	20600	1	0	Right Cheek	Ant 31	1	24.70	24.32	0.06	0.290	0.201	0.317
L67	LTE B5	QPSK10M	20600	1	0	Right Tilted	Ant 31	1	24.70	24.32	0.05	0.166	0.128	0.181
L68	LTE B5	QPSK10M	20600	1	0	Left Cheek	Ant 31	1	24.70	24.32	-0.16	0.201	0.146	0.219
L69	LTE B5	QPSK10M	20600	1	0	Left Tilted	Ant 31	1	24.70	24.32	-0.13	0.122	0.094	0.133
L70	LTE B5	QPSK10M	20525	25	25	Right Cheek	Ant 31	1	23.70	22.94	0.09	0.208	0.143	0.248
L71	LTE B5	QPSK10M	20525	25	25	Right Tilted	Ant 31	1	23.70	22.94	-0.11	0.124	0.096	0.148
L72	LTE B5	QPSK10M	20525	25	25	Left Cheek	Ant 31	1	23.70	22.94	0.04	0.146	0.108	0.174
L73	LTE B5	QPSK10M	20525	25	25	Left Tilted	Ant 31	1	23.70	22.94	0.06	0.092	0.070	0.109
L74	LTE B5	QPSK10M	20525	1	0	Right Cheek	Ant 31	1	24.70	24.12	0.01	0.268	0.186	0.306
L75	LTE B5	QPSK10M	20450	1	0	Right Cheek	Ant 31	1	24.70	24.29	-0.15	0.225	0.161	0.247
L76	LTE B5	QPSK10M	20450	25	0	Right Cheek	Ant 31	1	23.70	22.92	0.06	0.185	0.130	0.221
L77	LTE B5	QPSK10M	20600	25	12	Right Cheek	Ant 31	1	23.70	22.88	-0.05	0.216	0.147	0.261
L79	LTE B7	QPSK20M	21350	1	0	Right Cheek	Ant 14	1	17.20	16.60	0.19	0.489	0.238	0.561
L80	LTE B7	QPSK20M	21350	1	0	Right Tilted	Ant 14	1	17.20	16.60	0.11	0.724	0.321	0.831
L81	LTE B7	QPSK20M	21350	1	0	Left Cheek	Ant 14	1	17.20	16.60	-0.05	0.328	0.163	0.377
L82	LTE B7	QPSK20M	21350	1	0	Left Tilted	Ant 14	1	17.20	16.60	-0.12	0.459	0.217	0.527
L83	LTE B7	QPSK20M	21350	50	0	Right Cheek	Ant 14	1	17.20	16.30	0.08	0.509	0.239	0.626
L84	LTE B7	QPSK20M	21350	50	0	Right Tilted	Ant 14	1	17.20	16.30	0.08	0.711	0.320	0.875
L85	LTE B7	QPSK20M	21350	50	0	Left Cheek	Ant 14	1	17.20	16.30	-0.14	0.332	0.165	0.408
L86	LTE B7	QPSK20M	21350	50	0	Left Tilted	Ant 14	1	17.20	16.30	-0.11	0.462	0.218	0.568
L87	LTE B7	QPSK20M	21100	1	0	Right Tilted	Ant 14	1	17.20	16.46	0.08	0.701	0.317	0.831
L88	LTE B7	QPSK20M	20850	1	0	Right Tilted	Ant 14	1	17.20	16.38	-0.18	0.627	0.347	0.757
L89	LTE B7	QPSK20M	21100	50	0	Right Tilted	Ant 14	1	17.20	16.13	0.14	0.645	0.291	0.825
L90	LTE B7	QPSK20M	20850	50	0	Right Tilted	Ant 14	1	17.20	16.16	0.11	0.604	0.273	0.767
L92	LTE B7	QPSK20M	20850	1	0	Right Cheek	Ant 41	1	24.20	23.27	0.09	0.095	0.049	0.117
L93	LTE B7	QPSK20M	20850	1	0	Right Tilted	Ant 41	1	24.20	23.27	0.02	0.090	0.048	0.111
L94	LTE B7	QPSK20M	20850	1	0	Left Cheek	Ant 41	1	24.20	23.27	-0.01	0.088	0.044	0.109
L95	LTE B7	QPSK20M	20850	1	0	Left Tilted	Ant 41	1	24.20	23.27	0.07	0.045	0.024	0.055
L96	LTE B7	QPSK20M	21350	50	25	Right Cheek	Ant 41	1	23.20	22.03	0.04	0.072	0.037	0.095
L97	LTE B7	QPSK20M	21350	50	25	Right Tilted	Ant 41	1	23.20	22.03	0.08	0.079	0.042	0.104
L98	LTE B7	QPSK20M	21350	50	25	Left Cheek	Ant 41	1	23.20	22.03	0.06	0.077	0.044	0.101
L99	LTE B7	QPSK20M	21350	50	25	Left Tilted	Ant 41	1	23.20	22.03	0.13	0.045	0.024	0.059
L100	LTE B7	QPSK20M	21100	1	0	Right Cheek	Ant 41	1	24.20	23.12	-0.05	0.091	0.046	0.116
L101	LTE B7	QPSK20M	21350	1	50	Right Cheek	Ant 41	1	24.20	23.23	0.07	0.076	0.041	0.095
L102	LTE B7	QPSK20M	21100	50	0	Right Cheek	Ant 41	1	23.20	21.98	0.01	0.084	0.048	0.111
L103	LTE B7	QPSK20M	20850	50	0	Right Cheek	Ant 41	1	23.20	21.92	-0.04	0.072	0.036	0.096

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L105	LTE B13	QPSK10M	23230	1	0	Right Cheek	Ant 11	1	23.70	23.24	0.04	0.226	0.127	0.251
L106	LTE B13	QPSK10M	23230	1	0	Right Tilted	Ant 11	1	23.70	23.24	-0.1	0.102	0.051	0.113
L107	LTE B13	QPSK10M	23230	1	0	Left Cheek	Ant 11	1	23.70	23.24	-0.13	0.160	0.093	0.178
L108	LTE B13	QPSK10M	23230	1	0	Left Tilted	Ant 11	1	23.70	23.24	-0.18	0.059	0.040	0.065
L109	LTE B13	QPSK10M	23230	25	12	Right Cheek	Ant 11	1	22.70	22.22	0.14	0.157	0.088	0.175
L110	LTE B13	QPSK10M	23230	25	12	Right Tilted	Ant 11	1	22.70	22.22	0.16	0.057	0.035	0.064
L111	LTE B13	QPSK10M	23230	25	12	Left Cheek	Ant 11	1	22.70	22.22	-0.19	0.116	0.069	0.130
L112	LTE B13	QPSK10M	23230	25	12	Left Tilted	Ant 11	1	22.70	22.22	0.11	0.041	0.028	0.046
L114	LTE B13	QPSK10M	23230	1	0	Right Cheek	Ant 31	1	23.70	23.17	0.05	0.159	0.117	0.180
L115	LTE B13	QPSK10M	23230	1	0	Right Tilted	Ant 31	1	23.70	23.17	-0.04	0.122	0.097	0.138
L116	LTE B13	QPSK10M	23230	1	0	Left Cheek	Ant 31	1	23.70	23.17	0.1	0.137	0.102	0.155
L117	LTE B13	QPSK10M	23230	1	0	Left Tilted	Ant 31	1	23.70	23.17	0.02	0.092	0.071	0.104
L118	LTE B13	QPSK10M	23230	25	25	Right Cheek	Ant 31	1	22.70	21.92	-0.11	0.126	0.094	0.151
L119	LTE B13	QPSK10M	23230	25	25	Right Tilted	Ant 31	1	22.70	21.92	-0.15	0.089	0.070	0.107
L120	LTE B13	QPSK10M	23230	25	25	Left Cheek	Ant 31	1	22.70	21.92	0.12	0.103	0.078	0.123
L121	LTE B13	QPSK10M	23230	25	25	Left Tilted	Ant 31	1	22.70	21.92	0.04	0.071	0.056	0.085
L123	LTE B26	QPSK15M	26765	1	37	Right Cheek	Ant 11	1	22.70	22.24	0.14	0.440	0.254	0.489
L124	LTE B26	QPSK15M	26765	1	37	Right Tilted	Ant 11	1	22.70	22.24	0.13	0.148	0.096	0.165
L125	LTE B26	QPSK15M	26765	1	37	Left Cheek	Ant 11	1	22.70	22.24	0.16	0.330	0.200	0.367
L126	LTE B26	QPSK15M	26765	1	37	Left Tilted	Ant 11	1	22.70	22.24	0.19	0.115	0.082	0.128
L127	LTE B26	QPSK15M	26765	36	19	Right Cheek	Ant 11	1	22.70	22.06	-0.08	0.521	0.291	0.604
L128	LTE B26	QPSK15M	26765	36	19	Right Tilted	Ant 11	1	22.70	22.06	-0.15	0.158	0.103	0.183
L129	LTE B26	QPSK15M	26765	36	19	Left Cheek	Ant 11	1	22.70	22.06	0.11	0.344	0.208	0.399
L130	LTE B26	QPSK15M	26765	36	19	Left Tilted	Ant 11	1	22.70	22.06	0.03	0.116	0.084	0.134
L131	LTE B26	QPSK15M	26865	1	0	Right Cheek	Ant 11	1	22.70	22.15	0.12	0.632	0.355	0.717
L132	LTE B26	QPSK15M	26965	1	0	Right Cheek	Ant 11	1	22.70	22.10	-0.09	0.720	0.405	0.827
L133	LTE B26	QPSK15M	26865	36	19	Right Cheek	Ant 11	1	22.70	22.05	0.14	0.683	0.383	0.793
L134	LTE B26	QPSK15M	26965	36	39	Right Cheek	Ant 11	1	22.70	22.03	0.13	0.704	0.396	0.821
L136	LTE B26	QPSK15M	26765	1	74	Right Cheek	Ant 31	1	24.70	24.35	0.05	0.265	0.186	0.287
L137	LTE B26	QPSK15M	26765	1	74	Right Tilted	Ant 31	1	24.70	24.35	-0.04	0.157	0.123	0.170
L138	LTE B26	QPSK15M	26765	1	74	Left Cheek	Ant 31	1	24.70	24.35	0.08	0.192	0.143	0.208
L139	LTE B26	QPSK15M	26765	1	74	Left Tilted	Ant 31	1	24.70	24.35	0.01	0.120	0.095	0.130
L140	LTE B26	QPSK15M	26865	36	0	Right Cheek	Ant 31	1	23.70	22.92	-0.13	0.174	0.125	0.208
L141	LTE B26	QPSK15M	26865	36	0	Right Tilted	Ant 31	1	23.70	22.92	-0.07	0.105	0.084	0.126
L142	LTE B26	QPSK15M	26865	36	0	Left Cheek	Ant 31	1	23.70	22.92	-0.12	0.124	0.095	0.148
L143	LTE B26	QPSK15M	26865	36	0	Left Tilted	Ant 31	1	23.70	22.92	0.14	0.087	0.067	0.104
L144	LTE B26	QPSK15M	26865	1	74	Right Cheek	Ant 31	1	24.70	24.24	0.06	0.285	0.197	0.317
L145	LTE B26	QPSK15M	26965	1	0	Right Cheek	Ant 31	1	24.70	24.15	0.1	0.265	0.185	0.301
L146	LTE B26	QPSK15M	26765	36	39	Right Cheek	Ant 31	1	23.70	22.85	0.12	0.226	0.156	0.275
L147	LTE B26	QPSK15M	26965	36	19	Right Cheek	Ant 31	1	23.70	22.90	0.06	0.225	0.154	0.271

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L149	LTE B38	QPSK20M	38000	1	0	Right Cheek	Ant 14	1	18.00	17.17	-0.1	0.458	0.216	0.554
L150	LTE B38	QPSK20M	38000	1	0	Right Tilted	Ant 14	1	18.00	17.17	0.01	0.632	0.285	0.765
L151	LTE B38	QPSK20M	38000	1	0	Left Cheek	Ant 14	1	18.00	17.17	-0.15	0.294	0.137	0.356
L152	LTE B38	QPSK20M	38000	1	0	Left Tilted	Ant 14	1	18.00	17.17	0.04	0.435	0.195	0.527
L153	LTE B38	QPSK20M	38000	50	0	Right Cheek	Ant 14	1	18.00	16.94	-0.18	0.402	0.189	0.513
L154	LTE B38	QPSK20M	38000	50	0	Right Tilted	Ant 14	1	18.00	16.94	-0.05	0.549	0.260	0.701
L155	LTE B38	QPSK20M	38000	50	0	Left Cheek	Ant 14	1	18.00	16.94	0.16	0.271	0.125	0.346
L156	LTE B38	QPSK20M	38000	50	0	Left Tilted	Ant 14	1	18.00	16.94	-0.13	0.398	0.180	0.508
L157	LTE B38	QPSK20M	37850	1	0	Right Tilted	Ant 14	1	18.00	17.15	0.04	0.601	0.264	0.731
L158	LTE B38	QPSK20M	38150	1	0	Right Tilted	Ant 14	1	18.00	16.94	0.14	0.569	0.250	0.726
L159	LTE B38	QPSK20M	37850	50	0	Right Tilted	Ant 14	1	18.00	16.82	0.01	0.591	0.260	0.776
L160	LTE B38	QPSK20M	38150	50	0	Right Tilted	Ant 14	1	18.00	16.70	0.17	0.527	0.230	0.711
L162	LTE B38	QPSK20M	38000	1	99	Right Cheek	Ant 41	1	25.00	24.27	0.07	0.084	0.042	0.099
L163	LTE B38	QPSK20M	38000	1	99	Right Tilted	Ant 41	1	25.00	24.27	-0.04	0.081	0.040	0.096
L164	LTE B38	QPSK20M	38000	1	99	Left Cheek	Ant 41	1	25.00	24.27	0.02	0.098	0.052	0.116
L165	LTE B38	QPSK20M	38000	1	99	Left Tilted	Ant 41	1	25.00	24.27	0.17	0.045	0.023	0.053
L166	LTE B38	QPSK20M	38150	50	25	Right Cheek	Ant 41	1	24.00	23.23	0.06	0.071	0.034	0.085
L167	LTE B38	QPSK20M	38150	50	25	Right Tilted	Ant 41	1	24.00	23.23	0.08	0.063	0.032	0.075
L168	LTE B38	QPSK20M	38150	50	25	Left Cheek	Ant 41	1	24.00	23.23	0.05	0.090	0.046	0.107
L169	LTE B38	QPSK20M	38150	50	25	Left Tilted	Ant 41	1	24.00	23.23	-0.13	0.036	0.019	0.043
L170	LTE B38	QPSK20M	37850	1	99	Left Cheek	Ant 41	1	25.00	23.99	0.04	0.101	0.052	0.127
L171	LTE B38	QPSK20M	38150	1	50	Left Cheek	Ant 41	1	25.00	24.13	0.01	0.092	0.049	0.113
L172	LTE B38	QPSK20M	37850	50	0	Left Cheek	Ant 41	1	24.00	22.97	-0.1	0.097	0.050	0.122
L173	LTE B38	QPSK20M	38000	50	0	Left Cheek	Ant 41	1	24.00	23.09	0.02	0.100	0.052	0.123
L175	LTE B41	QPSK20M	39750	1	99	Right Cheek	Ant 14	1	18.00	17.22	0.18	0.380	0.190	0.455
L176	LTE B41	QPSK20M	39750	1	99	Right Tilted	Ant 14	1	18.00	17.22	0.08	0.587	0.257	0.702
L177	LTE B41	QPSK20M	39750	1	99	Left Cheek	Ant 14	1	18.00	17.22	0.15	0.254	0.123	0.304
L178	LTE B41	QPSK20M	39750	1	99	Left Tilted	Ant 14	1	18.00	17.22	-0.05	0.373	0.176	0.446
L179	LTE B41	QPSK20M	39750	50	50	Right Cheek	Ant 14	1	18.00	17.01	0.1	0.388	0.195	0.487
L180	LTE B41	QPSK20M	39750	50	50	Right Tilted	Ant 14	1	18.00	17.01	-0.18	0.554	0.262	0.696
L181	LTE B41	QPSK20M	39750	50	50	Left Cheek	Ant 14	1	18.00	17.01	0.16	0.264	0.125	0.332
L182	LTE B41	QPSK20M	39750	50	50	Left Tilted	Ant 14	1	18.00	17.01	-0.14	0.386	0.180	0.485
L183	LTE B41	QPSK20M	41490	1	0	Right Tilted	Ant 14	1	18.00	17.11	0.14	0.678	0.291	0.832
L184	LTE B41	QPSK20M	40185	1	0	Right Tilted	Ant 14	1	18.00	16.87	-0.16	0.467	0.205	0.606
L185	LTE B41	QPSK20M	41055	1	0	Right Tilted	Ant 14	1	18.00	17.00	-0.11	0.517	0.225	0.651
L186	LTE B41	QPSK20M	40620	1	0	Right Tilted	Ant 14	1	18.00	16.77	0.05	0.621	0.273	0.824
L187	LTE B41	QPSK20M	41490	50	0	Right Tilted	Ant 14	1	18.00	16.90	-0.01	0.637	0.273	0.821
L188	LTE B41	QPSK20M	40620	50	0	Right Tilted	Ant 14	1	18.00	16.73	0.05	0.588	0.258	0.788

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L190	LTE B41	QPSK20M	41490	1	0	Right Cheek	Ant 41	1	25.00	23.91	0.02	0.008	0.002	0.010
L191	LTE B41	QPSK20M	41490	1	0	Right Tilted	Ant 41	1	25.00	23.91	-0.08	0.006	0.002	0.008
L192	LTE B41	QPSK20M	41490	1	0	Left Cheek	Ant 41	1	25.00	23.91	0.01	0.011	0.003	0.014
L193	LTE B41	QPSK20M	41490	1	0	Left Tilted	Ant 41	1	25.00	23.91	0.05	0.025	0.013	0.032
L194	LTE B41	QPSK20M	41490	50	0	Right Cheek	Ant 41	1	24.00	22.93	0.06	0.007	0.002	0.009
L195	LTE B41	QPSK20M	41490	50	0	Right Tilted	Ant 41	1	24.00	22.93	0.13	0.005	0.001	0.006
L196	LTE B41	QPSK20M	41490	50	0	Left Cheek	Ant 41	1	24.00	22.93	0.02	0.008	0.002	0.010
L197	LTE B41	QPSK20M	41490	50	0	Left Tilted	Ant 41	1	24.00	22.93	0.01	0.019	0.009	0.024
L198	LTE B41	QPSK20M	39750	1	0	Left Cheek	Ant 41	1	25.00	23.64	0.07	0.010	0.003	0.014
L199	LTE B41	QPSK20M	40185	1	0	Left Cheek	Ant 41	1	25.00	23.53	0.04	0.012	0.003	0.016
L200	LTE B41	QPSK20M	41055	1	0	Left Cheek	Ant 41	1	25.00	23.87	0.11	0.012	0.003	0.015
L201	LTE B41	QPSK20M	40620	1	99	Left Cheek	Ant 41	1	25.00	23.87	0.08	0.099	0.051	0.128
L202	LTE B41	QPSK20M	41055	50	0	Left Cheek	Ant 41	1	24.00	22.85	0.05	0.009	0.002	0.011
L203	LTE B41	QPSK20M	40620	50	25	Left Cheek	Ant 41	1	24.00	22.54	0.16	0.009	0.003	0.013
L205	LTE B66	QPSK20M	132572	1	0	Right Cheek	Ant 14	1	17.70	17.15	0.02	0.600	0.328	0.681
L206	LTE B66	QPSK20M	132572	1	0	Right Tilted	Ant 14	1	17.70	17.15	0.16	0.576	0.295	0.654
L207	LTE B66	QPSK20M	132572	1	0	Left Cheek	Ant 14	1	17.70	17.15	0.01	0.366	0.215	0.415
L208	LTE B66	QPSK20M	132572	1	0	Left Tilted	Ant 14	1	17.70	17.15	0.15	0.448	0.247	0.508
L209	LTE B66	QPSK20M	132572	50	0	Right Cheek	Ant 14	1	17.70	17.00	0.01	0.534	0.302	0.627
L210	LTE B66	QPSK20M	132572	50	0	Right Tilted	Ant 14	1	17.70	17.00	0.04	0.511	0.263	0.600
L211	LTE B66	QPSK20M	132572	50	0	Left Cheek	Ant 14	1	17.70	17.00	-0.1	0.338	0.199	0.397
L212	LTE B66	QPSK20M	132572	50	0	Left Tilted	Ant 14	1	17.70	17.00	-0.07	0.410	0.227	0.482
L213	LTE B66	QPSK20M	132322	1	0	Right Cheek	Ant 14	1	17.70	17.09	-0.07	0.588	0.319	0.677
L214	LTE B66	QPSK20M	132072	1	99	Right Cheek	Ant 14	1	17.70	16.93	-0.14	0.526	0.285	0.628
L215	LTE B66	QPSK20M	132322	50	0	Right Cheek	Ant 14	1	17.70	16.87	0.08	0.532	0.297	0.644
L216	LTE B66	QPSK20M	132072	50	50	Right Cheek	Ant 14	1	17.70	16.77	0.11	0.507	0.273	0.628
L218	LTE B66	QPSK20M	132072	1	50	Right Cheek	Ant 41	1	24.20	23.52	0.07	0.082	0.050	0.096
L219	LTE B66	QPSK20M	132072	1	50	Right Tilted	Ant 41	1	24.20	23.52	0.04	0.017	0.010	0.020
L220	LTE B66	QPSK20M	132072	1	50	Left Cheek	Ant 41	1	24.20	23.52	-0.02	0.067	0.042	0.078
L221	LTE B66	QPSK20M	132072	1	50	Left Tilted	Ant 41	1	24.20	23.52	0.06	0.034	0.021	0.040
L222	LTE B66	QPSK20M	132572	50	25	Right Cheek	Ant 41	1	23.20	22.23	0.18	0.076	0.045	0.095
L223	LTE B66	QPSK20M	132572	50	25	Right Tilted	Ant 41	1	23.20	22.23	0.09	0.016	0.009	0.020
L224	LTE B66	QPSK20M	132572	50	25	Left Cheek	Ant 41	1	23.20	22.23	0.06	0.057	0.035	0.071
L225	LTE B66	QPSK20M	132572	50	25	Left Tilted	Ant 41	1	23.20	22.23	-0.17	0.037	0.023	0.046
L226	LTE B66	QPSK20M	132322	1	99	Right Cheek	Ant 41	1	24.20	23.37	0.01	0.083	0.050	0.100
L227	LTE B66	QPSK20M	132572	1	0	Right Cheek	Ant 41	1	24.20	23.29	0.04	0.093	0.055	0.114
L228	LTE B66	QPSK20M	132322	50	25	Right Cheek	Ant 41	1	23.20	22.21	-0.11	0.068	0.040	0.086
L229	LTE B66	QPSK20M	132072	50	25	Right Cheek	Ant 41	1	23.20	22.13	0.1	0.065	0.039	0.083

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

4. Head SAR test results of WiFi 2.4G

Test No.	Band	Mode	Channel	Test Position	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W01	WiFi 2.4G	802.11b	6	Right Cheek	1M	99.17	14.00	13.70	0.08	0.213	0.102	0.230
W02	WiFi 2.4G	802.11b	6	Right Tilted	1M	99.17	14.00	13.70	0.01	0.033	0.145	0.036
W03	WiFi 2.4G	802.11b	6	Left Cheek	1M	99.17	14.00	13.70	0	0.271	0.129	0.293
W04	WiFi 2.4G	802.11b	6	Left Tilted	1M	99.17	14.00	13.70	0	0.340	0.158	0.367
W05	WiFi 2.4G	802.11b	11	Left Tilted	1M	99.17	14.00	13.55	-0.06	0.325	0.146	0.363
W06	WiFi 2.4G	802.11b	1	Left Tilted	1M	99.17	14.00	13.47	-0.04	0.422	0.192	0.481

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

5. Head SAR test results of BT

Test No.	Band	Mode	Channel	Test Position	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
B01	BT	DH5	39	Right Cheek	1M	77.30	11.00	9.18	0.05	0.046	0.021	0.090
B02	BT	DH5	39	Right Tilted	1M	77.30	11.00	9.18	0.03	0.070	0.029	0.138
B03	BT	DH5	39	Left Cheek	1M	77.30	11.00	9.18	-0.1	0.072	0.032	0.141
B04	BT	DH5	39	Left Tilted	1M	77.30	11.00	9.18	0.15	0.091	0.042	0.179
B05	BT	DH5	0	Left Tilted	1M	77.30	11.00	9.06	0.09	0.074	0.034	0.149
B06	BT	DH5	78	Left Tilted	1M	77.30	11.00	9.24	0.11	0.078	0.033	0.151

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

6. Head SAR test results of WiFi 5G

Test No.	Band	Mode	Channel	Test Position	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W08	WiFi 5.2G UNII_1	802.11a	36	Right Cheek	6M	95.80	12.00	11.68	0.07	0.163	0.055	0.183
W09	WiFi 5.2G UNII_1	802.11a	36	Right Tilted	6M	95.80	12.00	11.68	0.03	0.165	0.058	0.185
W10	WiFi 5.2G UNII_1	802.11a	36	Left Cheek	6M	95.80	12.00	11.68	-0.05	0.320	0.112	0.360
W11	WiFi 5.2G UNII_1	802.11a	36	Left Tilted	6M	95.80	12.00	11.68	0.12	0.348	0.121	0.391
W12	WiFi 5.2G UNII_1	802.11a	48	Left Tilted	6M	95.80	12.00	11.26	-0.01	0.379	0.124	0.469
W14	WiFi 5.3G UNII_2A	802.11a	52	Right Cheek	6M	95.80	12.00	11.44	0.04	0.132	0.048	0.157
W15	WiFi 5.3G UNII_2A	802.11a	52	Right Tilted	6M	95.80	12.00	11.44	0.07	0.162	0.056	0.192
W16	WiFi 5.3G UNII_2A	802.11a	52	Left Cheek	6M	95.80	12.00	11.44	-0.01	0.325	0.112	0.386
W17	WiFi 5.3G UNII_2A	802.11a	52	Left Tilted	6M	95.80	12.00	11.44	0.06	0.369	0.124	0.438
W18	WiFi 5.3G UNII_2A	802.11a	64	Left Tilted	6M	95.80	12.00	11.37	0.09	0.412	0.129	0.497
W20	WiFi 5.6G UNII_2C	802.11a	120	Right Cheek	6M	95.80	13.00	12.81	0.07	0.136	0.045	0.148
W21	WiFi 5.6G UNII_2C	802.11a	120	Right Tilted	6M	95.80	13.00	12.81	-0.11	0.184	0.053	0.201
W22	WiFi 5.6G UNII_2C	802.11a	120	Left Cheek	6M	95.80	13.00	12.81	0.06	0.293	0.099	0.320
W23	WiFi 5.6G UNII_2C	802.11a	120	Left Tilted	6M	95.80	13.00	12.81	0.04	0.314	0.099	0.342
W24	WiFi 5.6G UNII_2C	802.11a	140	Left Tilted	6M	95.80	8.50	8.24	0.1	0.095	0.028	0.106
W25	WiFi 5.6G UNII_2C	802.11a	100	Left Tilted	6M	95.80	13.00	12.50	0.06	0.367	0.117	0.430
W27	WiFi 5.8G UNII_3	802.11a	165	Right Cheek	6M	95.80	15.00	14.55	0.18	0.090	0.030	0.104
W28	WiFi 5.8G UNII_3	802.11a	165	Right Tilted	6M	95.80	15.00	14.55	-0.16	0.143	0.043	0.166
W29	WiFi 5.8G UNII_3	802.11a	165	Left Cheek	6M	95.80	15.00	14.55	0.02	0.242	0.084	0.280
W30	WiFi 5.8G UNII_3	802.11a	165	Left Tilted	6M	95.80	15.00	14.55	0.15	0.264	0.086	0.306
W31	WiFi 5.8G UNII_3	802.11a	149	Left Tilted	6M	95.80	15.00	14.42	0.06	0.275	0.094	0.328
W32	WiFi 5.8G UNII_3	802.11a	157	Left Tilted	6M	95.80	15.00	14.38	-0.01	0.320	0.097	0.385

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

6.2.2 SAR MEASUREMENT RESULT OF BODY-WORN

1. Body-worn SAR test results of GSM

DSI7

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
G28	GSM 850	GPRS 1 TX	190	Front Side	15	Ant 11	1	33.20	31.64	-0.17	0.253	0.167	0.362
G29	GSM 850	GPRS 1 TX	190	Back Side	15	Ant 11	1	33.20	31.64	0.08	0.390	0.246	0.559
G30	GSM 850	GPRS 1 TX	128	Back Side	15	Ant 11	1	33.20	31.54	0.12	0.288	0.180	0.422
G31	GSM 850	GPRS 1 TX	251	Back Side	15	Ant 11	1	33.20	31.62	-0.06	0.485	0.323	0.698
G33	GSM 850	GPRS 2 TX	190	Front Side	15	Ant 31	1	30.70	29.98	0.06	0.144	0.093	0.170
G34	GSM 850	GPRS 2 TX	190	Back Side	15	Ant 31	1	30.70	29.98	0.17	0.201	0.126	0.237
G35	GSM 850	GPRS 2 TX	128	Back Side	15	Ant 31	1	30.70	29.84	0.08	0.187	0.111	0.228
G36	GSM 850	GPRS 2 TX	251	Back Side	15	Ant 31	1	30.70	29.92	-0.03	0.234	0.180	0.280
G38	GSM 1900	GPRS 2 TX	661	Front Side	15	Ant 14	1	28.20	26.94	-0.09	0.154	0.097	0.206
G39	GSM 1900	GPRS 2 TX	661	Back Side	15	Ant 14	1	28.20	26.94	0.14	0.205	0.122	0.274
G40	GSM 1900	GPRS 2 TX	512	Back Side	15	Ant 14	1	28.20	26.81	0.17	0.193	0.117	0.266
G41	GSM 1900	GPRS 2 TX	810	Back Side	15	Ant 14	1	28.20	26.85	-0.13	0.195	0.122	0.266
G43	GSM 1900	GPRS 2 TX	661	Front Side	15	Ant 41	1	28.20	27.11	0.01	0.148	0.091	0.190
G44	GSM 1900	GPRS 2 TX	661	Back Side	15	Ant 41	1	28.20	27.11	0.09	0.172	0.103	0.221
G45	GSM 1900	GPRS 2 TX	512	Back Side	15	Ant 41	1	28.20	27.07	0.1	0.183	0.112	0.237
G46	GSM 1900	GPRS 2 TX	810	Back Side	15	Ant 41	1	28.20	27.01	-0.15	0.160	0.100	0.210

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

2. Body-worn SAR test results of UMTS

DSI7

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
U42	UMTS B2	RMC12.2K	9400	Front Side	15	Ant 14	1	24.20	23.58	0.03	0.298	0.177	0.344
U43	UMTS B2	RMC12.2K	9400	Back Side	15	Ant 14	1	24.20	23.58	-0.17	0.357	0.217	0.412
U44	UMTS B2	RMC12.2K	9262	Back Side	15	Ant 14	1	24.20	23.54	0.02	0.370	0.220	0.431
U45	UMTS B2	RMC12.2K	9538	Back Side	15	Ant 14	1	24.20	23.55	0.06	0.323	0.197	0.375
U47	UMTS B2	RMC12.2K	9400	Front Side	15	Ant 41	1	22.20	21.33	-0.02	0.212	0.128	0.259
U48	UMTS B2	RMC12.2K	9400	Back Side	15	Ant 41	1	22.20	21.33	-0.11	0.247	0.151	0.302
U49	UMTS B2	RMC12.2K	9262	Back Side	15	Ant 41	1	22.20	21.31	-0.13	0.221	0.133	0.271
U50	UMTS B2	RMC12.2K	9538	Back Side	15	Ant 41	1	22.20	21.25	0.12	0.236	0.142	0.294
U52	UMTS B4	RMC12.2K	1413	Front Side	15	Ant 14	1	24.20	23.08	-0.03	0.286	0.174	0.370
U53	UMTS B4	RMC12.2K	1413	Back Side	15	Ant 14	1	24.20	23.08	0.09	0.384	0.238	0.497
U54	UMTS B4	RMC12.2K	1312	Back Side	15	Ant 14	1	24.20	23.05	-0.14	0.353	0.215	0.460
U55	UMTS B4	RMC12.2K	1513	Back Side	15	Ant 14	1	24.20	23.07	0.01	0.395	0.241	0.512
U57	UMTS B4	RMC12.2K	1413	Front Side	15	Ant 41	1	22.70	21.85	0.06	0.153	0.093	0.186
U58	UMTS B4	RMC12.2K	1413	Back Side	15	Ant 41	1	22.70	21.85	-0.03	0.177	0.110	0.215
U59	UMTS B4	RMC12.2K	1312	Back Side	15	Ant 41	1	22.70	21.82	-0.11	0.183	0.114	0.224
U60	UMTS B4	RMC12.2K	1513	Back Side	15	Ant 41	1	22.70	21.83	0.02	0.191	0.115	0.233
U62	UMTS B5	RMC12.2K	4182	Front Side	15	Ant 11	1	23.70	22.23	-0.1	0.120	0.074	0.168
U63	UMTS B5	RMC12.2K	4182	Back Side	15	Ant 11	1	23.70	22.23	-0.18	0.298	0.177	0.418
U64	UMTS B5	RMC12.2K	4132	Back Side	15	Ant 11	1	23.70	22.21	-0.19	0.241	0.144	0.340
U65	UMTS B5	RMC12.2K	4233	Back Side	15	Ant 11	1	23.70	22.19	0.03	0.510	0.304	0.722
U67	UMTS B5	RMC12.2K	4182	Front Side	15	Ant 31	1	24.70	23.67	0	0.107	0.074	0.136
U68	UMTS B5	RMC12.2K	4182	Back Side	15	Ant 31	1	24.70	23.67	-0.04	0.062	0.043	0.079
U69	UMTS B5	RMC12.2K	4132	Front Side	15	Ant 31	1	24.70	23.65	-0.11	0.090	0.062	0.114
U70	UMTS B5	RMC12.2K	4233	Front Side	15	Ant 31	1	24.70	23.57	-0.14	0.100	0.063	0.129

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

3. Body-worn SAR test results of LTE

DSI7

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L230	LTE B2	QPSK20M	18700	1	0	Front Side	15	Ant14	1	24.20	23.81	0.13	0.263	0.153	0.288
L231	LTE B2	QPSK20M	18700	1	0	Back Side	15	Ant14	1	24.20	23.81	-0.02	0.307	0.187	0.336
L232	LTE B2	QPSK20M	18700	50	0	Front Side	15	Ant14	1	23.20	22.53	-0.19	0.186	0.108	0.217
L233	LTE B2	QPSK20M	18700	50	0	Back Side	15	Ant14	1	23.20	22.53	0.14	0.230	0.141	0.268
L234	LTE B2	QPSK20M	18900	1	99	Back Side	15	Ant14	1	24.20	23.50	-0.07	0.345	0.209	0.405
L235	LTE B2	QPSK20M	19100	1	50	Back Side	15	Ant14	1	24.20	23.54	0.03	0.340	0.206	0.396
L237	LTE B2	QPSK20M	18700	1	0	Front Side	15	Ant41	1	22.20	21.82	0.07	0.179	0.107	0.195
L238	LTE B2	QPSK20M	18700	1	0	Back Side	15	Ant41	1	22.20	21.82	-0.16	0.243	0.144	0.265
L239	LTE B2	QPSK20M	18700	50	25	Front Side	15	Ant41	1	22.20	21.32	-0.1	0.200	0.118	0.245
L240	LTE B2	QPSK20M	18700	50	25	Back Side	15	Ant41	1	22.20	21.32	0.19	0.248	0.149	0.304
L241	LTE B2	QPSK20M	18900	50	25	Back Side	15	Ant41	1	22.20	21.31	0.09	0.263	0.158	0.323
L242	LTE B2	QPSK20M	19100	50	50	Back Side	15	Ant41	1	22.20	21.29	0.08	0.246	0.147	0.303
L244	LTE B4	QPSK20M	20050	1	0	Front Side	15	Ant14	1	24.20	23.79	0.03	0.279	0.188	0.307
L245	LTE B4	QPSK20M	20050	1	0	Back Side	15	Ant14	1	24.20	23.79	-0.13	0.326	0.219	0.358
L246	LTE B4	QPSK20M	20175	50	25	Front Side	15	Ant14	1	23.20	22.54	-0.13	0.266	0.180	0.310
L247	LTE B4	QPSK20M	20175	50	25	Back Side	15	Ant14	1	23.20	22.54	-0.06	0.292	0.198	0.340
L248	LTE B4	QPSK20M	20175	1	99	Back Side	15	Ant14	1	24.20	23.58	0.04	0.325	0.196	0.375
L249	LTE B4	QPSK20M	20300	1	0	Back Side	15	Ant14	1	24.20	23.41	0.07	0.377	0.253	0.452
L251	LTE B4	QPSK20M	20175	1	0	Front Side	15	Ant41	1	22.70	22.12	0.1	0.132	0.079	0.151
L252	LTE B4	QPSK20M	20175	1	0	Back Side	15	Ant41	1	22.70	22.12	0.18	0.169	0.102	0.193
L253	LTE B4	QPSK20M	20175	50	25	Front Side	15	Ant41	1	22.70	21.84	-0.05	0.131	0.079	0.160
L254	LTE B4	QPSK20M	20175	50	25	Back Side	15	Ant41	1	22.70	21.84	0.02	0.157	0.096	0.191
L255	LTE B4	QPSK20M	20050	1	0	Back Side	15	Ant41	1	22.70	21.99	0.11	0.155	0.094	0.183
L256	LTE B4	QPSK20M	20300	1	0	Back Side	15	Ant41	1	22.70	22.06	0.07	0.165	0.100	0.191
L258	LTE B5	QPSK10M	20450	1	0	Front Side	15	Ant11	1	24.70	24.24	0.01	0.316	0.214	0.351
L259	LTE B5	QPSK10M	20450	1	0	Back Side	15	Ant11	1	24.70	24.24	-0.05	0.486	0.321	0.540
L260	LTE B5	QPSK10M	20600	25	0	Front Side	15	Ant11	1	23.70	23.14	0.12	0.358	0.239	0.407
L261	LTE B5	QPSK10M	20600	25	0	Back Side	15	Ant11	1	23.70	23.14	-0.02	0.548	0.360	0.623
L262	LTE B5	QPSK10M	20450	25	25	Back Side	15	Ant11	1	23.70	23.09	0.09	0.525	0.344	0.604
L263	LTE B5	QPSK10M	20525	25	0	Back Side	15	Ant11	1	23.70	23.13	0.08	0.464	0.305	0.529
L265	LTE B5	QPSK10M	20525	1	0	Front Side	15	Ant31	1	24.70	24.16	0.05	0.177	0.124	0.200
L266	LTE B5	QPSK10M	20525	1	0	Back Side	15	Ant31	1	24.70	24.16	0.13	0.179	0.125	0.203
L267	LTE B5	QPSK10M	20600	25	0	Front Side	15	Ant31	1	23.70	22.95	-0.12	0.154	0.108	0.183
L268	LTE B5	QPSK10M	20600	25	0	Back Side	15	Ant31	1	23.70	22.95	0.07	0.186	0.129	0.221
L269	LTE B5	QPSK10M	20450	1	0	Back Side	15	Ant31	1	24.70	24.13	-0.01	0.211	0.148	0.241
L270	LTE B5	QPSK10M	20600	1	0	Back Side	15	Ant31	1	24.70	24.11	0.03	0.223	0.156	0.255
L272	LTE B7	QPKS20M	20850	1	0	Front Side	15	Ant14	1	22.70	22.17	0.13	0.257	0.138	0.290
L273	LTE B7	QPKS20M	20850	1	0	Back Side	15	Ant14	1	22.70	22.17	0.04	0.315	0.170	0.356
L274	LTE B7	QPKS20M	21350	50	50	Front Side	15	Ant14	1	22.70	21.98	-0.1	0.246	0.132	0.290
L275	LTE B7	QPKS20M	21350	50	50	Back Side	15	Ant14	1	22.70	21.98	-0.07	0.282	0.150	0.333
L276	LTE B7	QPKS20M	21100	1	50	Back Side	15	Ant14	1	22.70	21.92	0.11	0.287	0.159	0.343
L277	LTE B7	QPKS20M	21350	1	0	Back Side	15	Ant14	1	22.70	21.80	-0.09	0.288	0.153	0.354
L279	LTE B7	QPKS20M	21100	1	99	Front Side	15	Ant41	1	20.70	19.97	0.12	0.073	0.043	0.086
L280	LTE B7	QPKS20M	21100	1	99	Back Side	15	Ant41	1	20.70	19.97	-0.16	0.095	0.053	0.112
L281	LTE B7	QPKS20M	21350	50	50	Front Side	15	Ant41	1	20.70	19.89	-0.1	0.081	0.047	0.098
L282	LTE B7	QPKS20M	21350	50	50	Back Side	15	Ant41	1	20.70	19.89	-0.09	0.100	0.056	0.121
L283	LTE B7	QPKS20M	20850	50	0	Back Side	15	Ant41	1	20.70	19.86	0.03	0.072	0.042	0.087
L284	LTE B7	QPKS20M	21100	50	25	Back Side	15	Ant41	1	20.70	19.81	-0.01	0.092	0.051	0.113

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L286	LTE B13	QPSK10M	23230	1	0	Front Side	15	Ant11	1	24.30	23.34	0.07	0.128	0.090	0.160
L287	LTE B13	QPSK10M	23230	1	0	Back Side	15	Ant11	1	24.30	23.34	0.02	0.198	0.135	0.247
L288	LTE B13	QPSK10M	23230	25	0	Front Side	15	Ant11	1	23.30	22.15	-0.13	0.098	0.068	0.128
L289	LTE B13	QPSK10M	23230	25	0	Back Side	15	Ant11	1	23.30	22.15	-0.02	0.155	0.105	0.202
L291	LTE B13	QPSK10M	23230	1	0	Front Side	15	Ant31	1	23.70	23.33	0.01	0.142	0.103	0.155
L292	LTE B13	QPSK10M	23230	1	0	Back Side	15	Ant31	1	23.70	23.33	0.02	0.186	0.146	0.203
L293	LTE B13	QPSK10M	23230	25	25	Front Side	15	Ant31	1	22.70	22.13	0.09	0.111	0.080	0.127
L294	LTE B13	QPSK10M	23230	25	25	Back Side	15	Ant31	1	22.70	22.13	-0.02	0.136	0.098	0.155
L296	LTE B26	QPSK15M	26765	1	37	Front Side	15	Ant11	1	23.70	23.16	-0.11	0.225	0.154	0.255
L297	LTE B26	QPSK15M	26765	1	37	Back Side	15	Ant11	1	23.70	23.16	0.05	0.331	0.222	0.375
L298	LTE B26	QPSK15M	26765	36	19	Front Side	15	Ant11	1	23.70	23.11	0.06	0.206	0.142	0.236
L299	LTE B26	QPSK15M	26765	36	19	Back Side	15	Ant11	1	23.70	23.11	-0.13	0.327	0.218	0.375
L300	LTE B26	QPSK15M	26865	1	37	Back Side	15	Ant11	1	23.70	23.05	0.09	0.458	0.303	0.532
L301	LTE B26	QPSK15M	26965	1	0	Back Side	15	Ant11	1	23.70	23.13	0.07	0.497	0.328	0.567
L303	LTE B26	QPSK15M	26965	1	0	Front Side	15	Ant31	1	24.70	24.39	0.02	0.147	0.116	0.158
L304	LTE B26	QPSK15M	26965	1	0	Back Side	15	Ant31	1	24.70	24.39	0.15	0.189	0.132	0.203
L305	LTE B26	QPSK15M	26865	36	0	Front Side	15	Ant31	1	23.70	23.06	-0.12	0.109	0.088	0.126
L306	LTE B26	QPSK15M	26865	36	0	Back Side	15	Ant31	1	23.70	23.06	0.01	0.139	0.110	0.161
L307	LTE B26	QPSK15M	26765	1	74	Back Side	15	Ant31	1	24.70	24.30	0.06	0.170	0.134	0.186
L308	LTE B26	QPSK15M	26865	1	0	Back Side	15	Ant31	1	24.70	24.13	-0.05	0.163	0.151	0.186
L310	LTE B38	QPSK20M	38000	1	50	Front Side	15	Ant14	1	25.00	24.37	-0.06	0.220	0.117	0.254
L311	LTE B38	QPSK20M	38000	1	50	Back Side	15	Ant14	1	25.00	24.37	-0.08	0.247	0.133	0.286
L312	LTE B38	QPSK20M	38150	50	25	Front Side	15	Ant14	1	24.00	23.31	-0.12	0.172	0.094	0.202
L313	LTE B38	QPSK20M	38150	50	25	Back Side	15	Ant14	1	24.00	23.31	-0.02	0.198	0.107	0.232
L314	LTE B38	QPSK20M	37850	1	0	Back Side	15	Ant14	1	25.00	24.29	0.05	0.267	0.143	0.314
L315	LTE B38	QPSK20M	38150	1	0	Back Side	15	Ant14	1	25.00	24.20	0.09	0.251	0.134	0.302
L317	LTE B38	QPSK20M	38000	1	99	Front Side	15	Ant41	1	23.50	22.71	-0.14	0.118	0.063	0.142
L318	LTE B38	QPSK20M	38000	1	99	Back Side	15	Ant41	1	23.50	22.71	0	0.151	0.081	0.181
L319	LTE B38	QPSK20M	38150	50	50	Front Side	15	Ant41	1	23.50	22.47	0.04	0.117	0.063	0.148
L320	LTE B38	QPSK20M	38150	50	50	Back Side	15	Ant41	1	23.50	22.47	-0.07	0.142	0.076	0.180
L321	LTE B38	QPSK20M	37850	1	0	Back Side	15	Ant41	1	23.50	22.38	-0.15	0.138	0.075	0.179
L322	LTE B38	QPSK20M	38150	1	99	Back Side	15	Ant41	1	23.50	22.50	0.14	0.133	0.071	0.167
L324	LTE B41	QPSK20M	41490	1	0	Front Side	15	Ant14	1	25.00	24.47	0.08	0.296	0.159	0.334
L325	LTE B41	QPSK20M	41490	1	0	Back Side	15	Ant14	1	25.00	24.47	0.04	0.343	0.185	0.388
L326	LTE B41	QPSK20M	41490	50	0	Front Side	15	Ant14	1	24.00	23.57	-0.16	0.232	0.123	0.256
L327	LTE B41	QPSK20M	41490	50	0	Back Side	15	Ant14	1	24.00	23.57	-0.17	0.278	0.151	0.307
L328	LTE B41	QPSK20M	39750	1	0	Back Side	15	Ant14	1	25.00	24.34	-0.1	0.330	0.180	0.384
L329	LTE B41	QPSK20M	40185	1	0	Back Side	15	Ant14	1	25.00	24.20	-0.06	0.305	0.171	0.367
L330	LTE B41	QPSK20M	41055	1	0	Back Side	15	Ant14	1	25.00	24.35	-0.12	0.307	0.165	0.357
L331	LTE B41	QPSK20M	40620	1	50	Back Side	15	Ant14	1	25.00	24.41	-0.18	0.280	0.153	0.321
L333	LTE B41	QPSK20M	41490	1	99	Front Side	15	Ant41	1	23.50	22.88	0.05	0.115	0.063	0.133
L334	LTE B41	QPSK20M	41490	1	99	Back Side	15	Ant41	1	23.50	22.88	0.07	0.148	0.078	0.171
L335	LTE B41	QPSK20M	41490	50	25	Front Side	15	Ant41	1	23.50	22.71	-0.11	0.113	0.062	0.136
L336	LTE B41	QPSK20M	41490	50	25	Back Side	15	Ant41	1	23.50	22.71	0.18	0.138	0.074	0.166
L337	LTE B41	QPSK20M	39750	1	0	Back Side	15	Ant41	1	23.50	22.23	-0.04	0.096	0.055	0.128
L338	LTE B41	QPSK20M	40185	1	0	Back Side	15	Ant41	1	23.50	22.09	-0.06	0.118	0.067	0.163
L339	LTE B41	QPSK20M	41055	1	50	Back Side	15	Ant41	1	23.50	22.59	0.03	0.138	0.077	0.170
L340	LTE B41	QPSK20M	40620	1	99	Back Side	15	Ant41	1	23.50	22.58	-0.15	0.128	0.072	0.158

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L342	LTE B66	QPSK20M	132072	1	0	Front Side	15	Ant14	1	24.20	23.73	0.06	0.270	0.165	0.301
L343	LTE B66	QPSK20M	132072	1	0	Back Side	15	Ant14	1	24.20	23.73	0.13	0.316	0.183	0.352
L344	LTE B66	QPSK20M	132572	50	25	Front Side	15	Ant14	1	23.20	22.58	0.02	0.234	0.134	0.270
L345	LTE B66	QPSK20M	132572	50	25	Back Side	15	Ant14	1	23.20	22.58	-0.05	0.276	0.167	0.318
L346	LTE B66	QPSK20M	132322	1	99	Back Side	15	Ant14	1	24.20	23.45	0.01	0.352	0.213	0.418
L347	LTE B66	QPSK20M	132572	1	50	Back Side	15	Ant14	1	24.20	23.59	0.08	0.371	0.223	0.427
L349	LTE B66	QPSK20M	132072	1	0	Front Side	15	Ant41	1	22.20	22.09	0.08	0.108	0.067	0.111
L350	LTE B66	QPSK20M	132072	1	0	Back Side	15	Ant41	1	22.20	22.09	0.02	0.138	0.084	0.142
L351	LTE B66	QPSK20M	132072	50	50	Front Side	15	Ant41	1	22.20	21.59	-0.07	0.112	0.069	0.129
L352	LTE B66	QPSK20M	132072	50	50	Back Side	15	Ant41	1	22.20	21.59	0.01	0.141	0.085	0.162
L353	LTE B66	QPSK20M	132322	50	25	Back Side	15	Ant41	1	22.20	21.51	-0.16	0.152	0.092	0.178
L354	LTE B66	QPSK20M	132572	50	50	Back Side	15	Ant41	1	22.20	21.50	0.07	0.182	0.108	0.214

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

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

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W35	WiFi 2.4G	802.11b	11	Front Side	15	1M	99.17	19.00	18.41	0.05	0.066	0.036	0.076
W36	WiFi 2.4G	802.11b	11	Back Side	15	1M	99.17	19.00	18.41	0.08	0.098	0.052	0.113
W37	WiFi 2.4G	802.11b	1	Back Side	15	1M	99.17	19.00	18.39	0	0.142	0.075	0.165
W38	WiFi 2.4G	802.11b	6	Back Side	15	1M	99.17	19.00	18.23	-0.06	0.162	0.087	0.195

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	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
B07	BT	DH5	39	Front Side	15	1M	77.30	11.00	9.18	0.04	0.008	0.004	0.015
B08	BT	DH5	39	Back Side	15	1M	77.30	11.00	9.18	-0.09	0.008	0.004	0.016
B09	BT	DH5	0	Back Side	15	1M	77.30	11.00	9.06	0.06	0.009	0.005	0.019
B10	BT	DH5	78	Back Side	15	1M	77.30	11.00	9.24	0.04	0.011	0.006	0.022

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

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

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W40	WiFi 5.2G UNII_1	802.11a	48	Front Side	15	6M	95.80	16.00	15.63	0.01	0.174	0.071	0.198
W41	WiFi 5.2G UNII_1	802.11a	48	Back Side	15	6M	95.80	16.00	15.63	-0.04	0.159	0.063	0.181
W42	WiFi 5.2G UNII_1	802.11a	36	Front Side	15	6M	95.80	16.00	15.50	0.08	0.196	0.079	0.230
W44	WiFi 5.3G UNII_2A	802.11a	52	Front Side	15	6M	95.80	16.00	15.45	0.06	0.244	0.098	0.289
W45	WiFi 5.3G UNII_2A	802.11a	52	Back Side	15	6M	95.80	16.00	15.45	0.01	0.211	0.080	0.250
W46	WiFi 5.3G UNII_2A	802.11a	64	Front Side	15	6M	95.80	16.00	15.29	-0.07	0.232	0.092	0.285
W48	WiFi 5.6G UNII_2C	802.11a	120	Front Side	15	6M	95.80	15.00	14.78	0.01	0.093	0.038	0.102
W49	WiFi 5.6G UNII_2C	802.11a	120	Back Side	15	6M	95.80	15.00	14.78	0.03	0.140	0.053	0.154
W50	WiFi 5.6G UNII_2C	802.11a	100	Back Side	15	6M	95.80	15.00	14.64	-0.13	0.135	0.051	0.153
W51	WiFi 5.6G UNII_2C	802.11a	140	Back Side	15	6M	95.80	8.50	8.24	0.05	0.039	0.012	0.043
W53	WiFi 5.8G UNII_3	802.11a	149	Front Side	15	6M	95.80	15.00	14.38	0.04	0.053	0.020	0.063
W54	WiFi 5.8G UNII_3	802.11a	149	Back Side	15	6M	95.80	15.00	14.38	-0.17	0.113	0.049	0.136
W55	WiFi 5.8G UNII_3	802.11a	157	Back Side	15	6M	95.80	15.00	14.34	-0.05	0.131	0.053	0.159
W56	WiFi 5.8G UNII_3	802.11a	165	Back Side	15	6M	95.80	15.00	14.02	0.02	0.112	0.047	0.147

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

6.2.3 SAR MEASUREMENT RESULT OF HOTSPOT

1. Hotspot SAR test results of GSM

DSI6

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
G47	GSM 850	GPRS 1 TX	251	Front Side	10	Ant 11	1	32.20	32.01	0.14	0.464	0.296	0.485
G48	GSM 850	GPRS 1 TX	251	Back Side	10	Ant 11	1	32.20	32.01	-0.1	0.758	0.470	0.792
G49	GSM 850	GPRS 1 TX	251	Left Side	10	Ant 11	1	32.20	32.01	-0.05	0.961	0.577	1.004
G50	GSM 850	GPRS 1 TX	251	Right Side	10	Ant 11	1	32.20	32.01	-0.04	0.092	0.064	0.096
G51	GSM 850	GPRS 1 TX	251	Top Side	10	Ant 11	1	32.20	32.01	0.03	0.058	0.038	0.060
G52	GSM 850	GPRS 1 TX	251	Bottom Side	10	Ant 11	1	32.20	32.01	-0.14	0.042	0.024	0.044
G53	GSM 850	GPRS 1 TX	190	Left Side	10	Ant 11	1	32.20	32.00	-0.04	0.893	0.538	0.935
G54	GSM 850	GPRS 1 TX	128	Left Side	10	Ant 11	1	32.20	31.90	0.16	0.803	0.473	0.860
G56	GSM 850	GPRS 1 TX	251	Front Side	10	Ant 31	1	33.20	32.28	-0.11	0.139	0.099	0.172
G57	GSM 850	GPRS 1 TX	251	Back Side	10	Ant 31	1	33.20	32.28	0.16	0.169	0.121	0.209
G58	GSM 850	GPRS 1 TX	251	Left Side	10	Ant 31	1	33.20	32.28	0.18	0.093	0.061	0.114
G59	GSM 850	GPRS 1 TX	251	Right Side	10	Ant 31	1	33.20	32.28	0.09	0.264	0.176	0.326
G60	GSM 850	GPRS 1 TX	251	Top Side	10	Ant 31	1	33.20	32.28	0.05	0.010	0.007	0.012
G61	GSM 850	GPRS 1 TX	251	Bottom Side	10	Ant 31	1	33.20	32.28	-0.16	0.099	0.065	0.122
G62	GSM 850	GPRS 1 TX	190	Right Side	10	Ant 31	1	33.20	32.21	-0.06	0.200	0.141	0.251
G63	GSM 850	GPRS 1 TX	128	Right Side	10	Ant 31	1	33.20	32.14	0.15	0.179	0.124	0.228
G65	GSM 1900	GPRS 1 TX	661	Front Side	10	Ant 14	1	30.70	29.55	-0.08	0.211	0.129	0.275
G66	GSM 1900	GPRS 1 TX	661	Back Side	10	Ant 14	1	30.70	29.55	0.04	0.273	0.168	0.356
G67	GSM 1900	GPRS 1 TX	661	Left Side	10	Ant 14	1	30.70	29.55	0.1	0.136	0.085	0.177
G68	GSM 1900	GPRS 1 TX	661	Right Side	10	Ant 14	1	30.70	29.55	-0.03	0.045	0.028	0.059
G69	GSM 1900	GPRS 1 TX	661	Top Side	10	Ant 14	1	30.70	29.55	-0.01	0.365	0.215	0.476
G70	GSM 1900	GPRS 1 TX	661	Bottom Side	10	Ant 14	1	30.70	29.55	0.04	0.016	0.009	0.021
G71	GSM 1900	GPRS 1 TX	512	Top Side	10	Ant 14	1	30.70	29.54	-0.19	0.389	0.229	0.508
G72	GSM 1900	GPRS 1 TX	810	Top Side	10	Ant 14	1	30.70	29.50	0.02	0.418	0.247	0.551
G74	GSM 1900	GPRS 1 TX	661	Front Side	10	Ant 41	1	30.70	29.31	0	0.218	0.125	0.300
G75	GSM 1900	GPRS 1 TX	661	Back Side	10	Ant 41	1	30.70	29.31	0.13	0.263	0.153	0.362
G76	GSM 1900	GPRS 1 TX	661	Left Side	10	Ant 41	1	30.70	29.31	-0.04	0.093	0.053	0.128
G77	GSM 1900	GPRS 1 TX	661	Right Side	10	Ant 41	1	30.70	29.31	0.11	0.049	0.030	0.068
G78	GSM 1900	GPRS 1 TX	661	Top Side	10	Ant 41	1	30.70	29.31	0.08	0.010	0.006	0.014
G79	GSM 1900	GPRS 1 TX	661	Bottom Side	10	Ant 41	1	30.70	29.31	0.04	0.492	0.279	0.678
G80	GSM 1900	GPRS 1 TX	512	Bottom Side	10	Ant 41	1	30.70	29.24	0.05	0.440	0.256	0.616
G81	GSM 1900	GPRS 1 TX	810	Bottom Side	10	Ant 41	1	30.70	29.26	-0.07	0.420	0.236	0.585

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

2. Hotspot SAR test results of UMTS

DSI6

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
U71	UMTS B2	RMC12.2K	9400	Front Side	10	Ant 14	1	21.20	20.70	0.05	0.270	0.168	0.303
U72	UMTS B2	RMC12.2K	9400	Back Side	10	Ant 14	1	21.20	20.70	0.07	0.327	0.202	0.367
U73	UMTS B2	RMC12.2K	9400	Left Side	10	Ant 14	1	21.20	20.70	-0.04	0.187	0.115	0.210
U74	UMTS B2	RMC12.2K	9400	Right Side	10	Ant 14	1	21.20	20.70	-0.14	0.062	0.039	0.070
U75	UMTS B2	RMC12.2K	9400	Top Side	10	Ant 14	1	21.20	20.70	-0.06	0.451	0.265	0.506
U76	UMTS B2	RMC12.2K	9400	Bottom Side	10	Ant 14	1	21.20	20.70	0.06	0.019	0.011	0.021
U77	UMTS B2	RMC12.2K	9262	Top Side	10	Ant 14	1	21.20	20.68	-0.03	0.441	0.260	0.497
U78	UMTS B2	RMC12.2K	9538	Top Side	10	Ant 14	1	21.20	20.65	0.17	0.417	0.245	0.473
U80	UMTS B2	RMC12.2K	9400	Front Side	10	Ant 41	1	20.70	19.75	-0.06	0.263	0.149	0.327
U81	UMTS B2	RMC12.2K	9400	Back Side	10	Ant 41	1	20.70	19.75	-0.18	0.311	0.181	0.387
U82	UMTS B2	RMC12.2K	9400	Left Side	10	Ant 41	1	20.70	19.75	0.11	0.103	0.060	0.128
U83	UMTS B2	RMC12.2K	9400	Right Side	10	Ant 41	1	20.70	19.75	-0.11	0.065	0.037	0.081
U84	UMTS B2	RMC12.2K	9400	Top Side	10	Ant 41	1	20.70	19.75	0.06	0.007	0.003	0.009
U85	UMTS B2	RMC12.2K	9400	Bottom Side	10	Ant 41	1	20.70	19.75	0	0.488	0.275	0.607
U86	UMTS B2	RMC12.2K	9262	Bottom Side	10	Ant 41	1	20.70	19.72	0.01	0.444	0.250	0.556
U87	UMTS B2	RMC12.2K	9538	Bottom Side	10	Ant 41	1	20.70	19.69	-0.09	0.479	0.269	0.604
U89	UMTS B4	RMC12.2K	1413	Front Side	10	Ant 14	1	20.70	19.67	0.09	0.191	0.123	0.242
U90	UMTS B4	RMC12.2K	1413	Back Side	10	Ant 14	1	20.70	19.67	0.02	0.256	0.159	0.325
U91	UMTS B4	RMC12.2K	1413	Left Side	10	Ant 14	1	20.70	19.67	0.05	0.215	0.120	0.273
U92	UMTS B4	RMC12.2K	1413	Right Side	10	Ant 14	1	20.70	19.67	-0.1	0.045	0.029	0.057
U93	UMTS B4	RMC12.2K	1413	Top Side	10	Ant 14	1	20.70	19.67	-0.09	0.324	0.189	0.411
U94	UMTS B4	RMC12.2K	1413	Bottom Side	10	Ant 14	1	20.70	19.67	0.07	0.024	0.014	0.031
U95	UMTS B4	RMC12.2K	1312	Top Side	10	Ant 14	1	20.70	19.63	0.15	0.242	0.138	0.310
U96	UMTS B4	RMC12.2K	1513	Top Side	10	Ant 14	1	20.70	19.64	0.01	0.370	0.212	0.472
U98	UMTS B4	RMC12.2K	1413	Front Side	10	Ant 41	1	21.70	20.71	-0.06	0.198	0.114	0.249
U99	UMTS B4	RMC12.2K	1413	Back Side	10	Ant 41	1	21.70	20.71	0.18	0.242	0.139	0.304
U100	UMTS B4	RMC12.2K	1413	Left Side	10	Ant 41	1	21.70	20.71	0.19	0.072	0.042	0.091
U101	UMTS B4	RMC12.2K	1413	Right Side	10	Ant 41	1	21.70	20.71	0.07	0.039	0.022	0.049
U102	UMTS B4	RMC12.2K	1413	Top Side	10	Ant 41	1	21.70	20.71	0.02	0.008	0.005	0.010
U103	UMTS B4	RMC12.2K	1413	Bottom Side	10	Ant 41	1	21.70	20.71	0.06	0.369	0.205	0.463
U104	UMTS B4	RMC12.2K	1312	Bottom Side	10	Ant 41	1	21.70	20.68	0.18	0.390	0.212	0.493
U105	UMTS B4	RMC12.2K	1513	Bottom Side	10	Ant 41	1	21.70	20.67	-0.06	0.407	0.221	0.516
U107	UMTS B5	RMC12.2K	4182	Front Side	10	Ant 11	1	20.70	19.25	-0.12	0.236	0.147	0.330
U108	UMTS B5	RMC12.2K	4182	Back Side	10	Ant 11	1	20.70	19.25	-0.09	0.381	0.232	0.532
U109	UMTS B5	RMC12.2K	4182	Left Side	10	Ant 11	1	20.70	19.25	-0.03	0.272	0.158	0.380
U110	UMTS B5	RMC12.2K	4182	Right Side	10	Ant 11	1	20.70	19.25	0.12	0.046	0.029	0.064
U111	UMTS B5	RMC12.2K	4182	Top Side	10	Ant 11	1	20.70	19.25	0.05	0.025	0.017	0.035
U112	UMTS B5	RMC12.2K	4182	Bottom Side	10	Ant 11	1	20.70	19.25	0.09	0.013	0.009	0.019
U113	UMTS B5	RMC12.2K	4132	Back Side	10	Ant 11	1	20.70	19.20		0.308	0.188	0.435
U114	UMTS B5	RMC12.2K	4233	Back Side	10	Ant 11	1	20.70	19.17	0.08	0.428	0.260	0.609

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
U116	UMTS B5	RMC12.2K	4182	Front Side	10	Ant 31	1	23.70	22.62	0.07	0.174	0.116	0.223
U117	UMTS B5	RMC12.2K	4182	Back Side	10	Ant 31	1	23.70	22.62	0.02	0.227	0.151	0.291
U118	UMTS B5	RMC12.2K	4182	Left Side	10	Ant 31	1	23.70	22.62	0.09	0.039	0.027	0.051
U119	UMTS B5	RMC12.2K	4182	Right Side	10	Ant 31	1	23.70	22.62	0.01	0.092	0.060	0.118
U120	UMTS B5	RMC12.2K	4182	Top Side	10	Ant 31	1	23.70	22.62	0.04	0.011	0.008	0.014
U121	UMTS B5	RMC12.2K	4182	Bottom Side	10	Ant 31	1	23.70	22.62	0.13	0.134	0.083	0.172
U122	UMTS B5	RMC12.2K	4132	Back Side	10	Ant 31	1	23.70	22.58	-0.13	0.186	0.121	0.241
U123	UMTS B5	RMC12.2K	4233	Back Side	10	Ant 31	1	23.70	22.52	0.05	0.257	0.167	0.337

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

3. Hotspot SAR test results of LTE

DSI6

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L355	LTE B2	QPSK20M	18700	1	0	Front Side	10	Ant14	1	21.20	20.85	0.04	0.246	0.149	0.267
L356	LTE B2	QPSK20M	18700	1	0	Back Side	10	Ant14	1	21.20	20.85	0.02	0.343	0.208	0.372
L357	LTE B2	QPSK20M	18700	1	0	Left Side	10	Ant14	1	21.20	20.85	-0.07	0.171	0.093	0.185
L358	LTE B2	QPSK20M	18700	1	0	Right Side	10	Ant14	1	21.20	20.85	0.12	0.066	0.039	0.072
L359	LTE B2	QPSK20M	18700	1	0	Top Side	10	Ant14	1	21.20	20.85	0.01	0.439	0.246	0.476
L360	LTE B2	QPSK20M	18700	1	0	Bottom Side	10	Ant14	1	21.20	20.85	-0.11	0.042	0.024	0.045
L361	LTE B2	QPSK20M	18700	50	0	Front Side	10	Ant14	1	21.20	20.81	0.06	0.254	0.153	0.278
L362	LTE B2	QPSK20M	18700	50	0	Back Side	10	Ant14	1	21.20	20.81	0.04	0.368	0.217	0.403
L363	LTE B2	QPSK20M	18700	50	0	Left Side	10	Ant14	1	21.20	20.81	0.16	0.187	0.100	0.205
L364	LTE B2	QPSK20M	18700	50	0	Right Side	10	Ant14	1	21.20	20.81	0.09	0.069	0.042	0.075
L365	LTE B2	QPSK20M	18700	50	0	Top Side	10	Ant14	1	21.20	20.81	0.03	0.413	0.232	0.452
L366	LTE B2	QPSK20M	18700	50	0	Bottom Side	10	Ant14	1	21.20	20.81	-0.02	0.039	0.022	0.043
L367	LTE B2	QPSK20M	18900	1	0	Top Side	10	Ant14	1	21.20	20.68	0.07	0.440	0.246	0.496
L368	LTE B2	QPSK20M	19100	1	0	Top Side	10	Ant14	1	21.20	20.52	-0.1	0.457	0.256	0.534
L370	LTE B2	QPSK20M	18700	1	50	Front Side	10	Ant41	1	20.70	20.18	-0.16	0.330	0.190	0.372
L371	LTE B2	QPSK20M	18700	1	50	Back Side	10	Ant41	1	20.70	20.18	-0.05	0.399	0.230	0.450
L372	LTE B2	QPSK20M	18700	1	50	Left Side	10	Ant41	1	20.70	20.18	-0.16	0.131	0.073	0.148
L373	LTE B2	QPSK20M	18700	1	50	Right Side	10	Ant41	1	20.70	20.18	-0.07	0.077	0.046	0.087
L374	LTE B2	QPSK20M	18700	1	50	Top Side	10	Ant41	1	20.70	20.18	0.07	0.018	0.009	0.020
L375	LTE B2	QPSK20M	18700	1	50	Bottom Side	10	Ant41	1	20.70	20.18	0.16	0.658	0.364	0.742
L376	LTE B2	QPSK20M	18700	50	25	Front Side	10	Ant41	1	20.70	19.87	-0.18	0.343	0.196	0.415
L377	LTE B2	QPSK20M	18700	50	25	Back Side	10	Ant41	1	20.70	19.87	0.17	0.409	0.231	0.495
L378	LTE B2	QPSK20M	18700	50	25	Left Side	10	Ant41	1	20.70	19.87	-0.01	0.138	0.075	0.167
L379	LTE B2	QPSK20M	18700	50	25	Right Side	10	Ant41	1	20.70	19.87	0.17	0.072	0.044	0.087
L380	LTE B2	QPSK20M	18700	50	25	Top Side	10	Ant41	1	20.70	19.87	0.03	0.016	0.008	0.020
L381	LTE B2	QPSK20M	18700	50	25	Bottom Side	10	Ant41	1	20.70	19.87	-0.12	0.643	0.354	0.778
L382	LTE B2	QPSK20M	18900	1	0	Bottom Side	10	Ant41	1	20.70	20.02	0.1	0.675	0.375	0.789
L383	LTE B2	QPSK20M	19100	1	0	Bottom Side	10	Ant41	1	20.70	19.96	0	0.655	0.364	0.777
L385	LTE B4	QPSK20M	20050	1	0	Front Side	10	Ant14	1	21.20	20.78	0.06	0.174	0.106	0.192
L386	LTE B4	QPSK20M	20050	1	0	Back Side	10	Ant14	1	21.20	20.78	0.01	0.247	0.148	0.272
L387	LTE B4	QPSK20M	20050	1	0	Left Side	10	Ant14	1	21.20	20.78	0.15	0.188	0.131	0.207
L388	LTE B4	QPSK20M	20050	1	0	Right Side	10	Ant14	1	21.20	20.78	0.04	0.044	0.025	0.048
L389	LTE B4	QPSK20M	20050	1	0	Top Side	10	Ant14	1	21.20	20.78	0.07	0.261	0.143	0.288
L390	LTE B4	QPSK20M	20050	1	0	Bottom Side	10	Ant14	1	21.20	20.78	-0.05	0.023	0.014	0.025
L391	LTE B4	QPSK20M	20300	50	0	Front Side	10	Ant14	1	21.20	20.47	0.03	0.198	0.122	0.234
L392	LTE B4	QPSK20M	20300	50	0	Back Side	10	Ant14	1	21.20	20.47	0.09	0.270	0.163	0.319
L393	LTE B4	QPSK20M	20300	50	0	Left Side	10	Ant14	1	21.20	20.47	0.14	0.180	0.101	0.213
L394	LTE B4	QPSK20M	20300	50	0	Right Side	10	Ant14	1	21.20	20.47	0.08	0.049	0.031	0.058
L395	LTE B4	QPSK20M	20300	50	0	Top Side	10	Ant14	1	21.20	20.47	0.01	0.339	0.188	0.401
L396	LTE B4	QPSK20M	20300	50	0	Bottom Side	10	Ant14	1	21.20	20.47	-0.07	0.033	0.020	0.040
L397	LTE B4	QPSK20M	20175	50	0	Top Side	10	Ant14	1	21.20	20.41	-0.02	0.351	0.193	0.421
L398	LTE B4	QPSK20M	20050	50	50	Top Side	10	Ant14	1	21.20	20.39	-0.06	0.335	0.186	0.404

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L400	LTE B4	QPSK20M	20050	1	0	Front Side	10	Ant41	1	21.70	21.18	0.06	0.164	0.094	0.185
L401	LTE B4	QPSK20M	20050	1	0	Back Side	10	Ant41	1	21.70	21.18	-0.13	0.204	0.118	0.230
L402	LTE B4	QPSK20M	20050	1	0	Left Side	10	Ant41	1	21.70	21.18	0.04	0.060	0.033	0.068
L403	LTE B4	QPSK20M	20050	1	0	Right Side	10	Ant41	1	21.70	21.18	0.09	0.027	0.016	0.031
L404	LTE B4	QPSK20M	20050	1	0	Top Side	10	Ant41	1	21.70	21.18	0.01	0.009	0.005	0.010
L405	LTE B4	QPSK20M	20050	1	0	Bottom Side	10	Ant41	1	21.70	21.18	0.08	0.332	0.183	0.374
L406	LTE B4	QPSK20M	20300	50	25	Front Side	10	Ant41	1	21.70	21.00	0.05	0.193	0.109	0.227
L407	LTE B4	QPSK20M	20300	50	25	Back Side	10	Ant41	1	21.70	21.00	-0.11	0.241	0.136	0.283
L408	LTE B4	QPSK20M	20300	50	25	Left Side	10	Ant41	1	21.70	21.00	0.15	0.071	0.039	0.083
L409	LTE B4	QPSK20M	20300	50	25	Right Side	10	Ant41	1	21.70	21.00	0.03	0.032	0.019	0.037
L410	LTE B4	QPSK20M	20300	50	25	Top Side	10	Ant41	1	21.70	21.00	0.03	0.012	0.007	0.015
L411	LTE B4	QPSK20M	20300	50	25	Bottom Side	10	Ant41	1	21.70	21.00	-0.04	0.386	0.210	0.454
L412	LTE B4	QPSK20M	20050	50	0	Bottom Side	10	Ant41	1	21.70	20.84	0.01	0.336	0.183	0.410
L413	LTE B4	QPSK20M	20175	50	50	Bottom Side	10	Ant41	1	21.70	20.79	-0.06	0.355	0.193	0.438
L415	LTE B5	QPSK10M	20600	1	0	Front Side	10	Ant11	1	21.20	20.62	0.06	0.310	0.194	0.354
L416	LTE B5	QPSK10M	20600	1	0	Back Side	10	Ant11	1	21.20	20.62	0.08	0.479	0.290	0.547
L417	LTE B5	QPSK10M	20600	1	0	Left Side	10	Ant11	1	21.20	20.62	-0.17	0.508	0.279	0.581
L418	LTE B5	QPSK10M	20600	1	0	Right Side	10	Ant11	1	21.20	20.62	0.04	0.046	0.034	0.052
L419	LTE B5	QPSK10M	20600	1	0	Top Side	10	Ant11	1	21.20	20.62	0.06	0.028	0.019	0.032
L420	LTE B5	QPSK10M	20600	1	0	Bottom Side	10	Ant11	1	21.20	20.62	0.01	0.001	0.008	0.001
L421	LTE B5	QPSK10M	20450	25	0	Front Side	10	Ant11	1	21.20	20.46	0.12	0.237	0.236	0.281
L422	LTE B5	QPSK10M	20450	25	0	Back Side	10	Ant11	1	21.20	20.46	0.04	0.390	0.236	0.462
L423	LTE B5	QPSK10M	20450	25	0	Left Side	10	Ant11	1	21.20	20.46	0.09	0.520	0.303	0.617
L424	LTE B5	QPSK10M	20450	25	0	Right Side	10	Ant11	1	21.20	20.46	0.06	0.048	0.035	0.056
L425	LTE B5	QPSK10M	20450	25	0	Top Side	10	Ant11	1	21.20	20.46	-0.12	0.021	0.015	0.025
L426	LTE B5	QPSK10M	20450	25	0	Bottom Side	10	Ant11	1	21.20	20.46	0	0.001	<0.001	0.002
L427	LTE B5	QPSK10M	20450	1	0	Left Side	10	Ant11	1	21.20	20.43	-0.06	0.522	0.306	0.623
L428	LTE B5	QPSK10M	20525	1	49	Left Side	10	Ant11	1	21.20	20.41	0.02	0.505	0.292	0.606
L430	LTE B5	QPSK10M	20450	1	0	Front Side	10	Ant31	1	23.70	23.40	0.06	0.157	0.108	0.168
L431	LTE B5	QPSK10M	20450	1	0	Back Side	10	Ant31	1	23.70	23.40	0.03	0.205	0.144	0.220
L432	LTE B5	QPSK10M	20450	1	0	Left Side	10	Ant31	1	23.70	23.40	0.11	0.052	0.037	0.056
L433	LTE B5	QPSK10M	20450	1	0	Right Side	10	Ant31	1	23.70	23.40	-0.05	0.286	0.197	0.306
L434	LTE B5	QPSK10M	20450	1	0	Top Side	10	Ant31	1	23.70	23.40	0.03	0.011	0.007	0.011
L435	LTE B5	QPSK10M	20450	1	0	Bottom Side	10	Ant31	1	23.70	23.40	-0.01	0.154	0.095	0.165
L436	LTE B5	QPSK10M	20600	25	0	Front Side	10	Ant31	1	23.70	23.15	0.08	0.220	0.152	0.250
L437	LTE B5	QPSK10M	20600	25	0	Back Side	10	Ant31	1	23.70	23.15	0.02	0.296	0.201	0.336
L438	LTE B5	QPSK10M	20600	25	0	Left Side	10	Ant31	1	23.70	23.15	0.17	0.035	0.024	0.040
L439	LTE B5	QPSK10M	20600	25	0	Right Side	10	Ant31	1	23.70	23.15	0.02	0.342	0.234	0.388
L440	LTE B5	QPSK10M	20600	25	0	Top Side	10	Ant31	1	23.70	23.15	0.01	0.015	0.010	0.017
L441	LTE B5	QPSK10M	20600	25	0	Bottom Side	10	Ant31	1	23.70	23.15	0.04	0.204	0.128	0.232
L442	LTE B5	QPSK10M	20450	25	0	Right Side	10	Ant31	1	23.70	23.12	0.11	0.313	0.215	0.358
L443	LTE B5	QPSK10M	20525	25	0	Right Side	10	Ant31	1	23.70	23.13	-0.13	0.337	0.230	0.384

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L445	LTE B7	QPSK20M	21350	1	0	Front Side	10	Ant14	1	18.70	18.12	-0.07	0.278	0.161	0.318
L446	LTE B7	QPSK20M	21350	1	0	Back Side	10	Ant14	1	18.70	18.12	-0.04	0.316	0.185	0.361
L447	LTE B7	QPSK20M	21350	1	0	Left Side	10	Ant14	1	18.70	18.12	0.15	0.148	0.088	0.169
L448	LTE B7	QPSK20M	21350	1	0	Right Side	10	Ant14	1	18.70	18.12	0.11	0.071	0.044	0.081
L449	LTE B7	QPSK20M	21350	1	0	Top Side	10	Ant14	1	18.70	18.12	-0.02	0.491	0.277	0.561
L450	LTE B7	QPSK20M	21350	1	0	Bottom Side	10	Ant14	1	18.70	18.12	0.06	0.021	0.011	0.024
L451	LTE B7	QPSK20M	21350	50	0	Front Side	10	Ant14	1	18.70	18.08	0.12	0.266	0.156	0.307
L452	LTE B7	QPSK20M	21350	50	0	Back Side	10	Ant14	1	18.70	18.08	-0.1	0.336	0.188	0.388
L453	LTE B7	QPSK20M	21350	50	0	Left Side	10	Ant14	1	18.70	18.08	0.13	0.151	0.092	0.174
L454	LTE B7	QPSK20M	21350	50	0	Right Side	10	Ant14	1	18.70	18.08	0.18	0.068	0.041	0.079
L455	LTE B7	QPSK20M	21350	50	0	Top Side	10	Ant14	1	18.70	18.08	-0.07	0.480	0.270	0.554
L456	LTE B7	QPSK20M	21350	50	0	Bottom Side	10	Ant14	1	18.70	18.08	-0.12	0.021	0.011	0.024
L457	LTE B7	QPSK20M	20850	1	0	Top Side	10	Ant14	1	18.70	18.05	-0.01	0.588	0.325	0.683
L458	LTE B7	QPSK20M	21100	1	0	Top Side	10	Ant14	1	18.70	17.98	-0.17	0.553	0.307	0.653
L460	LTE B7	QPSK20M	21350	1	0	Front Side	10	Ant41	1	19.20	18.22	0.05	0.150	0.079	0.188
L461	LTE B7	QPSK20M	21350	1	0	Back Side	10	Ant41	1	19.20	18.22	0.14	0.186	0.093	0.233
L462	LTE B7	QPSK20M	21350	1	0	Left Side	10	Ant41	1	19.20	18.22	0.17	0.061	0.032	0.076
L463	LTE B7	QPSK20M	21350	1	0	Right Side	10	Ant41	1	19.20	18.22	0.09	0.058	0.031	0.073
L464	LTE B7	QPSK20M	21350	1	0	Top Side	10	Ant41	1	19.20	18.22	-0.07	0.012	0.006	0.015
L465	LTE B7	QPSK20M	21350	1	0	Bottom Side	10	Ant41	1	19.20	18.22	-0.17	0.362	0.174	0.454
L466	LTE B7	QPSK20M	21350	50	0	Front Side	10	Ant41	1	19.20	18.26	-0.08	0.123	0.064	0.153
L467	LTE B7	QPSK20M	21350	50	0	Back Side	10	Ant41	1	19.20	18.26	-0.17	0.143	0.075	0.178
L468	LTE B7	QPSK20M	21350	50	0	Left Side	10	Ant41	1	19.20	18.26	0.16	0.045	0.025	0.056
L469	LTE B7	QPSK20M	21350	50	0	Right Side	10	Ant41	1	19.20	18.26	0.05	0.048	0.026	0.060
L470	LTE B7	QPSK20M	21350	50	0	Top Side	10	Ant41	1	19.20	18.26	0.12	0.010	0.005	0.013
L471	LTE B7	QPSK20M	21350	50	0	Bottom Side	10	Ant41	1	19.20	18.26	-0.17	0.337	0.160	0.418
L472	LTE B7	QPSK20M	20850	1	0	Bottom Side	10	Ant41	1	19.20	18.13	0.09	0.206	0.100	0.264
L473	LTE B7	QPSK20M	21100	1	0	Bottom Side	10	Ant41	1	19.20	18.02	0.1	0.205	0.099	0.269
L475	LTE B13	QPSK10M	23230	1	24	Front Side	10	Ant11	1	24.30	23.23	0.15	0.102	0.035	0.130
L476	LTE B13	QPSK10M	23230	1	24	Back Side	10	Ant11	1	24.30	23.23	0.07	0.170	0.056	0.217
L477	LTE B13	QPSK10M	23230	1	24	Left Side	10	Ant11	1	24.30	23.23	0	0.386	0.234	0.494
L478	LTE B13	QPSK10M	23230	1	24	Right Side	10	Ant11	1	24.30	23.23	0.01	0.012	0.005	0.015
L479	LTE B13	QPSK10M	23230	1	24	Top Side	10	Ant11	1	24.30	23.23	0.08	0.015	0.010	0.019
L480	LTE B13	QPSK10M	23230	1	24	Bottom Side	10	Ant11	1	24.30	23.23	0.02	0.009	0.006	0.012
L481	LTE B13	QPSK10M	23230	25	0	Front Side	10	Ant11	1	23.30	22.10	-0.03	0.082	0.028	0.108
L482	LTE B13	QPSK10M	23230	25	0	Back Side	10	Ant11	1	23.30	22.10	0.15	0.130	0.043	0.171
L483	LTE B13	QPSK10M	23230	25	0	Left Side	10	Ant11	1	23.30	22.10	0.01	0.236	0.076	0.311
L484	LTE B13	QPSK10M	23230	25	0	Right Side	10	Ant11	1	23.30	22.10	-0.1	0.044	0.030	0.058
L485	LTE B13	QPSK10M	23230	25	0	Top Side	10	Ant11	1	23.30	22.10	0.18	0.012	0.009	0.016
L486	LTE B13	QPSK10M	23230	25	0	Bottom Side	10	Ant11	1	23.30	22.10	-0.05	0.007	0.005	0.009

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L488	LTE B13	QPSK10M	23230	1	49	Front Side	10	Ant31	1	23.70	23.34	0.06	0.190	0.130	0.206
L489	LTE B13	QPSK10M	23230	1	49	Back Side	10	Ant31	1	23.70	23.34	0.08	0.226	0.155	0.246
L490	LTE B13	QPSK10M	23230	1	49	Left Side	10	Ant31	1	23.70	23.34	0.03	0.133	0.094	0.144
L491	LTE B13	QPSK10M	23230	1	49	Right Side	10	Ant31	1	23.70	23.34	-0.11	0.305	0.214	0.331
L492	LTE B13	QPSK10M	23230	1	49	Top Side	10	Ant31	1	23.70	23.34	0.03	0.010	0.007	0.011
L493	LTE B13	QPSK10M	23230	1	49	Bottom Side	10	Ant31	1	23.70	23.34	-0.07	0.118	0.077	0.128
L494	LTE B13	QPSK10M	23230	25	12	Front Side	10	Ant31	1	22.70	21.96	0.1	0.151	0.108	0.179
L495	LTE B13	QPSK10M	23230	25	12	Back Side	10	Ant31	1	22.70	21.96	0.06	0.174	0.124	0.206
L496	LTE B13	QPSK10M	23230	25	12	Left Side	10	Ant31	1	22.70	21.96	0.02	0.111	0.078	0.132
L497	LTE B13	QPSK10M	23230	25	12	Right Side	10	Ant31	1	22.70	21.96	0.01	0.269	0.188	0.319
L498	LTE B13	QPSK10M	23230	25	12	Top Side	10	Ant31	1	22.70	21.96	0.05	0.008	0.005	0.009
L499	LTE B13	QPSK10M	23230	25	12	Bottom Side	10	Ant31	1	22.70	21.96	-0.15	0.128	0.076	0.152
L501	LTE B26	QPSK15M	26965	1	0	Front Side	10	Ant11	1	21.70	21.28	-0.01	0.332	0.209	0.366
L502	LTE B26	QPSK15M	26965	1	0	Back Side	10	Ant11	1	21.70	21.28	0.1	0.529	0.318	0.583
L503	LTE B26	QPSK15M	26965	1	0	Left Side	10	Ant11	1	21.70	21.28	-0.06	0.757	0.444	0.834
L504	LTE B26	QPSK15M	26965	1	0	Right Side	10	Ant11	1	21.70	21.28	0.04	0.056	0.041	0.062
L505	LTE B26	QPSK15M	26965	1	0	Top Side	10	Ant11	1	21.70	21.28	0.02	0.033	0.023	0.036
L506	LTE B26	QPSK15M	26965	1	0	Bottom Side	10	Ant11	1	21.70	21.28	0.08	0.025	0.017	0.028
L507	LTE B26	QPSK15M	26865	36	0	Front Side	10	Ant11	1	21.70	21.17	-0.14	0.287	0.179	0.324
L508	LTE B26	QPSK15M	26865	36	0	Back Side	10	Ant11	1	21.70	21.17	0.11	0.442	0.269	0.499
L509	LTE B26	QPSK15M	26865	36	0	Left Side	10	Ant11	1	21.70	21.17	-0.01	0.689	0.404	0.778
L510	LTE B26	QPSK15M	26865	36	0	Right Side	10	Ant11	1	21.70	21.17	0.12	0.053	0.039	0.060
L511	LTE B26	QPSK15M	26865	36	0	Top Side	10	Ant11	1	21.70	21.17	0.17	0.028	0.019	0.032
L512	LTE B26	QPSK15M	26865	36	0	Bottom Side	10	Ant11	1	21.70	21.17	-0.16	0.020	0.014	0.023
L513	LTE B26	QPSK15M	26765	1	37	Left Side	10	Ant11	1	21.70	21.19	-0.04	0.605	0.356	0.680
L514	LTE B26	QPSK15M	26865	1	74	Left Side	10	Ant11	1	21.70	21.09	0	0.770	0.449	0.886
L516	LTE B26	QPSK15M	26965	1	0	Front Side	10	Ant31	1	23.70	23.26	0.07	0.171	0.118	0.189
L517	LTE B26	QPSK15M	26965	1	0	Back Side	10	Ant31	1	23.70	23.26	0.04	0.232	0.157	0.257
L518	LTE B26	QPSK15M	26965	1	0	Left Side	10	Ant31	1	23.70	23.26	0.12	0.040	0.028	0.044
L519	LTE B26	QPSK15M	26965	1	0	Right Side	10	Ant31	1	23.70	23.26	-0.15	0.287	0.197	0.318
L520	LTE B26	QPSK15M	26965	1	0	Top Side	10	Ant31	1	23.70	23.26	-0.01	0.013	0.009	0.015
L521	LTE B26	QPSK15M	26965	1	0	Bottom Side	10	Ant31	1	23.70	23.26	0.06	0.160	0.100	0.177
L522	LTE B26	QPSK15M	26865	36	0	Front Side	10	Ant31	1	23.70	23.13	0.08	0.166	0.112	0.189
L523	LTE B26	QPSK15M	26865	36	0	Back Side	10	Ant31	1	23.70	23.13	0.02	0.209	0.141	0.238
L524	LTE B26	QPSK15M	26865	36	0	Left Side	10	Ant31	1	23.70	23.13	0.19	0.045	0.033	0.051
L525	LTE B26	QPSK15M	26865	36	0	Right Side	10	Ant31	1	23.70	23.13	-0.03	0.269	0.186	0.307
L526	LTE B26	QPSK15M	26865	36	0	Top Side	10	Ant31	1	23.70	23.13	0.02	0.011	0.008	0.013
L527	LTE B26	QPSK15M	26865	36	0	Bottom Side	10	Ant31	1	23.70	23.13	0.06	0.133	0.083	0.152
L528	LTE B26	QPSK15M	26865	1	37	Right Side	10	Ant31	1	23.70	23.19	0.11	0.255	0.176	0.287
L529	LTE B26	QPSK15M	26765	1	37	Right Side	10	Ant31	1	23.70	23.14	-0.04	0.242	0.167	0.275

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L531	LTE B38	QPSK20M	38150	1	0	Front Side	10	Ant14	1	21.00	20.57	-0.04	0.224	0.115	0.247
L532	LTE B38	QPSK20M	38150	1	0	Back Side	10	Ant14	1	21.00	20.57	-0.08	0.275	0.142	0.304
L533	LTE B38	QPSK20M	38150	1	0	Left Side	10	Ant14	1	21.00	20.57	0.15	0.109	0.056	0.120
L534	LTE B38	QPSK20M	38150	1	0	Right Side	10	Ant14	1	21.00	20.57	0.08	0.063	0.031	0.069
L535	LTE B38	QPSK20M	38150	1	0	Top Side	10	Ant14	1	21.00	20.57	-0.1	0.327	0.161	0.361
L536	LTE B38	QPSK20M	38150	1	0	Bottom Side	10	Ant14	1	21.00	20.57	0.03	0.017	0.009	0.019
L537	LTE B38	QPSK20M	38150	50	25	Front Side	10	Ant14	1	21.00	20.49	0.15	0.212	0.106	0.238
L538	LTE B38	QPSK20M	38150	50	25	Back Side	10	Ant14	1	21.00	20.49	-0.01	0.247	0.127	0.278
L539	LTE B38	QPSK20M	38150	50	25	Left Side	10	Ant14	1	21.00	20.49	0.03	0.106	0.055	0.119
L540	LTE B38	QPSK20M	38150	50	25	Right Side	10	Ant14	1	21.00	20.49	0.18	0.060	0.031	0.068
L541	LTE B38	QPSK20M	38150	50	25	Top Side	10	Ant14	1	21.00	20.49	-0.08	0.347	0.168	0.390
L542	LTE B38	QPSK20M	38150	50	25	Bottom Side	10	Ant14	1	21.00	20.49	0.05	0.018	0.010	0.020
L543	LTE B38	QPSK20M	37850	50	50	Top Side	10	Ant14	1	21.00	20.42	0.14	0.374	0.180	0.427
L544	LTE B38	QPSK20M	38000	50	25	Top Side	10	Ant14	1	21.00	20.34	-0.11	0.365	0.173	0.425
L546	LTE B38	QPSK20M	38150	1	99	Front Side	10	Ant41	1	21.00	20.21	0.03	0.131	0.063	0.157
L547	LTE B38	QPSK20M	38150	1	99	Back Side	10	Ant41	1	21.00	20.21	0.19	0.157	0.077	0.188
L548	LTE B38	QPSK20M	38150	1	99	Left Side	10	Ant41	1	21.00	20.21	-0.11	0.047	0.024	0.056
L549	LTE B38	QPSK20M	38150	1	99	Right Side	10	Ant41	1	21.00	20.21	-0.06	0.044	0.022	0.053
L550	LTE B38	QPSK20M	38150	1	99	Top Side	10	Ant41	1	21.00	20.21	0.01	0.014	0.007	0.017
L551	LTE B38	QPSK20M	38150	1	99	Bottom Side	10	Ant41	1	21.00	20.21	-0.05	0.331	0.155	0.397
L552	LTE B38	QPSK20M	38150	50	50	Front Side	10	Ant41	1	21.00	20.10	-0.02	0.133	0.066	0.164
L553	LTE B38	QPSK20M	38150	50	50	Back Side	10	Ant41	1	21.00	20.10	0.05	0.162	0.081	0.199
L554	LTE B38	QPSK20M	38150	50	50	Left Side	10	Ant41	1	21.00	20.10	0.18	0.046	0.024	0.057
L555	LTE B38	QPSK20M	38150	50	50	Right Side	10	Ant41	1	21.00	20.10	-0.07	0.048	0.024	0.059
L556	LTE B38	QPSK20M	38150	50	50	Top Side	10	Ant41	1	21.00	20.10	-0.08	0.015	0.007	0.019
L557	LTE B38	QPSK20M	38150	50	50	Bottom Side	10	Ant41	1	21.00	20.10	0.05	0.346	0.160	0.426
L558	LTE B38	QPSK20M	37850	50	0	Bottom Side	10	Ant41	1	21.00	19.79	-0.16	0.320	0.151	0.423
L559	LTE B38	QPSK20M	38000	50	25	Bottom Side	10	Ant41	1	21.00	19.95	-0.01	0.333	0.156	0.424
L561	LTE B41	QPSK20M	41490	1	99	Front Side	10	Ant14	1	21.00	20.72	-0.01	0.262	0.134	0.279
L562	LTE B41	QPSK20M	41490	1	99	Back Side	10	Ant14	1	21.00	20.72	0.08	0.302	0.159	0.322
L563	LTE B41	QPSK20M	41490	1	99	Left Side	10	Ant14	1	21.00	20.72	0.19	0.134	0.070	0.143
L564	LTE B41	QPSK20M	41490	1	99	Right Side	10	Ant14	1	21.00	20.72	-0.04	0.054	0.028	0.058
L565	LTE B41	QPSK20M	41490	1	99	Top Side	10	Ant14	1	21.00	20.72	0.07	0.443	0.210	0.473
L566	LTE B41	QPSK20M	41490	1	99	Bottom Side	10	Ant14	1	21.00	20.72	0.01	0.013	0.074	0.014
L567	LTE B41	QPSK20M	41055	50	0	Front Side	10	Ant14	1	21.00	20.65	0.09	0.234	0.118	0.254
L568	LTE B41	QPSK20M	41055	50	0	Back Side	10	Ant14	1	21.00	20.65	0.07	0.276	0.142	0.299
L569	LTE B41	QPSK20M	41055	50	0	Left Side	10	Ant14	1	21.00	20.65	0.11	0.122	0.065	0.132
L570	LTE B41	QPSK20M	41055	50	0	Right Side	10	Ant14	1	21.00	20.65	0.13	0.051	0.026	0.055
L571	LTE B41	QPSK20M	41055	50	0	Top Side	10	Ant14	1	21.00	20.65	0.06	0.400	0.194	0.434
L572	LTE B41	QPSK20M	41055	50	0	Bottom Side	10	Ant14	1	21.00	20.65	0.09	0.019	0.011	0.020
L573	LTE B41	QPSK20M	39750	1	0	Top Side	10	Ant14	1	21.00	20.70	0.06	0.497	0.241	0.533
L574	LTE B41	QPSK20M	40185	1	0	Top Side	10	Ant14	1	21.00	20.43	0.07	0.397	0.195	0.453
L575	LTE B41	QPSK20M	41055	1	0	Top Side	10	Ant14	1	21.00	20.66	-0.18	0.439	0.205	0.475
L576	LTE B41	QPSK20M	40620	1	99	Top Side	10	Ant14	1	21.00	20.58	-0.01	0.365	0.178	0.402

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Ant	SIM	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L578	LTE B41	QPSK20M	41490	1	0	Front Side	10	Ant41	1	21.00	20.32	-0.09	0.136	0.065	0.159
L579	LTE B41	QPSK20M	41490	1	0	Back Side	10	Ant41	1	21.00	20.32	-0.11	0.168	0.081	0.196
L580	LTE B41	QPSK20M	41490	1	0	Left Side	10	Ant41	1	21.00	20.32	-0.12	0.080	0.042	0.094
L581	LTE B41	QPSK20M	41490	1	0	Right Side	10	Ant41	1	21.00	20.32	0.1	0.041	0.020	0.047
L582	LTE B41	QPSK20M	41490	1	0	Top Side	10	Ant41	1	21.00	20.32	0.12	0.013	0.007	0.015
L583	LTE B41	QPSK20M	41490	1	0	Bottom Side	10	Ant41	1	21.00	20.32	0.07	0.333	0.151	0.389
L584	LTE B41	QPSK20M	41490	50	0	Front Side	10	Ant41	1	21.00	20.18	0.12	0.142	0.069	0.172
L585	LTE B41	QPSK20M	41490	50	0	Back Side	10	Ant41	1	21.00	20.18	-0.15	0.175	0.083	0.211
L586	LTE B41	QPSK20M	41490	50	0	Left Side	10	Ant41	1	21.00	20.18	-0.03	0.081	0.043	0.098
L587	LTE B41	QPSK20M	41490	50	0	Right Side	10	Ant41	1	21.00	20.18	0	0.041	0.020	0.049
L588	LTE B41	QPSK20M	41490	50	0	Top Side	10	Ant41	1	21.00	20.18	-0.11	0.014	0.007	0.017
L589	LTE B41	QPSK20M	41490	50	0	Bottom Side	10	Ant41	1	21.00	20.18	0.04	0.318	0.148	0.384
L590	LTE B41	QPSK20M	39750	1	0	Bottom Side	10	Ant41	1	21.00	20.05	-0.19	0.207	0.101	0.258
L591	LTE B41	QPSK20M	40185	1	0	Bottom Side	10	Ant41	1	21.00	20.11	-0.05	0.272	0.133	0.334
L592	LTE B41	QPSK20M	41055	1	50	Bottom Side	10	Ant41	1	21.00	20.31	0.06	0.306	0.146	0.359
L593	LTE B41	QPSK20M	40620	1	99	Bottom Side	10	Ant41	1	21.00	20.24	-0.05	0.326	0.159	0.388
L595	LTE B66	QPSK20M	132072	1	0	Front Side	10	Ant14	1	21.20	20.53	-0.12	0.188	0.116	0.219
L596	LTE B66	QPSK20M	132072	1	0	Back Side	10	Ant14	1	21.20	20.53	0	0.263	0.163	0.307
L597	LTE B66	QPSK20M	132072	1	0	Left Side	10	Ant14	1	21.20	20.53	0.15	0.208	0.115	0.243
L598	LTE B66	QPSK20M	132072	1	0	Right Side	10	Ant14	1	21.20	20.53	0.05	0.050	0.030	0.058
L599	LTE B66	QPSK20M	132072	1	0	Top Side	10	Ant14	1	21.20	20.53	-0.01	0.298	0.169	0.348
L600	LTE B66	QPSK20M	132072	1	0	Bottom Side	10	Ant14	1	21.20	20.53	0.04	0.018	0.011	0.020
L601	LTE B66	QPSK20M	132572	50	50	Front Side	10	Ant14	1	21.20	20.40	-0.17	0.227	0.141	0.273
L602	LTE B66	QPSK20M	132572	50	50	Back Side	10	Ant14	1	21.20	20.40	0.01	0.319	0.195	0.384
L603	LTE B66	QPSK20M	132572	50	50	Left Side	10	Ant14	1	21.20	20.40	-0.12	0.197	0.112	0.237
L604	LTE B66	QPSK20M	132572	50	50	Right Side	10	Ant14	1	21.20	20.40	-0.16	0.056	0.035	0.067
L605	LTE B66	QPSK20M	132572	50	50	Top Side	10	Ant14	1	21.20	20.40	-0.04	0.397	0.224	0.477
L606	LTE B66	QPSK20M	132572	50	50	Bottom Side	10	Ant14	1	21.20	20.40	0.02	0.026	0.015	0.031
L607	LTE B66	QPSK20M	132072	50	50	Top Side	10	Ant14	1	21.20	20.32	-0.07	0.396	0.220	0.485
L608	LTE B66	QPSK20M	132322	50	25	Top Side	10	Ant14	1	21.20	20.28	0.09	0.401	0.230	0.496
L610	LTE B66	QPSK20M	132072	1	0	Front Side	10	Ant41	1	21.20	20.82	-0.01	0.136	0.080	0.148
L611	LTE B66	QPSK20M	132072	1	0	Back Side	10	Ant41	1	21.20	20.82	0.05	0.170	0.097	0.186
L612	LTE B66	QPSK20M	132072	1	0	Left Side	10	Ant41	1	21.20	20.82	0.13	0.047	0.027	0.051
L613	LTE B66	QPSK20M	132072	1	0	Right Side	10	Ant41	1	21.20	20.82	0.07	0.022	0.013	0.024
L614	LTE B66	QPSK20M	132072	1	0	Top Side	10	Ant41	1	21.20	20.82	0.06	0.008	0.005	0.009
L615	LTE B66	QPSK20M	132072	1	0	Bottom Side	10	Ant41	1	21.20	20.82	0.02	0.274	0.153	0.299
L616	LTE B66	QPSK20M	132572	50	0	Front Side	10	Ant41	1	21.20	20.39	0.07	0.176	0.102	0.212
L617	LTE B66	QPSK20M	132572	50	0	Back Side	10	Ant41	1	21.20	20.39	-0.01	0.218	0.125	0.263
L618	LTE B66	QPSK20M	132572	50	0	Left Side	10	Ant41	1	21.20	20.39	0.04	0.063	0.035	0.076
L619	LTE B66	QPSK20M	132572	50	0	Right Side	10	Ant41	1	21.20	20.39	0.09	0.030	0.018	0.036
L620	LTE B66	QPSK20M	132572	50	0	Top Side	10	Ant41	1	21.20	20.39	0.02	0.005	0.003	0.006
L621	LTE B66	QPSK20M	132572	50	0	Bottom Side	10	Ant41	1	21.20	20.39	0.1	0.349	0.190	0.421
L622	LTE B66	QPSK20M	132072	50	0	Bottom Side	10	Ant41	1	21.20	20.37	0.08	0.307	0.169	0.372
L623	LTE B66	QPSK20M	132322	50	0	Bottom Side	10	Ant41	1	21.20	20.32	0.01	0.321	0.176	0.393

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

4. Hotspot SAR test results of WiFi 2.4G

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W58	WiFi 2.4G	802.11b	1	Front Side	10	1M	99.17	17.00	16.50	0.02	0.136	0.066	0.154
W59	WiFi 2.4G	802.11b	1	Back Side	10	1M	99.17	17.00	16.50	-0.04	0.213	0.107	0.241
W60	WiFi 2.4G	802.11b	1	Left Side	10	1M	99.17	17.00	16.50	0.01	0.028	0.017	0.031
W61	WiFi 2.4G	802.11b	1	Right Side	10	1M	99.17	17.00	16.50	-0.11	0.063	0.030	0.071
W62	WiFi 2.4G	802.11b	1	Top Side	10	1M	99.17	17.00	16.50	0.05	0.157	0.065	0.178
W63	WiFi 2.4G	802.11b	1	Bottom Side	10	1M	99.17	17.00	16.50	0	0.012	0.006	0.013
W64	WiFi 2.4G	802.11b	11	Back Side	10	1M	99.17	17.00	16.48	0.08	0.186	0.090	0.211
W65	WiFi 2.4G	802.11b	6	Back Side	10	1M	99.17	17.00	16.24	0.12	0.200	0.097	0.240

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

5. Hotspot SAR test results of BT

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
B11	BT	DH5	39	Front Side	10	1M	77.30	11.00	9.18	0.02	0.0165	0.00821	0.032
B12	BT	DH5	39	Back Side	10	1M	77.30	11.00	9.18	-0.02	0.0211	0.0106	0.042
B13	BT	DH5	39	Left Side	10	1M	77.30	11.00	9.18	0	0.00156	0.000833	0.003
B14	BT	DH5	39	Right Side	10	1M	77.30	11.00	9.18	0	0.00158	0.000801	0.003
B15	BT	DH5	39	Top Side	10	1M	77.30	11.00	9.18	0.02	0.00191	0.00107	0.004
B16	BT	DH5	39	Bottom Side	10	1M	77.30	11.00	9.18	-0.05	0.00144	0.000759	0.003
B17	BT	DH5	0	Back Side	10	1M	77.30	11.00	9.06	0.06	0.0173	0.0096	0.035
B18	BT	DH5	78	Back Side	10	1M	77.30	11.00	9.24	-0.08	0.0193	0.00997	0.037

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

6. Hotspot SAR test results of WiFi 5G

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Data Rate	Duty Cycle (%)	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
W66	WiFi 5.2G UNII_1	802.11a	36	Front Side	10	6M	95.80	14.00	13.87	0.07	0.207	0.082	0.223
W67	WiFi 5.2G UNII_1	802.11a	36	Back Side	10	6M	95.80	14.00	13.87	0.01	0.253	0.090	0.272
W68	WiFi 5.2G UNII_1	802.11a	36	Left Side	10	6M	95.80	14.00	13.87	-0.05	0.082	0.021	0.088
W69	WiFi 5.2G UNII_1	802.11a	36	Right Side	10	6M	95.80	14.00	13.87	0.08	0.308	0.109	0.331
W70	WiFi 5.2G UNII_1	802.11a	36	Top Side	10	6M	95.80	14.00	13.87	0.02	0.127	0.051	0.137
W71	WiFi 5.2G UNII_1	802.11a	36	Bottom Side	10	6M	95.80	14.00	13.87	0.06	0.054	0.012	0.059
W72	WiFi 5.2G UNII_1	802.11a	48	Right Side	10	6M	95.80	14.00	13.34	0.01	0.330	0.116	0.401
W74	WiFi 5.3G UNII_2A	802.11a	52	Front Side	10	6M	95.80	14.00	13.67	0.01	0.198	0.078	0.223
W75	WiFi 5.3G UNII_2A	802.11a	52	Back Side	10	6M	95.80	14.00	13.67	-0.08	0.210	0.078	0.237
W76	WiFi 5.3G UNII_2A	802.11a	52	Left Side	10	6M	95.80	14.00	13.67	-0.03	0.035	0.007	0.039
W77	WiFi 5.3G UNII_2A	802.11a	52	Right Side	10	6M	95.80	14.00	13.67	0.05	0.333	0.109	0.375
W78	WiFi 5.3G UNII_2A	802.11a	52	Top Side	10	6M	95.80	14.00	13.67	0.02	0.193	0.072	0.217
W79	WiFi 5.3G UNII_2A	802.11a	52	Bottom Side	10	6M	95.80	14.00	13.67	0.16	0.029	0.007	0.033
W80	WiFi 5.3G UNII_2A	802.11a	64	Right Side	10	6M	95.80	14.00	13.50	-0.04	0.339	0.117	0.397
W82	WiFi 5.6G UNII_2C	802.11a	100	Front Side	10	6M	95.80	13.00	12.73	0.08	0.128	0.048	0.142
W83	WiFi 5.6G UNII_2C	802.11a	100	Back Side	10	6M	95.80	13.00	12.73	0.01	0.179	0.062	0.199
W84	WiFi 5.6G UNII_2C	802.11a	100	Left Side	10	6M	95.80	13.00	12.73	-0.06	0.040	0.013	0.044
W85	WiFi 5.6G UNII_2C	802.11a	100	Right Side	10	6M	95.80	13.00	12.73	-0.02	0.286	0.101	0.318
W86	WiFi 5.6G UNII_2C	802.11a	100	Top Side	10	6M	95.80	13.00	12.73	0.02	0.104	0.035	0.116
W87	WiFi 5.6G UNII_2C	802.11a	100	Bottom Side	10	6M	95.80	13.00	12.73	0.13	0.035	0.006	0.038
W88	WiFi 5.6G UNII_2C	802.11a	140	Right Side	10	6M	95.80	8.50	8.24	0.04	0.058	0.021	0.064
W89	WiFi 5.6G UNII_2C	802.11a	120	Right Side	10	6M	95.80	13.00	12.34	-0.09	0.256	0.090	0.311
W91	WiFi 5.8G UNII_3	802.11a	165	Front Side	10	6M	95.80	13.00	12.62	0.06	0.048	0.017	0.055
W92	WiFi 5.8G UNII_3	802.11a	165	Back Side	10	6M	95.80	13.00	12.62	-0.01	0.166	0.062	0.189
W93	WiFi 5.8G UNII_3	802.11a	165	Left Side	10	6M	95.80	13.00	12.62	0.02	0.055	0.013	0.063
W94	WiFi 5.8G UNII_3	802.11a	165	Right Side	10	6M	95.80	13.00	12.62	0.14	0.254	0.092	0.289
W95	WiFi 5.8G UNII_3	802.11a	165	Top Side	10	6M	95.80	13.00	12.62	0.06	0.109	0.032	0.124
W96	WiFi 5.8G UNII_3	802.11a	165	Bottom Side	10	6M	95.80	13.00	12.62	0.02	0.012	0.005	0.014
W97	WiFi 5.8G UNII_3	802.11a	157	Right Side	10	6M	95.80	13.00	12.50	0.05	0.304	0.111	0.356
W98	WiFi 5.8G UNII_3	802.11a	149	Right Side	10	6M	95.80	13.00	12.45	0.01	0.284	0.108	0.336

Note:

- 1) The value with boldface is the maximum SAR Value of each test band.
- 2) Since the SAR reported for Hotspot mode 1g is less than 1.2W/kg, the product-specific 10g SAR is not required.

6.2.4 SAR MEASUREMENT RESULT OF SENSOR

1. Sensor SAR test results of GSM

DSI5(Sensor on) & DSI7(Sensor off)

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Sensor	Ant	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
G1	GSM 1900	2 Tx Slot	512	Front Side	5	Sensor on	Ant 14	26.20	25.74	0.01	0.538	0.31	0.598
G2	GSM 1900	2 Tx Slot	512	Back Side	5	Sensor on	Ant 14	26.20	25.74	-0.03	0.811	0.462	0.902
G3	GSM 1900	2 Tx Slot	512	Top Side	5	Sensor on	Ant 14	26.20	25.74	-0.01	0.943	0.506	1.048
G4	GSM 1900	2 Tx Slot	512	Front Side	7	Sensor off	Ant 14	28.20	26.81	0.02	0.368	0.218	0.507
G5	GSM 1900	2 Tx Slot	512	Back Side	11	Sensor off	Ant 14	28.20	26.81	0.11	0.327	0.192	0.450
G6	GSM 1900	2 Tx Slot	512	Top Side	14	Sensor off	Ant 14	28.20	26.81	-0.09	0.168	0.0994	0.231
G7	GSM 1900	2 Tx Slot	512	Left Side	5	Sensor off	Ant 14	28.20	26.81	0.05	0.654	0.345	0.901
G8	GSM 1900	2 Tx Slot	512	Right Side	5	Sensor off	Ant 14	28.20	26.81	-0.02	0.176	0.094	0.242
G9	GSM 1900	2 Tx Slot	512	Bottom Side	5	Sensor off	Ant 14	28.20	26.81	0.09	0.0541	0.0279	0.075
G10	GSM 1900	2 Tx Slot	661	Top Side	5	Sensor on	Ant 14	26.20	25.66	0.05	0.918	0.492	1.040
G11	GSM 1900	2 Tx Slot	810	Top Side	5	Sensor on	Ant 14	26.20	25.53	-0.01	0.879	0.475	1.026

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

2. Sensor SAR test results of UMTS

DSI5(Sensor on) & DSI7(Sensor off)

Test No.	Band	Mode	Channel	Test Position	Separation Distance (mm)	Sensor	Ant	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
U1	UMTS B2	RMC12.2K	9262	Front Side	5	Sensor on	Ant 14	21.20	20.68	0.02	0.571	0.334	0.644
U2	UMTS B2	RMC12.2K	9262	Back Side	5	Sensor on	Ant 14	21.20	20.68	0.01	0.846	0.462	0.954
U3	UMTS B2	RMC12.2K	9262	Top Side	5	Sensor on	Ant 14	21.20	20.68	-0.04	0.929	0.499	1.047
U4	UMTS B2	RMC12.2K	9262	Front Side	7	Sensor off	Ant 14	24.20	23.54	0.08	0.799	0.449	0.930
U5	UMTS B2	RMC12.2K	9262	Back Side	11	Sensor off	Ant 14	24.20	23.54	-0.05	0.564	0.363	0.657
U6	UMTS B2	RMC12.2K	9262	Top Side	14	Sensor off	Ant 14	24.20	23.54	0.03	0.657	0.385	0.765
U7	UMTS B2	RMC12.2K	9262	Left Side	5	Sensor off	Ant 14	24.20	23.54	-0.11	0.835	0.457	0.972
U8	UMTS B2	RMC12.2K	9262	Right Side	5	Sensor off	Ant 14	24.20	23.54	0.09	0.102	0.056	0.119
U9	UMTS B2	RMC12.2K	9262	Bottom Side	5	Sensor off	Ant 14	24.20	23.54	-0.01	0.0566	0.0305	0.066
U10	UMTS B2	RMC12.2K	9400	Top Side	5	Sensor on	Ant 14	21.20	20.70	0.03	0.916	0.492	1.028
U11	UMTS B2	RMC12.2K	9538	Top Side	5	Sensor on	Ant 14	21.20	20.65	0.06	0.862	0.471	0.978
U12	UMTS B4	RMC12.2K	1413	Front Side	5	Sensor on	Ant 14	20.70	19.67	0.01	0.485	0.268	0.615
U13	UMTS B4	RMC12.2K	1413	Back Side	5	Sensor on	Ant 14	20.70	19.67	-0.03	0.689	0.368	0.873
U14	UMTS B4	RMC12.2K	1413	Top Side	5	Sensor on	Ant 14	20.70	19.67	0.05	0.726	0.366	0.920
U15	UMTS B4	RMC12.2K	1413	Front Side	7	Sensor off	Ant 14	24.20	23.08	0.02	0.399	0.248	0.516
U16	UMTS B4	RMC12.2K	1413	Back Side	11	Sensor off	Ant 14	24.20	23.08	0.13	0.47	0.277	0.608
U17	UMTS B4	RMC12.2K	1413	Top Side	14	Sensor off	Ant 14	24.20	23.08	-0.05	0.432	0.235	0.559
U18	UMTS B4	RMC12.2K	1413	Left Side	5	Sensor off	Ant 14	24.20	23.08	0.04	0.679	0.363	0.879
U19	UMTS B4	RMC12.2K	1413	Right Side	5	Sensor off	Ant 14	24.20	23.08	0.09	0.094	0.053	0.122
U20	UMTS B4	RMC12.2K	1413	Bottom Side	5	Sensor off	Ant 14	24.20	23.08	0.03	0.0418	0.0237	0.054
U21	UMTS B4	RMC12.2K	1312	Top Side	5	Sensor on	Ant 14	20.70	19.63	-0.01	0.663	0.319	0.848
U22	UMTS B4	RMC12.2K	1513	Top Side	5	Sensor on	Ant 14	20.70	19.64	0.12	0.797	0.406	1.017

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

3. Sensor SAR test results of LTE

DSI5(Sensor on) & DSI7(Sensor off)

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Sensor	Ant	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L1	LTE B2	QPSK20M	18700	1	0	Front Side	5	Sensor on	Ant14	21.20	20.85	0.04	0.568	0.326	0.615
L2	LTE B2	QPSK20M	18700	1	0	Back Side	5	Sensor on	Ant14	21.20	20.85	0.07	0.838	0.477	0.907
L3	LTE B2	QPSK20M	18700	1	0	Top Side	5	Sensor on	Ant14	21.20	20.85	-0.05	0.926	0.493	1.003
L4	LTE B2	QPSK20M	18700	1	0	Front Side	7	Sensor off	Ant14	24.20	23.81	0.01	0.782	0.458	0.856
L5	LTE B2	QPSK20M	18700	1	0	Back Side	11	Sensor off	Ant14	24.20	23.81	-0.18	0.535	0.321	0.585
L6	LTE B2	QPSK20M	18700	1	0	Top Side	14	Sensor off	Ant14	24.20	23.81	0.06	0.502	0.300	0.549
L7	LTE B2	QPSK20M	18700	1	0	Left Side	5	Sensor off	Ant14	24.20	23.81	0.02	0.894	0.5	0.978
L8	LTE B2	QPSK20M	18700	1	0	Right Side	5	Sensor off	Ant14	24.20	23.81	0.05	0.138	0.080	0.151
L9	LTE B2	QPSK20M	18700	1	0	Bottom Side	5	Sensor off	Ant14	24.20	23.81	-0.17	0.048	0.027	0.053
L10	LTE B2	QPSK20M	18700	50	0	Top Side	5	Sensor on	Ant14	21.20	20.81	-0.08	0.944	0.501	1.034
L11	LTE B2	QPSK20M	18900	50	0	Top Side	5	Sensor on	Ant14	21.20	20.65	-0.13	0.902	0.487	1.024
L12	LTE B2	QPSK20M	19100	50	0	Top Side	5	Sensor on	Ant14	21.20	20.52	-0.01	0.861	0.466	1.007
L13	LTE B4	QPSK20M	20050	1	0	Front Side	5	Sensor on	Ant14	21.20	20.78	0.08	0.481	0.253	0.529
L14	LTE B4	QPSK20M	20050	1	0	Back Side	5	Sensor on	Ant14	21.20	20.78	0.06	0.678	0.367	0.746
L15	LTE B4	QPSK20M	20050	1	0	Top Side	5	Sensor on	Ant14	21.20	20.78	0.01	0.670	0.329	0.738
L16	LTE B4	QPSK20M	20050	1	0	Front Side	7	Sensor off	Ant14	24.20	23.79	-0.03	0.578	0.316	0.636
L17	LTE B4	QPSK20M	20050	1	0	Back Side	11	Sensor off	Ant14	24.20	23.79	0.17	0.423	0.251	0.465
L18	LTE B4	QPSK20M	20050	1	0	Top Side	14	Sensor off	Ant14	24.20	23.79	0.02	0.437	0.240	0.481
L19	LTE B4	QPSK20M	20050	1	0	Left Side	5	Sensor off	Ant14	24.20	23.79	0.04	0.626	0.314	0.689
L20	LTE B4	QPSK20M	20050	1	0	Right Side	5	Sensor off	Ant14	24.20	23.79	0.07	0.071	0.048	0.078
L21	LTE B4	QPSK20M	20050	1	0	Bottom Side	5	Sensor off	Ant14	24.20	23.79	-0.08	0.033	0.019	0.036
L22	LTE B4	QPSK20M	20300	50	0	Back Side	5	Sensor on	Ant14	21.20	20.47	0.03	0.756	0.405	0.893
L23	LTE B4	QPSK20M	20050	50	50	Back Side	5	Sensor on	Ant14	21.20	20.39	0.05	0.707	0.372	0.852
L24	LTE B4	QPSK20M	20175	50	0	Back Side	5	Sensor on	Ant14	21.20	20.41	-0.06	0.743	0.392	0.891
L25	LTE B7	QPKS20M	21350	1	0	Front Side	5	Sensor on	Ant14	18.70	18.12	0.08	0.391	0.188	0.447
L26	LTE B7	QPKS20M	21350	1	0	Back Side	5	Sensor on	Ant14	18.70	18.12	-0.01	0.533	0.249	0.609
L27	LTE B7	QPKS20M	21350	1	0	Top Side	5	Sensor on	Ant14	18.70	18.12	-0.06	0.821	0.361	0.938
L28	LTE B7	QPKS20M	21100	1	50	Front Side	7	Sensor off	Ant14	22.70	22.17	0.04	0.706	0.340	0.797
L29	LTE B7	QPKS20M	21100	1	50	Back Side	11	Sensor off	Ant14	22.70	22.17	0.16	0.490	0.252	0.553
L30	LTE B7	QPKS20M	21100	1	50	Top Side	14	Sensor off	Ant14	22.70	22.17	0.02	0.453	0.221	0.511
L31	LTE B7	QPKS20M	21350	1	0	Left Side	5	Sensor off	Ant14	22.70	22.17	-0.05	0.475	0.231	0.536
L32	LTE B7	QPKS20M	21350	1	0	Right Side	5	Sensor off	Ant14	22.70	22.17	0.08	0.152	0.085	0.172
L33	LTE B7	QPKS20M	21350	1	0	Bottom Side	5	Sensor off	Ant14	22.70	22.17	0.01	0.022	0.010	0.025
L34	LTE B7	QPKS20M	21350	50	0	Top Side	5	Sensor on	Ant14	18.70	18.08	0.02	0.751	0.334	0.866
L35	LTE B7	QPKS20M	20850	1	0	Top Side	5	Sensor on	Ant14	18.70	18.05	-0.18	0.796	0.354	0.925
L36	LTE B7	QPKS20M	21100	1	0	Top Side	5	Sensor on	Ant14	18.70	17.98	0.1	0.789	0.352	0.931

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (mm)	Sensor	Ant	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR (W/kg)
L37	LTE B38	QPSK20M	38150	1	0	Front Side	5	Sensor on	Ant14	21.00	20.57	0.04	0.399	0.193	0.441
L38	LTE B38	QPSK20M	38150	1	0	Back Side	5	Sensor on	Ant14	21.00	20.57	-0.13	0.504	0.246	0.557
L39	LTE B38	QPSK20M	38150	1	0	Top Side	5	Sensor on	Ant14	21.00	20.57	0.01	0.637	0.289	0.704
L40	LTE B38	QPSK20M	38000	1	50	Front Side	7	Sensor off	Ant14	25.00	24.37	-0.13	0.732	0.362	0.846
L41	LTE B38	QPSK20M	38000	1	50	Back Side	11	Sensor off	Ant14	25.00	24.37	0.02	0.481	0.255	0.556
L42	LTE B38	QPSK20M	38000	1	50	Top Side	14	Sensor off	Ant14	25.00	24.37	0.08	0.470	0.235	0.543
L43	LTE B38	QPSK20M	38150	1	0	Left Side	5	Sensor off	Ant14	21.00	20.57	0.16	0.456	0.225	0.504
L44	LTE B38	QPSK20M	38150	1	0	Right Side	5	Sensor off	Ant14	21.00	20.57	0.11	0.186	0.095	0.205
L45	LTE B38	QPSK20M	38150	1	0	Bottom Side	5	Sensor off	Ant14	21.00	20.57	0.07	0.027	0.014	0.030
L46	LTE B38	QPSK20M	38150	50	25	Front Side	7	Sensor off	Ant14	24.00	23.31	-0.01	0.623	0.309	0.730
L47	LTE B38	QPSK20M	37850	1	0	Front Side	7	Sensor off	Ant14	25.00	24.29	0.06	0.702	0.353	0.826
L48	LTE B38	QPSK20M	38150	1	0	Front Side	7	Sensor off	Ant14	25.00	24.20	-0.16	0.747	0.369	0.897
L49	LTE B41	QPSK20M	41490	1	99	Front Side	5	Sensor on	Ant14	21.00	20.72	0.06	0.51	0.245	0.544
L50	LTE B41	QPSK20M	41490	1	99	Back Side	5	Sensor on	Ant14	21.00	20.72	-0.13	0.646	0.307	0.690
L51	LTE B41	QPSK20M	41490	1	99	Top Side	5	Sensor on	Ant14	21.00	20.72	-0.01	0.908	0.387	0.969
L52	LTE B41	QPSK20M	41490	1	0	Front Side	7	Sensor off	Ant14	25.00	24.47	0.02	0.921	0.446	1.040
L53	LTE B41	QPSK20M	41490	1	0	Back Side	11	Sensor off	Ant14	25.00	24.47	0.08	0.673	0.352	0.760
L54	LTE B41	QPSK20M	41490	1	0	Top Side	14	Sensor off	Ant14	25.00	24.47	0.01	0.579	0.283	0.654
L55	LTE B41	QPSK20M	41490	1	99	Left Side	5	Sensor off	Ant14	25.00	24.47	-0.05	0.622	0.306	0.703
L56	LTE B41	QPSK20M	41490	1	99	Right Side	5	Sensor off	Ant14	25.00	24.47	0.06	0.174	0.082	0.197
L57	LTE B41	QPSK20M	41490	1	99	Bottom Side	5	Sensor off	Ant14	25.00	24.47	0.03	0.039	0.020	0.044
L58	LTE B41	QPSK20M	41490	50	0	Front Side	7	Sensor off	Ant14	24.00	23.57	0.12	0.750	0.371	0.829
L59	LTE B41	QPSK20M	39750	1	0	Front Side	7	Sensor off	Ant14	25.00	24.34	0.03	0.789	0.399	0.919
L60	LTE B41	QPSK20M	40185	1	0	Front Side	7	Sensor off	Ant14	25.00	24.20	0.09	0.753	0.378	0.906
L61	LTE B41	QPSK20M	40620	1	50	Front Side	7	Sensor off	Ant14	25.00	24.41	-0.07	0.779	0.388	0.892
L62	LTE B41	QPSK20M	41055	1	0	Front Side	7	Sensor off	Ant14	25.00	24.35	0.02	0.854	0.421	0.991
L63	LTE B66	QPSK20M	132072	1	0	Front Side	5	Sensor on	Ant14	21.20	20.53	0.02	0.443	0.241	0.517
L64	LTE B66	QPSK20M	132072	1	0	Back Side	5	Sensor on	Ant14	21.20	20.53	0.06	0.709	0.369	0.828
L65	LTE B66	QPSK20M	132072	1	0	Top Side	5	Sensor on	Ant14	21.20	20.53	-0.04	0.690	0.326	0.806
L66	LTE B66	QPSK20M	132072	1	0	Front Side	7	Sensor off	Ant14	24.20	23.73	0.05	0.611	0.338	0.681
L67	LTE B66	QPSK20M	132072	1	0	Back Side	11	Sensor off	Ant14	24.20	23.73	-0.07	0.451	0.260	0.503
L68	LTE B66	QPSK20M	132072	1	0	Top Side	14	Sensor off	Ant14	24.20	23.73	0.03	0.353	0.184	0.394
L69	LTE B66	QPSK20M	132072	1	0	Left Side	5	Sensor off	Ant14	24.20	23.73	0.1	0.711	0.362	0.793
L70	LTE B66	QPSK20M	132072	1	0	Right Side	5	Sensor off	Ant14	24.20	23.73	0.06	0.085	0.048	0.095
L71	LTE B66	QPSK20M	132072	1	0	Bottom Side	5	Sensor off	Ant14	24.20	23.73	0.04	0.032	0.018	0.036
L72	LTE B66	QPSK20M	132572	50	50	Back Side	5	Sensor on	Ant14	21.20	20.40	-0.04	0.758	0.409	0.912
L73	LTE B66	QPSK20M	132322	50	0	Back Side	5	Sensor on	Ant14	21.20	20.28	0.14	0.732	0.389	0.905
L74	LTE B66	QPSK20M	132072	50	50	Back Side	5	Sensor on	Ant14	21.20	20.32	-0.17	0.700	0.374	0.856

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

6.3 MULTIPLE TRANSMITTER EVALUATION

The following tables list information which is relevant for the decision if a simultaneous transmit evaluation is necessary according to FCC KDB447498 D01 General RF Exposure Guidance v06.

The location of the antenna inside EUT is as below:

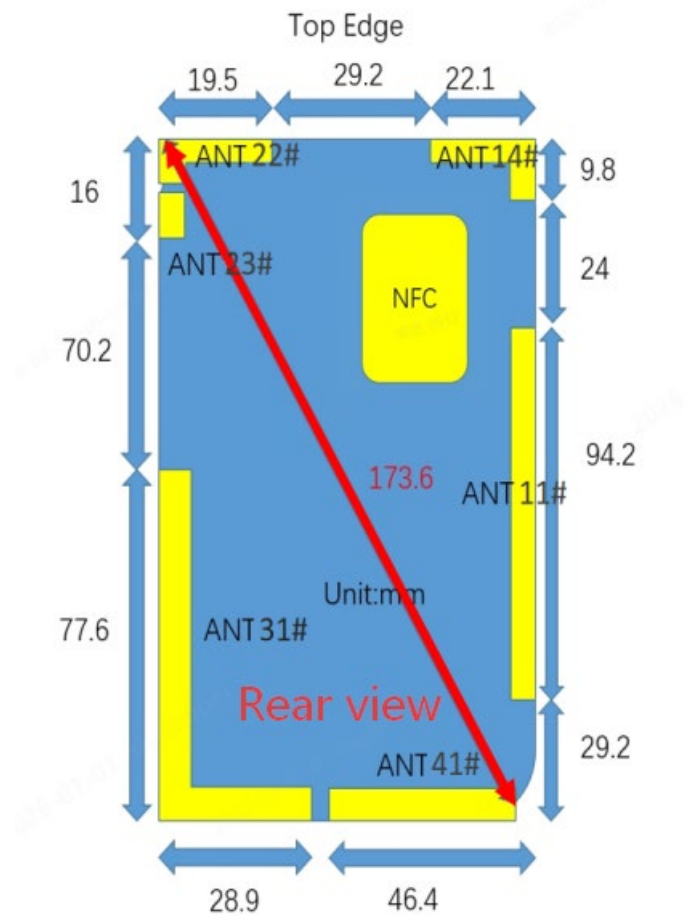


Figure: The location of the antennas

6.3.1 SIMULTANEOUS TRANSMISSION CONDITIONS

Per FCC KDB447498 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	Hotspot	Sensor
1	GSM/UMTS/LTE (Ant 31#) + WiFi 2.4G (Ant 22#)	Yes	Yes	Yes	/
2	GSM/UMTS/LTE (Ant 31#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
3	GSM/UMTS/LTE (Ant 31#) + BT (Ant 22#)	Yes	Yes	Yes	/
4	GSM/UMTS/LTE (Ant 41#) + WiFi 2.4G (Ant 22#)	Yes	Yes	Yes	/
5	GSM/UMTS/LTE (Ant 41#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
6	GSM/UMTS/LTE (Ant 41#) + BT (Ant 22#)	Yes	Yes	Yes	/
7	GSM/UMTS/LTE (Ant 11#) + WiFi 2.4G (Ant 22#)	Yes	Yes	Yes	/
8	GSM/UMTS/LTE (Ant 11#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
9	GSM/UMTS/LTE (Ant 11#) + BT (Ant 22#)	Yes	Yes	Yes	/
10	GSM/UMTS/LTE (Ant 14#) + WiFi 2.4G (Ant 22#)	Yes	Yes	Yes	Yes
11	GSM/UMTS/LTE (Ant 14#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	Yes
12	GSM/UMTS/LTE (Ant 14#) + BT (Ant 22#)	Yes	Yes	Yes	Yes
13	BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
14	GSM/UMTS/LTE (Ant 31#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
15	GSM/UMTS/LTE (Ant 31#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
16	GSM/UMTS/LTE (Ant 31#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
17	GSM/UMTS/LTE (Ant 41#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
18	GSM/UMTS/LTE (Ant 41#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
19	GSM/UMTS/LTE (Ant 41#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
20	GSM/UMTS/LTE (Ant 11#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
21	GSM/UMTS/LTE (Ant 11#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
22	GSM/UMTS/LTE (Ant 11#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	/
23	GSM/UMTS/LTE (Ant 14#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	Yes
24	GSM/UMTS/LTE (Ant 14#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	Yes
25	GSM/UMTS/LTE (Ant 14#) + BT (Ant 22#) + WiFi 5G (Ant 23#)	Yes	Yes	Yes	Yes

Note:

- 1) 2G&3G&4G can't transmit simultaneously.
- 2) WiFi 2.4G and Bluetooth can't transmit simultaneously.
- 3) WiFi 2.4G and WiFi 5G can't transmit simultaneously.

6.3.2 SAR SUMMATION SCENARIO

1. GSM/UMTS/LTE antenna (Ant 11# / Ant 14#) + BT/WiFi 2.4G (Ant 22#) / 5G (Ant 23#)

Position		Head				Body worn		Hotspot					
		Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Side (15mm)	Back Side (15mm)	Front Side (10mm)	Back Side (10mm)	Left Side (10mm)	Right Side (10mm)	Top Side (10mm)	Bottom Side (10mm)
Ant 11#	GSM 850	0.951	0.288	0.680	0.235	0.362	0.698	0.485	0.792	1.004	0.096	0.060	0.044
	UMTS B5	0.637	0.196	0.500	0.158	0.168	0.722	0.330	0.609	0.380	0.064	0.035	0.019
	LTE B5	0.846	0.269	0.720	0.214	0.407	0.623	0.354	0.547	0.623	0.056	0.032	0.002
	LTE B13	0.251	0.113	0.178	0.065	0.160	0.247	0.130	0.217	0.494	0.058	0.019	0.012
	LTE B26	0.827	0.183	0.399	0.134	0.255	0.567	0.366	0.583	0.886	0.062	0.036	0.028
Ant 14#	GSM 1900	0.853	0.769	0.531	0.634	0.206	0.274	0.275	0.356	0.177	0.059	0.551	0.021
	UMTS B2	0.613	0.513	0.402	0.530	0.344	0.431	0.278	0.403	0.205	0.075	0.534	0.045
	UMTS B4	0.640	0.391	0.256	0.293	0.370	0.512	0.242	0.325	0.273	0.057	0.472	0.031
	LTE B2	0.654	0.625	0.396	0.528	0.288	0.405	0.298	0.431	0.219	0.081	0.534	0.046
	LTE B4	0.696	0.638	0.392	0.488	0.310	0.452	0.234	0.319	0.213	0.058	0.421	0.040
	LTE B7	0.626	0.875	0.408	0.568	0.290	0.356	0.318	0.388	0.174	0.081	0.683	0.024
	LTE B38	0.554	0.776	0.356	0.527	0.254	0.314	0.247	0.304	0.120	0.069	0.427	0.019
	LTE B41	0.487	0.832	0.332	0.485	0.334	0.388	0.279	0.322	0.143	0.058	0.533	0.020
	LTE B66	0.681	0.654	0.415	0.508	0.301	0.427	0.273	0.384	0.243	0.067	0.496	0.031
Ant 22#	WLAN 2.4G	0.230	0.036	0.293	0.481	0.076	0.195	0.154	0.241	0.031	0.071	0.178	0.013
Ant 23#	WLAN 5.2G	0.183	0.185	0.360	0.469	0.198	0.230	0.223	0.272	0.088	0.401	0.137	0.059
	WLAN 5.3G	0.157	0.192	0.386	0.497	0.289	0.250	0.223	0.237	0.039	0.397	0.217	0.033
	WLAN 5.6G	0.148	0.201	0.320	0.430	0.102	0.154	0.142	0.199	0.044	0.318	0.116	0.038
	WLAN 5.8G	0.104	0.166	0.280	0.385	0.063	0.159	0.055	0.189	0.063	0.356	0.124	0.014
Ant 22#	Bluetooth	0.090	0.138	0.141	0.179	0.015	0.022	0.032	0.042	0.003	0.003	0.004	0.003
Max. SAR Summation		1.181	1.076	1.106	1.131	/	/	0.708	1.064	1.092	0.497	0.900	0.105

Note:

- 1) MAX. $\sum \text{SAR}_{1g} = 1.181 \text{ W/Kg} < 1.6 \text{ W/Kg}$, so the SAR to peak location separation ratio should not be considered.
- 2) The maximum SAR summation is calculated based on the same configuration and test position.

2. GSM/UMTS/LTE antenna (Ant 31# / Ant 41#) + BT/WiFi 2.4G (Ant 22#) / 5G (Ant 23#)

Position		Head				Body worn		Hotspot					
		Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Side (15mm)	Back Side (15mm)	Front Side (10mm)	Back Side (10mm)	Left Side (10mm)	Right Side (10mm)	Top Side (10mm)	Bottom Side (10mm)
Ant 31#	GSM 850	0.268	0.098	0.119	0.074	0.170	0.280	0.172	0.209	0.114	0.326	0.012	0.122
	UMTS B5	0.293	0.138	0.155	0.110	0.136	0.079	0.223	0.337	0.051	0.118	0.014	0.172
	LTE B5	0.317	0.181	0.219	0.133	0.200	0.255	0.250	0.336	0.056	0.388	0.017	0.232
	LTE B13	0.180	0.138	0.155	0.104	0.155	0.203	0.206	0.246	0.144	0.331	0.011	0.128
	LTE B26	0.317	0.170	0.208	0.130	0.158	0.203	0.189	0.257	0.051	0.318	0.015	0.177
Ant 41#	GSM 1900	0.077	<0.001	0.059	0.040	0.190	0.237	0.300	0.362	0.128	0.068	0.014	0.678
	UMTS B2	0.301	0.118	0.297	0.186	0.259	0.302	0.327	0.387	0.128	0.081	0.009	0.607
	UMTS B4	0.146	0.050	0.105	0.051	0.186	0.233	0.249	0.304	0.091	0.049	0.010	0.516
	LTE B2	0.129	0.040	0.078	0.066	0.245	0.323	0.415	0.495	0.167	0.087	0.020	0.789
	LTE B4	0.090	0.037	0.075	0.035	0.160	0.193	0.227	0.283	0.083	0.037	0.015	0.454
	LTE B7	0.117	0.111	0.109	0.059	0.098	0.121	0.188	0.233	0.076	0.073	0.015	0.454
	LTE B38	0.099	0.096	0.127	0.053	0.148	0.181	0.164	0.199	0.057	0.059	0.019	0.426
	LTE B41	0.010	0.008	0.128	0.032	0.136	0.171	0.172	0.211	0.098	0.049	0.017	0.389
	LTE B66	0.114	0.020	0.078	0.046	0.129	0.214	0.212	0.263	0.076	0.036	0.009	0.421
Ant 22#	WLAN 2.4G	0.230	0.036	0.293	0.481	0.076	0.195	0.154	0.241	0.031	0.071	0.178	0.013
Ant 23#	WLAN 5.2G	0.183	0.185	0.360	0.469	0.198	0.230	0.223	0.272	0.088	0.401	0.137	0.059
	WLAN 5.3G	0.157	0.192	0.386	0.497	0.289	0.250	0.223	0.237	0.039	0.397	0.217	0.033
	WLAN 5.6G	0.148	0.201	0.320	0.430	0.102	0.154	0.142	0.199	0.044	0.318	0.116	0.038
	WLAN 5.8G	0.104	0.166	0.280	0.385	0.063	0.159	0.055	0.189	0.063	0.356	0.124	0.014
Ant 22#	Bluetooth	0.090	0.138	0.141	0.179	0.015	0.022	0.032	0.042	0.003	0.003	0.004	0.003
Max. SAR Summation		0.547	0.382	0.683	0.683	/	/	0.638	0.767	0.255	0.789	0.237	0.848

Note:

- 1) MAX. $\sum \text{SAR}_{1g} = 0.848 \text{ W/Kg} < 1.6 \text{ W/Kg}$, so the SAR to peak location separation ratio should not be considered.
- 2) The maximum SAR summation is calculated based on the same configuration and test position.

3. GSM/UMTS/LTE antenna (Ant 14#) Sensor + BT/WiFi 2.4G (Ant 22#) / 5G (Ant 23#)

Position		SAR Sensor on/off+WiFi					
		Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
Ant 14#	GSM 1900	0.598	0.902	0.901	0.242	1.048	0.075
	UMTS B2	0.930	0.954	0.972	0.119	1.047	0.066
	UMTS B4	0.615	0.873	0.879	0.122	1.017	0.054
	LTE B2	0.856	0.907	0.978	0.151	1.034	0.053
	LTE B4	0.636	0.893	0.689	0.078	0.738	0.036
	LTE B7	0.797	0.609	0.536	0.172	0.938	0.025
	LTE B38	0.897	0.557	0.504	0.205	0.704	0.030
	LTE B41	1.040	0.760	0.703	0.197	0.969	0.044
	LTE B66	0.681	0.912	0.793	0.095	0.806	0.036
Ant 22#	WLAN 2.4G	0.154	0.241	0.031	0.071	0.178	0.013
Ant 23#	WLAN 5.2G	0.223	0.272	0.088	0.401	0.137	0.059
	WLAN 5.3G	0.223	0.237	0.039	0.397	0.217	0.033
	WLAN 5.6G	0.142	0.199	0.044	0.318	0.116	0.038
	WLAN 5.8G	0.055	0.189	0.063	0.356	0.124	0.014
Ant 22#	Bluetooth	0.032	0.042	0.003	0.003	0.004	0.003
Max. SAR Summation		1.263	1.226	1.066	0.643	1.265	0.134

Note:

1) MAX. $\sum SAR_{1g} = 1.265 \text{ W/Kg} < 1.6 \text{ W/Kg}$, so the SAR to peak location separation ratio should not be considered.

APPENDIX

1. TEST LAYOUT

Specific Absorption Rate Test Layout

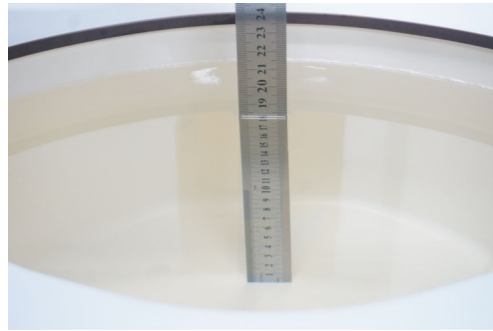


Liquid depth in the flat Phantom ($\geq 15\text{cm}$ depth)

Head_695-925_15.5cm



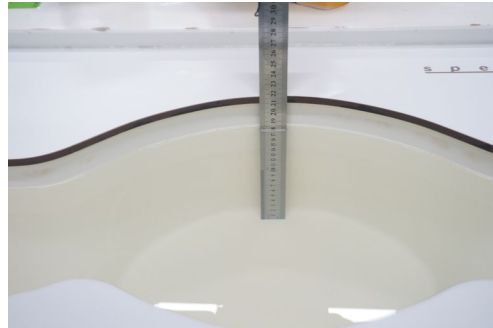
Body_695-925_18.3cm



Head_1700-1900_15cm



Body_1700-1900_18.1cm



Head_1900-2300_15.4cm



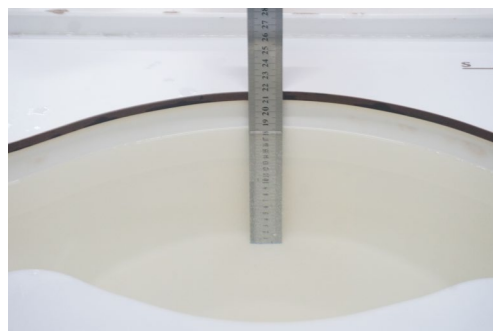
Body_1900-2300_18.5cm



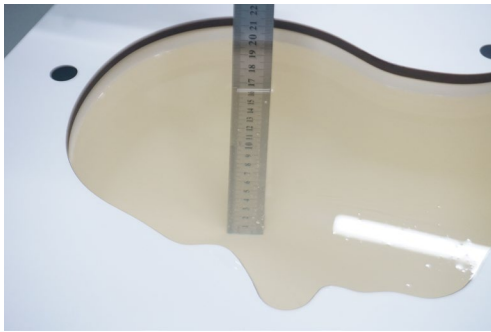
Head_2300-2700_15cm



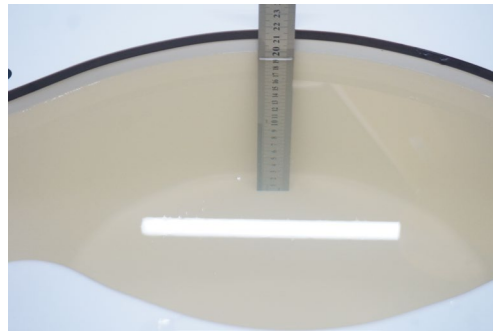
Body_2300-2700_18.3cm



Head_4500-6000_16.5cm



Body_4500-6000_19.5cm



Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-1-2603C245_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-1-2603C245_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-1-2603C245_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-1-2603C245_Appendix D.)

Appendix E. Conducted power measurement result

(Pls See BTL-FCC SAR-1-2603C245_Appendix E.)