


FCC SAR Test Report

Report No. : SA181001C14-2
Applicant : Google LLC
Address : 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA
Product : Smartphone
FCC ID : A4RG020F
Model Name : G020F
Standards : FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013
KDB 865664 D01 v01r04, KDB 865664 D02 v01r02
KDB 248227 D01 v02r02, KDB 447498 D01 v06, KDB 648474 D04 v01r03
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CERTIFICATION: The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

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1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body-worn Tested at 10 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
PCE	GSM850	0.46	0.13	0.13	N/A
	GSM1900	1.00	0.54	0.54	N/A
	WCDMA II	0.99	0.83	0.83	N/A
	WCDMA IV	0.54	0.64	0.64	N/A
	WCDMA V	0.44	0.15	0.15	N/A
	CDMA BC0	0.67	0.17	0.17	N/A
	CDMA BC1	0.92	0.62	0.62	N/A
	CDMA BC10	0.38	0.11	0.11	N/A
	LTE 2 / 25	1.00	0.76	0.76	N/A
	LTE 4 / 66	0.62	0.44	0.44	N/A
	LTE 5 / 26	0.49	0.11	0.11	N/A
	LTE 7	0.63	0.78	0.78	N/A
	LTE 12 / 17	0.39	0.24	0.24	N/A
	LTE 13	0.72	0.23	0.23	N/A
	LTE 38	0.69	0.39	0.39	N/A
LTE 41	0.61	0.34	0.34	N/A	
DTS	2.4G WLAN	1.04	0.60	0.60	N/A
NII	5.2G WLAN	N/A	N/A	0.87	N/A
	5.3G WLAN	1.18	0.78	N/A	1.67
	5.6G WLAN	1.07	0.56	N/A	1.60
	5.8G WLAN	1.18	0.45	0.50	N/A
DSS	Bluetooth	0.32	0.10	0.10	N/A
DXX	NFC	N/A	N/A	N/A	N/A

Highest Simultaneous Transmission SAR	Highest SAR-1g Head (W/kg)	Highest SAR-1g Body-worn Tested at 10 mm (W/kg)	Highest SAR-1g Hotspot Tested at 10 mm (W/kg)	Highest SAR-10g Product Specific Tested at 0 mm (W/kg)
	1.59	1.59	1.59	N/A

Note:

- The SAR criteria (**Head & Body: SAR-1g 1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg**) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.
- This device supports both LTE band 12 and band 17. The frequency span of LTE band 12 can completely cover LTE band 17, and they has the same tune-up power. SAR was tested for LTE band 12 only.
- This device supports both LTE band 66 and band 4. The frequency span of LTE band 66 can completely cover LTE band 4, and they has the same tune-up power. SAR was tested for LTE band 66 only.
- This device supports both LTE band 25 and band 2. The frequency span of LTE band 25 can completely cover LTE band 2, and they has the same tune-up power. SAR was tested for LTE band 25 only.
- This device supports both LTE band 26 and band 5. The frequency span of LTE band 26 can completely cover LTE band 5, and they has the same tune-up power. SAR was tested for LTE band 26 only.

2. Description of Equipment Under Test

EUT Type	Smartphone
FCC ID	A4RG020F
Model Name	G020F
EUT Configurations	EUT 1 : EUT + Battery 1 EUT 2 : EUT + Battery 2
IMEI	EUT 1 : 359678090000969 359678090000423 359678090001041 EUT 2 : 359678090011164 359678090011123
Tx Frequency Bands (Unit: MHz)	GSM850 : 824.2 ~ 848.8 GSM1900 : 1850.2 ~ 1909.8 WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band IV : 1712.4 ~ 1752.6 WCDMA Band V : 826.4 ~ 846.6 CDMA BC0 : 824.7 ~ 848.31 CDMA BC1 : 1851.25 ~ 1908.75 CDMA BC10 : 817.9 ~ 823.1 LTE Band 2 : 1850.7 ~ 1909.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 12 : 699.7 ~ 715.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 13 : 779.5 ~ 784.5 (BW: 5M, 10M) LTE Band 17 : 706.5 ~ 713.5 (BW: 5M, 10M) LTE Band 25 : 1850.7 ~ 1914.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 26 : 814.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M, 15M) LTE Band 38 : 2572.5 ~ 2617.5 (BW: 5M, 10M, 15M, 20M) LTE Band 41 : 2498.5 ~ 2687.5 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) WLAN : 2412 ~ 2472, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480 NFC : 13.56
Uplink Modulations	GSM & GPRS : GMSK EDGE : 8PSK WCDMA : QPSK CDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK NFC : ASK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.6.1 of this report
Antenna Type	PIFA Antenna
EUT Stage	Identical Prototype

Note:

1. Antenna supported band information.

Antenna	Support Band
WWAN-0 / -1	GSM850 / 1900 WCDMA II / IV / V CDMA BC0 / BC1 / BC10 LTE B2 / 4 / 5 / 12 / 13 / 17 / 25 / 26 / 66
WWAN-2 / -3	LTE B7 / 38 / 41
WLAN	WLAN 2.4G / 5G / BT

2. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

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

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

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SPEAG DASY52 System

DASY52 system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY52 software defined. The DASY52 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.

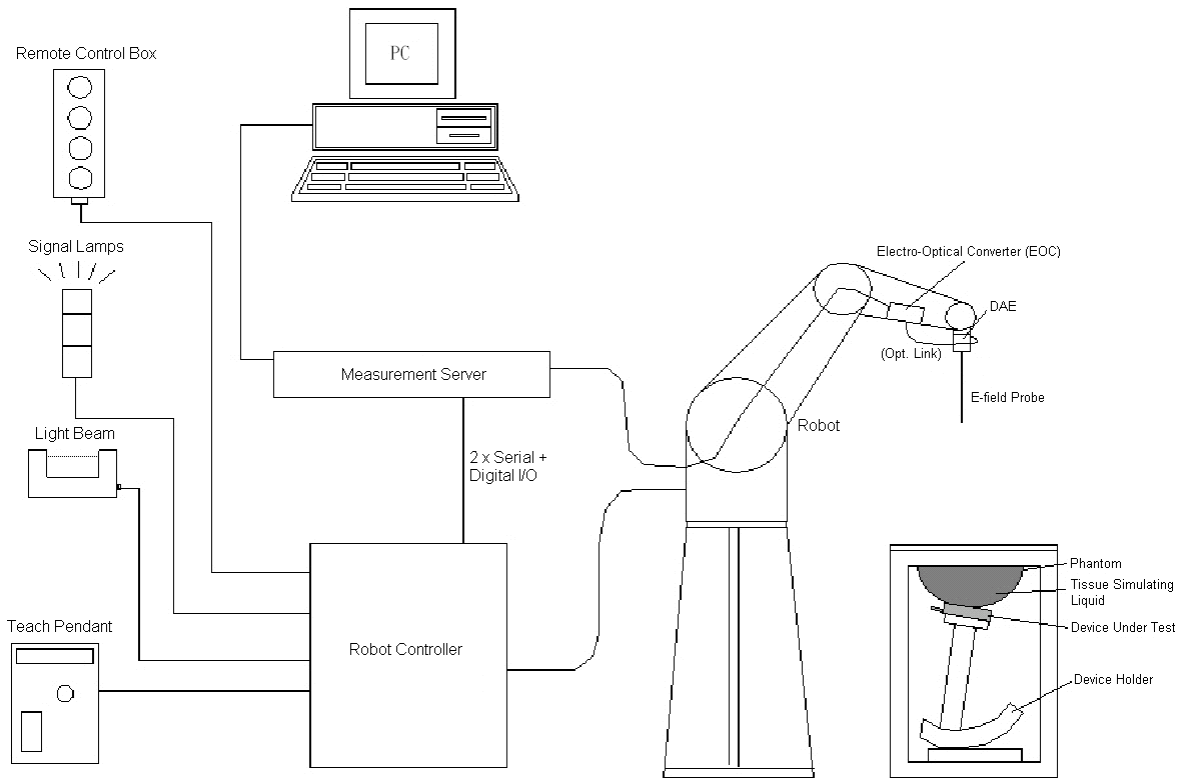


Fig-3.1 SPEAG DASY52 System Setup

Robot

The DASY52 systems use the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version of CS8c from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability ± 0.035 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)





Fig-3.2 SPEAG DASY52 System


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Probes


The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

Model	EX3DV4	
Construction	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (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: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	


Model	ES3DV3	
Construction	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.3 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

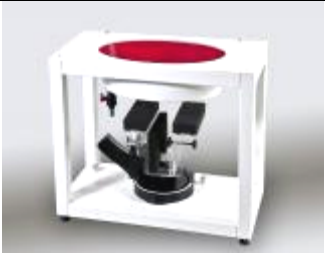
Model	ET3DV6	
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 2.3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.4 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm	

Data Acquisition Electronics (DAE)

Model	DAE3, DAE4	
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
Input Offset Voltage	$< 5\mu$ V (with auto zero)	
Input Bias Current	< 50 fA	
Dimensions	60 x 60 x 68 mm	


Phantoms


Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	approx. 25 liters	

Model	ELI	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	


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Device Holder

Model	Mounting Device	
Construction	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
Material	POM	

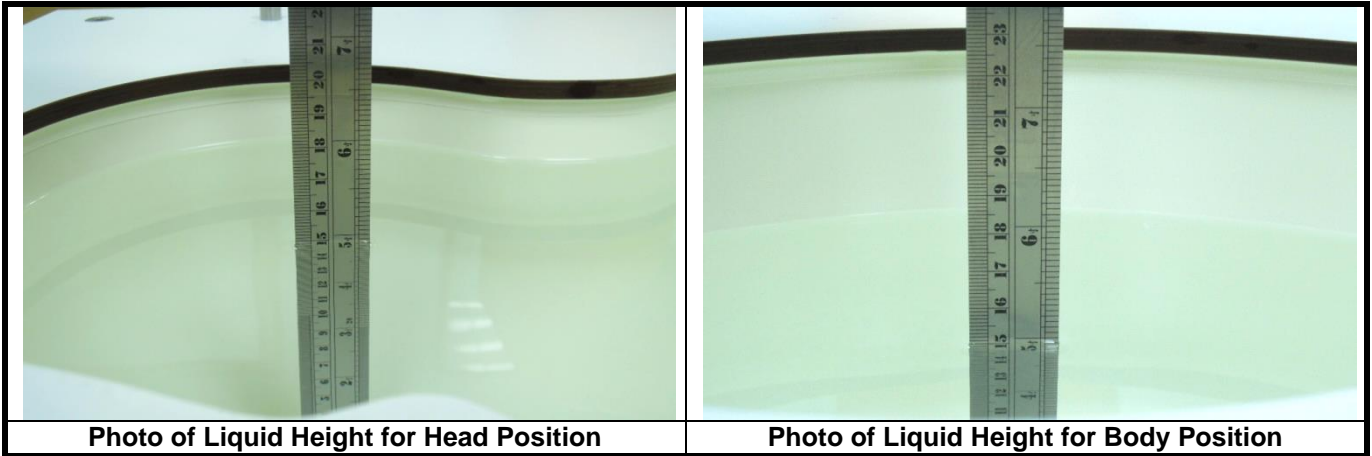
Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
Material	POM, Acrylic glass, Foam	

System Validation Dipoles

Model	D-Serial	
Construction	Symmetrical dipole with 1/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
Frequency	750 MHz to 5800 MHz	
Return Loss	> 20 dB	
Power Capability	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-3.1.



The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

Table-3.1 Targets of Tissue Simulating Liquid

Frequency (MHz)	Target Permittivity	Range of $\pm 5\%$	Target Conductivity	Range of $\pm 5\%$
For Head				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53
For Body				
750	55.5	52.7 ~ 58.3	0.96	0.91 ~ 1.01
835	55.2	52.4 ~ 58.0	0.97	0.92 ~ 1.02
900	55.0	52.3 ~ 57.8	1.05	1.00 ~ 1.10
1450	54.0	51.3 ~ 56.7	1.30	1.24 ~ 1.37
1640	53.8	51.1 ~ 56.5	1.40	1.33 ~ 1.47
1750	53.4	50.7 ~ 56.1	1.49	1.42 ~ 1.56
1800	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
1900	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2000	53.3	50.6 ~ 56.0	1.52	1.44 ~ 1.60
2300	52.9	50.3 ~ 55.5	1.81	1.72 ~ 1.90
2450	52.7	50.1 ~ 55.3	1.95	1.85 ~ 2.05
2600	52.5	49.9 ~ 55.1	2.16	2.05 ~ 2.27
3500	51.3	48.7 ~ 53.9	3.31	3.14 ~ 3.48
5200	49.0	46.6 ~ 51.5	5.30	5.04 ~ 5.57
5300	48.9	46.5 ~ 51.3	5.42	5.15 ~ 5.69
5500	48.6	46.2 ~ 51.0	5.65	5.37 ~ 5.93
5600	48.5	46.1 ~ 50.9	5.77	5.48 ~ 6.06
5800	48.2	45.8 ~ 50.6	6.00	5.70 ~ 6.30

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The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3
B750	0.2	-	0.2	0.8	48.8	-	50.0	-
B835	0.2	-	0.2	0.9	48.5	-	50.2	-
B900	0.2	-	0.2	0.9	48.2	-	50.5	-
B1450	-	34.0	-	0.3	-	-	65.7	-
B1640	-	32.5	-	0.3	-	-	67.2	-
B1750	-	31.0	-	0.2	-	-	68.8	-
B1800	-	29.5	-	0.4	-	-	70.1	-
B1900	-	29.5	-	0.3	-	-	70.2	-
B2000	-	30.0	-	0.2	-	-	69.8	-
B2300	-	31.0	-	0.1	-	-	68.9	-
B2450	-	31.4	-	0.1	-	-	68.5	-
B2600	-	31.8	-	0.1	-	-	68.1	-
B3500	-	28.8	-	0.1	-	-	71.1	-
B5G	-	-	-	-	-	10.7	78.6	10.7

3.3 SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.

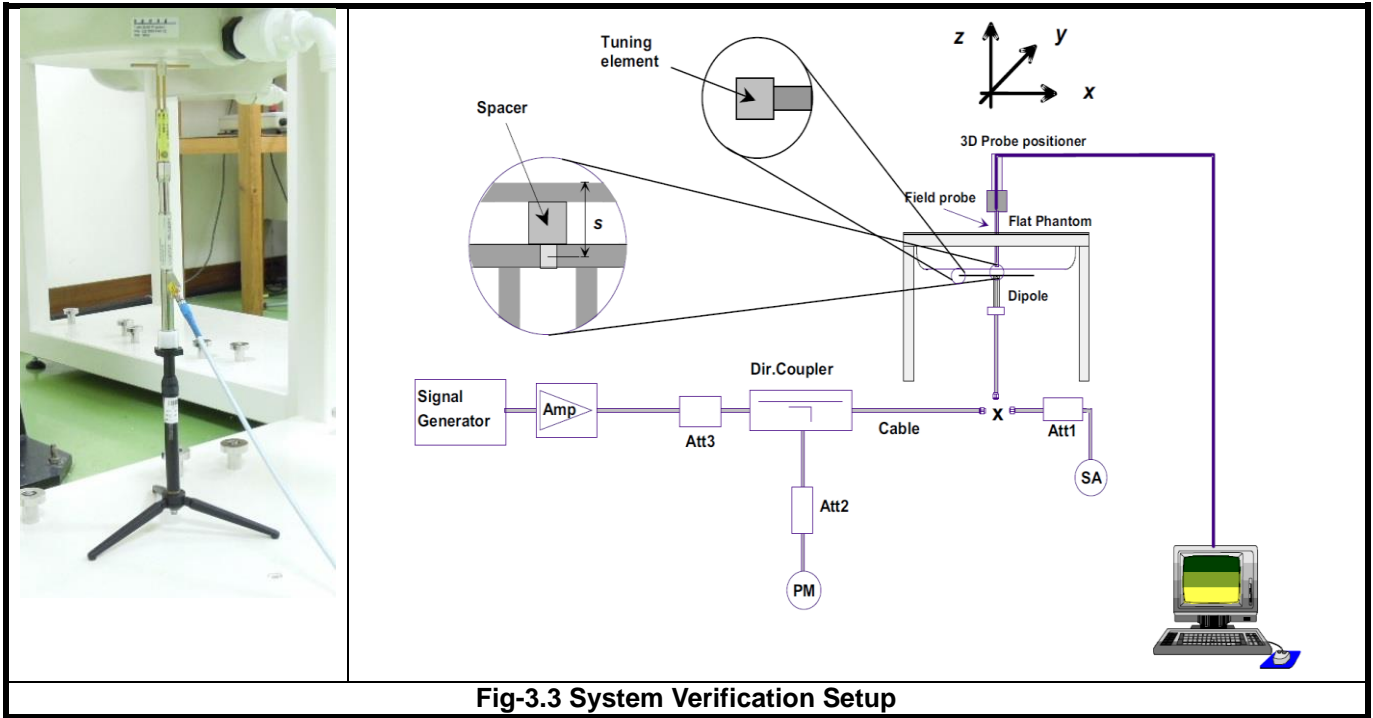


Fig-3.3 System Verification Setup

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

3.4 SAR Measurement Procedure

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

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

- (a) Make EUT to transmit maximum output power
- (b) Measure conducted output power through RF cable
- (c) Place the EUT in the specific position of phantom
- (d) Perform SAR testing steps on the DASY system
- (e) Record the SAR value

Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan ($\Delta x, \Delta y$)	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan ($\Delta x, \Delta y$)	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan (Δz)	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

Note:

When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of $\Delta x / \Delta y$ (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

Volume Scan Procedure

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

Power Drift Monitoring

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

Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

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

SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

4. SAR Measurement Evaluation

4.1 EUT Configuration and Setting

<Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator. Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

<Considerations Related to GSM / GPRS / EDGE for Setup and Testing>

The maximum multi-slot capability supported by this device is as below.

1. This EUT is class B device
2. This EUT supports GPRS multi-slot class 33 (max. uplink: 4, max. downlink: 5, total timeslots: 6)
3. This EUT supports EDGE multi-slot class 33 (max. uplink: 4, max. downlink: 5, total timeslots: 6)
4. This EUT supports DTM multi-slot class 11 (max. uplink: 3 for 1 CS & 2 PS, max. downlink: 4, total timeslots: 5)

For GSM850 frequency band, the power control level is set to 5 for GSM mode and GPRS (GMSK: CS1), and set to 8 for EDGE (GMSK: MCS1, 8PSK: MCS9). For GSM1900 frequency band, the power control level is set to 0 for GSM mode and GPRS (GMSK: CS1), and set to 2 for EDGE (GMSK: MCS1, 8PSK: MCS9).

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.

<Considerations Related to WCDMA for Setup and Testing>

WCDMA Handsets Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode.

WCDMA Handsets Body-worn SAR

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

Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the "Release 5 HSDPA Data Devices", for the highest reported SAR body-worn exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

Handsets with Release 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the "Release 6 HSPA Data Devices", for the highest reported body-worn exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn measurements is tested for next to the ear head exposure.

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Release 5 HSDPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH / HS-PDSCHs, HARQ 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 conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors (β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{CQI}) are set according to values indicated in below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

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

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

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

Note 3: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of 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 4: 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 $\beta_d = 15/15$.

Release 6 HSPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode. Otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing. Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the β values indicated in below.

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	$\beta_{HS}^{(1)}$	β_{ec}	$\beta_{ed}^{(4)(5)}$	β_{ed} (SF)	β_{ed} (Codes)	CM ⁽²⁾ (dB)	MPR ⁽²⁾⁽⁶⁾ (dB)	AG ⁽⁵⁾ Index	E-TFCI
1	11/15 ⁽³⁾	15/15 ⁽³⁾	64	11/15 ⁽³⁾	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

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

HSPA+ SAR Guidance

The 3G SAR test reduction procedure is applied to HSPA+ (uplink) with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 6 HSPA, SAR is required for Rel. 7 HSPA+. Power is measured for HSPA+ that supports uplink 16QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

Sub-test	$\beta_c^{(3)}$	β_d	$\beta_{HS}^{(1)}$	β_{ec}	$\beta_{ed}^{(4)}$ (2xSF2)	$\beta_{ed}^{(4)}$ (2xSF4)	CM ⁽²⁾ (dB)	MPR ⁽²⁾ (dB)	AG ⁽⁴⁾ Index	E-TFCI ⁽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, $MPR = \text{MAX}(CM-1,0)$.
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 signalled to use the extrapolation algorithm.

DC-HSDPA SAR Guidance

The 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 5 HSDPA, SAR is required for Rel. 8 DC-HSDPA. 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 secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

<Considerations Related to CDMA for Setup and Testing>

CDMA 1xRTT Handsets Head SAR

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode. Otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

CDMA 1xRTT Handsets Body-worn SAR

Body-worn SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH + SCH_n), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCH_n), with FCH at full rate and SCH₀ enabled at 9600 bps, using the highest reported SAR configuration for FCH only. The 3G SAR test reduction procedure is applied to body-worn SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn exposure in RC3.

Handsets with built-in EV-DO

The 3G SAR test reduction procedure is applied to EV-DO Rev. 0 with 1xRTT RC3 as the primary mode to determine body-worn test requirements. Otherwise, body-worn SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn exposure in RC3. The 3G SAR test reduction procedure is applied separately to Rev. A and Rev. B, with Rev. 0 as the primary mode to determine body-worn SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1xRTT RC3 as the primary mode. Otherwise, SAR is required for Rev. A or Rev. B, with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 and 3 Physical Layer configurations, using the highest reported SAR configuration for body-worn exposure in Rev. 0 or RC3, as appropriate. A Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with ACK Channel transmitting in all slots is configured in the downlink for Rev. 0, Rev. A and Rev. B.

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EV-DO Data Devices

SAR is measured using the F/R TAP configurations required for Rev. 0, Rev. A and Rev. B. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations. A Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots are used for Subtype 2 and 3. FTAP, FETAP and FMCTAP are all configured with a Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with ACK Channel transmitting in all slots. AT power control is in “All Bits Up” conditions for the TAP / ETAP / MCTAP. Body-worn and other body SAR are measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode. Otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn exposure in Rev. 0. SAR is required for Rev. B, Subtype 3; it is measured by applying both the “test 2” and “test 3” configurations used for power measurement.

<Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for both QPSK and QAM modulation. The results please refer to section 4.6 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz
2	V	V	V	V	V	V
4	V	V	V	V	V	V
5	V	V	V	V		
7			V	V	V	V
12	V	V	V	V		
13			V	V		
17			V	V		
25	V	V	V	V	V	V
26	V	V	V	V	V	
38			V	V	V	V
41			V	V	V	V
66	V	V	V	V	V	V

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3

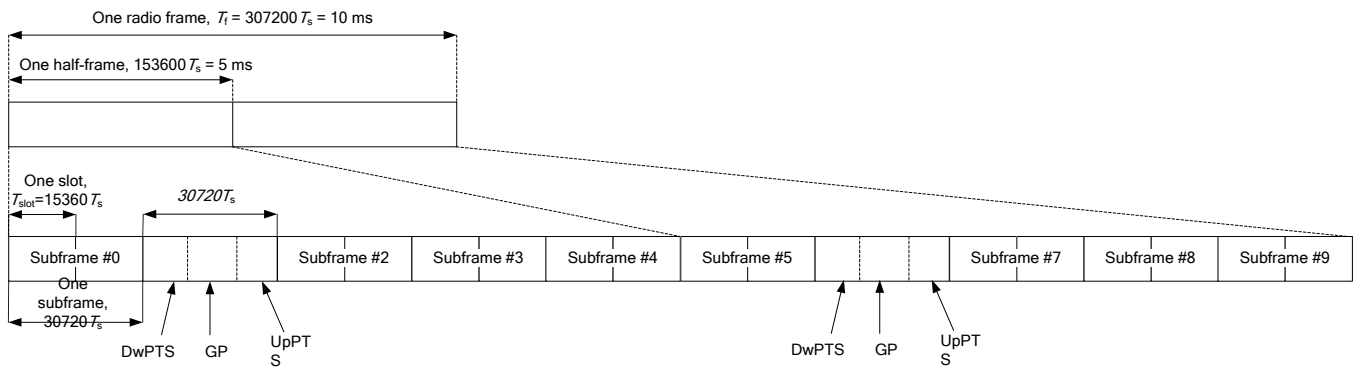
Note: MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

TDD-LTE Setup Configurations

According to KDB 941225 D05, SAR testing for TDD-LTE device 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 TDD-LTE configurations. The TDD-LTE of this device supports frame structure type 2 defined in 3GPP TS 36.211 section 4.2, and the frame structure configuration can be referred to below.



3GPP TS 36.211 Figure 4.2-1: Frame Structure Type 2

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 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts
1	19760 · Ts			20480 · Ts		
2	21952 · Ts			23040 · Ts		
3	24144 · Ts			25600 · Ts		
4	26336 · Ts			7680 · Ts		
5	6592 · Ts	4384 · Ts	5120 · Ts	20480 · Ts	4384 · Ts	5120 · Ts
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts	-	-	-	-	-
9	13168 · Ts	-	-	-	-	-

3GPP TS 36.211 Table 4.2-1: Configuration of Special Subframe

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

3GPP TS 36.211 Table 4.2-2: Uplink-Downlink Configurations

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

Considering the highest transmission duty cycle, TDD-LTE was tested using Uplink-Downlink Configuration 0 with 6 uplink subframe and 2 special subframe. The special subframe was set to special subframe configuration 7 using extended cyclic prefix uplink. Therefore, SAR testing for TDD-LTE was performed at the maximum output power with highest transmission duty cycle of 63.33%.

LTE Downlink Carrier Aggregation (CA) Setup Configurations

LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Contiguous CA

Downlink CA Configuration	Component carriers in order of increasing carrier frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel bandwidths for carrier-1 (MHz)	Channel bandwidths for carrier-2 (MHz)	Channel bandwidths for carrier-3 (MHz)		
CA_5B	5, 10	10		20	0
	10	5		8	1
	3	5			
CA_7C	5	3		40	0
	15	15			
	20	20			
	10	20		40	1
	15	15, 20			
	20	10, 15, 20		40	2
	15	10, 15			
20	15, 20				
CA_38C	15	15		40	0
	20	20			
CA_66B	5	5, 10, 15		20	0
	10	5, 10			
	15	5			
CA_66C	5	20		40	0
	10	15, 20			
	15	10, 15, 20			
	20	5, 10, 15, 20			
CA_66D	5	20		60	0
	20	5			
	20	20			
	10	20			
	15	20			
	10, 15, 20	15, 20			
	15, 20	10			
	15	15, 20			
	20	15, 20			
	20	10			

LTE CA Configurations and Bandwidth Combination Sets defined for Intra-Band Non-Contiguous CA

Downlink CA Configuration	Component Carriers in order of Increasing Carrier Frequency			Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
	Channel Bandwidths for Carrier-1 (MHz)	Channel Bandwidths for Carrier-2 (MHz)	Channel Bandwidths for Carrier-3 (MHz)		
CA_2A-2A	5, 10, 15, 20	5, 10, 15, 20		40	0
CA_4A-4A	5, 10, 15, 20	5, 10, 15, 20		40	0
	5, 10	5, 10		20	1
CA_5A-5A	5,10	5,10		20	0
	3	5		8	1
CA_7A-7A	5	15		40	0
	10	10, 15			
	15	15, 20			
	20	20		40	1
	5, 10, 15, 20	5, 10, 15, 20		30	2
	5, 10, 15, 20	5, 10		40	3
CA_41A-41A	10, 15, 20	10, 15, 20		40	0
	5, 10, 15, 20	5, 10, 15, 20		40	1
CA_66A-66A	5, 10, 15, 20	5, 10, 15, 20		40	0

LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Two Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A	2	1.4, 3, 5, 10, 15, 20	40	0
	4	5, 10, 15, 20		
	2	5, 10	20	1
	4	5, 10		
	2	5, 10, 15, 20	40	2
	4	5, 10, 15, 20		
CA_2A-2A-4A	2	Refer to CA_2A-2A (BCS0)	60	0
	4	5, 10, 15, 20		
CA_2A-4A-4A	2	5, 10, 15, 20	60	0
	4	Refer to CA_4A-4A (BCS0)		
CA_2A-5A	2	5, 10, 15, 20	30	0
	5	5, 10		
	2	5, 10	20	1
	5	5, 10		
CA_2A-2A-5A	2	Refer to CA_2A-2A (BCS0)	50	0
	5	5, 10		
CA_2A-5B	2	5, 10, 15, 20	40	0
	5	Refer to CA_5B (BCS0)		
CA_2A-13A	2	5, 10, 15, 20	30	0
	13	10		
	2	5, 10	20	1
	13	10		
CA_2A-2A-13A	2	Refer to CA_2A-2A (BCS0)	50	0
	13	10		

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Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-66A	2	1.4, 3, 5, 10, 15, 20	40	0
	66	5, 10, 15, 20		
	2	5, 10	20	1
	66	5, 10		
CA_2A-66B	2	5, 10, 15, 20	40	0
	66	Refer to CA_66B (BCS0)		
CA_2A-66C	2	5, 10, 15, 20	60	0
	66	Refer to CA_66C (BCS0)		
CA_2A-2A-66A	2	Refer to CA_2A-2A (BCS0)	60	0
	66	5, 10, 15, 20		
CA_2A-66A-66A	2	5, 10, 15, 20	60	0
	66	Refer to CA_66A-66A (BCS0)		
CA_4A-5A	4	5, 10	20	0
	5	5, 10		
	4	5, 10, 15, 20	30	1
	5	5, 10		
CA_4A-4A-5A	4	Refer to CA_4A-4A (BCS0)	50	0
	5	5, 10		
CA_4A-5B	4	5, 10, 15, 20	40	0
	5	Refer to CA_5B (BCS0)		
CA_4A-13A	4	5, 10, 15, 20	30	0
	13	10		
	4	5, 10	20	1
	13	10		
CA_4A-4A-13A	4	Refer to CA_4A-4A (BCS0)	50	0
	13	10		
CA_5A-7A	5	1.4, 3, 5, 10	30	0
	7	10, 15, 20		
	5	5, 10	30	1
	7	10, 15, 20		
CA_5A-66A	5	5, 10	30	0
	66	5, 10, 15, 20		
CA_5A-5A-66A	5	Refer to CA_5A-5A (BCS0)	40	0
	66	5, 10, 15, 20		
CA_5A-66A-66A	5	5, 10	50	0
	66	Refer to CA_66A-66A (BCS0)		
CA_5A-66B	5	5, 10	30	0
	66	Refer to CA_66B (BCS0)		
CA_5A-66C	5	5, 10	50	0
	66	Refer to CA_66C (BCS0)		
CA_5B-66A	5	Refer to CA_5B (BCS0)	40	0
	66	5, 10, 15, 20		
CA_13A-66A	13	5, 10	30	0
	66	5, 10, 15, 20		
CA_13A-66A-66A	13	5, 10	50	0
	66	Refer to CA_66A-66A (BCS0)		
CA_13A-66B	13	5, 10	v	0
	66	Refer to CA_66B (BCS0)		
CA_13A-66C	13	5, 10	50	0
	66	Refer to CA_66C (BCS0)		

LTE CA Configurations and Bandwidth Combination Sets defined for Inter-Band CA (Three Bands)

Downlink CA Configuration	LTE Bands	Channel Bandwidths for Carrier (MHz)	Maximum Aggregated Bandwidth (MHz)	Bandwidth Combination Set
CA_2A-4A-5A	2	5, 10, 15,20	50	0
	4	5, 10, 15,20		
	5	5, 10		
CA_2A-4A-13A	2	5, 10, 15, 20	50	0
	4	5, 10, 15, 20		
	13	10		
CA_2A-5A-66A	2	5, 10, 15, 20	50	0
	5	5, 10		
	66	5, 10, 15, 20		
CA_2A-13A-66A	2	5, 10, 15, 20	50	0
	13	5, 10		
	66	5, 10, 15, 20		

<Considerations Related to WLAN for Setup and Testing>

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

SAR Test Configuration and Channel Selection

When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

- 1) The channel closest to mid-band frequency is selected for SAR measurement.
- 2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

Test Reduction for U-NII-1 (5.2 GHz) and U-NII-2A (5.3 GHz) Bands

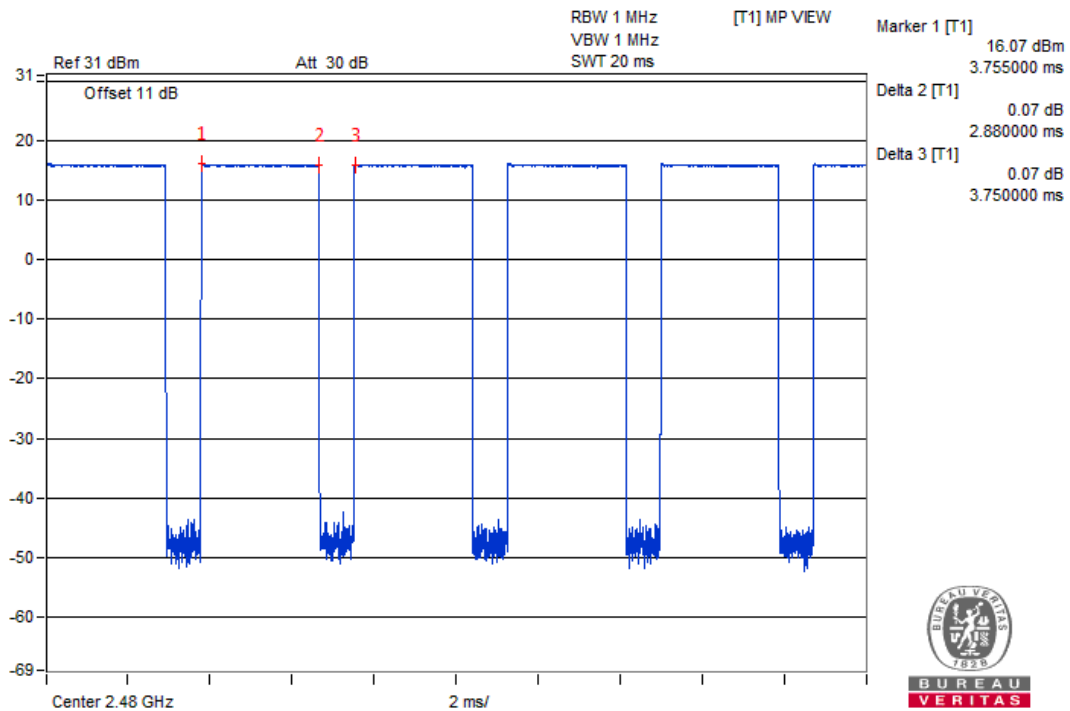
For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following.

- 1) 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).
- 2) 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.

<Considerations Related to Bluetooth for Setup and Testing>

This device has installed Bluetooth engineering testing software which can provide continuous transmitting RF signal. During Bluetooth SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

The Bluetooth call box has been used during SAR measurement and the EUT was set to DH5 mode at the maximum output power. Its duty factor was calculated as below and the measured SAR for Bluetooth would be scaled to the 100% transmission duty factor to determine compliance.



Time-domain plot for Bluetooth transmission signal

The duty factor of Bluetooth signal has been calculated as following.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = 2.88 / 3.75 = 76.80 \%$$

4.2 EUT Testing Position

According to KDB 648474 D04, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

4.2.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2003 using the SAM phantom illustrated as below.

1. Define two imaginary lines on the handset
 - (a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.
 - (b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
 - (c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.

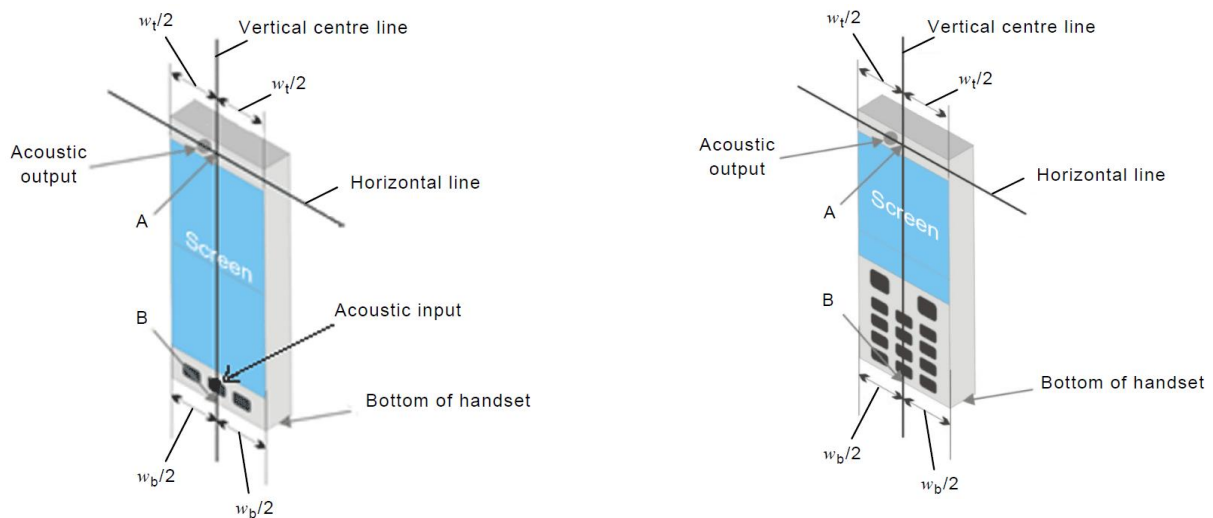


Fig-4.1 Illustration for Handset Vertical and Horizontal Reference Lines

2. Cheek Position

- (a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- (b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig-4.2).

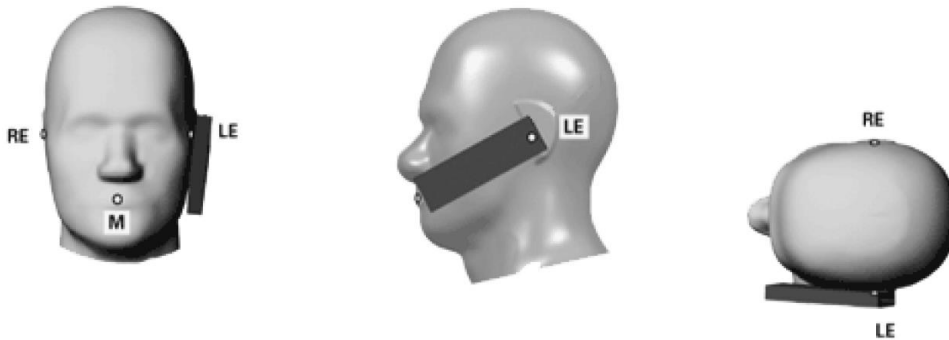


Fig-4.2 Illustration for Cheek Position

3. Tilted Position

- (a) To position the device in the “cheek” position described above.
- (b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig-4.3).

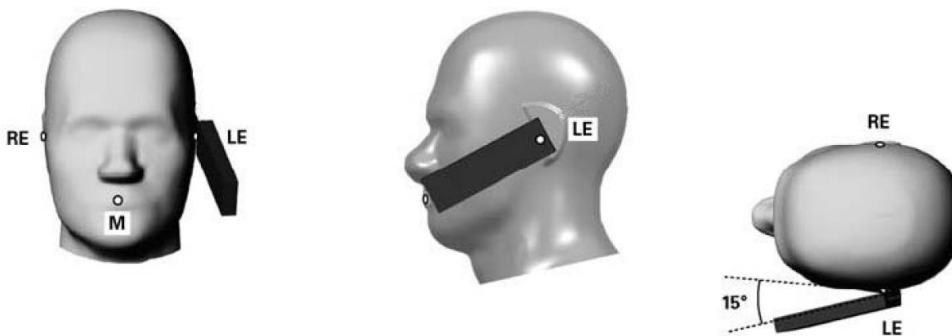


Fig-4.3 Illustration for Tilted Position

4.2.2 Body-worn Accessory Exposure Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 D01 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required.

A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance $\leq 5 \text{ mm}$ to support compliance.

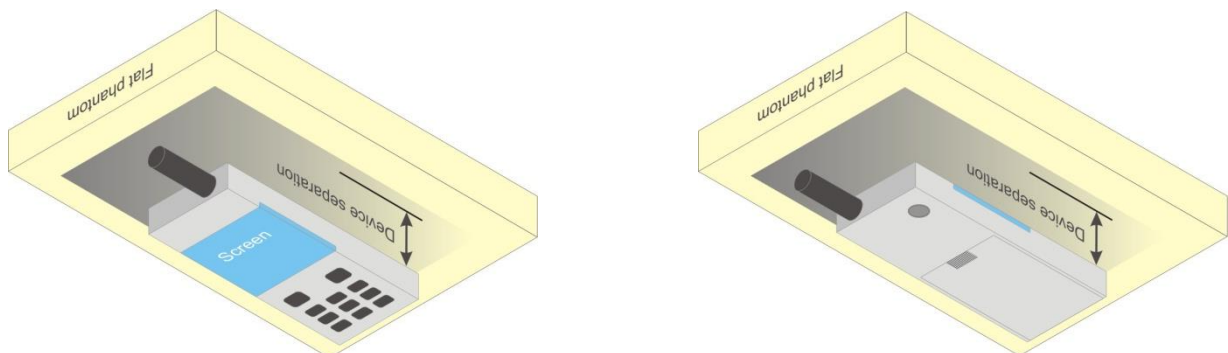
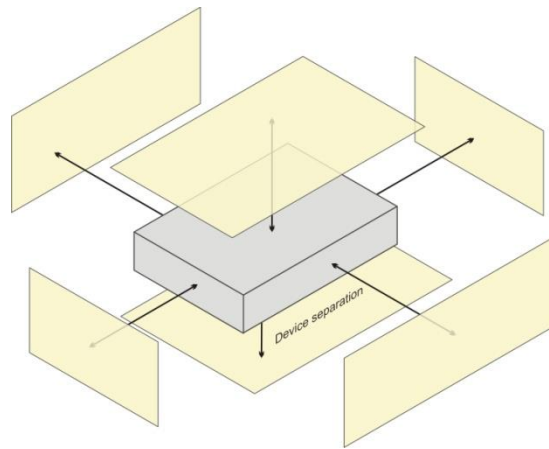


Fig-4.4 Illustration for Body Worn Position

4.2.3 Hotspot Mode Exposure Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225 D06. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



Based on the antenna location shown on appendix D of this report, the SAR testing required for hotspot mode is listed as below.

Antenna	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
WWAN Ant-0	V	V	V	V		V
WWAN Ant-1	V	V	V		V	
WWAN Ant-2	V	V		V		V
WWAN Ant-3	V	V	V		V	
BT / WLAN Ant-0	V	V		V	V	
WLAN Ant-1	V	V		V	V	

4.2.4 Product Specific (Phablet) Exposure Conditions

For smart phones with a display diagonal dimension > 15 cm or an overall diagonal dimension > 16 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 following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 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, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg. The normal tablet procedures in KDB 616217 are required when the over diagonal dimension of the device is > 20 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of large form factor full size tablets. The more conservative tablet SAR results can be used to support the 10-g extremity SAR for phablet mode.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

4.3 Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Nov. 24, 2018	Head	750	23.6	0.892	42.971	0.89	41.9	0.22	2.56
Dec. 03, 2018	Head	750	23.3	0.888	43.057	0.89	41.9	-0.22	2.76
Dec. 12, 2018	Head	750	23.5	0.872	42.986	0.89	41.9	-2.02	2.59
Nov. 23, 2018	Head	835	23.5	0.92	42.33	0.9	41.5	2.22	2.00
Nov. 23, 2018	Head	835	23.2	0.915	42.348	0.9	41.5	1.67	2.04
Nov. 24, 2018	Head	835	23.6	0.907	40.942	0.9	41.5	0.78	-1.34
Nov. 24, 2018	Head	1750	23.6	1.323	38.935	1.37	40.1	-3.43	-2.91
Dec. 12, 2018	Head	1750	23.5	1.329	38.952	1.37	40.1	-2.99	-2.86
Nov. 23, 2018	Head	1900	23.2	1.458	38.53	1.4	40	4.14	-3.68
Dec. 03, 2018	Head	1900	23.2	1.451	39.308	1.4	40	3.64	-1.73
Dec. 12, 2018	Head	1900	23.5	1.462	39.556	1.4	40	4.43	-1.11
Nov. 14, 2018	Head	2450	23.3	1.882	38.31	1.8	39.2	4.56	-2.27
Nov. 23, 2018	Head	2600	23.5	2.013	37.293	1.96	39	2.70	-4.38
Nov. 25, 2018	Head	2600	23.2	2.029	37.61	1.96	39	3.52	-3.56
Dec. 03, 2018	Head	2600	23.3	1.997	37.324	1.96	39	1.89	-4.30
Dec. 04, 2018	Head	2600	23.1	2.036	38.256	1.96	39	3.88	-1.91
Nov. 14, 2018	Head	5250	23.3	4.754	35.61	4.71	35.9	0.93	-0.81
Dec. 12, 2018	Head	5250	23.5	4.796	35.724	4.71	35.9	1.83	-0.49
Nov. 14, 2018	Head	5600	23.3	5.087	35.132	5.07	35.5	0.34	-1.04
Dec. 12, 2018	Head	5600	23.5	5.108	35.262	5.07	35.5	0.75	-0.67
Nov. 14, 2018	Head	5750	23.3	5.228	34.923	5.22	35.4	0.15	-1.35
Dec. 12, 2018	Head	5750	23.5	5.248	34.985	5.22	35.4	0.54	-1.17
Jan. 28, 2019	Head	5750	23.4	5.281	36.326	5.22	35.4	1.17	2.62
Nov. 28, 2018	Body	750	23.3	0.959	56.412	0.96	55.5	-0.10	1.64
Nov. 26, 2018	Body	835	23.1	1.017	57.276	0.97	55.2	4.85	3.76
Nov. 28, 2018	Body	835	23.2	0.973	57.716	0.97	55.2	0.31	4.56
Dec. 12, 2018	Body	835	23.4	0.992	57.523	0.97	55.2	2.27	4.21
Nov. 23, 2018	Body	1750	23.3	1.444	52.06	1.49	53.4	-3.09	-2.51
Nov. 27, 2018	Body	1750	23.3	1.431	51.463	1.49	53.4	-3.96	-3.63
Nov. 29, 2018	Body	1750	23.4	1.442	53.384	1.49	53.4	-3.22	-0.03
Dec. 04, 2018	Body	1750	23.2	1.43	51.827	1.49	53.4	-4.03	-2.95
Dec. 12, 2018	Body	1750	23.4	1.442	51.528	1.49	53.4	-3.22	-3.51
Nov. 27, 2018	Body	1900	23.3	1.564	50.975	1.52	53.3	2.89	-4.36
Dec. 04, 2018	Body	1900	23.2	1.569	51.455	1.52	53.3	3.22	-3.46
Dec. 12, 2018	Body	1900	23.4	1.552	51.982	1.52	53.3	2.11	-2.47
Nov. 16, 2018	Body	2450	23.1	1.992	51.358	1.95	52.7	2.15	-2.55
Nov. 29, 2018	Body	2450	23.4	1.969	51.42	1.95	52.7	0.97	-2.43
Dec. 12, 2018	Body	2450	23.4	2.015	51.968	1.95	52.7	3.33	-1.39
Nov. 23, 2018	Body	2600	23.3	2.198	50.219	2.16	52.5	1.76	-4.34
Nov. 29, 2018	Body	2600	23.4	2.151	50.746	2.16	52.5	-0.42	-3.34
Dec. 04, 2018	Body	2600	23.3	2.207	50.697	2.16	52.5	2.18	-3.43
Dec. 12, 2018	Body	2600	23.4	2.132	50.718	2.16	52.5	-1.30	-3.39
Nov. 16, 2018	Body	5250	23.1	5.333	51.06	5.36	48.9	-0.50	4.42
Nov. 29, 2018	Body	5250	23.4	5.381	46.893	5.36	48.9	0.39	-4.10
Nov. 29, 2018	Body	5600	23.4	5.826	46.359	5.77	48.5	0.97	-4.41
Dec. 12, 2018	Body	5600	23.4	5.846	46.482	5.77	48.5	1.32	-4.16
Nov. 16, 2018	Body	5750	23.1	6.167	50.062	5.94	48.3	3.82	3.65
Dec. 05, 2018	Body	5750	23.1	5.925	47.568	5.94	48.3	-0.25	-1.52
Dec. 12, 2018	Body	5750	23.4	6.188	50.186	5.94	48.3	4.18	3.90

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Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)
Nov. 16, 2018	Body	5250	23.1	5.333	51.06	5.36	48.9	-0.50	4.42
Nov. 29, 2018	Body	5250	23.4	5.381	46.893	5.36	48.9	0.39	-4.10
Nov. 29, 2018	Body	5600	23.4	5.826	46.359	5.77	48.5	0.97	-4.41
Dec. 12, 2018	Body	5600	23.4	5.846	46.482	5.77	48.5	1.32	-4.16

Note:

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within $\pm 5\%$ of the target values. Liquid temperature during the SAR testing must be within $\pm 2^\circ\text{C}$.

4.4 System Validation

The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Nov. 24, 2018	3971	Head	750	0.892	42.971	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 03, 2018	3971	Head	750	0.888	43.057	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Head	750	0.872	42.986	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 23, 2018	3650	Head	835	0.92	42.33	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 23, 2018	3971	Head	835	0.915	42.348	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 24, 2018	3971	Head	835	0.907	40.942	Pass	Pass	Pass	GMSK	Pass	N/A
Nov. 24, 2018	3971	Head	1750	1.323	38.935	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Head	1750	1.329	38.952	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 23, 2018	3971	Head	1900	1.458	38.53	Pass	Pass	Pass	GMSK	Pass	N/A
Dec. 03, 2018	3971	Head	1900	1.451	39.308	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Head	1900	1.462	39.556	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 14, 2018	3898	Head	2450	1.882	38.31	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 23, 2018	3650	Head	2600	2.013	37.293	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 25, 2018	3971	Head	2600	2.029	37.61	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 03, 2018	3971	Head	2600	1.997	37.324	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 04, 2018	3650	Head	2600	2.036	38.256	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 14, 2018	3898	Head	5250	4.754	35.61	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Head	5250	4.796	35.724	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 14, 2018	3898	Head	5600	5.087	35.132	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Head	5600	5.108	35.262	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 14, 2018	3898	Head	5750	5.228	34.923	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Head	5750	5.248	34.985	Pass	Pass	Pass	OFDM	N/A	Pass
Jan. 28, 2019	7472	Head	5750	5.281	36.326	Pass	Pass	Pass	OFDM	N/A	Pass



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Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Nov. 28, 2018	7472	Body	750	0.959	56.412	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 26, 2018	7472	Body	835	1.017	57.276	Pass	Pass	Pass	GMSK	Pass	N/A
Nov. 28, 2018	7472	Body	835	0.973	57.716	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Body	835	0.992	57.523	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 23, 2018	3650	Body	1750	1.444	52.06	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 27, 2018	7472	Body	1750	1.431	51.463	Pass	Pass	Pass	GMSK	Pass	N/A
Nov. 29, 2018	7472	Body	1750	1.442	53.384	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 04, 2018	3971	Body	1750	1.43	51.827	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Body	1750	1.442	51.528	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 27, 2018	7472	Body	1900	1.564	50.975	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 04, 2018	3971	Body	1900	1.569	51.455	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Body	1900	1.552	51.982	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 16, 2018	3898	Body	2450	1.992	51.358	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 29, 2018	7472	Body	2450	1.969	51.42	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Body	2450	2.015	51.968	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 23, 2018	3650	Body	2600	2.198	50.219	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 29, 2018	7472	Body	2600	2.151	50.746	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 04, 2018	3971	Body	2600	2.207	50.697	Pass	Pass	Pass	N/A	N/A	N/A
Dec. 12, 2018	3898	Body	2600	2.132	50.718	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 16, 2018	3898	Body	5250	5.333	51.06	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 29, 2018	7472	Body	5250	5.381	46.893	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 29, 2018	7472	Body	5600	5.826	46.359	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Body	5600	5.846	46.482	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 16, 2018	3898	Body	5750	6.167	50.062	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 05, 2018	3971	Body	5750	5.925	47.568	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Body	5750	6.188	50.186	Pass	Pass	Pass	OFDM	N/A	Pass

Test Date	Probe S/N	Calibration Point		Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Validation for CW			Validation for Modulation		
						Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Nov. 16, 2018	3898	Body	5250	5.333	51.06	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 29, 2018	7472	Body	5250	5.381	46.893	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 29, 2018	7472	Body	5600	5.826	46.359	Pass	Pass	Pass	OFDM	N/A	Pass
Dec. 12, 2018	3898	Body	5600	5.846	46.482	Pass	Pass	Pass	OFDM	N/A	Pass

4.5 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Nov. 24, 2018	Head	750	8.15	1.98	7.92	-2.82	1013	3971	1431
Dec. 03, 2018	Head	750	8.15	1.92	7.68	-5.77	1013	3971	861
Dec. 12, 2018	Head	750	8.15	1.94	7.76	-4.79	1013	3898	1277
Nov. 23, 2018	Head	835	9.44	2.23	8.92	-5.51	4d121	3650	579
Nov. 23, 2018	Head	835	9.44	2.32	9.28	-1.69	4d121	3971	1431
Nov. 24, 2018	Head	835	9.44	2.25	9.00	-4.66	4d121	3971	1431
Nov. 24, 2018	Head	1750	36.90	8.94	35.76	-3.09	1055	3971	1431
Dec. 12, 2018	Head	1750	36.90	8.96	35.84	-2.87	1055	3898	1277
Nov. 23, 2018	Head	1900	40.70	10.1	40.40	-0.74	5d036	3971	1431
Dec. 03, 2018	Head	1900	40.70	9.95	39.80	-2.21	5d036	3971	861
Dec. 12, 2018	Head	1900	40.70	9.98	39.92	-1.92	5d036	3898	1277
Nov. 14, 2018	Head	2450	51.50	13.3	53.20	3.30	737	3898	1277
Nov. 23, 2018	Head	2600	55.70	13.7	54.80	-1.62	1020	3650	579
Nov. 25, 2018	Head	2600	55.70	13.7	54.80	-1.62	1020	3971	1431
Dec. 03, 2018	Head	2600	55.70	14.6	58.40	4.85	1020	3971	861
Dec. 04, 2018	Head	2600	55.70	14.1	56.40	1.26	1020	3650	579
Nov. 14, 2018	Head	5250	78.60	8.30	83.00	5.60	1019	3898	1277
Dec. 12, 2018	Head	5250	78.60	8.21	82.10	4.45	1019	3898	1277
Nov. 14, 2018	Head	5600	84.90	8.1	81.00	-4.59	1019	3898	1277
Dec. 12, 2018	Head	5600	84.90	8.13	81.30	-4.24	1019	3898	1277
Nov. 14, 2018	Head	5750	79.40	8.5	85.00	7.05	1019	3898	1277
Dec. 12, 2018	Head	5750	79.40	8.44	84.40	6.30	1019	3898	1277
Jan. 28, 2019	Head	5750	79.40	8.00	80.00	0.76	1019	7472	1431
Nov. 28, 2018	Body	750	8.62	2.14	8.56	-0.70	1013	7472	861
Nov. 26, 2018	Body	835	9.64	2.38	9.52	-1.24	4d121	7472	861
Nov. 28, 2018	Body	835	9.64	2.46	9.84	2.07	4d121	7472	861
Dec. 12, 2018	Body	835	9.64	2.41	9.64	0.00	4d121	3898	1277
Nov. 23, 2018	Body	1750	36.90	8.88	35.52	-3.74	1055	3650	579
Nov. 27, 2018	Body	1750	36.90	9.77	39.08	5.91	1055	7472	861
Nov. 29, 2018	Body	1750	36.90	9.48	37.92	2.76	1055	7472	861
Dec. 04, 2018	Body	1750	36.90	9.44	37.76	2.33	1055	3971	861
Dec. 12, 2018	Body	1750	36.90	9.68	38.72	4.93	1055	3898	1277
Nov. 27, 2018	Body	1900	40.20	10.1	40.40	0.50	5d036	7472	861
Dec. 04, 2018	Body	1900	40.20	10.1	40.40	0.50	5d036	3971	861
Dec. 12, 2018	Body	1900	40.20	10	40.00	-0.50	5d036	3898	1277
Nov. 16, 2018	Body	2450	50.50	13.3	53.20	5.35	737	3898	1277
Nov. 29, 2018	Body	2450	50.50	12	48.00	-4.95	737	7472	861
Dec. 12, 2018	Body	2450	50.50	13.2	52.80	4.55	737	3898	1277
Nov. 23, 2018	Body	2600	55.30	13.7	54.80	-0.90	1020	3650	579
Nov. 29, 2018	Body	2600	55.30	13.2	52.80	-4.52	1020	7472	861
Dec. 04, 2018	Body	2600	55.30	14.3	57.20	3.44	1020	3971	861
Dec. 12, 2018	Body	2600	55.30	13.3	53.20	-3.80	1020	3898	1277
Nov. 16, 2018	Body	5250	74.90	7.15	71.50	-4.54	1019	3898	1277
Nov. 29, 2018	Body	5250	74.90	7.78	77.80	3.87	1019	7472	861
Nov. 29, 2018	Body	5600	79.30	7.9	79.00	-0.38	1019	7472	861
Dec. 12, 2018	Body	5600	79.30	7.92	79.20	-0.13	1019	3898	1277
Nov. 16, 2018	Body	5750	74.50	7.99	79.90	7.25	1019	3898	1277
Dec. 05, 2018	Body	5750	74.50	7.66	76.60	2.82	1019	3971	861
Dec. 12, 2018	Body	5750	74.50	7.56	75.60	1.48	1019	3898	1277

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Test Date	Mode	Frequency (MHz)	1W Target SAR-10g (W/kg)	Measured SAR-10g (W/kg)	Normalized to 1W SAR-10g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Nov. 16, 2018	Body	5250	20.80	2.18	21.80	4.81	1019	3898	1277
Nov. 29, 2018	Body	5250	20.80	2.19	21.90	5.29	1019	7472	861
Nov. 29, 2018	Body	5600	22.20	2.27	22.70	2.25	1019	7472	861
Dec. 12, 2018	Body	5600	22.20	2.25	22.50	1.35	1019	3898	1277

Note:

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

4.6 Maximum Output Power

This device uses different power reduction mechanisms based on a proprietary detection mechanism for next-to-ear operation (head mode). When detected in head mode, WLAN ON or OFF status will activate 2 different power tables. Full details are provided in the operational description exhibit. The power tables below show the maximum powers for the various combinations of antennas when the WLAN is off or on and when a voice call is active (Head Mode) and inactive (Body-Worn / Hotspot Mode).

4.6.1 Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

<WWAN Power>

Band		WLAN OFF									
		Default Maximum	Head Mode				Body-Worn				
			Maximum Burst-Averaged Output Power		Maximum Frame-Averaged Output Power		Maximum Burst-Averaged Output Power		Maximum Frame-Averaged Output Power		
			Tune up Power	Ant-0	Ant-1	Ant-0	Ant-1	Ant-0	Ant-1	Ant-0	Ant-1
GSM850	GSM (GMSK, 1Tx-slot)	34.0	34.0	34.0	25.00	25.00	34.0	34.0	25.00	25.00	
	GPRS (GMSK, 1Tx-slot)	34.0	34.0	34.0	25.00	25.00	34.0	34.0	25.00	25.00	
	GPRS (GMSK, 2Tx-slot)	32.0	32.0	32.0	26.00	26.00	32.0	32.0	26.00	26.00	
	GPRS (GMSK, 3Tx-slot)	30.0	30.0	30.0	25.74	25.74	30.0	30.0	25.74	25.74	
	GPRS (GMSK, 4Tx-slot)	29.0	29.0	29.0	26.00	26.00	29.0	29.0	26.00	26.00	
	DTM (GMSK, 2Tx-slot)	32.0	32.0	32.0	26.00	26.00	32.0	32.0	26.00	26.00	
	DTM (GMSK, 3Tx-slot)	30.0	30.0	30.0	25.74	25.74	30.0	30.0	25.74	25.74	
	EDGE (8PSK, 1Tx-slot)	28.0	28.0	28.0	19.00	19.00	28.0	28.0	19.00	19.00	
	EDGE (8PSK, 2Tx-slot)	27.0	27.0	27.0	21.00	21.00	27.0	27.0	21.00	21.00	
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	25.0	20.74	20.74	25.0	25.0	20.74	20.74	
	EDGE (8PSK, 4Tx-slot)	23.0	23.0	23.0	20.00	20.00	23.0	23.0	20.00	20.00	
	DTM (8PSK, 2Tx-slot)	27.0	27.0	27.0	21.00	21.00	27.0	27.0	21.00	21.00	
DTM (8PSK, 3Tx-slot)	25.0	25.0	25.0	20.74	20.74	25.0	25.0	20.74	20.74		
GSM1900	GSM (GMSK, 1Tx-slot)	31.0	31.0	28.0	22.00	19.00	31.0	31.0	22.00	22.00	
	GPRS (GMSK, 1Tx-slot)	31.0	31.0	28.0	22.00	19.00	31.0	31.0	22.00	22.00	
	GPRS (GMSK, 2Tx-slot)	29.5	29.5	27.0	23.50	21.00	29.5	29.5	23.50	23.50	
	GPRS (GMSK, 3Tx-slot)	27.5	27.5	25.0	23.24	20.74	27.5	27.5	23.24	23.24	
	GPRS (GMSK, 4Tx-slot)	26.5	26.5	24.0	23.50	21.00	26.5	26.5	23.50	23.50	
	DTM (GMSK, 2Tx-slot)	29.5	29.5	27.0	23.50	21.00	29.5	29.5	23.50	23.50	
	DTM (GMSK, 3Tx-slot)	27.5	27.5	25.0	23.24	20.74	27.5	27.5	23.24	23.24	
	EDGE (8PSK, 1Tx-slot)	27.0	27.0	26.0	18.00	17.00	27.0	27.0	18.00	18.00	
	EDGE (8PSK, 2Tx-slot)	26.0	26.0	26.0	20.00	20.00	26.0	26.0	20.00	20.00	
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	24.0	20.74	19.74	25.0	25.0	20.74	20.74	
	EDGE (8PSK, 4Tx-slot)	24.0	24.0	23.0	21.00	20.00	24.0	24.0	21.00	21.00	
	DTM (8PSK, 2Tx-slot)	26.0	26.0	26.0	20.00	20.00	26.0	26.0	20.00	20.00	
DTM (8PSK, 3Tx-slot)	25.0	25.0	24.0	20.74	19.74	25.0	25.0	20.74	20.74		

Note:

- SAR testing was performed on the maximum frame-averaged power mode.
- The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

$$\text{Frame-averaged power} = 10 \times \log (\text{Burst-averaged power mW} \times \text{Slot used} / 8)$$

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WLAN OFF					
Band	Default Maximum	Head Power Mode		Body-Worn	
	Tune up Power	Ant-0	Ant-1	Ant-0	Ant-1
WCDMA Band II	25.7	25.7	21.5	25.7	25.7
WCDMA Band IV	24.0	24.0	24.0	24.0	24.0
WCDMA Band V	24.5	24.5	24.5	24.5	24.5
CDMA BC0	25.5	25.5	25.5	25.5	25.5
CDMA BC1	25.0	25.0	21.0	25.0	25.0
CDMA BC10	25.5	25.5	25.5	25.5	25.5
LTE 2	25.7	25.7	21.5	25.7	25.7
LTE 4	24.5	24.5	24.5	24.5	24.5
LTE 5	25.7	25.7	25.7	25.7	25.7
LTE 12	25.7	25.7	25.7	25.7	25.7
LTE 13	25.3	25.3	25.3	25.3	25.3
LTE 17	25.7	25.7	25.7	25.7	25.7
LTE 25	25.7	25.7	21.5	25.7	25.7
LTE 26	25.7	25.7	25.7	25.7	25.7
LTE 66	24.5	24.5	24.5	24.5	24.5

WLAN OFF					
Band	Default Maximum	Head Power Mode		Body-Worn	
	Tune up Power	Ant-2	Ant-3	Ant-2	Ant-3
LTE 7	24.5	24.5	24.5	24.5	24.5
LTE 38	25.7	25.7	25.7	25.7	25.7
LTE 41	25.0	25.0	25.0	25.0	25.0

Band		WLAN ON									
		Default Maximum	Head Mode				Body-Worn / Hotspot Mode				
			Maximum Burst-Averaged Output Power		Maximum Frame-Averaged Output Power		Maximum Burst-Averaged Output Power		Maximum Frame-Averaged Output Power		
			Tune up Power	Ant-0	Ant-1	Ant-0	Ant-1	Ant-0	Ant-1	Ant-0	Ant-1
GSM850	GSM (GMSK, 1Tx-slot)	34.0	34.0	34.0	25.00	25.00	34.0	34.0	25.00	25.00	
	GPRS (GMSK, 1Tx-slot)	34.0	34.0	34.0	25.00	25.00	34.0	34.0	25.00	25.00	
	GPRS (GMSK, 2Tx-slot)	32.0	32.0	32.0	26.00	26.00	32.0	32.0	26.00	26.00	
	GPRS (GMSK, 3Tx-slot)	30.0	30.0	30.0	25.74	25.74	30.0	30.0	25.74	25.74	
	GPRS (GMSK, 4Tx-slot)	29.0	29.0	29.0	26.00	26.00	29.0	29.0	26.00	26.00	
	DTM (GMSK, 2Tx-slot)	32.0	32.0	32.0	26.00	26.00	32.0	32.0	26.00	26.00	
	DTM (GMSK, 3Tx-slot)	30.0	30.0	30.0	25.74	25.74	30.0	30.0	25.74	25.74	
	EDGE (8PSK, 1Tx-slot)	28.0	28.0	28.0	19.00	19.00	28.0	28.0	19.00	19.00	
	EDGE (8PSK, 2Tx-slot)	27.0	27.0	27.0	21.00	21.00	27.0	27.0	21.00	21.00	
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	25.0	20.74	20.74	25.0	25.0	20.74	20.74	
	EDGE (8PSK, 4Tx-slot)	23.0	23.0	23.0	20.00	20.00	23.0	23.0	20.00	20.00	
	DTM (8PSK, 2Tx-slot)	27.0	27.0	27.0	21.00	21.00	27.0	27.0	21.00	21.00	
	DTM (8PSK, 3Tx-slot)	25.0	25.0	25.0	20.74	20.74	25.0	25.0	20.74	20.74	
GSM1900	GSM (GMSK, 1Tx-slot)	31.0	31.0	23.0	22.00	14.00	31.0	29.0	22.00	20.00	
	GPRS (GMSK, 1Tx-slot)	31.0	31.0	23.0	22.00	14.00	31.0	29.0	22.00	20.00	
	GPRS (GMSK, 2Tx-slot)	29.5	29.5	22.0	23.50	16.00	29.5	26.5	23.50	20.50	
	GPRS (GMSK, 3Tx-slot)	27.5	27.5	20.5	23.24	16.24	27.5	25.0	23.24	20.74	
	GPRS (GMSK, 4Tx-slot)	26.5	26.5	19.5	23.50	16.50	26.5	24.5	23.50	21.50	
	DTM (GMSK, 2Tx-slot)	29.5	29.5	22.0	23.50	16.00	29.5	26.0	23.50	20.00	
	DTM (GMSK, 3Tx-slot)	27.5	27.5	20.5	23.24	16.24	27.5	25.0	23.24	20.74	
	EDGE (8PSK, 1Tx-slot)	27.0	27.0	19.0	18.00	10.00	27.0	25.5	18.00	15.50	
	EDGE (8PSK, 2Tx-slot)	26.0	26.0	18.5	20.00	12.50	26.0	24.0	20.00	18.00	
	EDGE (8PSK, 3Tx-slot)	25.0	25.0	18.0	20.74	13.74	25.0	22.5	20.74	18.24	
	EDGE (8PSK, 4Tx-slot)	24.0	24.0	15.5	21.00	12.50	24.0	21.5	21.00	18.50	
	DTM (8PSK, 2Tx-slot)	26.0	26.0	18.0	20.00	12.00	26.0	24.0	20.00	18.00	
	DTM (8PSK, 3Tx-slot)	25.0	25.0	17.0	20.74	12.74	25.0	22.5	20.74	18.24	

Note:

- SAR testing was performed on the maximum frame-averaged power mode.
- The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

$$\text{Frame-averaged power} = 10 \times \log (\text{Burst-averaged power mW} \times \text{Slot used} / 8)$$

WLAN ON					
Band	Default Maximum	Head Power Mode		Body-Worn / Hotspot Mode	
	Tune up Power	Ant-0	Ant-1	Ant-0	Ant-1
WCDMA Band II	25.7	25.7	16.5	25.7	21.6
WCDMA Band IV	24.0	24.0	24.0	21.5	24.0
WCDMA Band V	24.5	24.5	24.5	24.5	24.5
CDMA BC0	25.5	25.5	25.5	25.5	25.5
CDMA BC1	25.0	25.0	16.0	25.0	22.5
CDMA BC10	25.5	25.5	25.5	25.5	25.5
LTE 2	25.7	25.7	16.5	24.7	22.2
LTE 4	24.5	24.5	24.5	23.7	24.5
LTE 5	25.7	25.7	25.7	25.7	25.7
LTE 12	25.7	25.7	25.7	25.7	25.7
LTE 13	25.3	25.3	24.5	25.3	25.3
LTE 17	25.7	25.7	25.7	25.7	25.7
LTE 25	25.7	25.7	16.5	24.7	22.2
LTE 26	25.7	25.7	25.7	25.7	25.7
LTE 66	24.5	24.5	24.5	23.7	24.5

WLAN ON					
Band	Default Maximum	Head Power Mode		Body-Worn / Hotspot Mode	
	Tune up Power	Ant-2	Ant-3	Ant-2	Ant-3
LTE 7	24.5	24.5	24.5	21.0	24.5
LTE 38	25.7	25.7	25.7	25.7	25.7
LTE 41	25.0	25.0	25.0	25.0	25.0

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<WLAN Power>

SISO

WLAN 2.4GHz									
Mode	Channel	WWAN OFF				WWAN ON			
		Head		Body-Worn		Head		Body-Worn / Hotspot	
		SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1
802.11b	1	17.5	17.5	18.0	18.0	17.5	17.5	18.0	18.0
	6	17.5	17.5	18.0	18.0	17.5	17.5	18.0	18.0
	11	17.5	17.5	18.0	18.0	17.5	17.5	18.0	18.0
	12	17.5	17.5	18.0	18.0	17.5	17.5	18.0	18.0
	13	17.5	17.5	18.0	18.0	17.5	17.5	18.0	18.0
802.11g	1	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	6	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	11	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	12	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	13	6.5	6.5	6.0	6.0	6.5	6.5	6.0	6.0
802.11n HT20	1	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	6	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	11	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	12	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
	13	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0
802.11ac VHT20	1	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	6	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	11	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
	12	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
	13	6.5	6.5	7.0	7.0	6.5	6.5	7.0	7.0

MIMO

WLAN 2.4GHz													
Mode	Channel	WWAN OFF						WWAN ON					
		Head			Body-Worn			Head			Body-Worn / Hotspot		
		MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1
802.11b	1	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	12	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	13	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
802.11g	1	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	12	15.5	15.5	18.5	15.0	15.0	18.0	15.5	15.5	18.5	15.0	15.0	18.0
	13	6.5	6.5	9.5	6.0	6.0	9.0	6.5	6.5	9.5	6.0	6.0	9.0
802.11n HT20	1	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	12	15.5	15.5	18.5	17.5	17.5	20.5	15.5	15.5	18.5	17.5	17.5	20.5
	13	6.5	6.5	9.5	7.0	7.0	10.0	6.5	6.5	9.5	7.0	7.0	10.0
802.11ac VHT20	1	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	6	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	11	15.5	15.5	18.5	18.0	18.0	21.0	15.5	15.5	18.5	18.0	18.0	21.0
	12	15.5	15.5	18.5	17.5	17.5	20.5	15.5	15.5	18.5	17.5	17.5	20.5
	13	6.5	6.5	9.5	7.0	7.0	10.0	6.5	6.5	9.5	7.0	7.0	10.0

SISO

WLAN 5.2GHz									
Mode	Channel	WWAN OFF				WWAN ON			
		Head		Body-Worn		Head		Body-Worn / Hotspot	
		SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1
802.11a	36	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	40	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	44	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	48	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT20	36	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	40	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	44	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	48	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT40	38	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	46	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT20	36	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	40	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	44	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	48	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT40	38	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	46	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT80	42	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

MIMO

WLAN 5.2GHz													
Mode	Channel	WWAN OFF						WWAN ON					
		Head			Body-Worn			Head			Body-Worn / Hotspot		
		MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1
802.11a	36	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	40	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	44	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	48	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT20	36	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	40	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	44	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	48	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT40	38	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	46	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT20	36	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	40	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	44	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	48	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT40	38	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	46	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT80	42	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5

FCC SAR Test Report

SISO

WLAN 5.3GHz									
Mode	Channel	WWAN OFF				WWAN ON			
		Head		Body-Worn		Head		Body-Worn / Hotspot	
		SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1
802.11a	52	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	56	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	60	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	64	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT20	52	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	56	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	60	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	64	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT40	54	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	62	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT20	52	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	56	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	60	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	64	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT40	54	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	62	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT80	58	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

MIMO

WLAN 5.3GHz													
Mode	Channel	WWAN OFF						WWAN ON					
		Head			Body-Worn			Head			Body-Worn / Hotspot		
		MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1
802.11a	52	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	56	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	60	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	64	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT20	52	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	56	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	60	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	64	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT40	54	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	62	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT20	52	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	56	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	60	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	64	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT40	54	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	62	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT80	58	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5

SISO

WLAN 5.6GHz									
Mode	Channel	WWAN OFF				WWAN ON			
		Head		Body-Worn		Head		Body-Worn / Hotspot	
		SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1
802.11a	100	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	116	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	120	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	124	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	132	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	140	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	144	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT20	100	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	116	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	120	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	124	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	132	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	140	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	144	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11n HT40	102	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	110	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	118	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	126	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	134	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	142	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT20	100	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	116	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	120	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	124	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	132	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	140	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	144	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT40	102	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	110	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	118	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	126	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	134	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	142	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
802.11ac VHT80	106	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	122	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
	138	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

FCC SAR Test Report

MIMO

WLAN 5.6GHz													
Mode	Channel	WWAN OFF						WWAN ON					
		Head			Body-Worn			Head			Body-Worn / Hotspot		
		MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1
802.11a	100	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	116	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	120	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	124	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	132	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	140	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	144	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT20	100	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	116	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	120	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	124	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	132	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	140	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	144	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT40	102	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	110	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	118	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	126	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	134	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	142	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT20	100	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	116	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	120	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	124	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	132	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	140	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	144	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT40	102	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	110	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	118	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	126	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	134	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	142	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT80	106	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	122	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	138	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5

SISO

WLAN 5.8GHz									
Mode	Channel	WWAN OFF				WWAN ON			
		Head		Body-Worn		Head		Body-Worn / Hotspot	
		SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1	SISO Ant-0	SISO Ant-1
802.11a	149	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	153	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	157	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	161	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	165	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
802.11n HT20	149	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	153	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	157	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	161	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	165	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
802.11n HT40	151	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	159	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
802.11ac VHT20	149	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	153	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	157	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	161	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	165	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
802.11ac VHT40	151	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
	159	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5
802.11ac VHT80	155	16.5	17.5	17.5	17.5	16.5	17.5	17.5	17.5

MIMO

WLAN 5.8GHz													
Mode	Channel	WWAN OFF						WWAN ON					
		Head			Body-Worn			Head			Body-Worn / Hotspot		
		MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1	MIMO Ant-0	MIMO Ant-1	MIMO Ant-0+1
802.11a	149	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	153	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	157	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	161	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	165	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT20	149	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	153	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	157	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	161	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	165	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11n HT40	151	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	159	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT20	149	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	153	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	157	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	161	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	165	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT40	151	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
	159	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5
802.11ac VHT80	155	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5	17.5	17.5	20.5

Mode	2.4G Bluetooth
Bluetooth BDR/GFSK	18.0
Bluetooth EDR/DPSK	13.0
Bluetooth 2EDR/8DPSK	13.0
Bluetooth LE	10.0
Bluetooth 5.0	10.0

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4.6.2 Measured Conducted Power Result

The measuring conducted average power (Unit: dBm) is shown as below.

<WWAN Power>

<WLAN OFF>

Mode	Tx Antenna	Band	GSM850			Tune-up Power
		Channel	128	189	251	
		Frequency (MHz)	824.2	836.4	848.8	
Maximum Burst-Averaged Output Power						
Head / Body-Worn	Ant-0 / Ant-1	GSM (GMSK, 1Tx-slot)	33.56	33.61	33.55	34.0
		GPRS (GMSK, 1Tx-slot)	33.53	33.58	33.52	34.0
		GPRS (GMSK, 2Tx-slot)	31.73	31.78	31.72	32.0
		GPRS (GMSK, 3Tx-slot)	29.52	29.57	29.51	30.0
		GPRS (GMSK, 4Tx-slot)	28.28	28.33	28.27	29.0
		DTM (GMSK, 2Tx-slot)	31.62	31.67	31.61	32.0
		DTM (GMSK, 3Tx-slot)	29.48	29.53	29.47	30.0
		EDGE (8PSK, 1Tx-slot)	27.02	27.07	27.01	28.0
		EDGE (8PSK, 2Tx-slot)	26.78	26.83	26.77	27.0
		EDGE (8PSK, 3Tx-slot)	24.63	24.68	24.62	25.0
		EDGE (8PSK, 4Tx-slot)	22.08	22.13	22.07	23.0
		DTM (8PSK, 2Tx-slot)	26.13	26.18	26.12	27.0
		DTM (8PSK, 3Tx-slot)	24.20	24.25	24.19	25.0

Mode	Tx Antenna	Band	GSM1900			Tune-up Power
		Channel	512	661	810	
		Frequency (MHz)	1850.2	1880.0	1909.8	
Maximum Burst-Averaged Output Power						
Head	Ant-0	GSM (GMSK, 1Tx-slot)	29.73	30.19	30.22	31.0
		GPRS (GMSK, 1Tx-slot)	29.69	30.15	30.18	31.0
		GPRS (GMSK, 2Tx-slot)	28.46	28.92	28.95	29.5
		GPRS (GMSK, 3Tx-slot)	26.11	26.57	26.60	27.5
		GPRS (GMSK, 4Tx-slot)	25.01	25.47	25.50	26.5
		DTM (GMSK, 2Tx-slot)	28.16	28.62	28.65	29.5
		DTM (GMSK, 3Tx-slot)	25.85	26.31	26.34	27.5
		EDGE (8PSK, 1Tx-slot)	25.25	25.71	25.74	27.0
		EDGE (8PSK, 2Tx-slot)	24.56	25.02	25.05	26.0
		EDGE (8PSK, 3Tx-slot)	23.40	23.86	23.89	25.0
		EDGE (8PSK, 4Tx-slot)	22.22	22.68	22.71	24.0
		DTM (8PSK, 2Tx-slot)	24.37	24.83	24.86	26.0
		DTM (8PSK, 3Tx-slot)	23.32	23.78	23.81	25.0
		Ant-1	GSM (GMSK, 1Tx-slot)	27.51	27.56	27.58
	GPRS (GMSK, 1Tx-slot)		27.44	27.49	27.51	28.0
	GPRS (GMSK, 2Tx-slot)		26.91	26.96	26.98	27.0
	GPRS (GMSK, 3Tx-slot)		24.92	24.97	24.99	25.0
	GPRS (GMSK, 4Tx-slot)		23.36	23.41	23.43	24.0
	DTM (GMSK, 2Tx-slot)		26.86	26.91	26.93	27.0
	DTM (GMSK, 3Tx-slot)		24.84	24.89	24.91	25.0
	EDGE (8PSK, 1Tx-slot)		25.76	25.81	25.83	26.0
	EDGE (8PSK, 2Tx-slot)		25.04	25.09	25.11	26.0
	EDGE (8PSK, 3Tx-slot)		23.81	23.86	23.88	24.0
	EDGE (8PSK, 4Tx-slot)		22.49	22.54	22.56	23.0
	DTM (8PSK, 2Tx-slot)		24.96	25.01	25.03	26.0
	DTM (8PSK, 3Tx-slot)		23.74	23.79	23.81	24.0

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Mode	Tx Antenna	Band	GSM1900			Tune-up Power
		Channel	512	661	810	
		Frequency (MHz)	1850.2	1880.0	1909.8	
Maximum Burst-Averaged Output Power						
Body-Worn	Ant-0 / Ant-1	GSM (GMSK, 1Tx-slot)	29.73	30.19	30.22	31.0
		GPRS (GMSK, 1Tx-slot)	29.69	30.15	30.18	31.0
		GPRS (GMSK, 2Tx-slot)	28.46	28.92	28.95	29.5
		GPRS (GMSK, 3Tx-slot)	26.11	26.57	26.60	27.5
		GPRS (GMSK, 4Tx-slot)	25.01	25.47	25.50	26.5
		DTM (GMSK, 2Tx-slot)	28.16	28.62	28.65	29.5
		DTM (GMSK, 3Tx-slot)	25.85	26.31	26.34	27.5
		EDGE (8PSK, 1Tx-slot)	25.25	25.71	25.74	27.0
		EDGE (8PSK, 2Tx-slot)	24.56	25.02	25.05	26.0
		EDGE (8PSK, 3Tx-slot)	23.40	23.86	23.89	25.0
		EDGE (8PSK, 4Tx-slot)	22.22	22.68	22.71	24.0
		DTM (8PSK, 2Tx-slot)	24.37	24.83	24.86	26.0
		DTM (8PSK, 3Tx-slot)	23.32	23.78	23.81	25.0

Mode	Tx Antenna	Band	WCDMA Band II			Tune-up Power
		Channel	9262	9400	9538	
		Frequency (MHz)	1852.4	1880.0	1907.6	
Head	Ant-0	RMC 12.2K	24.59	24.76	24.88	25.7
		HSDPA Subtest-1	23.54	23.71	23.83	24.7
		HSDPA Subtest-2	23.56	23.73	23.85	24.7
		HSDPA Subtest-3	23.14	23.31	23.43	24.2
		HSDPA Subtest-4	23.10	23.27	23.39	24.2
		DC-HSDPA Subtest-1	23.48	23.65	23.77	24.7
		DC-HSDPA Subtest-2	23.50	23.67	23.79	24.7
		DC-HSDPA Subtest-3	23.08	23.25	23.37	24.2
		DC-HSDPA Subtest-4	23.04	23.21	23.33	24.2
		HSUPA Subtest-1	23.58	23.75	23.87	24.7
		HSUPA Subtest-2	21.49	21.66	21.78	22.7
		HSUPA Subtest-3	22.62	22.79	22.91	23.7
		HSUPA Subtest-4	21.61	21.78	21.90	22.7
	HSUPA Subtest-5	23.64	23.81	23.93	24.7	
	Ant-1	RMC 12.2K	20.71	20.73	20.76	21.5
		HSDPA Subtest-1	19.69	19.71	19.74	20.0
		HSDPA Subtest-2	19.66	19.68	19.71	20.0
		HSDPA Subtest-3	19.29	19.31	19.34	19.5
		HSDPA Subtest-4	19.25	19.27	19.30	19.5
		DC-HSDPA Subtest-1	19.66	19.68	19.71	20.0
		DC-HSDPA Subtest-2	19.63	19.65	19.68	20.0
		DC-HSDPA Subtest-3	19.26	19.28	19.31	19.5
		DC-HSDPA Subtest-4	19.22	19.24	19.27	19.5
		HSUPA Subtest-1	19.84	19.86	19.89	20.0
		HSUPA Subtest-2	17.86	17.88	17.91	18.0
		HSUPA Subtest-3	18.85	18.87	18.90	19.0
HSUPA Subtest-4		17.81	17.83	17.86	18.0	
HSUPA Subtest-5	19.83	19.85	19.88	20.0		

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Mode	Tx Antenna	Band	WCDMA Band II			Tune-up Power
		Channel	9262	9400	9538	
		Frequency (MHz)	1852.4	1880.0	1907.6	
Body-Worn	Ant-0 / Ant-1	RMC 12.2K	24.59	24.76	24.88	25.7
		HSDPA Subtest-1	23.54	23.71	23.83	24.7
		HSDPA Subtest-2	23.56	23.73	23.85	24.7
		HSDPA Subtest-3	23.14	23.31	23.43	24.2
		HSDPA Subtest-4	23.10	23.27	23.39	24.2
		DC-HSDPA Subtest-1	23.48	23.65	23.77	24.7
		DC-HSDPA Subtest-2	23.50	23.67	23.79	24.7
		DC-HSDPA Subtest-3	23.08	23.25	23.37	24.2
		DC-HSDPA Subtest-4	23.04	23.21	23.33	24.2
		HSUPA Subtest-1	23.58	23.75	23.87	24.7
		HSUPA Subtest-2	21.49	21.66	21.78	22.7
		HSUPA Subtest-3	22.62	22.79	22.91	23.7
		HSUPA Subtest-4	21.61	21.78	21.90	22.7
		HSUPA Subtest-5	23.64	23.81	23.93	24.7

Mode	Tx Antenna	Band	WCDMA Band IV			Tune-up Power
		Channel	1312	1413	1513	
		Frequency (MHz)	1712.4	1732.6	1752.6	
Head / Body-Worn	Ant-0 / Ant-1	RMC 12.2K	23.07	23.08	23.01	24.0
		HSDPA Subtest-1	22.04	22.05	21.98	23.0
		HSDPA Subtest-2	22.05	22.06	21.99	23.0
		HSDPA Subtest-3	21.61	21.62	21.55	22.5
		HSDPA Subtest-4	21.60	21.61	21.54	22.5
		DC-HSDPA Subtest-1	21.98	21.99	21.92	23.0
		DC-HSDPA Subtest-2	21.99	22.00	21.93	23.0
		DC-HSDPA Subtest-3	21.55	21.56	21.49	22.5
		DC-HSDPA Subtest-4	21.54	21.55	21.48	22.5
		HSUPA Subtest-1	22.21	22.22	22.15	23.0
		HSUPA Subtest-2	20.18	20.19	20.12	21.0
		HSUPA Subtest-3	21.16	21.17	21.10	22.0
		HSUPA Subtest-4	20.17	20.18	20.11	21.0
		HSUPA Subtest-5	22.20	22.21	22.14	23.0

Mode	Tx Antenna	Band	WCDMA Band V			Tune-up Power
		Channel	4132	4182	4233	
		Frequency (MHz)	826.4	836.4	846.6	
Head / Body-Worn	Ant-0 / Ant-1	RMC 12.2K	23.55	23.65	23.76	24.5
		HSDPA Subtest-1	22.56	22.63	22.75	23.5
		HSDPA Subtest-2	22.57	22.68	22.78	23.5
		HSDPA Subtest-3	22.08	22.17	22.26	23.0
		HSDPA Subtest-4	22.06	22.15	22.25	23.0
		DC-HSDPA Subtest-1	22.53	22.55	22.67	23.5
		DC-HSDPA Subtest-2	22.51	22.60	22.70	23.5
		DC-HSDPA Subtest-3	22.03	22.09	22.18	23.0
		DC-HSDPA Subtest-4	22.02	22.07	22.17	23.0
		HSUPA Subtest-1	22.55	22.65	22.76	23.5
		HSUPA Subtest-2	20.53	20.63	20.74	21.5
		HSUPA Subtest-3	21.62	21.72	21.83	22.5
		HSUPA Subtest-4	20.55	20.65	20.76	21.5
		HSUPA Subtest-5	22.61	22.71	22.82	23.5

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Mode	Tx Antenna	Band	CDMA BC0			Tune-up Power
		Channel	1013	384	777	
		Frequency (MHz)	824.70	836.52	848.31	
Head / Body-Worn	Ant-0 / Ant-1	1xRTT RC1+SO55	24.87	24.71	24.77	25.5
		1xRTT RC3+SO55	24.92	24.76	24.82	25.5
		1xRTT RC3+SO32 (FCH)	24.88	24.72	24.78	25.5
		1xRTT RC3+SO32 (SCH)	24.87	24.71	24.77	25.5
		1xEVDO Rev.0 RTAP 153.6	24.89	24.73	24.79	25.5
		1xEVDO Rev.A RETAP 4096	24.88	24.72	24.78	25.5

Mode	Tx Antenna	Band	CDMA BC1			Tune-up Power
		Channel	25	600	1175	
		Frequency (MHz)	1851.25	1880.00	1908.75	
Head	Ant-0	1xRTT RC1+SO55	24.02	23.96	23.98	25.0
		1xRTT RC3+SO55	23.97	23.91	24.03	25.0
		1xRTT RC3+SO32 (FCH)	23.98	23.92	23.99	25.0
		1xRTT RC3+SO32 (SCH)	23.99	23.93	24.00	25.0
		1xEVDO Rev.0 RTAP 153.6	23.98	23.93	23.99	25.0
		1xEVDO Rev.A RETAP 4096	23.97	23.92	23.98	25.0
	Ant-1	1xRTT RC1+SO55	20.35	20.32	20.39	21.0
		1xRTT RC3+SO55	20.38	20.35	20.36	21.0
		1xRTT RC3+SO32 (FCH)	20.36	20.33	20.37	21.0
		1xRTT RC3+SO32 (SCH)	20.35	20.32	20.36	21.0
		1xEVDO Rev.0 RTAP 153.6	20.37	20.34	20.38	21.0
		1xEVDO Rev.A RETAP 4096	20.34	20.31	20.35	21.0

Mode	Tx Antenna	Band	CDMA BC1			Tune-up Power
		Channel	25	600	1175	
		Frequency (MHz)	1851.25	1880.00	1908.75	
Body-Worn	Ant-0 / Ant-1	1xRTT RC1+SO55	24.02	23.96	23.98	25.0
		1xRTT RC3+SO55	23.97	23.91	24.03	25.0
		1xRTT RC3+SO32 (FCH)	23.98	23.92	23.99	25.0
		1xRTT RC3+SO32 (SCH)	23.99	23.93	24.00	25.0
		1xEVDO Rev.0 RTAP 153.6	23.98	23.93	23.99	25.0
		1xEVDO Rev.A RETAP 4096	23.97	23.92	23.98	25.0

Mode	Tx Antenna	Band	CDMA BC10			Tune-up Power
		Channel	476	580	684	
		Frequency (MHz)	817.9	820.5	823.1	
Head / Body-Worn	Ant-0 / Ant-1	1xRTT RC1+SO55	24.81	24.78	24.88	25.5
		1xRTT RC3+SO55	24.86	24.83	24.93	25.5
		1xRTT RC3+SO32 (FCH)	24.85	24.82	24.92	25.5
		1xRTT RC3+SO32 (SCH)	24.84	24.81	24.91	25.5
		1xEVDO Rev.0 RTAP 153.6	24.83	24.80	24.90	25.5



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FCC SAR Test Report

		1xEVDO Rev.A RETAP 4096	24.82	24.79	24.89	25.5
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FCC SAR Test Report

LTE Band 2																	
Head																	
Ant-0																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		18700	18900	19100					Channel		18675	18900	19125		
		Frequency (MHz)		1860.0	1880.0	1900.0					Frequency (MHz)		1857.5	1880.0	1902.5		
20M	QPSK	1	0	24.41	24.46	24.39	0	25.7	15M	QPSK	1	0	24.36	24.41	24.34	0	25.7
		1	50	24.38	24.43	24.35	0	25.7			1	37	24.33	24.38	24.30	0	25.7
		1	99	24.30	24.32	24.28	0	25.7			1	74	24.25	24.27	24.23	0	25.7
		50	0	23.57	23.59	23.55	1	24.7			36	0	23.52	23.54	23.50	1	24.7
		50	25	23.49	23.51	23.47	1	24.7			36	19	23.44	23.46	23.42	1	24.7
		50	50	23.46	23.48	23.44	1	24.7			36	39	23.41	23.43	23.39	1	24.7
	100	0	23.53	23.55	23.51	1	24.7	75		0	23.48	23.50	23.46	1	24.7		
	16QAM	1	0	23.43	23.48	23.41	1	24.7		16QAM	1	0	23.38	23.43	23.36	1	24.7
		1	50	23.43	23.45	23.41	1	24.7			1	37	23.35	23.40	23.32	1	24.7
		1	99	23.32	23.34	23.30	1	24.7			1	74	23.27	23.29	23.25	1	24.7
		50	0	22.59	22.61	22.57	2	23.7			36	0	22.54	22.56	22.52	2	23.7
		50	25	22.51	22.53	22.49	2	23.7			36	19	22.46	22.48	22.44	2	23.7
		50	50	22.48	22.50	22.46	2	23.7			36	39	22.43	22.45	22.41	2	23.7
	100	0	22.55	22.57	22.53	2	23.7	75		0	22.50	22.52	22.48	2	23.7		
	64QAM	1	0	22.41	22.46	22.39	2	23.7		64QAM	1	0	22.36	22.41	22.34	2	23.7
		1	50	22.41	22.43	22.39	2	23.7			1	37	22.33	22.38	22.30	2	23.7
		1	99	22.30	22.32	22.28	2	23.7			1	74	22.25	22.27	22.23	2	23.7
		50	0	21.57	21.59	21.55	3	22.7			36	0	21.52	21.54	21.50	3	22.7
50		25	21.49	21.51	21.47	3	22.7	36	19		21.44	21.46	21.42	3	22.7		
50		50	21.46	21.48	21.44	3	22.7	36	39		21.41	21.43	21.39	3	22.7		
100	0	21.53	21.55	21.51	3	22.7	75	0	21.48	21.50	21.46	3	22.7				
10M	QPSK	1	0	24.24	24.29	24.22	0	25.7	5M	QPSK	1	0	24.27	24.32	24.25	0	25.7
		1	24	24.21	24.26	24.18	0	25.7			1	12	24.24	24.29	24.21	0	25.7
		1	49	24.13	24.15	24.11	0	25.7			1	24	24.16	24.18	24.14	0	25.7
		25	0	23.40	23.42	23.38	1	24.7			12	0	23.43	23.45	23.41	1	24.7
		25	12	23.32	23.34	23.30	1	24.7			12	6	23.35	23.37	23.33	1	24.7
		25	25	23.29	23.31	23.27	1	24.7			12	13	23.32	23.34	23.30	1	24.7
	50	0	23.36	23.38	23.34	1	24.7	25		0	23.39	23.41	23.37	1	24.7		
	16QAM	1	0	23.26	23.31	23.24	1	24.7		16QAM	1	0	23.29	23.34	23.27	1	24.7
		1	24	23.23	23.28	23.20	1	24.7			1	12	23.26	23.31	23.23	1	24.7
		1	49	23.15	23.17	23.13	1	24.7			1	24	23.18	23.20	23.16	1	24.7
		25	0	22.42	22.44	22.40	2	23.7			12	0	22.45	22.47	22.43	2	23.7
		25	12	22.34	22.36	22.32	2	23.7			12	6	22.37	22.39	22.35	2	23.7
		25	25	22.31	22.33	22.29	2	23.7			12	13	22.34	22.36	22.32	2	23.7
	50	0	22.38	22.40	22.36	2	23.7	25		0	22.41	22.43	22.39	2	23.7		
	64QAM	1	0	22.24	22.29	22.22	2	23.7		64QAM	1	0	22.27	22.32	22.25	2	23.7
		1	24	22.21	22.26	22.18	2	23.7			1	12	22.24	22.29	22.21	2	23.7
		1	49	22.13	22.15	22.11	2	23.7			1	24	22.16	22.18	22.14	2	23.7
		25	0	21.40	21.42	21.38	3	22.7			12	0	21.43	21.45	21.41	3	22.7
25		12	21.32	21.34	21.30	3	22.7	12	6		21.35	21.37	21.33	3	22.7		
25		25	21.29	21.31	21.27	3	22.7	12	13		21.32	21.34	21.30	3	22.7		
50	0	21.36	21.38	21.34	3	22.7	25	0	21.39	21.41	21.37	3	22.7				
3M	QPSK	1	0	24.31	24.36	24.29	0	25.7	1.4M	QPSK	1	0	24.29	24.34	24.27	0	25.7
		1	7	24.28	24.33	24.25	0	25.7			1	2	24.26	24.31	24.23	0	25.7
		1	14	24.20	24.22	24.18	0	25.7			1	5	24.18	24.20	24.16	0	25.7
		8	0	23.47	23.49	23.45	1	24.7			3	0	24.17	24.19	24.15	0	25.7
		8	3	23.39	23.41	23.37	1	24.7			3	1	24.09	24.11	24.07	0	25.7
		8	7	23.36	23.38	23.34	1	24.7			3	3	24.06	24.08	24.04	0	25.7
	15	0	23.43	23.45	23.41	1	24.7	6		0	23.41	23.43	23.39	1	24.7		
	16QAM	1	0	23.33	23.38	23.31	1	24.7		16QAM	1	0	23.31	23.36	23.29	1	24.7
		1	7	23.30	23.35	23.27	1	24.7			1	2	23.28	23.33	23.25	1	24.7
		1	14	23.22	23.24	23.20	1	24.7			1	5	23.20	23.22	23.18	1	24.7
		8	0	22.49	22.51	22.47	2	23.7			3	0	23.19	23.21	23.17	1	24.7
		8	3	22.41	22.43	22.39	2	23.7			3	1	23.11	23.13	23.09	1	24.7
		8	7	22.38	22.40	22.36	2	23.7			3	3	23.08	23.10	23.06	1	24.7
	15	0	22.45	22.47	22.43	2	23.7	6		0	22.43	22.45	22.41	2	23.7		
	64QAM	1	0	22.31	22.36	22.29	2	23.7		64QAM	1	0	22.29	22.34	22.27	2	23.7
		1	7	22.28	22.33	22.25	2	23.7			1	2	22.26	22.31	22.23	2	23.7
		1	14	22.20	22.22	22.18	2	23.7			1	5	22.18	22.20	22.16	2	23.7
		8	0	21.47	21.49	21.45	3	22.7			3	0	22.22	22.24	22.20	2	23.7
8		3	21.39	21.41	21.37	3	22.7	3	1		22.14	22.16	22.12	2	23.7		
8		7	21.36	21.38	21.34	3	22.7	3	3		22.11	22.13	22.09	2	23.7		
15	0	21.43	21.45	21.41	3	22.7	6	0	21.41	21.43	21.39	3	22.7				

FCC SAR Test Report

LTE Band 2																	
Head																	
Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		18700	18900	19100					Channel		18675	18900	19125		
		Frequency (MHz)		1860.0	1880.0	1900.0					Frequency (MHz)		1857.5	1880.0	1902.5		
20M	QPSK	1	0	21.11	21.26	21.01	0	21.5	15M	QPSK	1	0	21.09	21.24	20.99	0	21.5
		1	50	20.98	21.13	20.88	0	21.5			1	37	20.96	21.11	20.86	0	21.5
		1	99	20.78	20.93	20.68	0	21.5			1	74	20.76	20.91	20.66	0	21.5
		50	0	21.02	21.17	20.92	0	21.5			36	0	21.00	21.15	20.90	0	21.5
		50	25	21.00	21.15	20.90	0	21.5			36	19	20.98	21.13	20.88	0	21.5
		50	50	20.93	21.08	20.83	0	21.5			36	39	20.91	21.06	20.81	0	21.5
	100	0	20.96	21.11	20.86	0	21.5	75		0	20.94	21.09	20.84	0	21.5		
	16QAM	1	0	21.08	21.23	20.98	0	21.5		16QAM	1	0	21.06	21.21	20.96	0	21.5
		1	50	20.95	21.10	20.85	0	21.5			1	37	20.93	21.08	20.83	0	21.5
		1	99	20.75	20.90	20.65	0	21.5			1	74	20.73	20.88	20.63	0	21.5
		50	0	20.99	21.14	20.89	0	21.5			36	0	20.97	21.12	20.87	0	21.5
		50	25	20.97	21.12	20.87	0	21.5			36	19	20.95	21.10	20.85	0	21.5
		50	50	20.90	21.05	20.80	0	21.5			36	39	20.88	21.03	20.78	0	21.5
	100	0	20.93	21.08	20.83	0	21.5	75		0	20.91	21.06	20.81	0	21.5		
	64QAM	1	0	21.06	21.21	20.96	0	21.5		64QAM	1	0	21.04	21.19	20.94	0	21.5
		1	50	20.93	21.08	20.83	0	21.5			1	37	20.91	21.06	20.81	0	21.5
		1	99	20.73	20.88	20.63	0	21.5			1	74	20.71	20.86	20.61	0	21.5
		50	0	20.97	21.12	20.87	0	21.5			36	0	20.95	21.10	20.85	0	21.5
50		25	20.95	21.10	20.85	0	21.5	36	19		20.93	21.08	20.83	0	21.5		
50		50	20.88	21.03	20.78	0	21.5	36	39		20.86	21.01	20.76	0	21.5		
100	0	20.91	21.06	20.81	0	21.5	75	0	20.89	21.04	20.79	0	21.5				
10M	QPSK	1	0	21.06	21.21	20.96	0	21.5	5M	QPSK	1	0	21.05	21.20	20.95	0	21.5
		1	24	20.93	21.08	20.83	0	21.5			1	12	20.92	21.07	20.82	0	21.5
		1	49	20.73	20.88	20.63	0	21.5			1	24	20.72	20.87	20.62	0	21.5
		25	0	20.97	21.12	20.87	0	21.5			12	0	20.96	21.11	20.86	0	21.5
		25	12	20.95	21.10	20.85	0	21.5			12	6	20.94	21.09	20.84	0	21.5
		25	25	20.88	21.03	20.78	0	21.5			12	13	20.87	21.02	20.77	0	21.5
	50	0	20.91	21.06	20.81	0	21.5	25		0	20.90	21.05	20.80	0	21.5		
	16QAM	1	0	21.03	21.18	20.93	0	21.5		16QAM	1	0	21.02	21.17	20.92	0	21.5
		1	24	20.90	21.05	20.80	0	21.5			1	12	20.89	21.04	20.79	0	21.5
		1	49	20.70	20.85	20.60	0	21.5			1	24	20.69	20.84	20.59	0	21.5
		25	0	20.94	21.09	20.84	0	21.5			12	0	20.93	21.08	20.83	0	21.5
		25	12	20.92	21.07	20.82	0	21.5			12	6	20.91	21.06	20.81	0	21.5
		25	25	20.85	21.00	20.75	0	21.5			12	13	20.84	20.99	20.74	0	21.5
	50	0	20.88	21.03	20.78	0	21.5	25		0	20.87	21.02	20.77	0	21.5		
	64QAM	1	0	21.01	21.16	20.91	0	21.5		64QAM	1	0	21.00	21.15	20.90	0	21.5
		1	24	20.88	21.03	20.78	0	21.5			1	12	20.87	21.02	20.77	0	21.5
		1	49	20.68	20.83	20.58	0	21.5			1	24	20.67	20.82	20.57	0	21.5
		25	0	20.92	21.07	20.82	0	21.5			12	0	20.91	21.06	20.81	0	21.5
25		12	20.90	21.05	20.80	0	21.5	12	6		20.89	21.04	20.79	0	21.5		
25		25	20.83	20.98	20.73	0	21.5	12	13		20.82	20.97	20.72	0	21.5		
50	0	20.86	21.01	20.76	0	21.5	25	0	20.85	21.00	20.75	0	21.5				
3M	QPSK	1	0	21.03	21.18	20.93	0	21.5	1.4M	QPSK	1	0	21.01	21.16	20.91	0	21.5
		1	7	20.90	21.05	20.80	0	21.5			1	2	20.88	21.03	20.78	0	21.5
		1	14	20.70	20.85	20.60	0	21.5			1	5	20.68	20.83	20.58	0	21.5
		8	0	20.94	21.09	20.84	0	21.5			3	0	20.92	21.07	20.82	0	21.5
		8	3	20.92	21.07	20.82	0	21.5			3	1	20.90	21.05	20.80	0	21.5
		8	7	20.85	21.00	20.75	0	21.5			3	3	20.83	20.98	20.73	0	21.5
	15	0	20.88	21.03	20.78	0	21.5	6		0	20.86	21.01	20.76	0	21.5		
	16QAM	1	0	21.00	21.15	20.90	0	21.5		16QAM	1	0	20.98	21.13	20.88	0	21.5
		1	7	20.87	21.02	20.77	0	21.5			1	2	20.85	21.00	20.75	0	21.5
		1	14	20.67	20.82	20.57	0	21.5			1	5	20.65	20.80	20.55	0	21.5
		8	0	20.91	21.06	20.81	0	21.5			3	0	20.89	21.04	20.79	0	21.5
		8	3	20.89	21.04	20.79	0	21.5			3	1	20.87	21.02	20.77	0	21.5
		8	7	20.82	20.97	20.72	0	21.5			3	3	20.80	20.95	20.70	0	21.5
	15	0	20.85	21.00	20.75	0	21.5	6		0	20.83	20.98	20.73	0	21.5		
	64QAM	1	0	20.98	21.13	20.88	0	21.5		64QAM	1	0	20.96	21.11	20.86	0	21.5
		1	7	20.85	21.00	20.75	0	21.5			1	2	20.83	20.98	20.73	0	21.5
		1	14	20.65	20.80	20.55	0	21.5			1	5	20.63	20.78	20.53	0	21.5
		8	0	20.89	21.04	20.79	0	21.5			3	0	20.87	21.02	20.77	0	21.5
8		3	20.87	21.02	20.77	0	21.5	3	1		20.85	21.00	20.75	0	21.5		
8		7	20.80	20.95	20.70	0	21.5	3	3		20.78	20.93	20.68	0	21.5		
15	0	20.83	20.98	20.73	0	21.5	6	0	20.81	20.96	20.71	0	21.5				

FCC SAR Test Report

LTE Band 5																	
Head / Body-Worn																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		20450	20525	20600					Channel		20425	20525	20625		
		Frequency (MHz)		829	836.5	844					Frequency (MHz)		826.5	836.5	846.5		
10M	QPSK	1	0	24.41	24.46	24.59	0	25.7	5M	QPSK	1	0	24.35	24.40	24.53	0	25.7
		1	24	24.48	24.53	24.66	0	25.7			1	12	24.42	24.47	24.60	0	25.7
		1	49	24.46	24.51	24.64	0	25.7			1	24	24.40	24.45	24.58	0	25.7
		25	0	23.51	23.56	23.67	1	24.7			12	0	23.45	23.50	23.63	1	24.7
		25	12	23.53	23.58	23.68	1	24.7			12	6	23.47	23.52	23.65	1	24.7
		25	25	23.46	23.51	23.64	1	24.7			12	13	23.40	23.45	23.58	1	24.7
	16QAM	50	0	23.50	23.55	23.65	1	24.7		25	0	23.44	23.49	23.62	1	24.7	
		1	0	23.40	23.45	23.58	1	24.7		1	0	23.34	23.39	23.52	1	24.7	
		1	24	23.47	23.52	23.65	1	24.7		1	12	23.41	23.46	23.59	1	24.7	
		1	49	23.45	23.50	23.63	1	24.7		1	24	23.39	23.44	23.57	1	24.7	
		25	0	22.50	22.55	22.68	2	23.7		12	0	22.44	22.49	22.62	2	23.7	
		25	12	22.52	22.57	22.70	2	23.7		12	6	22.46	22.51	22.64	2	23.7	
	64QAM	25	25	22.45	22.50	22.63	2	23.7		12	13	22.39	22.44	22.57	2	23.7	
		50	0	22.49	22.54	22.67	2	23.7		25	0	22.43	22.48	22.61	2	23.7	
		1	0	22.42	22.47	22.60	2	23.7		1	0	22.36	22.41	22.54	2	23.7	
		1	24	22.49	22.54	22.67	2	23.7		1	12	22.43	22.48	22.61	2	23.7	
		1	49	22.47	22.52	22.65	2	23.7		1	24	22.41	22.46	22.59	2	23.7	
		25	0	21.52	21.57	21.65	3	22.7		12	0	21.46	21.51	21.60	3	22.7	
	16QAM	25	12	21.54	21.59	21.69	3	22.7		12	6	21.48	21.53	21.63	3	22.7	
		25	25	21.47	21.52	21.65	3	22.7		12	13	21.41	21.46	21.59	3	22.7	
		50	0	21.51	21.56	21.69	3	22.7		25	0	21.45	21.50	21.63	3	22.7	
		64QAM	1	0	22.33	22.38	22.51	2		23.7	1	0	22.25	22.30	22.43	2	23.7
			1	7	22.40	22.45	22.58	2		23.7	1	2	22.32	22.37	22.50	2	23.7
			1	14	22.38	22.43	22.56	2		23.7	1	5	22.30	22.35	22.48	2	23.7
8	0		21.43	21.48	21.57	3	22.7	3	0	22.21	22.26	22.35	2	23.7			
8	3		21.45	21.50	21.60	3	22.7	3	1	22.23	22.28	22.38	2	23.7			
8	7		21.38	21.43	21.56	3	22.7	3	3	22.16	22.21	22.34	2	23.7			
16QAM	15	0	21.42	21.47	21.60	3	22.7	6	0	21.34	21.39	21.52	3	22.7			
	QPSK	1	0	24.32	24.37	24.50	0	25.7	1.4M	QPSK	1	0	24.24	24.29	24.42	0	25.7
		1	7	24.39	24.44	24.57	0	25.7			1	2	24.31	24.36	24.49	0	25.7
		1	14	24.37	24.42	24.55	0	25.7			1	5	24.29	24.34	24.47	0	25.7
		8	0	23.42	23.47	23.60	1	24.7			3	0	24.20	24.25	24.38	0	25.7
		8	3	23.44	23.49	23.62	1	24.7			3	1	24.22	24.27	24.40	0	25.7
8		7	23.37	23.42	23.55	1	24.7	3			3	24.15	24.20	24.33	0	25.7	
16QAM	15	0	23.41	23.46	23.59	1	24.7	6		0	23.33	23.38	23.51	1	24.7		
	1	0	23.31	23.36	23.49	1	24.7	1		0	23.23	23.28	23.41	1	24.7		
	1	7	23.38	23.43	23.56	1	24.7	1		2	23.30	23.35	23.48	1	24.7		
	1	14	23.36	23.41	23.54	1	24.7	1		5	23.28	23.33	23.46	1	24.7		
	8	0	22.41	22.46	22.59	2	23.7	3		0	23.19	23.24	23.37	1	24.7		
	8	3	22.43	22.48	22.61	2	23.7	3		1	23.21	23.26	23.39	1	24.7		
64QAM	8	7	22.36	22.41	22.54	2	23.7	3		3	23.14	23.19	23.32	1	24.7		
	15	0	22.40	22.45	22.58	2	23.7	6		0	22.32	22.37	22.50	2	23.7		
	1	0	22.33	22.38	22.51	2	23.7	1		0	22.25	22.30	22.43	2	23.7		
	1	7	22.40	22.45	22.58	2	23.7	1		2	22.32	22.37	22.50	2	23.7		
	1	14	22.38	22.43	22.56	2	23.7	1		5	22.30	22.35	22.48	2	23.7		
	8	0	21.43	21.48	21.57	3	22.7	3		0	22.21	22.26	22.35	2	23.7		
16QAM	8	3	21.45	21.50	21.60	3	22.7	3		1	22.23	22.28	22.38	2	23.7		
	8	7	21.38	21.43	21.56	3	22.7	3		3	22.16	22.21	22.34	2	23.7		
	15	0	21.42	21.47	21.60	3	22.7	6		0	21.34	21.39	21.52	3	22.7		



FCC SAR Test Report

LTE Band 7																				
Head / Body-Worn																				
Ant-2 / Ant-3																				
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power			
				20850	21100	21350							20825	21100	21375					
		Channel	20850	2535	2560	Channel	2507.5	2535			2562.5	Frequency (MHz)	2507.5	2535	2562.5	Frequency (MHz)	2507.5	2535	2562.5	
20M	QPSK	1	0	24.01	23.41	23.42	0	24.5	15M	QPSK	1	0	23.94	23.40	23.34	0	24.5			
		1	50	23.85	23.25	23.27	0	24.5			1	37	23.82	23.18	23.19	0	24.5			
		1	99	23.88	23.28	23.28	0	24.5			1	74	23.83	23.22	23.23	0	24.5			
		50	0	22.93	22.33	22.33	1	23.5			36	0	22.91	22.25	22.27	1	23.5			
		50	25	22.92	22.32	22.32	1	23.5			36	19	22.91	22.26	22.29	1	23.5			
		50	50	22.96	22.36	22.36	1	23.5			36	39	22.91	22.26	22.34	1	23.5			
	16QAM	100	0	22.91	22.31	22.31	1	23.5		75	0	22.89	22.26	22.31	1	23.5				
		1	0	22.99	22.36	22.33	1	23.5		1	0	22.85	22.34	22.33	1	23.5				
		1	50	22.82	22.18	22.21	1	23.5		1	37	22.69	22.11	22.17	1	23.5				
		1	99	22.81	22.20	22.25	1	23.5		1	74	22.73	22.15	22.13	1	23.5				
		50	0	21.93	21.29	21.26	2	22.5		36	0	21.76	21.23	21.31	2	22.5				
		50	25	21.83	21.32	21.27	2	22.5		36	19	21.79	21.29	21.14	2	22.5				
	64QAM	50	50	21.86	21.32	21.33	2	22.5		36	39	21.93	21.25	21.28	2	22.5				
		100	0	21.89	21.25	21.31	2	22.5		75	0	21.84	21.19	21.14	2	22.5				
		1	0	21.92	21.36	21.34	2	22.5		1	0	21.93	21.27	21.38	2	22.5				
		1	50	21.76	21.18	21.15	2	22.5		1	37	21.74	21.10	21.11	2	22.5				
		1	99	21.81	21.25	21.21	2	22.5		1	74	21.77	21.22	21.25	2	22.5				
		50	0	20.86	20.33	20.29	3	21.5		36	0	20.77	20.27	20.23	3	21.5				
	10M	QPSK	50	25	20.87	20.28	20.27	3		21.5	36	19	20.91	20.23	20.14	3	21.5			
			50	50	20.95	20.35	20.35	3		21.5	36	39	20.80	20.24	20.22	3	21.5			
			100	0	20.81	20.24	20.24	3		21.5	75	0	20.81	20.18	20.21	3	21.5			
			16QAM	1	0	23.85	23.23	23.38		0	24.5	5M	QPSK	1	0	23.90	23.19	23.24	0	24.5
				1	24	23.77	23.08	23.08		0	24.5			1	12	23.82	23.14	23.00	0	24.5
				1	49	23.69	23.22	23.20		0	24.5			1	24	23.76	23.14	22.93	0	24.5
25		0		22.92	22.10	22.22	1	23.5	12	0	22.77			22.21	21.97	1	23.5			
25		12		22.81	22.16	22.25	1	23.5	12	6	22.69			22.22	22.08	1	23.5			
25		25		22.87	22.26	22.13	1	23.5	12	13	22.90			22.14	22.19	1	23.5			
64QAM		50	0	22.86	22.22	22.26	1	23.5	25	0	22.78		22.21	21.96	1	23.5				
		1	0	22.93	22.24	22.36	1	23.5	1	0	22.86		22.30	22.19	1	23.5				
		1	24	22.67	22.08	22.15	1	23.5	1	12	22.69		22.02	22.02	1	23.5				
		1	49	22.72	22.18	22.13	1	23.5	1	24	22.64		22.02	22.00	1	23.5				
		25	0	21.77	21.24	21.11	2	22.5	12	0	21.85		21.13	21.15	2	22.5				
		25	12	21.63	21.21	21.16	2	22.5	12	6	21.81		21.01	21.06	2	22.5				
16QAM		25	25	21.78	21.29	21.19	2	22.5	12	13	21.78		21.20	21.21	2	22.5				
		50	0	21.79	21.15	21.08	2	22.5	25	0	21.61		21.11	21.07	2	22.5				
		64QAM	1	0	21.69	21.33	21.36	2	22.5	1	0		21.74	21.31	21.19	2	22.5			
			1	24	21.80	21.13	21.15	2	22.5	1	12		21.66	21.14	21.02	2	22.5			
			1	49	21.73	21.21	21.04	2	22.5	1	24		21.65	21.24	21.14	2	22.5			
			25	0	20.76	20.13	20.10	3	21.5	12	0		20.80	20.21	20.17	3	21.5			
25			12	20.82	20.10	20.22	3	21.5	12	6	20.62		20.27	20.09	3	21.5				
25			25	20.76	20.25	20.17	3	21.5	12	13	20.80		20.18	20.22	3	21.5				
50		0	20.68	20.00	20.19	3	21.5	25	0	20.71	20.11		20.19	3	21.5					

FCC SAR Test Report

LTE Band 12																						
Head / Body-Worn																						
Ant-0 / Ant-1																						
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power					
		Channel		23060	23095	23130					Channel		23035	23095	23155							
		Frequency (MHz)		704	707.5	711					Frequency (MHz)		701.5	707.5	713.5							
10M	QPSK	1	0	24.28	24.23	24.32	0	25.7	5M	QPSK	1	0	24.25	24.20	24.29	0	25.7					
		1	24	24.40	24.35	24.44	0	25.7			1	12	24.37	24.32	24.41	0	25.7					
		1	49	24.38	24.33	24.42	0	25.7			1	24	24.35	24.30	24.39	0	25.7					
		25	0	23.42	23.37	23.46	1	24.7			12	0	23.39	23.34	23.43	1	24.7					
		25	12	23.48	23.43	23.52	1	24.7			12	6	23.45	23.40	23.49	1	24.7					
		25	25	23.44	23.39	23.48	1	24.7			12	13	23.41	23.36	23.45	1	24.7					
	16QAM	50	0	23.38	23.33	23.42	1	24.7		25	0	23.35	23.30	23.39	1	24.7						
		1	0	23.25	23.20	23.29	1	24.7		1	0	23.22	23.17	23.26	1	24.7						
		1	24	23.37	23.32	23.41	1	24.7		1	12	23.34	23.29	23.38	1	24.7						
		1	49	23.35	23.30	23.39	1	24.7		1	24	23.32	23.27	23.36	1	24.7						
		25	0	22.39	22.34	22.43	2	23.7		12	0	22.36	22.31	22.40	2	23.7						
		25	12	22.45	22.40	22.49	2	23.7		12	6	22.42	22.37	22.46	2	23.7						
	64QAM	25	25	22.41	22.36	22.45	2	23.7		12	13	22.38	22.33	22.42	2	23.7						
		50	0	22.35	22.30	22.39	2	23.7		25	0	22.32	22.27	22.36	2	23.7						
		1	0	22.27	22.22	22.31	2	23.7		1	0	22.24	22.19	22.28	2	23.7						
		1	24	22.39	22.34	22.43	2	23.7		1	12	22.36	22.31	22.40	2	23.7						
		1	49	22.37	22.32	22.41	2	23.7		1	24	22.34	22.29	22.38	2	23.7						
		25	0	21.41	21.36	21.45	3	22.7		12	0	21.38	21.33	21.42	3	22.7						
	3M	QPSK	25	12	21.47	21.42	21.51	3		22.7	12	6	21.44	21.39	21.48	3	22.7					
			25	25	21.43	21.38	21.47	3		22.7	12	13	21.40	21.35	21.44	3	22.7					
			50	0	21.37	21.32	21.41	3		22.7	25	0	21.34	21.29	21.38	3	22.7					
			16QAM	1	0	23.05	23.095	23.165		3GPP MPR (dB)	Max. Tune-up Power	1.4M	QPSK	1	0	24.18	24.13	24.22	0	25.7		
				1	7	24.32	24.27	24.36						0	25.7	1	2	24.30	24.25	24.34	0	25.7
				1	14	24.30	24.25	24.34						0	25.7	1	5	24.28	24.23	24.32	0	25.7
8		0		23.34	23.29	23.38	1	24.7	3					0	24.13	24.08	24.17	0	25.7			
8		3		23.40	23.35	23.44	1	24.7	3					1	24.19	24.14	24.23	0	25.7			
8		7		23.36	23.31	23.40	1	24.7	3					3	24.15	24.10	24.19	0	25.7			
16QAM		15	0	23.30	23.25	23.34	1	24.7	6	0	23.28		23.23	23.32	1	24.7						
		1	0	23.17	23.12	23.21	1	24.7	1	0	23.15		23.10	23.19	1	24.7						
		1	7	23.29	23.24	23.33	1	24.7	1	2	23.27		23.22	23.31	1	24.7						
		1	14	23.27	23.22	23.31	1	24.7	1	5	23.25		23.20	23.29	1	24.7						
		8	0	22.31	22.26	22.35	2	23.7	3	0	23.10		23.05	23.14	1	24.7						
		8	3	22.37	22.32	22.41	2	23.7	3	1	23.16		23.11	23.20	1	24.7						
64QAM		8	7	22.33	22.28	22.37	2	23.7	3	3	23.12		23.07	23.16	1	24.7						
		15	0	22.27	22.22	22.31	2	23.7	6	0	22.25		22.20	22.29	2	23.7						
		1	0	22.19	22.14	22.23	2	23.7	1	0	22.17		22.12	22.21	2	23.7						
		1	7	22.31	22.26	22.35	2	23.7	1	2	22.29		22.24	22.33	2	23.7						
		1	14	22.29	22.24	22.33	2	23.7	1	5	22.27		22.22	22.31	2	23.7						
		8	0	21.33	21.28	21.37	3	22.7	3	0	22.12		22.07	22.16	2	23.7						
64QAM		8	3	21.39	21.34	21.43	3	22.7	3	1	22.18		22.13	22.22	2	23.7						
		8	7	21.35	21.30	21.39	3	22.7	3	3	22.14		22.09	22.18	2	23.7						
		15	0	21.29	21.24	21.33	3	22.7	6	0	21.27		21.22	21.31	3	22.7						

FCC SAR Test Report

LTE Band 13																	
Head / Body-Worn																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset				3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		23230							Channel		23205	23230	23255		
		Frequency (MHz)		782							Frequency (MHz)		779.5	782	784.5		
10M	QPSK	1	0		24.31		0	25.3	5M	QPSK	1	0	23.82	24.28	24.37	0	25.3
		1	24		24.37		0	25.3			1	12	23.89	24.35	24.44	0	25.3
		1	49		24.28		0	25.3			1	24	23.79	24.25	24.34	0	25.3
		25	0		23.43		1	24.3			12	0	22.95	23.41	23.50	1	24.3
		25	12		23.46		1	24.3			12	6	22.97	23.43	23.52	1	24.3
		25	25		23.39		1	24.3			12	13	22.91	23.37	23.46	1	24.3
	16QAM	50	0		23.41		1	24.3		25	0	22.92	23.38	23.47	1	24.3	
		1	0		23.29		1	24.3		16QAM	1	0	22.80	23.26	23.35	1	24.3
		1	24		23.35		1	24.3			1	12	22.87	23.33	23.42	1	24.3
		1	49		23.26		1	24.3			1	24	22.77	23.23	23.32	1	24.3
		25	0		22.41		2	23.3			12	0	21.93	22.39	22.48	2	23.3
		25	12		22.44		2	23.3			12	6	21.95	22.41	22.50	2	23.3
	25	25		22.37		2	23.3	12			13	21.89	22.35	22.44	2	23.3	
	64QAM	50	0		22.39		2	23.3		25	0	21.90	22.36	22.45	2	23.3	
		1	0		22.26		2	23.3		64QAM	1	0	21.75	22.21	22.30	2	23.3
		1	24		22.32		2	23.3			1	12	21.82	22.28	22.37	2	23.3
		1	49		22.23		2	23.3			1	24	21.72	22.18	22.27	2	23.3
		25	0		21.38		3	22.3			12	0	20.88	21.34	21.43	3	22.3
		25	12		21.41		3	22.3			12	6	20.90	21.36	21.45	3	22.3
	25	25		21.34		3	22.3	12			13	20.84	21.30	21.39	3	22.3	
		50	0		21.36		3	22.3		25	0	20.85	21.31	21.40	3	22.3	

LTE Band 17																	
Head / Body-Worn																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		23780	23790	23800					Channel		23755	23790	23825		
		Frequency (MHz)		709	710	711					Frequency (MHz)		706.5	710	713.5		
10M	QPSK	1	0	24.73	24.75	24.71	0	25.7	5M	QPSK	1	0	24.68	24.70	24.66	0	25.7
		1	24	24.81	24.83	24.79	0	25.7			1	12	24.76	24.78	24.74	0	25.7
		1	49	24.83	24.85	24.81	0	25.7			1	24	24.78	24.80	24.76	0	25.7
		25	0	23.95	23.97	23.93	1	24.7			12	0	23.90	23.92	23.88	1	24.7
		25	12	23.94	23.96	23.92	1	24.7			12	6	23.89	23.91	23.87	1	24.7
		25	25	23.96	23.98	23.94	1	24.7			12	13	23.91	23.93	23.89	1	24.7
	16QAM	50	0	23.91	23.93	23.89	1	24.7		25	0	23.86	23.88	23.84	1	24.7	
		1	0	23.70	23.72	23.68	1	24.7		16QAM	1	0	23.65	23.67	23.63	1	24.7
		1	24	23.78	23.80	23.76	1	24.7			1	12	23.73	23.75	23.71	1	24.7
		1	49	23.80	23.82	23.78	1	24.7			1	24	23.75	23.77	23.73	1	24.7
		25	0	22.92	22.94	22.90	2	23.7			12	0	22.87	22.89	22.85	2	23.7
		25	12	22.91	22.93	22.89	2	23.7			12	6	22.86	22.88	22.84	2	23.7
	25	25	22.93	22.95	22.91	2	23.7	12			13	22.88	22.90	22.86	2	23.7	
	64QAM	50	0	22.88	22.90	22.86	2	23.7		25	0	22.83	22.85	22.81	2	23.7	
		1	0	22.65	22.67	22.63	2	23.7		64QAM	1	0	22.60	22.62	22.58	2	23.7
		1	24	22.73	22.75	22.71	2	23.7			1	12	22.68	22.70	22.66	2	23.7
		1	49	22.75	22.77	22.73	2	23.7			1	24	22.70	22.72	22.68	2	23.7
		25	0	21.87	21.89	21.85	3	22.7			12	0	21.82	21.84	21.80	3	22.7
		25	12	21.86	21.88	21.84	3	22.7			12	6	21.81	21.83	21.79	3	22.7
	25	25	21.88	21.90	21.86	3	22.7	12			13	21.83	21.85	21.81	3	22.7	
		50	0	21.83	21.85	21.81	3	22.7		25	0	21.78	21.80	21.76	3	22.7	

FCC SAR Test Report

LTE Band 38																	
Head / Body-Worn																	
Ant-2 / Ant-3																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		37850	38000	38150					Channel		37825	38000	38175		
		Frequency (MHz)		2580	2595	2610					Frequency (MHz)		2577.5	2595	2612.5		
20M	QPSK	1	0	24.16	24.35	24.51	0	25.7	15M	QPSK	1	0	24.10	24.29	24.45	0	25.7
		1	50	24.32	24.51	24.67	0	25.7			1	37	24.26	24.45	24.61	0	25.7
		1	99	24.42	24.61	24.69	0	25.7			1	74	24.36	24.55	24.63	0	25.7
		50	0	23.34	23.53	23.65	1	24.7			36	0	23.28	23.47	23.59	1	24.7
		50	25	23.36	23.55	23.66	1	24.7			36	19	23.30	23.49	23.60	1	24.7
		50	50	23.38	23.57	23.67	1	24.7			36	39	23.32	23.51	23.62	1	24.7
	16QAM	100	0	23.37	23.56	23.69	1	24.7		75	0	23.31	23.50	23.66	1	24.7	
		1	0	23.13	23.32	23.48	1	24.7		1	0	23.07	23.26	23.42	1	24.7	
		1	50	23.29	23.48	23.64	1	24.7		1	37	23.23	23.42	23.58	1	24.7	
		1	99	23.39	23.58	23.66	1	24.7		1	74	23.33	23.52	23.60	1	24.7	
		50	0	22.31	22.50	22.62	2	23.7		36	0	22.25	22.44	22.56	2	23.7	
		50	25	22.33	22.52	22.63	2	23.7		36	19	22.27	22.46	22.57	2	23.7	
	64QAM	50	50	22.35	22.54	22.65	2	23.7		36	39	22.29	22.48	22.59	2	23.7	
		100	0	22.34	22.53	22.68	2	23.7		75	0	22.28	22.47	22.63	2	23.7	
		1	0	22.12	22.31	22.47	2	23.7		1	0	22.06	22.25	22.41	2	23.7	
		1	50	22.28	22.47	22.63	2	23.7		1	37	22.22	22.41	22.57	2	23.7	
		1	99	22.38	22.57	22.65	2	23.7		1	74	22.32	22.51	22.59	2	23.7	
		50	0	21.30	21.49	21.61	3	22.7		36	0	21.24	21.43	21.55	3	22.7	
	10M	QPSK	50	25	21.32	21.51	21.62	3		22.7	36	19	21.26	21.45	21.56	3	22.7
			50	50	21.34	21.53	21.64	3		22.7	36	39	21.28	21.47	21.58	3	22.7
			100	0	21.33	21.52	21.68	3		22.7	75	0	21.27	21.46	21.62	3	22.7
			1	0	23.02	23.21	23.37	1		24.7	1	0	22.99	23.18	23.34	1	24.7
			1	24	23.18	23.37	23.53	1		24.7	1	12	23.15	23.34	23.50	1	24.7
			1	49	23.28	23.47	23.55	1		24.7	1	24	23.25	23.44	23.52	1	24.7
16QAM	25	0	22.20	22.39	22.51	2	23.7	12	0	22.17	22.36	22.48	2	23.7			
	25	12	22.22	22.41	22.52	2	23.7	12	6	22.19	22.38	22.49	2	23.7			
	25	25	22.24	22.43	22.54	2	23.7	12	13	22.21	22.40	22.51	2	23.7			
	50	0	22.23	22.42	22.58	2	23.7	25	0	22.20	22.39	22.55	2	23.7			
	1	0	22.01	22.20	22.36	2	23.7	1	0	21.98	22.17	22.33	2	23.7			
	1	24	22.17	22.36	22.52	2	23.7	1	12	22.14	22.33	22.49	2	23.7			
64QAM	1	49	22.27	22.46	22.54	2	23.7	1	24	22.24	22.43	22.51	2	23.7			
	25	0	21.19	21.38	21.50	3	22.7	12	0	21.16	21.35	21.47	3	22.7			
	25	12	21.21	21.40	21.51	3	22.7	12	6	21.18	21.37	21.48	3	22.7			
	25	25	21.23	21.42	21.53	3	22.7	12	13	21.20	21.39	21.50	3	22.7			
	50	0	21.22	21.41	21.57	3	22.7	25	0	21.19	21.38	21.54	3	22.7			



FCC SAR Test Report

LTE Band 41																							
Head / Body-Worn																							
Ant-2 / Ant-3																							
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	Max. Tune-up Power		
				Channel	39750	40185	40620	41055							41490	39725	40173	40620	41068			41515	
				Frequency (MHz)	2506.0	2549.5	2593.0	2636.5							2680.0	2503.5	2548.3	2593.0	2637.8			2682.5	
20M	QPSK	1	0	23.92	23.98	23.95	23.94	23.91	0	25.0	15M	QPSK	1	0	23.87	23.93	23.90	23.89	23.86	0	25.0		
		1	50	23.91	23.97	23.94	23.93	23.90	0	25.0			1	37	23.86	23.92	23.89	23.88	23.85	0	25.0		
		1	99	23.89	23.95	23.92	23.91	23.88	0	25.0			1	74	23.84	23.90	23.87	23.86	23.83	0	25.0		
		50	0	22.95	23.01	22.98	22.97	22.94	1	24.0			36	0	22.90	22.96	22.93	22.92	22.89	1	24.0		
		50	25	22.93	22.99	22.96	22.95	22.92	1	24.0			36	19	22.88	22.94	22.91	22.90	22.87	1	24.0		
		50	50	22.92	22.98	22.95	22.94	22.91	1	24.0			36	39	22.87	22.93	22.90	22.89	22.86	1	24.0		
	100	0	22.94	23.00	22.97	22.96	22.93	1	24.0	75		0	22.89	22.95	22.92	22.91	22.88	1	24.0				
	16QAM	1	0	22.89	22.95	22.92	22.91	22.88	1	24.0		1	0	22.84	22.90	22.87	22.86	22.83	1	24.0			
		1	50	22.88	22.94	22.91	22.90	22.87	1	24.0		1	37	22.83	22.89	22.86	22.85	22.82	1	24.0			
		1	99	22.86	22.92	22.89	22.88	22.85	1	24.0		1	74	22.81	22.87	22.84	22.83	22.80	1	24.0			
		50	0	21.92	21.98	21.95	21.94	21.91	2	23.0		36	0	21.87	21.93	21.90	21.89	21.86	2	23.0			
		50	25	21.90	21.96	21.93	21.92	21.89	2	23.0		36	19	21.85	21.91	21.88	21.87	21.84	2	23.0			
		50	50	21.89	21.95	21.92	21.91	21.88	2	23.0		36	39	21.84	21.90	21.87	21.86	21.83	2	23.0			
	100	0	21.91	21.97	21.94	21.93	21.90	2	23.0	75		0	21.86	21.92	21.89	21.88	21.85	2	23.0				
	64QAM	1	0	21.88	21.94	21.91	21.90	21.87	2	23.0		1	0	21.83	21.89	21.86	21.85	21.82	2	23.0			
		1	50	21.87	21.93	21.90	21.89	21.86	2	23.0		1	37	21.82	21.88	21.85	21.84	21.81	2	23.0			
		1	99	21.85	21.91	21.88	21.87	21.84	2	23.0		1	74	21.80	21.86	21.83	21.82	21.79	2	23.0			
		50	0	20.91	20.97	20.94	20.93	20.90	3	22.0		36	0	20.86	20.92	20.89	20.88	20.85	3	22.0			
		50	25	20.89	20.95	20.92	20.91	20.88	3	22.0		36	19	20.84	20.90	20.87	20.86	20.83	3	22.0			
		50	50	20.88	20.94	20.91	20.90	20.87	3	22.0		36	39	20.83	20.89	20.86	20.85	20.82	3	22.0			
	100	0	20.90	20.96	20.93	20.92	20.89	3	22.0	75		0	20.85	20.91	20.88	20.87	20.84	3	22.0				
	10M	QPSK	1	0	23.84	23.90	23.87	23.86	23.83	0		25.0	5M	QPSK	1	0	23.80	23.86	23.83	23.82	23.79	0	25.0
			1	24	23.83	23.89	23.86	23.85	23.82	0		25.0			1	12	23.79	23.85	23.82	23.81	23.78	0	25.0
			1	49	23.81	23.87	23.84	23.83	23.80	0		25.0			1	24	23.77	23.83	23.80	23.79	23.76	0	25.0
25			0	22.87	22.93	22.90	22.89	22.86	1	24.0	12	0			22.83	22.89	22.86	22.85	22.82	1	24.0		
25			12	22.85	22.91	22.88	22.87	22.84	1	24.0	12	6			22.81	22.87	22.84	22.83	22.80	1	24.0		
25			25	22.84	22.90	22.87	22.86	22.83	1	24.0	12	13			22.80	22.86	22.83	22.82	22.79	1	24.0		
50		0	22.86	22.92	22.89	22.88	22.85	1	24.0	25	0	22.82		22.88	22.85	22.84	22.81	1	24.0				
16QAM		1	0	22.81	22.87	22.84	22.83	22.80	1	24.0	1	0		22.77	22.83	22.80	22.79	22.76	1	24.0			
		1	24	22.80	22.86	22.83	22.82	22.79	1	24.0	1	12		22.76	22.82	22.79	22.78	22.75	1	24.0			
		1	49	22.78	22.84	22.81	22.80	22.77	1	24.0	1	24		22.74	22.80	22.77	22.76	22.73	1	24.0			
		25	0	21.84	21.90	21.87	21.86	21.83	2	23.0	12	0		21.80	21.86	21.83	21.82	21.79	2	23.0			
		25	12	21.82	21.88	21.85	21.84	21.81	2	23.0	12	6		21.78	21.84	21.81	21.80	21.77	2	23.0			
		25	25	21.81	21.87	21.84	21.83	21.80	2	23.0	12	13		21.77	21.83	21.80	21.79	21.76	2	23.0			
50		0	21.83	21.89	21.86	21.85	21.82	2	23.0	25	0	21.79		21.85	21.82	21.81	21.78	2	23.0				
64QAM		1	0	21.80	21.86	21.83	21.82	21.79	2	23.0	1	0		21.76	21.82	21.79	21.78	21.75	2	23.0			
		1	24	21.79	21.85	21.82	21.81	21.78	2	23.0	1	12		21.75	21.81	21.78	21.77	21.74	2	23.0			
		1	49	21.77	21.83	21.80	21.79	21.76	2	23.0	1	24		21.73	21.79	21.76	21.75	21.72	2	23.0			
		25	0	20.83	20.89	20.86	20.85	20.82	3	22.0	12	0		20.79	20.85	20.82	20.81	20.78	3	22.0			
		25	12	20.81	20.87	20.84	20.83	20.80	3	22.0	12	6		20.77	20.83	20.80	20.79	20.76	3	22.0			
		25	25	20.80	20.86	20.83	20.82	20.79	3	22.0	12	13		20.76	20.82	20.79	20.78	20.75	3	22.0			
50		0	20.82	20.88	20.85	20.84	20.81	3	22.0	25	0	20.78		20.84	20.81	20.80	20.77	3	22.0				

FCC SAR Test Report

<WLAN ON>

Mode	Tx Antenna	Band	GSM850			Tune-up Power
		Channel	128	189	251	
		Frequency (MHz)	824.2	836.4	848.8	
Maximum Burst-Averaged Output Power						
Head / Body-Worn / Hotspot	Ant-0 / Ant-1	GSM (GMSK, 1Tx-slot)	33.56	33.61	33.55	34.0
		GPRS (GMSK, 1Tx-slot)	33.53	33.58	33.52	34.0
		GPRS (GMSK, 2Tx-slot)	31.73	31.78	31.72	32.0
		GPRS (GMSK, 3Tx-slot)	29.52	29.57	29.51	30.0
		GPRS (GMSK, 4Tx-slot)	28.28	28.33	28.27	29.0
		DTM (GMSK, 2Tx-slot)	31.62	31.67	31.61	32.0
		DTM (GMSK, 3Tx-slot)	29.48	29.53	29.47	30.0
		EDGE (8PSK, 1Tx-slot)	27.02	27.07	27.01	28.0
		EDGE (8PSK, 2Tx-slot)	26.78	26.83	26.77	27.0
		EDGE (8PSK, 3Tx-slot)	24.63	24.68	24.62	25.0
		EDGE (8PSK, 4Tx-slot)	22.08	22.13	22.07	23.0
		DTM (8PSK, 2Tx-slot)	26.13	26.18	26.12	27.0
		DTM (8PSK, 3Tx-slot)	24.20	24.25	24.19	25.0

Mode	Tx Antenna	Band	GSM1900			Tune-up Power
		Channel	512	661	810	
		Frequency (MHz)	1850.2	1880.0	1909.8	
Maximum Burst-Averaged Output Power						
Head	Ant-0	GSM (GMSK, 1Tx-slot)	29.73	30.19	30.22	31.0
		GPRS (GMSK, 1Tx-slot)	29.69	30.15	30.18	31.0
		GPRS (GMSK, 2Tx-slot)	28.46	28.92	28.95	29.5
		GPRS (GMSK, 3Tx-slot)	26.11	26.57	26.60	27.5
		GPRS (GMSK, 4Tx-slot)	25.01	25.47	25.50	26.5
		DTM (GMSK, 2Tx-slot)	28.16	28.62	28.65	29.5
		DTM (GMSK, 3Tx-slot)	25.85	26.31	26.34	27.5
		EDGE (8PSK, 1Tx-slot)	25.25	25.71	25.74	27.0
		EDGE (8PSK, 2Tx-slot)	24.56	25.02	25.05	26.0
		EDGE (8PSK, 3Tx-slot)	23.40	23.86	23.89	25.0
		EDGE (8PSK, 4Tx-slot)	22.22	22.68	22.71	24.0
		DTM (8PSK, 2Tx-slot)	24.37	24.83	24.86	26.0
		DTM (8PSK, 3Tx-slot)	23.32	23.78	23.81	25.0
		Ant-1	GSM (GMSK, 1Tx-slot)	22.55	22.61	22.65
	GPRS (GMSK, 1Tx-slot)		22.46	22.52	22.56	23.0
	GPRS (GMSK, 2Tx-slot)		21.88	21.94	21.98	22.0
	GPRS (GMSK, 3Tx-slot)		20.37	20.43	20.47	20.5
	GPRS (GMSK, 4Tx-slot)		19.38	19.42	19.46	19.5
	DTM (GMSK, 2Tx-slot)		21.49	21.55	21.59	22.0
	DTM (GMSK, 3Tx-slot)		20.06	20.12	20.16	20.5
	EDGE (8PSK, 1Tx-slot)		18.56	18.62	18.66	19.0
	EDGE (8PSK, 2Tx-slot)		18.02	18.08	18.12	18.5
	EDGE (8PSK, 3Tx-slot)		17.83	17.89	17.93	18.0
	EDGE (8PSK, 4Tx-slot)		15.08	15.14	15.18	15.5
	DTM (8PSK, 2Tx-slot)		17.58	17.64	17.68	18.0
	DTM (8PSK, 3Tx-slot)		16.49	16.55	16.59	17.0

FCC SAR Test Report

Mode	Tx Antenna	Band	GSM1900			Tune-up Power
		Channel	512	661	810	
		Frequency (MHz)	1850.2	1880.0	1909.8	
Maximum Burst-Averaged Output Power						
Body-Worn / Hotspot	Ant-0	GSM (GMSK, 1Tx-slot)	29.73	30.19	30.22	31.0
		GPRS (GMSK, 1Tx-slot)	29.69	30.15	30.18	31.0
		GPRS (GMSK, 2Tx-slot)	28.46	28.92	28.95	29.5
		GPRS (GMSK, 3Tx-slot)	26.11	26.57	26.60	27.5
		GPRS (GMSK, 4Tx-slot)	25.01	25.47	25.50	26.5
		DTM (GMSK, 2Tx-slot)	28.16	28.62	28.65	29.5
		DTM (GMSK, 3Tx-slot)	25.85	26.31	26.34	27.5
		EDGE (8PSK, 1Tx-slot)	25.25	25.71	25.74	27.0
		EDGE (8PSK, 2Tx-slot)	24.56	25.02	25.05	26.0
		EDGE (8PSK, 3Tx-slot)	23.40	23.86	23.89	25.0
		EDGE (8PSK, 4Tx-slot)	22.22	22.68	22.71	24.0
		DTM (8PSK, 2Tx-slot)	24.37	24.83	24.86	26.0
	DTM (8PSK, 3Tx-slot)	23.32	23.78	23.81	25.0	
	Ant-1	GSM (GMSK, 1Tx-slot)	28.89	28.90	28.95	29.0
		GPRS (GMSK, 1Tx-slot)	28.86	28.87	28.92	29.0
		GPRS (GMSK, 2Tx-slot)	26.34	26.35	26.40	26.5
		GPRS (GMSK, 3Tx-slot)	24.73	24.74	24.79	25.0
		GPRS (GMSK, 4Tx-slot)	24.11	24.12	24.17	24.5
		DTM (GMSK, 2Tx-slot)	25.84	25.85	25.90	26.0
		DTM (GMSK, 3Tx-slot)	24.11	24.12	24.17	25.0
		EDGE (8PSK, 1Tx-slot)	24.25	24.26	24.31	24.5
		EDGE (8PSK, 2Tx-slot)	23.56	23.57	23.62	24.0
		EDGE (8PSK, 3Tx-slot)	22.29	22.30	22.35	22.5
		EDGE (8PSK, 4Tx-slot)	21.24	21.25	21.30	21.5
		DTM (8PSK, 2Tx-slot)	23.06	23.07	23.12	24.0
		DTM (8PSK, 3Tx-slot)	22.11	22.12	22.17	22.5

FCC SAR Test Report

Mode	Tx Antenna	Band	WCDMA Band II			Tune-up Power
		Channel	9262	9400	9538	
		Frequency (MHz)	1852.4	1880.0	1907.6	
Head	Ant-0	RMC 12.2K	24.59	24.76	24.88	25.7
		HSDPA Subtest-1	23.54	23.71	23.83	24.7
		HSDPA Subtest-2	23.56	23.73	23.85	24.7
		HSDPA Subtest-3	23.14	23.31	23.43	24.2
		HSDPA Subtest-4	23.10	23.27	23.39	24.2
		DC-HSDPA Subtest-1	23.48	23.65	23.77	24.7
		DC-HSDPA Subtest-2	23.50	23.67	23.79	24.7
		DC-HSDPA Subtest-3	23.08	23.25	23.37	24.2
		DC-HSDPA Subtest-4	23.04	23.21	23.33	24.2
		HSUPA Subtest-1	23.58	23.75	23.87	24.7
		HSUPA Subtest-2	21.49	21.66	21.78	22.7
		HSUPA Subtest-3	22.62	22.79	22.91	23.7
		HSUPA Subtest-4	21.61	21.78	21.90	22.7
		HSUPA Subtest-5	23.64	23.81	23.93	24.7
	Ant-1	RMC 12.2K	15.90	15.93	15.99	16.5
		HSDPA Subtest-1	14.91	14.94	15.00	16.0
		HSDPA Subtest-2	14.41	14.44	14.50	16.0
		HSDPA Subtest-3	14.94	14.97	15.03	15.5
		HSDPA Subtest-4	14.92	14.95	15.01	15.5
		DC-HSDPA Subtest-1	14.86	14.89	14.95	16.0
		DC-HSDPA Subtest-2	14.36	14.39	14.45	16.0
		DC-HSDPA Subtest-3	14.89	14.92	14.98	15.5
		DC-HSDPA Subtest-4	14.87	14.90	14.96	15.5
		HSUPA Subtest-1	14.93	14.96	15.02	16.0
		HSUPA Subtest-2	12.94	12.97	13.03	14.0
HSUPA Subtest-3	13.83	13.86	13.92	15.0		
HSUPA Subtest-4	12.95	12.98	13.04	14.0		
HSUPA Subtest-5	15.32	15.35	15.41	16.0		

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Mode	Tx Antenna	Band	WCDMA Band II			Tune-up Power
		Channel	9262	9400	9538	
		Frequency (MHz)	1852.4	1880.0	1907.6	
Body-Worn / Hotspot	Ant-0	RMC 12.2K	24.59	24.76	24.88	25.7
		HSDPA Subtest-1	23.54	23.71	23.83	24.7
		HSDPA Subtest-2	23.56	23.73	23.85	24.7
		HSDPA Subtest-3	23.14	23.31	23.43	24.2
		HSDPA Subtest-4	23.10	23.27	23.39	24.2
		DC-HSDPA Subtest-1	23.48	23.65	23.77	24.7
		DC-HSDPA Subtest-2	23.50	23.67	23.79	24.7
		DC-HSDPA Subtest-3	23.08	23.25	23.37	24.2
		DC-HSDPA Subtest-4	23.04	23.21	23.33	24.2
		HSUPA Subtest-1	23.58	23.75	23.87	24.7
		HSUPA Subtest-2	21.49	21.66	21.78	22.7
		HSUPA Subtest-3	22.62	22.79	22.91	23.7
		HSUPA Subtest-4	21.61	21.78	21.90	22.7
		HSUPA Subtest-5	23.64	23.81	23.93	24.7
		Ant-1	RMC 12.2K	21.05	21.06	21.14
	HSDPA Subtest-1		20.12	20.13	20.21	21.1
	HSDPA Subtest-2		20.11	20.12	20.20	21.1
	HSDPA Subtest-3		19.64	19.65	19.73	20.6
	HSDPA Subtest-4		19.62	19.63	19.71	20.6
	DC-HSDPA Subtest-1		20.03	20.04	20.12	21.1
	DC-HSDPA Subtest-2		20.02	20.03	20.11	21.1
	DC-HSDPA Subtest-3		19.55	19.56	19.64	20.6
	DC-HSDPA Subtest-4		19.53	19.54	19.62	20.6
	HSUPA Subtest-1		20.08	20.09	20.17	21.1
	HSUPA Subtest-2	18.13	18.14	18.22	19.1	
HSUPA Subtest-3	19.09	19.10	19.18	20.1		
HSUPA Subtest-4	18.15	18.16	18.24	19.1		
HSUPA Subtest-5	20.19	20.20	20.28	21.1		

Mode	Tx Antenna	Band	WCDMA Band IV			Tune-up Power
		Channel	1312	1413	1513	
		Frequency (MHz)	1712.4	1732.6	1752.6	
Head	Ant-0 / Ant-1	RMC 12.2K	23.07	23.08	23.01	24.0
		HSDPA Subtest-1	22.04	22.05	21.98	23.0
		HSDPA Subtest-2	22.05	22.06	21.99	23.0
		HSDPA Subtest-3	21.61	21.62	21.55	22.5
		HSDPA Subtest-4	21.60	21.61	21.54	22.5
		DC-HSDPA Subtest-1	21.98	21.99	21.92	23.0
		DC-HSDPA Subtest-2	21.99	22.00	21.93	23.0
		DC-HSDPA Subtest-3	21.55	21.56	21.49	22.5
		DC-HSDPA Subtest-4	21.54	21.55	21.48	22.5
		HSUPA Subtest-1	22.21	22.22	22.15	23.0
		HSUPA Subtest-2	20.18	20.19	20.12	21.0
		HSUPA Subtest-3	21.16	21.17	21.10	22.0
		HSUPA Subtest-4	20.17	20.18	20.11	21.0
		HSUPA Subtest-5	22.20	22.21	22.14	23.0

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Mode	Tx Antenna	Band	WCDMA Band IV			Tune-up Power
		Channel	1312	1413	1513	
		Frequency (MHz)	1712.4	1732.6	1752.6	
Body-Worn / Hotspot	Ant-0	RMC 12.2K	20.80	20.88	20.86	21.5
		HSDPA Subtest-1	19.75	19.83	19.81	21.0
		HSDPA Subtest-2	19.76	19.84	19.82	21.0
		HSDPA Subtest-3	19.25	19.33	19.31	20.5
		HSDPA Subtest-4	19.22	19.30	19.28	20.5
		DC-HSDPA Subtest-1	19.67	19.75	19.73	21.0
		DC-HSDPA Subtest-2	19.68	19.76	19.74	21.0
		DC-HSDPA Subtest-3	19.17	19.25	19.23	20.5
		DC-HSDPA Subtest-4	19.14	19.22	19.20	20.5
		HSUPA Subtest-1	19.79	19.87	19.85	21.0
		HSUPA Subtest-2	17.80	17.88	17.86	19.0
		HSUPA Subtest-3	18.74	18.82	18.80	20.0
	HSUPA Subtest-4	17.77	17.85	17.83	19.0	
	HSUPA Subtest-5	19.72	19.80	19.78	21.0	
	Ant-1	RMC 12.2K	23.07	23.08	23.01	24.0
		HSDPA Subtest-1	22.04	22.05	21.98	23.0
		HSDPA Subtest-2	22.05	22.06	21.99	23.0
		HSDPA Subtest-3	21.61	21.62	21.55	22.5
		HSDPA Subtest-4	21.60	21.61	21.54	22.5
		DC-HSDPA Subtest-1	21.98	21.99	21.92	23.0
		DC-HSDPA Subtest-2	21.99	22.00	21.93	23.0
		DC-HSDPA Subtest-3	21.55	21.56	21.49	22.5
		DC-HSDPA Subtest-4	21.54	21.55	21.48	22.5
		HSUPA Subtest-1	22.21	22.22	22.15	23.0
		HSUPA Subtest-2	20.18	20.19	20.12	21.0
HSUPA Subtest-3		21.16	21.17	21.10	22.0	
HSUPA Subtest-4		20.17	20.18	20.11	21.0	
HSUPA Subtest-5	22.20	22.21	22.14	23.0		

Mode	Tx Antenna	Band	WCDMA Band V			Tune-up Power
		Channel	4132	4182	4233	
		Frequency (MHz)	826.4	836.4	846.6	
Head / Body-Worn / Hotspot	Ant-0 / Ant-1	RMC 12.2K	23.55	23.65	23.76	24.5
		HSDPA Subtest-1	22.56	22.63	22.75	23.5
		HSDPA Subtest-2	22.57	22.68	22.78	23.5
		HSDPA Subtest-3	22.08	22.17	22.26	23.0
		HSDPA Subtest-4	22.06	22.15	22.25	23.0
		DC-HSDPA Subtest-1	22.53	22.55	22.67	23.5
		DC-HSDPA Subtest-2	22.51	22.60	22.70	23.5
		DC-HSDPA Subtest-3	22.03	22.09	22.18	23.0
		DC-HSDPA Subtest-4	22.02	22.07	22.17	23.0
		HSUPA Subtest-1	22.55	22.65	22.76	23.5
		HSUPA Subtest-2	20.53	20.63	20.74	21.5
		HSUPA Subtest-3	21.62	21.72	21.83	22.5
		HSUPA Subtest-4	20.55	20.65	20.76	21.5
		HSUPA Subtest-5	22.61	22.71	22.82	23.5

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Mode	Tx Antenna	Band	CDMA BC0			Tune-up Power
		Channel	1013	384	777	
		Frequency (MHz)	824.70	836.52	848.31	
Head / Body-Worn / Hotspot	Ant-0 / Ant-1	1xRTT RC1+SO55	24.87	24.71	24.77	25.5
		1xRTT RC3+SO55	24.92	24.76	24.82	25.5
		1xRTT RC3+SO32 (FCH)	24.88	24.72	24.78	25.5
		1xRTT RC3+SO32 (SCH)	24.87	24.71	24.77	25.5
		1xEVDO Rev.0 RTAP 153.6	24.89	24.73	24.79	25.5
		1xEVDO Rev.A RETAP 4096	24.88	24.72	24.78	25.5

Mode	Tx Antenna	Band	CDMA BC1			Tune-up Power
		Channel	25	600	1175	
		Frequency (MHz)	1851.25	1880.00	1908.75	
Head	Ant-0	1xRTT RC1+SO55	24.02	23.96	23.98	25.0
		1xRTT RC3+SO55	23.97	23.91	24.03	25.0
		1xRTT RC3+SO32 (FCH)	23.98	23.92	23.99	25.0
		1xRTT RC3+SO32 (SCH)	23.99	23.93	24.00	25.0
		1xEVDO Rev.0 RTAP 153.6	23.98	23.93	23.99	25.0
		1xEVDO Rev.A RETAP 4096	23.97	23.92	23.98	25.0
	Ant-1	1xRTT RC1+SO55	15.46	15.43	15.55	16.0
		1xRTT RC3+SO55	15.45	15.50	15.60	16.0
		1xRTT RC3+SO32 (FCH)	15.14	15.11	15.28	16.0
		1xRTT RC3+SO32 (SCH)	15.02	14.99	15.16	16.0
		1xEVDO Rev.0 RTAP 153.6	15.07	15.04	15.21	16.0
		1xEVDO Rev.A RETAP 4096	15.13	15.10	15.27	16.0

Mode	Tx Antenna	Band	CDMA BC1			Tune-up Power
		Channel	25	600	1175	
		Frequency (MHz)	1851.25	1880.00	1908.75	
Body-Worn / Hotspot	Ant-0	1xRTT RC1+SO55	24.02	23.96	23.98	25.0
		1xRTT RC3+SO55	23.97	23.91	24.03	25.0
		1xRTT RC3+SO32 (FCH)	23.98	23.92	23.99	25.0
		1xRTT RC3+SO32 (SCH)	23.99	23.93	24.00	25.0
		1xEVDO Rev.0 RTAP 153.6	23.98	23.93	23.99	25.0
		1xEVDO Rev.A RETAP 4096	23.97	23.92	23.98	25.0
	Ant-1	1xRTT RC1+SO55	21.85	21.78	21.71	22.5
		1xRTT RC3+SO55	21.84	21.79	21.87	22.5
		1xRTT RC3+SO32 (FCH)	21.68	21.61	21.70	22.5
		1xRTT RC3+SO32 (SCH)	21.52	21.45	21.54	22.5
		1xEVDO Rev.0 RTAP 153.6	21.59	21.52	21.69	22.5
		1xEVDO Rev.A RETAP 4096	21.54	21.47	21.56	22.5

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Mode	Tx Antenna	Band	CDMA BC10			Tune-up Power
		Channel	476	580	684	
		Frequency (MHz)	817.9	820.5	823.1	
Head / Body-Worn / Hotspot	Ant-0 / Ant-1	1xRTT RC1+SO55	24.81	24.78	24.88	25.5
		1xRTT RC3+SO55	24.86	24.83	24.93	25.5
		1xRTT RC3+SO32 (FCH)	24.85	24.82	24.92	25.5
		1xRTT RC3+SO32 (SCH)	24.84	24.81	24.91	25.5
		1xEVDO Rev.0 RTAP 153.6	24.83	24.80	24.90	25.5
		1xEVDO Rev.A RETAP 4096	24.82	24.79	24.89	25.5



FCC SAR Test Report

LTE Band 2																	
Body-Worn / Hotspot																	
Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		18700	18900	19100					Channel		18675	18900	19125		
		Frequency (MHz)		1860.0	1880.0	1900.0					Frequency (MHz)		1857.5	1880.0	1902.5		
20M	QPSK	1	0	21.49	21.42	21.24	0	22.2	15M	QPSK	1	0	21.39	21.32	21.14	0	22.2
		1	50	21.42	21.35	21.17	0	22.2			1	37	21.32	21.25	21.07	0	22.2
		1	99	21.29	21.22	21.04	0	22.2			1	74	21.19	21.12	20.94	0	22.2
		50	0	21.46	21.39	21.21	0	22.2			36	0	21.36	21.29	21.11	0	22.2
		50	25	21.44	21.37	21.19	0	22.2			36	19	21.34	21.27	21.09	0	22.2
		50	50	21.39	21.32	21.14	0	22.2			36	39	21.29	21.22	21.04	0	22.2
	100	0	21.43	21.36	21.18	0	22.2	75		0	21.33	21.26	21.08	0	22.2		
	16QAM	1	0	21.41	21.34	21.16	0	22.2		16QAM	1	0	21.31	21.24	21.06	0	22.2
		1	50	21.34	21.27	21.09	0	22.2			1	37	21.24	21.17	20.99	0	22.2
		1	99	21.21	21.14	20.96	0	22.2			1	74	21.11	21.04	20.86	0	22.2
		50	0	21.38	21.31	21.13	0	22.2			36	0	21.28	21.21	21.03	0	22.2
		50	25	21.36	21.29	21.11	0	22.2			36	19	21.26	21.19	21.01	0	22.2
		50	50	21.31	21.24	21.06	0	22.2			36	39	21.21	21.14	20.96	0	22.2
	100	0	21.35	21.28	21.10	0	22.2	75		0	21.25	21.18	21.00	0	22.2		
	64QAM	1	0	21.37	21.30	21.12	0	22.2		64QAM	1	0	21.27	21.20	21.02	0	22.2
		1	50	21.30	21.23	21.05	0	22.2			1	37	21.20	21.13	20.95	0	22.2
		1	99	21.17	21.10	20.92	0	22.2			1	74	21.07	21.00	20.82	0	22.2
		50	0	21.34	21.27	21.09	0	22.2			36	0	21.24	21.17	20.99	0	22.2
50		25	21.32	21.25	21.07	0	22.2	36	19		21.22	21.15	20.97	0	22.2		
50		50	21.27	21.20	21.02	0	22.2	36	39		21.17	21.10	20.92	0	22.2		
100	0	21.31	21.24	21.06	0	22.2	75	0	21.21	21.14	20.96	0	22.2				
10M	QPSK	1	0	21.43	21.36	21.18	0	22.2	5M	QPSK	1	0	21.33	21.26	21.08	0	22.2
		1	24	21.36	21.29	21.11	0	22.2			1	12	21.26	21.19	21.01	0	22.2
		1	49	21.23	21.16	20.98	0	22.2			1	24	21.13	21.06	20.88	0	22.2
		25	0	21.40	21.33	21.15	0	22.2			12	0	21.30	21.23	21.05	0	22.2
		25	12	21.38	21.31	21.13	0	22.2			12	6	21.28	21.21	21.03	0	22.2
		25	25	21.33	21.26	21.08	0	22.2			12	13	21.23	21.16	20.98	0	22.2
	50	0	21.37	21.30	21.12	0	22.2	25		0	21.27	21.20	21.02	0	22.2		
	16QAM	1	0	21.35	21.28	21.10	0	22.2		16QAM	1	0	21.25	21.18	21.00	0	22.2
		1	24	21.28	21.21	21.03	0	22.2			1	12	21.18	21.11	20.93	0	22.2
		1	49	21.15	21.08	20.90	0	22.2			1	24	21.05	20.98	20.80	0	22.2
		25	0	21.32	21.25	21.07	0	22.2			12	0	21.22	21.15	20.97	0	22.2
		25	12	21.30	21.23	21.05	0	22.2			12	6	21.20	21.13	20.95	0	22.2
		25	25	21.25	21.18	21.00	0	22.2			12	13	21.15	21.08	20.90	0	22.2
	50	0	21.29	21.22	21.04	0	22.2	25		0	21.19	21.12	20.94	0	22.2		
	64QAM	1	0	21.31	21.24	21.06	0	22.2		64QAM	1	0	21.21	21.14	20.96	0	22.2
		1	24	21.24	21.17	20.99	0	22.2			1	12	21.14	21.07	20.89	0	22.2
		1	49	21.11	21.04	20.86	0	22.2			1	24	21.01	20.94	20.76	0	22.2
		25	0	21.28	21.21	21.03	0	22.2			12	0	21.18	21.11	20.93	0	22.2
25		12	21.26	21.19	21.01	0	22.2	12	6		21.16	21.09	20.91	0	22.2		
25		25	21.21	21.14	20.96	0	22.2	12	13		21.11	21.04	20.86	0	22.2		
50	0	21.25	21.18	21.00	0	22.2	25	0	21.15	21.08	20.90	0	22.2				
3M	QPSK	1	0	21.30	21.23	21.05	0	22.2	1.4M	QPSK	1	0	21.24	21.17	20.99	0	22.2
		1	7	21.23	21.16	20.98	0	22.2			1	2	21.17	21.10	20.92	0	22.2
		1	14	21.10	21.03	20.85	0	22.2			1	5	21.04	20.97	20.79	0	22.2
		8	0	21.27	21.20	21.02	0	22.2			3	0	21.21	21.14	20.96	0	22.2
		8	3	21.25	21.18	21.00	0	22.2			3	1	21.19	21.12	20.94	0	22.2
		8	7	21.20	21.13	20.95	0	22.2			3	3	21.14	21.07	20.89	0	22.2
	15	0	21.24	21.17	20.99	0	22.2	6		0	21.18	21.11	20.93	0	22.2		
	16QAM	1	0	21.22	21.15	20.97	0	22.2		16QAM	1	0	21.16	21.09	20.91	0	22.2
		1	7	21.15	21.08	20.90	0	22.2			1	2	21.09	21.02	20.84	0	22.2
		1	14	21.02	20.95	20.77	0	22.2			1	5	20.96	20.89	20.71	0	22.2
		8	0	21.19	21.12	20.94	0	22.2			3	0	21.13	21.06	20.88	0	22.2
		8	3	21.17	21.10	20.92	0	22.2			3	1	21.11	21.04	20.86	0	22.2
		8	7	21.12	21.05	20.87	0	22.2			3	3	21.06	20.99	20.81	0	22.2
	15	0	21.16	21.09	20.91	0	22.2	6		0	21.10	21.03	20.85	0	22.2		
	64QAM	1	0	21.18	21.11	20.93	0	22.2		64QAM	1	0	21.12	21.05	20.87	0	22.2
		1	7	21.11	21.04	20.86	0	22.2			1	2	21.05	20.98	20.80	0	22.2
		1	14	20.98	20.91	20.73	0	22.2			1	5	20.92	20.85	20.67	0	22.2
		8	0	21.15	21.08	20.90	0	22.2			3	0	21.09	21.02	20.84	0	22.2
8		3	21.13	21.06	20.88	0	22.2	3	1		21.07	21.00	20.82	0	22.2		
8		7	21.08	21.01	20.83	0	22.2	3	3		21.02	20.95	20.77	0	22.2		
15	0	21.12	21.05	20.87	0	22.2	6	0	21.06	20.99	20.81	0	22.2				

FCC SAR Test Report

LTE Band 5																				
Head / Body-Worn / Hotspot																				
Ant-0 / Ant-1																				
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power			
		Channel		20450	20525	20600					Channel		20425	20525	20625					
		Frequency (MHz)		829	836.5	844					Frequency (MHz)		826.5	836.5	846.5					
10M	QPSK	1	0	24.41	24.46	24.59	0	25.7	5M	QPSK	1	0	24.35	24.40	24.53	0	25.7			
		1	24	24.48	24.53	24.66	0	25.7			1	12	24.42	24.47	24.60	0	25.7			
		1	49	24.46	24.51	24.64	0	25.7			1	24	24.40	24.45	24.58	0	25.7			
		25	0	23.51	23.56	23.67	1	24.7			12	0	23.45	23.50	23.63	1	24.7			
		25	12	23.53	23.58	23.68	1	24.7			12	6	23.47	23.52	23.65	1	24.7			
		25	25	23.46	23.51	23.64	1	24.7			12	13	23.40	23.45	23.58	1	24.7			
	16QAM	50	0	23.50	23.55	23.65	1	24.7		25	0	23.44	23.49	23.62	1	24.7				
		1	0	23.40	23.45	23.58	1	24.7		1	0	23.34	23.39	23.52	1	24.7				
		1	24	23.47	23.52	23.65	1	24.7		1	12	23.41	23.46	23.59	1	24.7				
		1	49	23.45	23.50	23.63	1	24.7		1	24	23.39	23.44	23.57	1	24.7				
		25	0	22.50	22.55	22.68	2	23.7		12	0	22.44	22.49	22.62	2	23.7				
		25	12	22.52	22.57	22.70	2	23.7		12	6	22.46	22.51	22.64	2	23.7				
	64QAM	25	25	22.45	22.50	22.63	2	23.7		12	13	22.39	22.44	22.57	2	23.7				
		50	0	22.49	22.54	22.67	2	23.7		25	0	22.43	22.48	22.61	2	23.7				
		1	0	22.42	22.47	22.60	2	23.7		1	0	22.36	22.41	22.54	2	23.7				
		1	24	22.49	22.54	22.67	2	23.7		1	12	22.43	22.48	22.61	2	23.7				
		1	49	22.47	22.52	22.65	2	23.7		1	24	22.41	22.46	22.59	2	23.7				
		25	0	21.52	21.57	21.65	3	22.7		12	0	21.46	21.51	21.60	3	22.7				
	16QAM	25	12	21.54	21.59	21.69	3	22.7		12	6	21.48	21.53	21.63	3	22.7				
		25	25	21.47	21.52	21.65	3	22.7		12	13	21.41	21.46	21.59	3	22.7				
		50	0	21.51	21.56	21.69	3	22.7		25	0	21.45	21.50	21.63	3	22.7				
		3M	QPSK	1	0	24.32	24.37	24.50		0	25.7	1.4M	QPSK	1	0	24.24	24.29	24.42	0	25.7
				1	7	24.39	24.44	24.57		0	25.7			1	2	24.31	24.36	24.49	0	25.7
				1	14	24.37	24.42	24.55		0	25.7			1	5	24.29	24.34	24.47	0	25.7
8	0			23.42	23.47	23.60	1	24.7	3	0	24.20			24.25	24.38	0	25.7			
8	3			23.44	23.49	23.62	1	24.7	3	1	24.22			24.27	24.40	0	25.7			
8	7			23.37	23.42	23.55	1	24.7	3	3	24.15			24.20	24.33	0	25.7			
16QAM	15	0	23.41	23.46	23.59	1	24.7	6	0	23.33	23.38		23.51	1	24.7					
	1	0	23.31	23.36	23.49	1	24.7	1	0	23.23	23.28		23.41	1	24.7					
	1	7	23.38	23.43	23.56	1	24.7	1	2	23.30	23.35		23.48	1	24.7					
	1	14	23.36	23.41	23.54	1	24.7	1	5	23.28	23.33		23.46	1	24.7					
	8	0	22.41	22.46	22.59	2	23.7	3	0	23.19	23.24		23.37	1	24.7					
	8	3	22.43	22.48	22.61	2	23.7	3	1	23.21	23.26		23.39	1	24.7					
64QAM	8	7	22.36	22.41	22.54	2	23.7	3	3	23.14	23.19		23.32	1	24.7					
	15	0	22.40	22.45	22.58	2	23.7	6	0	22.32	22.37		22.50	2	23.7					
	1	0	22.33	22.38	22.51	2	23.7	1	0	22.25	22.30		22.43	2	23.7					
	1	7	22.40	22.45	22.58	2	23.7	1	2	22.32	22.37		22.50	2	23.7					
	1	14	22.38	22.43	22.56	2	23.7	1	5	22.30	22.35		22.48	2	23.7					
	8	0	21.43	21.48	21.57	3	22.7	3	0	22.21	22.26		22.35	2	23.7					
16QAM	8	3	21.45	21.50	21.60	3	22.7	3	1	22.23	22.28		22.38	2	23.7					
	8	7	21.38	21.43	21.56	3	22.7	3	3	22.16	22.21		22.34	2	23.7					
	15	0	21.42	21.47	21.60	3	22.7	6	0	21.34	21.39		21.52	3	22.7					

FCC SAR Test Report

LTE Band 7																			
Head																			
Ant-2 / Ant-3																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power		
		Channel		20850	21100	21350					Channel		20825	21100	21375				
		Frequency (MHz)		2510	2535	2560					Frequency (MHz)		2507.5	2535	2562.5				
20M	QPSK	1	0	24.01	23.41	23.42	0	24.5	15M	QPSK	1	0	23.94	23.40	23.34	0	24.5		
		1	50	23.85	23.25	23.27	0	24.5			1	37	23.82	23.18	23.19	0	24.5		
		1	99	23.88	23.28	23.28	0	24.5			1	74	23.83	23.22	23.23	0	24.5		
		50	0	22.93	22.33	22.33	1	23.5			36	0	22.91	22.25	22.27	1	23.5		
		50	25	22.92	22.32	22.32	1	23.5			36	19	22.91	22.26	22.29	1	23.5		
		50	50	22.96	22.36	22.36	1	23.5			36	39	22.91	22.26	22.34	1	23.5		
	16QAM	100	0	22.91	22.31	22.31	1	23.5		75	0	22.89	22.26	22.31	1	23.5			
		1	0	22.99	22.36	22.33	1	23.5		16QAM	1	0	22.85	22.34	22.33	1	23.5		
		1	50	22.82	22.18	22.21	1	23.5			1	37	22.69	22.11	22.17	1	23.5		
		1	99	22.81	22.20	22.25	1	23.5			1	74	22.73	22.15	22.13	1	23.5		
		50	0	21.93	21.29	21.26	2	22.5			36	0	21.76	21.23	21.31	2	22.5		
		50	25	21.83	21.32	21.27	2	22.5			36	19	21.79	21.29	21.14	2	22.5		
	50	50	21.86	21.32	21.33	2	22.5	36			39	21.93	21.25	21.28	2	22.5			
	64QAM	100	0	21.89	21.25	21.31	2	22.5		75	0	21.84	21.19	21.14	2	22.5			
		1	0	21.92	21.36	21.34	2	22.5		64QAM	1	0	21.93	21.27	21.38	2	22.5		
		1	50	21.76	21.18	21.15	2	22.5			1	37	21.74	21.10	21.11	2	22.5		
		1	99	21.81	21.25	21.21	2	22.5			1	74	21.77	21.22	21.25	2	22.5		
		50	0	20.86	20.33	20.29	3	21.5			36	0	20.77	20.27	20.23	3	21.5		
		50	25	20.87	20.28	20.27	3	21.5			36	19	20.91	20.23	20.14	3	21.5		
	50	50	20.95	20.35	20.35	3	21.5	36			39	20.80	20.24	20.22	3	21.5			
	10M	QPSK	100	0	20.81	20.24	20.24	3		21.5	75	0	20.81	20.18	20.21	3	21.5		
			1	0	23.85	23.23	23.38	0		24.5	5M	QPSK	1	0	23.90	23.19	23.24	0	24.5
			1	24	23.77	23.08	23.08	0		24.5			1	12	23.82	23.14	23.00	0	24.5
			1	49	23.69	23.22	23.20	0		24.5			1	24	23.76	23.14	22.93	0	24.5
25			0	22.92	22.10	22.22	1	23.5	12	0			22.77	22.21	21.97	1	23.5		
25			12	22.81	22.16	22.25	1	23.5	12	6			22.69	22.22	22.08	1	23.5		
25		25	22.87	22.26	22.13	1	23.5	12	13	22.90			22.14	22.19	1	23.5			
16QAM		50	0	22.86	22.22	22.26	1	23.5	25	0		22.78	22.21	21.96	1	23.5			
		1	0	22.93	22.24	22.36	1	23.5	16QAM	1		0	22.86	22.30	22.19	1	23.5		
		1	24	22.67	22.08	22.15	1	23.5		1		12	22.69	22.02	22.02	1	23.5		
		1	49	22.72	22.18	22.13	1	23.5		1		24	22.64	22.02	22.00	1	23.5		
		25	0	21.77	21.24	21.11	2	22.5		12		0	21.85	21.13	21.15	2	22.5		
		25	12	21.63	21.21	21.16	2	22.5		12		6	21.81	21.01	21.06	2	22.5		
25		25	21.78	21.29	21.19	2	22.5	12		13		21.78	21.20	21.21	2	22.5			
64QAM		50	0	21.79	21.15	21.08	2	22.5	25	0		21.61	21.11	21.07	2	22.5			
		1	0	21.69	21.33	21.36	2	22.5	64QAM	1		0	21.74	21.31	21.19	2	22.5		
		1	24	21.80	21.13	21.15	2	22.5		1		12	21.66	21.14	21.02	2	22.5		
		1	49	21.73	21.21	21.04	2	22.5		1		24	21.65	21.24	21.14	2	22.5		
		25	0	20.76	20.13	20.10	3	21.5		12		0	20.80	20.21	20.17	3	21.5		
		25	12	20.82	20.10	20.22	3	21.5		12		6	20.62	20.27	20.09	3	21.5		
25		25	20.76	20.25	20.17	3	21.5	12		13		20.80	20.18	20.22	3	21.5			
50		0	20.68	20.00	20.19	3	21.5	25	0	20.71		20.11	20.19	3	21.5				

FCC SAR Test Report

LTE Band 7																	
Body-Worn / Hotspot																	
Ant-2																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		20850	21100	21350					Channel		20825	21100	21375		
		Frequency (MHz)		2510	2535	2560					Frequency (MHz)		2507.5	2535	2562.5		
20M	QPSK	1	0	20.31	20.22	20.23	0	21.0	15M	QPSK	1	0	20.29	20.18	20.20	0	21.0
		1	50	20.30	20.21	20.22	0	21.0			1	37	20.27	20.13	20.18	0	21.0
		1	99	20.44	20.35	20.36	0	21.0			1	74	20.41	20.35	20.28	0	21.0
		50	0	20.33	20.24	20.25	0	21.0			36	0	20.26	20.14	20.15	0	21.0
		50	25	20.37	20.28	20.29	0	21.0			36	19	20.35	20.19	20.27	0	21.0
		50	50	20.40	20.31	20.32	0	21.0			36	39	20.37	20.27	20.23	0	21.0
	100	0	20.36	20.27	20.28	0	21.0	75		0	20.36	20.22	20.19	0	21.0		
	16QAM	1	0	20.21	20.16	20.23	0	21.0		16QAM	1	0	20.25	20.11	20.07	0	21.0
		1	50	20.20	20.12	20.19	0	21.0			1	37	20.20	20.02	20.12	0	21.0
		1	99	20.42	20.30	20.29	0	21.0			1	74	20.31	20.30	20.25	0	21.0
		50	0	20.29	20.18	20.22	0	21.0			36	0	20.19	20.16	20.16	0	21.0
		50	25	20.30	20.28	20.25	0	21.0			36	19	20.21	20.24	20.21	0	21.0
		50	50	20.32	20.27	20.31	0	21.0			36	39	20.22	20.14	20.16	0	21.0
	100	0	20.26	20.26	20.28	0	21.0	75		0	20.19	20.19	20.22	0	21.0		
	64QAM	1	0	20.21	20.19	20.17	0	21.0		64QAM	1	0	20.21	20.12	20.07	0	21.0
		1	50	20.25	20.17	20.15	0	21.0			1	37	20.15	20.14	20.13	0	21.0
		1	99	20.34	20.29	20.34	0	21.0			1	74	20.34	20.22	20.30	0	21.0
		50	0	20.27	20.18	20.15	0	21.0			36	0	20.23	20.15	20.07	0	21.0
50		25	20.31	20.28	20.24	0	21.0	36	19		20.23	20.20	20.23	0	21.0		
50		50	20.40	20.27	20.26	0	21.0	36	39		20.38	20.25	20.26	0	21.0		
100	0	20.32	20.27	20.19	0	21.0	75	0	20.30	20.17	20.19	0	21.0				
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	21.0
		Channel		20800	21100	21400					Channel		20775	21100	21425		
		Frequency (MHz)		2505	2535	2565					Frequency (MHz)		2502.5	2535	2567.5		
10M	QPSK	1	0	20.20	20.11	20.07	0	21.0	5M	QPSK	1	0	20.10	20.08	20.03	0	21.0
		1	24	20.19	20.09	20.13	0	21.0			1	12	20.26	19.98	19.94	0	21.0
		1	49	20.20	20.26	20.22	0	21.0			1	24	20.26	20.26	20.24	0	21.0
		25	0	20.16	20.12	20.07	0	21.0			12	0	20.13	20.16	20.03	0	21.0
		25	12	20.27	20.12	20.10	0	21.0			12	6	20.27	20.15	20.08	0	21.0
		25	25	20.18	20.14	20.19	0	21.0			12	13	20.26	20.15	20.18	0	21.0
	50	0	20.25	20.12	20.16	0	21.0	25		0	20.26	20.13	20.03	0	21.0		
	16QAM	1	0	20.06	20.13	20.14	0	21.0		16QAM	1	0	20.20	20.10	20.07	0	21.0
		1	24	20.13	20.03	20.07	0	21.0			1	12	20.03	20.02	20.00	0	21.0
		1	49	20.32	20.12	20.10	0	21.0			1	24	20.20	20.07	20.09	0	21.0
		25	0	20.15	20.02	19.95	0	21.0			12	0	20.24	19.98	20.14	0	21.0
		25	12	20.21	20.19	20.20	0	21.0			12	6	20.28	20.12	19.95	0	21.0
		25	25	20.29	20.07	20.17	0	21.0			12	13	20.27	20.15	20.19	0	21.0
	50	0	20.15	20.08	20.10	0	21.0	25		0	20.18	20.18	20.01	0	21.0		
	64QAM	1	0	20.07	20.11	20.00	0	21.0		64QAM	1	0	20.10	19.90	20.04	0	21.0
		1	24	20.07	20.03	20.04	0	21.0			1	12	20.08	19.97	19.93	0	21.0
		1	49	20.27	20.19	20.15	0	21.0			1	24	20.24	20.12	20.05	0	21.0
		25	0	20.00	20.01	20.12	0	21.0			12	0	20.19	20.04	20.07	0	21.0
25		12	20.23	19.98	20.17	0	21.0	12	6		20.23	20.05	20.12	0	21.0		
25		25	20.33	20.08	20.22	0	21.0	12	13		20.21	20.07	20.05	0	21.0		
50	0	20.19	20.01	20.16	0	21.0	25	0	20.21	20.14	20.00	0	21.0				



FCC SAR Test Report

LTE Band 7																			
Body-Worn / Hotspot																			
Ant-3																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power		
		Channel		20850	21100	21350					Channel		20825	21100	21375				
		Frequency (MHz)		2510	2535	2560					Frequency (MHz)		2507.5	2535	2562.5				
20M	QPSK	1	0	24.01	23.41	23.42	0	24.5	15M	QPSK	1	0	23.94	23.40	23.34	0	24.5		
		1	50	23.85	23.25	23.27	0	24.5			1	37	23.82	23.18	23.19	0	24.5		
		1	99	23.88	23.28	23.28	0	24.5			1	74	23.83	23.22	23.23	0	24.5		
		50	0	22.93	22.33	22.33	1	23.5			36	0	22.91	22.25	22.27	1	23.5		
		50	25	22.92	22.32	22.32	1	23.5			36	19	22.91	22.26	22.29	1	23.5		
		50	50	22.96	22.36	22.36	1	23.5			36	39	22.91	22.26	22.34	1	23.5		
	16QAM	100	0	22.91	22.31	22.31	1	23.5		75	0	22.89	22.26	22.31	1	23.5			
		1	0	22.99	22.36	22.33	1	23.5		16QAM	1	0	22.85	22.34	22.33	1	23.5		
		1	50	22.82	22.18	22.21	1	23.5			1	37	22.69	22.11	22.17	1	23.5		
		1	99	22.81	22.20	22.25	1	23.5			1	74	22.73	22.15	22.13	1	23.5		
		50	0	21.93	21.29	21.26	2	22.5			36	0	21.76	21.23	21.31	2	22.5		
		50	25	21.83	21.32	21.27	2	22.5			36	19	21.79	21.29	21.14	2	22.5		
	50	50	21.86	21.32	21.33	2	22.5	36			39	21.93	21.25	21.28	2	22.5			
	64QAM	100	0	21.89	21.25	21.31	2	22.5		75	0	21.84	21.19	21.14	2	22.5			
		1	0	21.92	21.36	21.34	2	22.5		64QAM	1	0	21.93	21.27	21.38	2	22.5		
		1	50	21.76	21.18	21.15	2	22.5			1	37	21.74	21.10	21.11	2	22.5		
		1	99	21.81	21.25	21.21	2	22.5			1	74	21.77	21.22	21.25	2	22.5		
		50	0	20.86	20.33	20.29	3	21.5			36	0	20.77	20.27	20.23	3	21.5		
		50	25	20.87	20.28	20.27	3	21.5			36	19	20.91	20.23	20.14	3	21.5		
	50	50	20.95	20.35	20.35	3	21.5	36			39	20.80	20.24	20.22	3	21.5			
	10M	QPSK	100	0	20.81	20.24	20.24	3		21.5	75	0	20.81	20.18	20.21	3	21.5		
			1	0	23.85	23.23	23.38	0		24.5	5M	QPSK	1	0	23.90	23.19	23.24	0	24.5
			1	24	23.77	23.08	23.08	0		24.5			1	12	23.82	23.14	23.00	0	24.5
			1	49	23.69	23.22	23.20	0		24.5			1	24	23.76	23.14	22.93	0	24.5
25			0	22.92	22.10	22.22	1	23.5	12	0			22.77	22.21	21.97	1	23.5		
25			12	22.81	22.16	22.25	1	23.5	12	6			22.69	22.22	22.08	1	23.5		
25		25	22.87	22.26	22.13	1	23.5	12	13	22.90			22.14	22.19	1	23.5			
16QAM		50	0	22.86	22.22	22.26	1	23.5	25	0		22.78	22.21	21.96	1	23.5			
		1	0	22.93	22.24	22.36	1	23.5	16QAM	1		0	22.86	22.30	22.19	1	23.5		
		1	24	22.67	22.08	22.15	1	23.5		1		12	22.69	22.02	22.02	1	23.5		
		1	49	22.72	22.18	22.13	1	23.5		1		24	22.64	22.02	22.00	1	23.5		
		25	0	21.77	21.24	21.11	2	22.5		12		0	21.85	21.13	21.15	2	22.5		
		25	12	21.63	21.21	21.16	2	22.5		12		6	21.81	21.01	21.06	2	22.5		
25		25	21.78	21.29	21.19	2	22.5	12		13		21.78	21.20	21.21	2	22.5			
64QAM		50	0	21.79	21.15	21.08	2	22.5	25	0		21.61	21.11	21.07	2	22.5			
		1	0	21.69	21.33	21.36	2	22.5	64QAM	1		0	21.74	21.31	21.19	2	22.5		
		1	24	21.80	21.13	21.15	2	22.5		1		12	21.66	21.14	21.02	2	22.5		
		1	49	21.73	21.21	21.04	2	22.5		1		24	21.65	21.24	21.14	2	22.5		
		25	0	20.76	20.13	20.10	3	21.5		12		0	20.80	20.21	20.17	3	21.5		
		25	12	20.82	20.10	20.22	3	21.5		12		6	20.62	20.27	20.09	3	21.5		
25		25	20.76	20.25	20.17	3	21.5	12		13		20.80	20.18	20.22	3	21.5			
50		0	20.68	20.00	20.19	3	21.5	25	0	20.71		20.11	20.19	3	21.5				

FCC SAR Test Report

LTE Band 12																	
Head / Body-Worn / Hotspot																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		23060	23095	23130					Channel		23035	23095	23155		
		Frequency (MHz)		704	707.5	711					Frequency (MHz)		701.5	707.5	713.5		
10M	QPSK	1	0	24.28	24.23	24.32	0	25.7	5M	QPSK	1	0	24.25	24.20	24.29	0	25.7
		1	24	24.40	24.35	24.44	0	25.7			1	12	24.37	24.32	24.41	0	25.7
		1	49	24.38	24.33	24.42	0	25.7			1	24	24.35	24.30	24.39	0	25.7
		25	0	23.42	23.37	23.46	1	24.7			12	0	23.39	23.34	23.43	1	24.7
		25	12	23.48	23.43	23.52	1	24.7			12	6	23.45	23.40	23.49	1	24.7
		25	25	23.44	23.39	23.48	1	24.7			12	13	23.41	23.36	23.45	1	24.7
	16QAM	50	0	23.38	23.33	23.42	1	24.7		25	0	23.35	23.30	23.39	1	24.7	
		1	0	23.25	23.20	23.29	1	24.7		1	0	23.22	23.17	23.26	1	24.7	
		1	24	23.37	23.32	23.41	1	24.7		1	12	23.34	23.29	23.38	1	24.7	
		1	49	23.35	23.30	23.39	1	24.7		1	24	23.32	23.27	23.36	1	24.7	
		25	0	22.39	22.34	22.43	2	23.7		12	0	22.36	22.31	22.40	2	23.7	
		25	12	22.45	22.40	22.49	2	23.7		12	6	22.42	22.37	22.46	2	23.7	
	64QAM	25	25	22.41	22.36	22.45	2	23.7		12	13	22.38	22.33	22.42	2	23.7	
		50	0	22.35	22.30	22.39	2	23.7		25	0	22.32	22.27	22.36	2	23.7	
		1	0	22.27	22.22	22.31	2	23.7		1	0	22.24	22.19	22.28	2	23.7	
		1	24	22.39	22.34	22.43	2	23.7		1	12	22.36	22.31	22.40	2	23.7	
		1	49	22.37	22.32	22.41	2	23.7		1	24	22.34	22.29	22.38	2	23.7	
		25	0	21.41	21.36	21.45	3	22.7		12	0	21.38	21.33	21.42	3	22.7	
3M	QPSK	25	12	21.47	21.42	21.51	3	22.7	1.4M	QPSK	12	6	21.44	21.39	21.48	3	22.7
		25	25	21.43	21.38	21.47	3	22.7			12	13	21.40	21.35	21.44	3	22.7
		50	0	21.37	21.32	21.41	3	22.7			25	0	21.34	21.29	21.38	3	22.7
		1	0	24.20	24.15	24.24	0	25.7			1	0	24.18	24.13	24.22	0	25.7
		1	7	24.32	24.27	24.36	0	25.7			1	2	24.30	24.25	24.34	0	25.7
		1	14	24.30	24.25	24.34	0	25.7			1	5	24.28	24.23	24.32	0	25.7
	16QAM	8	0	23.34	23.29	23.38	1	24.7		3	0	24.13	24.08	24.17	0	25.7	
		8	3	23.40	23.35	23.44	1	24.7		3	1	24.19	24.14	24.23	0	25.7	
		8	7	23.36	23.31	23.40	1	24.7		3	3	24.15	24.10	24.19	0	25.7	
		15	0	23.30	23.25	23.34	1	24.7		6	0	23.28	23.23	23.32	1	24.7	
		1	0	23.17	23.12	23.21	1	24.7		1	0	23.15	23.10	23.19	1	24.7	
		1	7	23.29	23.24	23.33	1	24.7		1	2	23.27	23.22	23.31	1	24.7	
	64QAM	1	14	23.27	23.22	23.31	1	24.7		1	5	23.25	23.20	23.29	1	24.7	
		8	0	22.31	22.26	22.35	2	23.7		3	0	23.10	23.05	23.14	1	24.7	
		8	3	22.37	22.32	22.41	2	23.7		3	1	23.16	23.11	23.20	1	24.7	
		8	7	22.33	22.28	22.37	2	23.7		3	3	23.12	23.07	23.16	1	24.7	
		15	0	22.27	22.22	22.31	2	23.7		6	0	22.25	22.20	22.29	2	23.7	
		1	0	22.19	22.14	22.23	2	23.7		1	0	22.17	22.12	22.21	2	23.7	
16QAM	1	7	22.31	22.26	22.35	2	23.7	1	2	22.29	22.24	22.33	2	23.7			
	1	14	22.29	22.24	22.33	2	23.7	1	5	22.27	22.22	22.31	2	23.7			
	8	0	21.33	21.28	21.37	3	22.7	3	0	22.12	22.07	22.16	2	23.7			
	8	3	21.39	21.34	21.43	3	22.7	3	1	22.18	22.13	22.22	2	23.7			
	8	7	21.35	21.30	21.39	3	22.7	3	3	22.14	22.09	22.18	2	23.7			
	15	0	21.29	21.24	21.33	3	22.7	6	0	21.27	21.22	21.31	3	22.7			



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LTE Band 13																		
Head																		
Ant-0																		
BW	MCS Index	RB Size	RB Offset	Mid	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power			
		Channel							Channel							23205	23230	23255
		Frequency (MHz)							Frequency (MHz)							779.5	782	784.5
10M	QPSK	1	0	24.31	0	25.3	5M	QPSK	1	0	23.82	24.28	24.37	0	25.3			
		1	24	24.37	0	25.3			1	12	23.89	24.35	24.44	0	25.3			
		1	49	24.28	0	25.3			1	24	23.79	24.25	24.34	0	25.3			
		25	0	23.43	1	24.3			12	0	22.95	23.41	23.50	1	24.3			
		25	12	23.46	1	24.3			12	6	22.97	23.43	23.52	1	24.3			
		25	25	23.39	1	24.3			12	13	22.91	23.37	23.46	1	24.3			
	16QAM	50	0	23.41	1	24.3		25	0	22.92	23.38	23.47	1	24.3				
		1	0	23.29	1	24.3		16QAM	1	0	22.80	23.26	23.35	1	24.3			
		1	24	23.35	1	24.3			1	12	22.87	23.33	23.42	1	24.3			
		1	49	23.26	1	24.3			1	24	22.77	23.23	23.32	1	24.3			
		25	0	22.41	2	23.3			12	0	21.93	22.39	22.48	2	23.3			
		25	12	22.44	2	23.3			12	6	21.95	22.41	22.50	2	23.3			
	25	25	22.37	2	23.3	12			13	21.89	22.35	22.44	2	23.3				
	64QAM	50	0	22.39	2	23.3		25	0	21.90	22.36	22.45	2	23.3				
		1	0	22.26	2	23.3		64QAM	1	0	21.75	22.21	22.30	2	23.3			
		1	24	22.32	2	23.3			1	12	21.82	22.28	22.37	2	23.3			
		1	49	22.23	2	23.3			1	24	21.72	22.18	22.27	2	23.3			
		25	0	21.38	3	22.3			12	0	20.88	21.34	21.43	3	22.3			
		25	12	21.41	3	22.3			12	6	20.90	21.36	21.45	3	22.3			
	25	25	21.34	3	22.3	12			13	20.84	21.30	21.39	3	22.3				
	50	0	21.36	3	22.3	25		0	20.85	21.31	21.40	3	22.3					

LTE Band 13																		
Head																		
Ant-1																		
BW	MCS Index	RB Size	RB Offset	Mid	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power			
		Channel							Channel							23205	23230	23255
		Frequency (MHz)							Frequency (MHz)							779.5	782	784.5
10M	QPSK	1	0	23.31	0	24.5	5M	QPSK	1	0	22.13	23.15	23.12	0	24.5			
		1	24	23.33	0	24.5			1	12	22.23	23.25	23.22	0	24.5			
		1	49	23.26	0	24.5			1	24	22.14	23.16	23.13	0	24.5			
		25	0	23.18	0	24.5			12	0	22.08	23.10	23.07	0	24.5			
		25	12	23.22	0	24.5			12	6	22.00	23.02	22.99	0	24.5			
		25	25	23.16	0	24.5			12	13	22.09	23.11	23.08	0	24.5			
	16QAM	50	0	23.14	0	24.5		25	0	22.09	23.11	23.08	0	24.5				
		1	0	23.23	0	24.5		16QAM	1	0	22.20	23.22	23.19	0	24.5			
		1	24	23.29	0	24.5			1	12	22.10	23.12	23.09	0	24.5			
		1	49	23.21	0	24.5			1	24	21.96	22.98	22.95	0	24.5			
		25	0	23.17	0	24.5			12	0	21.97	22.99	22.96	0	24.5			
		25	12	23.06	0	24.5			12	6	22.02	23.04	23.01	0	24.5			
	25	25	23.08	0	24.5	12			13	21.96	22.98	22.95	0	24.5				
	64QAM	50	0	23.13	0	24.5		25	0	21.91	22.93	22.90	0	24.5				
		1	0	23.28	0	24.5		64QAM	1	0	22.17	23.19	23.16	0	24.5			
		1	24	23.26	0	24.5			1	12	22.10	23.12	23.09	0	24.5			
		1	49	23.21	0	24.5			1	24	22.05	23.07	23.04	0	24.5			
		25	0	23.12	0	24.5			12	0	22.09	23.11	23.08	0	24.5			
		25	12	23.14	0	24.5			12	6	22.02	23.04	23.01	0	24.5			
	25	25	23.14	0	24.5	12			13	21.93	22.95	22.92	0	24.5				
	50	0	23.06	0	24.5	25		0	21.86	22.88	22.82	0	24.5					



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LTE Band 13																	
Body-Worn / Hotspot																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset	Mid			3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		23230							Channel		23205	23230	23255		
		Frequency (MHz)		782							Frequency (MHz)		779.5	782	784.5		
10M	QPSK	1	0		24.31		0	25.3	5M	QPSK	1	0	23.82	24.28	24.37	0	25.3
		1	24		24.37		0	25.3			1	12	23.89	24.35	24.44	0	25.3
		1	49		24.28		0	25.3			1	24	23.79	24.25	24.34	0	25.3
		25	0		23.43		1	24.3			12	0	22.95	23.41	23.50	1	24.3
		25	12		23.46		1	24.3			12	6	22.97	23.43	23.52	1	24.3
		25	25		23.39		1	24.3			12	13	22.91	23.37	23.46	1	24.3
	16QAM	50	0		23.41		1	24.3		25	0	22.92	23.38	23.47	1	24.3	
		1	0		23.29		1	24.3		16QAM	1	0	22.80	23.26	23.35	1	24.3
		1	24		23.35		1	24.3			1	12	22.87	23.33	23.42	1	24.3
		1	49		23.26		1	24.3			1	24	22.77	23.23	23.32	1	24.3
		25	0		22.41		2	23.3			12	0	21.93	22.39	22.48	2	23.3
		25	12		22.44		2	23.3			12	6	21.95	22.41	22.50	2	23.3
	25	25		22.37		2	23.3	12			13	21.89	22.35	22.44	2	23.3	
	64QAM	50	0		22.39		2	23.3		25	0	21.90	22.36	22.45	2	23.3	
		1	0		22.26		2	23.3		64QAM	1	0	21.75	22.21	22.30	2	23.3
		1	24		22.32		2	23.3			1	12	21.82	22.28	22.37	2	23.3
		1	49		22.23		2	23.3			1	24	21.72	22.18	22.27	2	23.3
		25	0		21.38		3	22.3			12	0	20.88	21.34	21.43	3	22.3
		25	12		21.41		3	22.3			12	6	20.90	21.36	21.45	3	22.3
	25	25		21.34		3	22.3	12			13	20.84	21.30	21.39	3	22.3	
	50	0		21.36		3	22.3	25		0	20.85	21.31	21.40	3	22.3		

LTE Band 17																	
Head / Body-Worn / Hotspot																	
Ant-0 / Ant-1																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power
		Channel		23780	23790	23800					Channel		23755	23790	23825		
		Frequency (MHz)		709	710	711					Frequency (MHz)		706.5	710	713.5		
10M	QPSK	1	0	24.73	24.75	24.71	0	25.7	5M	QPSK	1	0	24.68	24.70	24.66	0	25.7
		1	24	24.81	24.83	24.79	0	25.7			1	12	24.76	24.78	24.74	0	25.7
		1	49	24.83	24.85	24.81	0	25.7			1	24	24.78	24.80	24.76	0	25.7
		25	0	23.95	23.97	23.93	1	24.7			12	0	23.90	23.92	23.88	1	24.7
		25	12	23.94	23.96	23.92	1	24.7			12	6	23.89	23.91	23.87	1	24.7
		25	25	23.96	23.98	23.94	1	24.7			12	13	23.91	23.93	23.89	1	24.7
	16QAM	50	0	23.91	23.93	23.89	1	24.7		25	0	23.86	23.88	23.84	1	24.7	
		1	0	23.70	23.72	23.68	1	24.7		16QAM	1	0	23.65	23.67	23.63	1	24.7
		1	24	23.78	23.80	23.76	1	24.7			1	12	23.73	23.75	23.71	1	24.7
		1	49	23.80	23.82	23.78	1	24.7			1	24	23.75	23.77	23.73	1	24.7
		25	0	22.92	22.94	22.90	2	23.7			12	0	22.87	22.89	22.85	2	23.7
		25	12	22.91	22.93	22.89	2	23.7			12	6	22.86	22.88	22.84	2	23.7
	25	25	22.93	22.95	22.91	2	23.7	12			13	22.88	22.90	22.86	2	23.7	
	64QAM	50	0	22.88	22.90	22.86	2	23.7		25	0	22.83	22.85	22.81	2	23.7	
		1	0	22.65	22.67	22.63	2	23.7		64QAM	1	0	22.60	22.62	22.58	2	23.7
		1	24	22.73	22.75	22.71	2	23.7			1	12	22.68	22.70	22.66	2	23.7
		1	49	22.75	22.77	22.73	2	23.7			1	24	22.70	22.72	22.68	2	23.7
		25	0	21.87	21.89	21.85	3	22.7			12	0	21.82	21.84	21.80	3	22.7
		25	12	21.86	21.88	21.84	3	22.7			12	6	21.81	21.83	21.79	3	22.7
	25	25	21.88	21.90	21.86	3	22.7	12			13	21.83	21.85	21.81	3	22.7	
	50	0	21.83	21.85	21.81	3	22.7	25		0	21.78	21.80	21.76	3	22.7		

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LTE Band 38																			
Head / Body-Worn / Hotspot																			
Ant-2 / Ant-3																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power		
		Channel		37850	38000	38150					Channel		37825	38000	38175				
		Frequency (MHz)		2580	2595	2610					Frequency (MHz)		2577.5	2595	2612.5				
20M	QPSK	1	0	24.16	24.35	24.51	0	25.7	15M	QPSK	1	0	24.10	24.29	24.45	0	25.7		
		1	50	24.32	24.51	24.67	0	25.7			1	37	24.26	24.45	24.61	0	25.7		
		1	99	24.42	24.61	24.69	0	25.7			1	74	24.36	24.55	24.63	0	25.7		
		50	0	23.34	23.53	23.65	1	24.7			36	0	23.28	23.47	23.59	1	24.7		
		50	25	23.36	23.55	23.66	1	24.7			36	19	23.30	23.49	23.60	1	24.7		
		50	50	23.38	23.57	23.67	1	24.7			36	39	23.32	23.51	23.62	1	24.7		
	16QAM	100	0	23.37	23.56	23.69	1	24.7		75	0	23.31	23.50	23.66	1	24.7			
		1	0	23.13	23.32	23.48	1	24.7		1	0	23.07	23.26	23.42	1	24.7			
		1	50	23.29	23.48	23.64	1	24.7		1	37	23.23	23.42	23.58	1	24.7			
		1	99	23.39	23.58	23.66	1	24.7		1	74	23.33	23.52	23.60	1	24.7			
		50	0	22.31	22.50	22.62	2	23.7		36	0	22.25	22.44	22.56	2	23.7			
		50	25	22.33	22.52	22.63	2	23.7		36	19	22.27	22.46	22.57	2	23.7			
	64QAM	50	50	22.35	22.54	22.65	2	23.7		36	39	22.29	22.48	22.59	2	23.7			
		100	0	22.34	22.53	22.68	2	23.7		75	0	22.28	22.47	22.63	2	23.7			
		1	0	22.12	22.31	22.47	2	23.7		1	0	22.06	22.25	22.41	2	23.7			
		1	50	22.28	22.47	22.63	2	23.7		1	37	22.22	22.41	22.57	2	23.7			
		1	99	22.38	22.57	22.65	2	23.7		1	74	22.32	22.51	22.59	2	23.7			
		50	0	21.30	21.49	21.61	3	22.7		36	0	21.24	21.43	21.55	3	22.7			
	10M	QPSK	50	25	21.32	21.51	21.62	3		22.7	5M	QPSK	36	19	21.26	21.45	21.56	3	22.7
			50	50	21.34	21.53	21.64	3		22.7			36	39	21.28	21.47	21.58	3	22.7
			100	0	21.33	21.52	21.68	3		22.7			75	0	21.27	21.46	21.62	3	22.7
			1	0	23.02	23.21	23.37	1		24.7			1	0	22.99	23.18	23.34	1	24.7
			1	24	23.18	23.37	23.53	1		24.7			1	12	23.15	23.34	23.50	1	24.7
			1	49	23.28	23.47	23.55	1		24.7			1	24	23.25	23.44	23.52	1	24.7
16QAM		25	0	22.20	22.39	22.51	2	23.7	12	0		22.17	22.36	22.48	2	23.7			
		25	12	22.22	22.41	22.52	2	23.7	12	6		22.19	22.38	22.49	2	23.7			
		25	25	22.24	22.43	22.54	2	23.7	12	13		22.21	22.40	22.51	2	23.7			
		50	0	22.23	22.42	22.58	2	23.7	25	0		22.20	22.39	22.55	2	23.7			
		1	0	22.01	22.20	22.36	2	23.7	1	0		21.98	22.17	22.33	2	23.7			
		1	24	22.17	22.36	22.52	2	23.7	1	12		22.14	22.33	22.49	2	23.7			
64QAM		1	49	22.27	22.46	22.54	2	23.7	1	24		22.24	22.43	22.51	2	23.7			
		25	0	21.19	21.38	21.50	3	22.7	12	0		21.16	21.35	21.47	3	22.7			
		25	12	21.21	21.40	21.51	3	22.7	12	6		21.18	21.37	21.48	3	22.7			
		25	25	21.23	21.42	21.53	3	22.7	12	13		21.20	21.39	21.50	3	22.7			
		50	0	21.22	21.41	21.57	3	22.7	25	0		21.19	21.38	21.54	3	22.7			

FCC SAR Test Report

LTE Band 66																								
Body-Worn / Hotspot																								
Ant-1																								
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up Power							
		Channel		132072	132322	132572					Channel		132047	132322	132597									
		Frequency (MHz)		1720	1745	1770					Frequency (MHz)		1717.5	1745	1772.5									
20M	QPSK	1	0	23.37	23.32	23.41	0	24.5	15M	QPSK	1	0	23.30	23.25	23.34	0	24.5	1	37	23.43	23.38	23.47	0	24.5
		1	50	23.50	23.45	23.54	0	24.5			1	74	23.35	23.30	23.39	0	24.5							
		1	99	23.42	23.37	23.46	0	24.5			36	0	22.30	22.25	22.34	1	23.5							
		50	0	22.37	22.32	22.41	1	23.5			36	19	22.33	22.28	22.37	1	23.5							
		50	25	22.40	22.35	22.44	1	23.5			36	39	22.23	22.18	22.27	1	23.5							
		50	50	22.30	22.25	22.34	1	23.5			75	0	22.29	22.24	22.33	1	23.5							
	16QAM	100	0	22.36	22.31	22.40	1	23.5		16QAM	1	0	22.25	22.20	22.29	1	23.5	1	37	22.38	22.33	22.42	1	23.5
		1	0	22.32	22.27	22.36	1	23.5			1	74	22.30	22.25	22.34	1	23.5							
		1	50	22.45	22.40	22.49	1	23.5			36	0	21.25	21.20	21.29	2	22.5							
		1	99	22.37	22.32	22.41	1	23.5			36	19	21.28	21.23	21.32	2	22.5							
		50	0	21.32	21.27	21.36	2	22.5			36	39	21.18	21.13	21.22	2	22.5							
		50	25	21.35	21.30	21.39	2	22.5			75	0	21.24	21.19	21.28	2	22.5							
	64QAM	50	50	21.25	21.20	21.29	2	22.5		64QAM	1	0	21.23	21.18	21.27	2	22.5	1	37	21.36	21.31	21.40	2	22.5
		100	0	21.31	21.26	21.35	2	22.5			1	74	21.28	21.23	21.32	2	22.5							
		1	0	21.30	21.25	21.34	2	22.5			36	0	20.23	20.18	20.27	3	21.5							
		1	50	21.43	21.38	21.47	2	22.5			36	19	20.26	20.21	20.30	3	21.5							
		1	99	21.35	21.30	21.39	2	22.5			36	39	20.16	20.11	20.20	3	21.5							
		50	0	20.30	20.25	20.34	3	21.5			75	0	20.22	20.17	20.26	3	21.5							

FCC SAR Test Report

<WLAN Power>

<WWAN OFF / WWAN ON>

WLAN 2.4GHz												
Head												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11b	1	2412	17.49	17.5	17.36	17.5	15.31	15.30	18.32	15.5	15.5	18.5
	6	2437	17.49	17.5	17.48	17.5	15.39	15.29	18.35	15.5	15.5	18.5
	11	2462	17.46	17.5	17.40	17.5	15.37	15.27	18.33	15.5	15.5	18.5
	12	2467	17.22	17.5	17.37	17.5	15.35	15.30	18.34	15.5	15.5	18.5
	13	2472	17.47	17.5	17.28	17.5	15.39	15.22	18.32	15.5	15.5	18.5
802.11g	1	2412	17.38	18.0	17.29	18.0	15.26	15.25	18.27	15.5	15.5	18.5
	6	2437	17.5	18.0	17.43	18.0	15.28	15.28	18.29	15.5	15.5	18.5
	11	2462	17.48	18.0	17.38	18.0	15.21	15.27	18.25	15.5	15.5	18.5
	12	2467	14.78	15.0	14.76	15.0	14.84	14.89	17.88	15.5	15.5	18.5
	13	2472	5.82	6.5	5.78	6.5	5.85	5.76	8.82	6.5	6.5	9.5
802.11n HT20	1	2412	17.4	18.0	17.33	18.0	15.25	15.24	18.26	15.5	15.5	18.5
	6	2437	17.48	18.0	17.46	18.0	15.29	15.33	18.32	15.5	15.5	18.5
	11	2462	17.45	18.0	17.43	18.0	15.23	15.28	18.27	15.5	15.5	18.5
	12	2467	16.76	17.0	16.73	17.0	15.26	15.17	18.23	15.5	15.5	18.5
	13	2472	6.41	6.5	6.37	6.5	6.46	6.41	9.45	6.5	6.5	9.5
802.11ac VHT20	1	2412	17.31	18.0	17.29	18.0	15.19	15.12	18.17	15.5	15.5	18.5
	6	2437	17.49	18.0	17.47	18.0	15.16	15.23	18.21	15.5	15.5	18.5
	11	2462	17.45	18.0	17.42	18.0	15.17	15.16	18.18	15.5	15.5	18.5
	12	2467	16.83	17.0	16.78	17.0	15.21	15.13	18.18	15.5	15.5	18.5
	13	2472	6.49	6.5	6.45	6.5	6.49	6.47	9.49	6.5	6.5	9.5

WLAN 2.4GHz												
Body-Worn / Hotspot												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11b	1	2412	17.49	18.0	17.36	18.0	17.49	17.46	20.49	18.0	18.0	21.0
	6	2437	17.49	18.0	17.48	18.0	17.49	17.45	20.48	18.0	18.0	21.0
	11	2462	17.46	18.0	17.40	18.0	17.47	17.42	20.46	18.0	18.0	21.0
	12	2467	17.22	18.0	17.37	18.0	17.3	17.46	20.39	18.0	18.0	21.0
	13	2472	17.47	18.0	17.28	18.0	17.49	17.38	20.45	18.0	18.0	21.0
802.11g	1	2412	17.38	18.0	17.29	18.0	17.41	17.35	20.39	18.0	18.0	21.0
	6	2437	17.5	18.0	17.43	18.0	17.47	17.44	20.47	18.0	18.0	21.0
	11	2462	17.48	18.0	17.38	18.0	17.45	17.41	20.44	18.0	18.0	21.0
	12	2467	14.78	15.0	14.76	15.0	14.84	14.89	17.88	15.0	15.0	18.0
	13	2472	5.82	6.0	5.78	6.0	5.85	5.76	8.82	6.0	6.0	9.0
802.11n HT20	1	2412	17.4	18.0	17.33	18.0	17.47	17.38	20.44	18.0	18.0	21.0
	6	2437	17.48	18.0	17.46	18.0	17.47	17.42	20.46	18.0	18.0	21.0
	11	2462	17.45	18.0	17.43	18.0	17.43	17.39	20.42	18.0	18.0	21.0
	12	2467	16.76	17.0	16.73	17.0	16.81	16.68	19.76	17.5	17.5	20.5
	13	2472	6.41	7.0	6.37	7.0	6.46	6.41	9.45	7.0	7.0	10.0
802.11ac VHT20	1	2412	17.31	18.0	17.29	18.0	17.39	17.36	20.39	18.0	18.0	21.0
	6	2437	17.49	18.0	17.47	18.0	17.46	17.39	20.44	18.0	18.0	21.0
	11	2462	17.45	18.0	17.42	18.0	17.49	17.46	20.49	18.0	18.0	21.0
	12	2467	16.83	17.0	16.78	17.0	16.87	16.74	19.82	17.5	17.5	20.5
	13	2472	6.49	7.0	6.45	7.0	6.49	6.47	9.49	7.0	7.0	10.0

FCC SAR Test Report

WLAN 5.2GHz												
Head / Body-Worn / Hotspot												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11a	36	5180	17.39	17.5	17.38	17.5	17.40	17.42	20.42	17.5	17.5	20.5
	40	5200	17.20	17.5	17.27	17.5	17.25	17.36	20.32	17.5	17.5	20.5
	44	5220	17.29	17.5	17.20	17.5	17.34	17.23	20.30	17.5	17.5	20.5
	48	5240	17.27	17.5	17.31	17.5	17.36	17.34	20.36	17.5	17.5	20.5
802.11n HT20	36	5180	17.37	17.5	17.39	17.5	17.41	17.41	20.42	17.5	17.5	20.5
	40	5200	17.21	17.5	17.35	17.5	17.24	17.39	20.33	17.5	17.5	20.5
	44	5220	17.31	17.5	17.24	17.5	17.39	17.26	20.34	17.5	17.5	20.5
	48	5240	17.32	17.5	17.25	17.5	17.36	17.31	20.35	17.5	17.5	20.5
802.11n HT40	38	5190	17.32	17.5	17.33	17.5	17.39	17.36	20.39	17.5	17.5	20.5
	46	5230	17.08	17.5	17.37	17.5	17.17	17.39	20.29	17.5	17.5	20.5
802.11ac VHT20	36	5180	17.45	17.5	17.42	17.5	17.48	17.44	20.47	17.5	17.5	20.5
	40	5200	17.26	17.5	17.38	17.5	17.27	17.41	20.35	17.5	17.5	20.5
	44	5220	17.35	17.5	17.23	17.5	17.42	17.29	20.37	17.5	17.5	20.5
	48	5240	17.41	17.5	17.33	17.5	17.42	17.35	20.40	17.5	17.5	20.5
802.11ac VHT40	38	5190	17.39	17.5	17.29	17.5	17.41	17.36	20.40	17.5	17.5	20.5
	46	5230	17.12	17.5	17.28	17.5	17.20	17.32	20.27	17.5	17.5	20.5
802.11ac VHT80	42	5210	17.31	17.5	17.08	17.5	17.39	17.16	20.29	17.5	17.5	20.5

WLAN 5.3GHz												
Head / Body-Worn / Hotspot												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11a	52	5260	17.23	17.5	17.34	17.5	17.30	17.37	20.35	17.5	17.5	20.5
	56	5280	17.18	17.5	17.27	17.5	17.26	17.33	20.31	17.5	17.5	20.5
	60	5300	17.22	17.5	17.07	17.5	17.23	17.13	20.19	17.5	17.5	20.5
	64	5320	17.16	17.5	17.15	17.5	17.19	17.20	20.21	17.5	17.5	20.5
802.11n HT20	52	5260	17.25	17.5	17.38	17.5	17.30	17.40	20.36	17.5	17.5	20.5
	56	5280	17.20	17.5	17.29	17.5	17.29	17.31	20.31	17.5	17.5	20.5
	60	5300	17.11	17.5	17.03	17.5	17.17	17.12	20.16	17.5	17.5	20.5
	64	5320	17.08	17.5	17.15	17.5	17.16	17.20	20.19	17.5	17.5	20.5
802.11n HT40	54	5270	17.34	17.5	17.15	17.5	17.38	17.21	20.31	17.5	17.5	20.5
	62	5310	17.34	17.5	17.27	17.5	17.37	17.32	20.36	17.5	17.5	20.5
802.11ac VHT20	52	5260	17.37	17.5	17.38	17.5	17.38	17.44	20.42	17.5	17.5	20.5
	56	5280	17.28	17.5	17.38	17.5	17.32	17.40	20.37	17.5	17.5	20.5
	60	5300	17.15	17.5	17.18	17.5	17.24	17.20	20.23	17.5	17.5	20.5
	64	5320	17.16	17.5	17.19	17.5	17.24	17.27	20.27	17.5	17.5	20.5
802.11ac VHT40	54	5270	17.30	17.5	17.19	17.5	17.35	17.25	20.31	17.5	17.5	20.5
	62	5310	17.37	17.5	17.22	17.5	17.38	17.28	20.34	17.5	17.5	20.5
802.11ac VHT80	58	5290	17.18	17.5	17.19	17.5	17.37	17.31	20.26	17.5	17.5	20.5

FCC SAR Test Report

WLAN 5.6GHz												
Head / Body-Worn / Hotspot												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11a	100	5500	17.42	17.5	17.31	17.5	17.50	17.34	20.43	17.5	17.5	20.5
	116	5580	17.13	17.5	17.21	17.5	17.21	17.23	20.23	17.5	17.5	20.5
	120	5600	17.31	17.5	17.10	17.5	17.36	17.12	20.25	17.5	17.5	20.5
	124	5620	17.12	17.5	17.17	17.5	17.21	17.22	20.23	17.5	17.5	20.5
	132	5660	17.21	17.5	17.10	17.5	17.23	17.12	20.19	17.5	17.5	20.5
	140	5700	17.35	17.5	17.15	17.5	17.39	17.22	20.32	17.5	17.5	20.5
	144	5720	17.18	17.5	17.12	17.5	17.19	17.19	20.20	17.5	17.5	20.5
802.11n HT20	100	5500	17.47	17.5	17.22	17.5	17.49	17.39	20.45	17.5	17.5	20.5
	116	5580	17.10	17.5	17.13	17.5	17.18	17.21	20.21	17.5	17.5	20.5
	120	5600	17.33	17.5	17.08	17.5	17.35	17.17	20.27	17.5	17.5	20.5
	124	5620	17.23	17.5	17.23	17.5	17.26	17.24	20.26	17.5	17.5	20.5
	132	5660	17.19	17.5	17.07	17.5	17.21	17.15	20.19	17.5	17.5	20.5
	140	5700	17.23	17.5	17.10	17.5	17.32	17.17	20.26	17.5	17.5	20.5
	144	5720	17.16	17.5	17.12	17.5	17.20	17.19	20.21	17.5	17.5	20.5
802.11n HT40	102	5510	17.24	17.5	17.29	17.5	17.31	17.37	20.35	17.5	17.5	20.5
	110	5550	17.22	17.5	17.27	17.5	17.27	17.37	20.33	17.5	17.5	20.5
	118	5590	17.17	17.5	17.05	17.5	17.20	17.12	20.17	17.5	17.5	20.5
	126	5630	17.14	17.5	17.18	17.5	17.20	17.19	20.21	17.5	17.5	20.5
	134	5670	17.48	17.5	17.31	17.5	17.46	17.39	20.44	17.5	17.5	20.5
	142	5710	17.17	17.5	17.11	17.5	17.25	17.21	20.24	17.5	17.5	20.5
802.11ac VHT20	100	5500	17.50	17.5	17.36	17.5	17.49	17.40	20.46	17.5	17.5	20.5
	116	5580	17.26	17.5	17.22	17.5	17.27	17.28	20.29	17.5	17.5	20.5
	120	5600	17.30	17.5	17.19	17.5	17.40	17.20	20.31	17.5	17.5	20.5
	124	5620	17.22	17.5	17.25	17.5	17.30	17.29	20.31	17.5	17.5	20.5
	132	5660	17.25	17.5	17.12	17.5	17.27	17.21	20.25	17.5	17.5	20.5
	140	5700	17.39	17.5	17.20	17.5	17.40	17.27	20.35	17.5	17.5	20.5
	144	5720	17.22	17.5	17.13	17.5	17.28	17.21	20.26	17.5	17.5	20.5
802.11ac VHT40	102	5510	17.32	17.5	17.33	17.5	17.33	17.36	20.36	17.5	17.5	20.5
	110	5550	17.19	17.5	17.36	17.5	17.25	17.37	20.32	17.5	17.5	20.5
	118	5590	17.16	17.5	17.05	17.5	17.18	17.13	20.17	17.5	17.5	20.5
	126	5630	17.13	17.5	17.18	17.5	17.22	17.20	20.22	17.5	17.5	20.5
	134	5670	17.48	17.5	17.27	17.5	17.47	17.44	20.47	17.5	17.5	20.5
	142	5710	17.12	17.5	17.17	17.5	17.21	17.20	20.22	17.5	17.5	20.5
802.11ac VHT80	106	5530	17.21	17.5	17.12	17.5	17.23	17.14	20.20	17.5	17.5	20.5
	122	5610	17.36	17.5	17.12	17.5	17.38	17.20	20.30	17.5	17.5	20.5
	138	5690	17.41	17.5	17.31	17.5	17.23	17.16	20.31	17.5	17.5	20.5

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WLAN 5.8GHz												
Head												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11a	149	5745	16.31	16.5	17.28	17.5	17.32	17.34	20.34	17.5	17.5	20.5
	153	5765	16.26	16.5	17.12	17.5	17.34	17.19	20.28	17.5	17.5	20.5
	157	5785	16.39	16.5	17.22	17.5	17.47	17.32	20.41	17.5	17.5	20.5
	161	5805	16.25	16.5	17.06	17.5	17.14	17.13	20.15	17.5	17.5	20.5
	165	5825	16.37	16.5	17.13	17.5	17.29	17.20	20.26	17.5	17.5	20.5
802.11n HT20	149	5745	16.28	16.5	17.31	17.5	17.37	17.37	20.38	17.5	17.5	20.5
	153	5765	16.21	16.5	17.20	17.5	17.30	17.22	20.27	17.5	17.5	20.5
	157	5785	16.22	16.5	17.20	17.5	17.48	17.31	20.41	17.5	17.5	20.5
	161	5805	16.20	16.5	17.08	17.5	17.15	17.14	20.16	17.5	17.5	20.5
	165	5825	16.19	16.5	17.18	17.5	17.24	17.22	20.24	17.5	17.5	20.5
802.11n HT40	151	5755	16.25	16.5	17.34	17.5	17.39	17.35	20.38	17.5	17.5	20.5
	159	5795	16.24	16.5	17.15	17.5	17.30	17.23	20.28	17.5	17.5	20.5
802.11ac VHT20	149	5745	16.37	16.5	17.33	17.5	17.42	17.39	20.42	17.5	17.5	20.5
	153	5765	16.38	16.5	17.25	17.5	17.38	17.28	20.34	17.5	17.5	20.5
	157	5785	16.33	16.5	17.31	17.5	17.49	17.46	20.49	17.5	17.5	20.5
	161	5805	16.38	16.5	17.18	17.5	17.23	17.21	20.23	17.5	17.5	20.5
	165	5825	16.30	16.5	17.20	17.5	17.32	17.29	20.32	17.5	17.5	20.5
802.11ac VHT40	151	5755	16.31	16.5	17.08	17.5	17.19	17.11	20.16	17.5	17.5	20.5
	159	5795	16.27	16.5	17.18	17.5	17.29	17.25	20.28	17.5	17.5	20.5
802.11ac VHT80	155	5775	16.32	16.5	17.18	17.5	17.39	17.30	20.36	17.5	17.5	20.5

WLAN 5.8GHz												
Body-Worn / Hotspot												
Tx Antenna			SISO Ant-0		SISO Ant-1		MIMO Ant-0+1					
Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power	Average Power	Tune-up Power	Average Power			Tune-up Power		
							Ant0	Ant1	Ant0+1	Ant0	Ant1	Ant0+1
802.11a	149	5745	17.24	17.5	17.28	17.5	17.32	17.34	20.34	17.5	17.5	20.5
	153	5765	17.28	17.5	17.12	17.5	17.34	17.19	20.28	17.5	17.5	20.5
	157	5785	17.43	17.5	17.22	17.5	17.47	17.32	20.41	17.5	17.5	20.5
	161	5805	17.13	17.5	17.06	17.5	17.14	17.13	20.15	17.5	17.5	20.5
	165	5825	17.27	17.5	17.13	17.5	17.29	17.20	20.26	17.5	17.5	20.5
802.11n HT20	149	5745	17.29	17.5	17.31	17.5	17.37	17.37	20.38	17.5	17.5	20.5
	153	5765	17.25	17.5	17.20	17.5	17.30	17.22	20.27	17.5	17.5	20.5
	157	5785	17.47	17.5	17.20	17.5	17.48	17.31	20.41	17.5	17.5	20.5
	161	5805	17.06	17.5	17.08	17.5	17.15	17.14	20.16	17.5	17.5	20.5
	165	5825	17.19	17.5	17.18	17.5	17.24	17.22	20.24	17.5	17.5	20.5
802.11n HT40	151	5755	17.30	17.5	17.34	17.5	17.39	17.35	20.38	17.5	17.5	20.5
	159	5795	17.26	17.5	17.15	17.5	17.30	17.23	20.28	17.5	17.5	20.5
802.11ac VHT20	149	5745	17.36	17.5	17.33	17.5	17.42	17.39	20.42	17.5	17.5	20.5
	153	5765	17.29	17.5	17.25	17.5	17.38	17.28	20.34	17.5	17.5	20.5
	157	5785	17.44	17.5	17.31	17.5	17.49	17.46	20.49	17.5	17.5	20.5
	161	5805	17.16	17.5	17.18	17.5	17.23	17.21	20.23	17.5	17.5	20.5
	165	5825	17.26	17.5	17.20	17.5	17.32	17.29	20.32	17.5	17.5	20.5
802.11ac VHT40	151	5755	17.11	17.5	17.08	17.5	17.19	17.11	20.16	17.5	17.5	20.5
	159	5795	17.25	17.5	17.18	17.5	17.29	17.25	20.28	17.5	17.5	20.5
802.11ac VHT80	155	5775	17.27	17.5	17.18	17.5	17.39	17.30	20.36	17.5	17.5	20.5

<Bluetooth Power>

<Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power	Tune-up Power
Bluetooth BDR/GFSK	0	2402	16.53	18.0
	39	2441	17.63	18.0
	78	2480	16.44	18.0
Bluetooth EDR/DPSK	0	2402	12.62	13.0
	39	2441	12.75	13.0
	78	2480	12.02	13.0
Bluetooth 2EDR/8DPSK	0	2402	12.65	13.0
	39	2441	12.77	13.0
	78	2480	12.00	13.0
Bluetooth LE	0	2402	9.37	10.0
	19	2440	9.25	10.0
	39	2480	9.19	10.0
Bluetooth 5.0	0	2402	9.41	10.0
	19	2440	9.32	10.0
	39	2480	9.26	10.0

4.7 SAR Testing Results

4.7.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

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

- (1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- (2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- (3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

When SAR is not measured at the maximum power level allowed for production units, the measured SAR will be scaled to the maximum tune-up tolerance limit to determine compliance. The scaling factor for the tune-up power is defined as maximum tune-up limit (mW) / measured conducted power (mW). The reported SAR would be calculated by measured SAR x tune-up power scaling factor.

The SAR has been measured with highest transmission duty factor supported by the test mode tools for WLAN and/or Bluetooth. When the transmission duty factor could not achieve 100%, the reported SAR will be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up power. The scaling factor for the duty factor is defined as 100% / transmission duty cycle (%). The reported SAR would be calculated by measured SAR x tune-up power scaling factor x duty cycle scaling factor.

<KDB 941225 D01, 3G SAR Measurement Procedures>

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. 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 ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

(1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required; 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.

(2) QPSK with 100% RB allocation

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

(3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> 1/2$ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is $> 1/2$ 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.

<SAR Test Exclusion Evaluations for LTE Downlink CA>

According to Nov 2017 TCB Workshop, SAR test exclusion for LTE downlink Carrier Aggregation is determined by power measurements according to the number of component carriers (CCs) supported by the product implementation. The downlink Carrier Aggregation configurations are tabulated in separate columns. DL CA would be listed in the columns corresponding to Intra Band contiguous, Intra Band Non-contiguous, 2bands/2CCs, 2bands/3CCs and 3bands/3CCs. The CA/CC combinations in each columns are sorted so that frequency bands listed in subsequent columns on each row are ascending subsets, as illustrated below; i.e., columns to the right correspond to increasing number of frequency bands and CCs.

Intra Band		Inter Band		
2CC Contiguous	2CC Non-Contiguous	2 Bands / 2CC	2 Bands / 3CC	3 Bands / 3CC
CA_5B	CA_2A-2A	CA_2A-4A	CA_2A-2A-4A	CA_2A-4A-5A
	CA_4A-4A	CA_2A-5A	CA_2A-2A-5A	
	CA_5A-5A	CA_4A-5A	CA_2A-4A-4A	
			CA_2A-5B	
			CA_4A-4A-5A	
			CA_4A-5B	
CA_66B	CA_66A-66A	CA_2A-66A	CA_2A-2A-66A	CA_2A-5A-66A
CA_66C	CA_66A-66C	CA_5A-66A	CA_2A-66A-66A	
CA_66D			CA_2A-66B	
			CA_2A-66C	
			CA_5A-5A-66A	
			CA_5A-66A-66A	
			CA_5A-66B	
			CA_5A-66C	
			CA_5B-66A	
		CA_2A-13A	CA_2A-2A-13A	CA_2A-4A-13A
		CA_4A-13A	CA_4A-4A-13A	
		CA_13A-66A	CA_13A-66A-66A	CA_2A-13A-66A
			CA_13A-66B	
			CA_13A-66C	
CA_7C	CA_7A-7A	CA_5A-7A		
	CA_41A-41A			
CA_38C				

- Only yellow highlighted cells need power measurement.

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<Power Confirmation for SAR Test Exclusion for LTE Downlink CA>

According to KDB 941225 D05A, the uplink maximum output power below was measured with downlink CA active on the channel with highest measured maximum output power when downlink CA is inactive. The downlink SCC channel was paired with the uplink channel as normal operation. For intra-band contiguous CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing per section 5.4.1A of 3GPP TS36.521. For intra-band non-contiguous CA, the downlink channel spacing between the component carriers was set to maximum separation from PCC and remain fully within the downlink transmission band. For Inter-band CA, the SCC downlink channel was set to near the middle of its transmission band.

Power Measurements for Intra-Band Contiguous Downlink CA

CA Combination	PCC								SCC1				SCC2				Power	
	LTE Band	BW (MHz)	UL Channel	UL Freq. (MHz)	RB Size	RB Offset	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Tx Power with DL-CA Active (dBm)	Single Carrier Tx Power (dBm)
CA_38C	38	20	37952	2590.2	1	99	37952	2590.2	38	20	38150	2610					24.48	24.69

Power Measurements for Intra-Band Non-Contiguous Downlink CA

CA Combination	PCC								SCC1				Power	
	LTE Band	BW (MHz)	UL Channel	UL Freq. (MHz)	RB Size	RB Offset	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Tx Power with DL-CA Active (dBm)	Single Carrier Tx Power (dBm)
CA_41A-41A	41	20	39750	2506	1	0	39750	2506	41	20	41490	2680	24.40	24.63

Power Measurements for Inter-Band Downlink CA

CA Combination	PCC								SCC1				SCC2				Power	
	LTE Band	BW (MHz)	UL Channel	UL Freq. (MHz)	RB Size	RB Offset	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	LTE Band	BW (MHz)	DL Channel	DL Freq. (MHz)	Tx Power with DL-CA Active (dBm)	Single Carrier Tx Power (dBm)
CA_5A-7A	5	10	20600	844	1	24	2600	889	7	20	3100	2655	-	-	-	-	24.61	24.66
CA_2A-4A-5A	2	20	18900	1880	1	0	900	1960	4	20	2175	2132.5	5	10	2525	881.5	24.32	24.46
CA_2A-4A13A	2	20	18900	1880	1	0	900	1960	4	20	2175	2132.5	13	10	5230	751	24.30	24.46
CA_2A-5A-66A	2	20	18900	1880	1	0	900	1960	5	10	2525	881.5	66	20	66786	2145	24.31	24.46
CA_2A-13A-66A	2	20	18900	1880	1	0	900	1960	13	10	5230	751	66	20	66786	2145	24.36	24.46

Summary for SAR Test Exclusion for LTE Downlink CA

Per power confirmation results in above, the uplink maximum output power with downlink CA active remains within the specified tune-up tolerance and not more than 0.25 dB higher than the maximum output power with downlink CA inactive. According to KDB 941225 D05A, the SAR test exclusion applies to LTE downlink CA operation.

<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

- (1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is ≤ 0.4 W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
- (2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is ≤ 0.8 W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is ≤ 1.2 W/kg.
- (3) For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is > 0.8 W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is ≤ 1.2 W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is ≤ 1.2 W/kg.
- (4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

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4.7.2 SAR Results for Head Exposure Condition

Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON												
	GSM850	GPRS12	Right Cheek	189	1	Ant 0	29.0	28.33	1.17	0.01	0.078	0.09
	GSM850	GPRS12	Right Tilted	189	1	Ant 0	29.0	28.33	1.17	-0.08	0.038	0.04
	GSM850	GPRS12	Left Cheek	189	1	Ant 0	29.0	28.33	1.17	0.13	0.074	0.09
	GSM850	GPRS12	Left Tilted	189	1	Ant 0	29.0	28.33	1.17	0.05	0.050	0.06
01	GSM850	GPRS12	Right Cheek	189	1	Ant 1	29.0	28.33	1.17	-0.09	0.389	0.46
	GSM850	GPRS12	Right Tilted	189	1	Ant 1	29.0	28.33	1.17	0.07	0.339	0.40
	GSM850	GPRS12	Left Cheek	189	1	Ant 1	29.0	28.33	1.17	-0.12	0.175	0.20
	GSM850	GPRS12	Left Tilted	189	1	Ant 1	29.0	28.33	1.17	0.09	0.233	0.27
	GSM850	GPRS12	Right Cheek	189	2	Ant 1	29.0	28.33	1.17	-0.07	0.371	0.43
WLAN OFF												
	GSM1900	GPRS12	Right Cheek	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
	GSM1900	GPRS12	Right Tilted	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
	GSM1900	GPRS12	Left Cheek	810	1	Ant 0	26.5	25.50	1.26	0.05	0.037	0.05
	GSM1900	GPRS12	Left Tilted	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
02	GSM1900	GPRS12	Right Cheek	810	1	Ant 1	24.0	23.43	1.14	-0.03	0.881	1.00
	GSM1900	GPRS12	Right Tilted	810	1	Ant 1	24.0	23.43	1.14	0.02	0.851	0.97
	GSM1900	GPRS12	Left Cheek	810	1	Ant 1	24.0	23.43	1.14	-0.11	0.309	0.35
	GSM1900	GPRS12	Left Tilted	810	1	Ant 1	24.0	23.43	1.14	0.05	0.338	0.39
	GSM1900	GPRS12	Right Cheek	512	1	Ant 1	24.0	23.36	1.16	0.08	0.812	0.94
	GSM1900	GPRS12	Right Cheek	661	1	Ant 1	24.0	23.41	1.15	-0.13	0.827	0.95
	GSM1900	GPRS12	Right Tilted	512	1	Ant 1	24.0	23.36	1.16	0.06	0.759	0.88
	GSM1900	GPRS12	Right Tilted	661	1	Ant 1	24.0	23.41	1.15	0.01	0.763	0.88
	GSM1900	GPRS12	Right Cheek	810	2	Ant 1	24.0	23.43	1.14	-0.02	0.852	0.97
	GSM1900	GPRS12	Right Cheek	512	2	Ant 1	24.0	23.36	1.16	-0.08	0.812	0.94
	GSM1900	GPRS12	Right Cheek	661	2	Ant 1	24.0	23.41	1.15	0.07	0.789	0.91
	GSM1900	GPRS12	Right Cheek	810	1	Ant 1	24.0	23.43	1.14	0.06	0.872	0.99
WLAN ON												
	GSM1900	GPRS12	Right Cheek	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
	GSM1900	GPRS12	Right Tilted	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
	GSM1900	GPRS12	Left Cheek	810	1	Ant 0	26.5	25.50	1.26	0.05	0.037	0.05
	GSM1900	GPRS12	Left Tilted	810	1	Ant 0	26.5	25.50	1.26	0.00	<0.001	0.00
	GSM1900	GPRS12	Right Cheek	810	1	Ant 1	19.5	19.46	1.01	-0.18	0.277	0.28
	GSM1900	GPRS12	Right Tilted	810	1	Ant 1	19.5	19.46	1.01	0.08	0.267	0.27
	GSM1900	GPRS12	Left Cheek	810	1	Ant 1	19.5	19.46	1.01	-0.01	0.097	0.10
	GSM1900	GPRS12	Left Tilted	810	1	Ant 1	19.5	19.46	1.01	0.05	0.116	0.12

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

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Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF														
	LTE 25	QPSK20M	Right Cheek	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.03	0.033	0.04
	LTE 25	QPSK20M	Right Tilted	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.00	<0.001	0.00
	LTE 25	QPSK20M	Left Cheek	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.05	0.038	0.05
	LTE 25	QPSK20M	Left Tilted	26365	1	0	1	Ant 0	25.7	24.57	1.30	-0.02	0.022	0.03
	LTE 25	QPSK20M	Right Cheek	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.01	0.027	0.03
	LTE 25	QPSK20M	Right Tilted	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.00	<0.001	0.00
	LTE 25	QPSK20M	Left Cheek	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.07	0.033	0.04
	LTE 25	QPSK20M	Left Tilted	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.00	0.000	0.00
	LTE 25	QPSK20M	Right Cheek	26365	1	0	1	Ant 1	21.5	20.83	1.17	-0.09	0.796	0.93
	LTE 25	QPSK20M	Right Tilted	26365	1	0	1	Ant 1	21.5	20.83	1.17	0.12	0.786	0.92
	LTE 25	QPSK20M	Left Cheek	26365	1	0	1	Ant 1	21.5	20.83	1.17	0.05	0.336	0.39
	LTE 25	QPSK20M	Left Tilted	26365	1	0	1	Ant 1	21.5	20.83	1.17	-0.07	0.346	0.40
	LTE 25	QPSK20M	Right Cheek	26365	50	0	1	Ant 1	21.5	20.81	1.17	0.03	0.664	0.78
	LTE 25	QPSK20M	Right Tilted	26365	50	0	1	Ant 1	21.5	20.81	1.17	0.12	0.654	0.77
	LTE 25	QPSK20M	Left Cheek	26365	50	0	1	Ant 1	21.5	20.81	1.17	0.07	0.273	0.32
	LTE 25	QPSK20M	Left Tilted	26365	50	0	1	Ant 1	21.5	20.81	1.17	0.08	0.309	0.36
	LTE 25	QPSK20M	Right Cheek	26140	1	0	1	Ant 1	21.5	20.71	1.20	0.03	0.835	1.00
12	LTE 25	QPSK20M	Right Cheek	26590	1	0	1	Ant 1	21.5	20.73	1.19	-0.17	0.840	1.00
	LTE 25	QPSK20M	Right Tilted	26140	1	0	1	Ant 1	21.5	20.71	1.20	0.05	0.749	0.90
	LTE 25	QPSK20M	Right Tilted	26590	1	0	1	Ant 1	21.5	20.73	1.19	0.03	0.738	0.88
	LTE 25	QPSK20M	Right Cheek	26365	100	0	1	Ant 1	21.5	20.78	1.18	0.01	0.651	0.77
	LTE 25	QPSK20M	Right Tilted	26365	100	0	1	Ant 1	21.5	20.78	1.18	-0.07	0.616	0.73
	LTE 25	QPSK20M	Right Cheek	26590	1	0	2	Ant 1	21.5	20.73	1.19	0.08	0.821	0.98
	LTE 25	QPSK20M	Right Cheek	26140	1	0	2	Ant 1	21.5	20.71	1.20	-0.09	0.802	0.96
	LTE 25	QPSK20M	Right Cheek	26365	1	0	2	Ant 1	21.5	20.83	1.17	0.10	0.795	0.93
	LTE 25	QPSK20M	Right Cheek	26590	1	0	1	Ant 1	21.5	20.73	1.19	-0.02	0.832	0.99
WLAN ON														
	LTE 25	QPSK20M	Right Cheek	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.03	0.033	0.04
	LTE 25	QPSK20M	Right Tilted	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.00	<0.001	0.00
	LTE 25	QPSK20M	Left Cheek	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.05	0.038	0.05
	LTE 25	QPSK20M	Left Tilted	26365	1	0	1	Ant 0	25.7	24.57	1.30	-0.02	0.022	0.03
	LTE 25	QPSK20M	Right Cheek	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.01	0.027	0.03
	LTE 25	QPSK20M	Right Tilted	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.00	<0.001	0.00
	LTE 25	QPSK20M	Left Cheek	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.07	0.033	0.04
	LTE 25	QPSK20M	Left Tilted	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.00	0.000	0.00
	LTE 25	QPSK20M	Right Cheek	26365	1	0	1	Ant 1	16.5	15.34	1.31	-0.13	0.213	0.28
	LTE 25	QPSK20M	Right Tilted	26365	1	0	1	Ant 1	16.5	15.34	1.31	0.05	0.208	0.27
	LTE 25	QPSK20M	Left Cheek	26365	1	0	1	Ant 1	16.5	15.34	1.31	-0.11	0.091	0.12
	LTE 25	QPSK20M	Left Tilted	26365	1	0	1	Ant 1	16.5	15.34	1.31	-0.16	0.106	0.14
	LTE 25	QPSK20M	Right Cheek	26365	50	0	1	Ant 1	16.5	15.32	1.31	-0.08	0.178	0.23
	LTE 25	QPSK20M	Right Tilted	26365	50	0	1	Ant 1	16.5	15.32	1.31	0.01	0.175	0.23
	LTE 25	QPSK20M	Left Cheek	26365	50	0	1	Ant 1	16.5	15.32	1.31	0.05	0.073	0.10
	LTE 25	QPSK20M	Left Tilted	26365	50	0	1	Ant 1	16.5	15.32	1.31	0.06	0.088	0.12

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.



FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Ch.	RB#	RB Offset	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON														
	LTE 66	QPSK20M	Right Cheek	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.03	0.033	0.04
	LTE 66	QPSK20M	Right Tilted	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.00	<0.001	0.00
	LTE 66	QPSK20M	Left Cheek	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.00	<0.001	0.00
	LTE 66	QPSK20M	Left Tilted	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.00	<0.001	0.00
	LTE 66	QPSK20M	Right Cheek	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.00	<0.001	0.00
	LTE 66	QPSK20M	Right Tilted	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.00	<0.001	0.00
	LTE 66	QPSK20M	Left Cheek	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.00	<0.001	0.00
	LTE 66	QPSK20M	Left Tilted	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.00	<0.001	0.00
	LTE 66	QPSK20M	Right Cheek	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.08	0.488	0.61
16	LTE 66	QPSK20M	Right Tilted	132572	1	50	1	Ant 1	24.5	23.54	1.25	-0.11	0.495	0.62
	LTE 66	QPSK20M	Left Cheek	132572	1	50	1	Ant 1	24.5	23.54	1.25	-0.03	0.161	0.20
	LTE 66	QPSK20M	Left Tilted	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.05	0.254	0.32
	LTE 66	QPSK20M	Right Cheek	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.01	0.392	0.50
	LTE 66	QPSK20M	Right Tilted	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.14	0.413	0.53
	LTE 66	QPSK20M	Left Cheek	132572	50	25	1	Ant 1	23.5	22.44	1.28	-0.06	0.158	0.20
	LTE 66	QPSK20M	Left Tilted	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.03	0.191	0.24
	LTE 66	QPSK20M	Right Tilted	132572	1	50	2	Ant 1	24.5	23.54	1.25	-0.05	0.478	0.60

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)	
WWAN ON / WWAN OFF															
	WLAN2.4G	802.11b	Right Cheek	6	1	Ant 0	98.78	1.01	17.5	17.49	1.00	0.08	0.526	0.53	
	WLAN2.4G	802.11b	Right Tilted	6	1	Ant 0	98.78	1.01	17.5	17.49	1.00	0.11	0.504	0.51	
	WLAN2.4G	802.11b	Left Cheek	6	1	Ant 0	98.78	1.01	17.5	17.49	1.00	-0.06	0.862	0.87	
	WLAN2.4G	802.11b	Left Tilted	6	1	Ant 0	98.78	1.01	17.5	17.49	1.00	0.02	0.617	0.62	
	WLAN2.4G	802.11b	Right Cheek	6	1	Ant 1	99.19	1.01	17.5	17.48	1.00	-0.03	0.305	0.31	
	WLAN2.4G	802.11b	Right Tilted	6	1	Ant 1	99.19	1.01	17.5	17.48	1.00	0.09	0.139	0.14	
	WLAN2.4G	802.11b	Left Cheek	6	1	Ant 1	99.19	1.01	17.5	17.48	1.00	-0.03	0.964	0.97	
	WLAN2.4G	802.11b	Left Tilted	6	1	Ant 1	99.19	1.01	17.5	17.48	1.00	0.11	0.369	0.37	
	WLAN2.4G	802.11b	Right Cheek	6	1	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.07	0.325	0.34	
						2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.07			
	WLAN2.4G	802.11b	Right Tilted	6	1	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.05	0.301	0.32	
						2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.05			
	17	WLAN2.4G	802.11b	Left Cheek	6	1	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.03	0.983	1.04
							2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.03		
	WLAN2.4G	802.11b	Left Tilted	6	1	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.12	0.344	0.36	
						2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.12			
	WLAN2.4G	802.11b	Left Cheek	1	1	Ant 0	98.78	1.01	17.5	17.49	1.00	-0.04	0.819	0.83	
	WLAN2.4G	802.11b	Left Cheek	12	1	2Tx Ant0	98.78	1.01	15.5	15.35	1.04	0.06	0.733	0.78	
						2Tx Ant1	98.78	1.01	15.5	15.30	1.05	0.06			
	WLAN2.4G	802.11b	Left Cheek	6	2	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.08	0.895	0.95	
						2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.08			
	WLAN2.4G	802.11b	Left Cheek	12	2	2Tx Ant0	98.78	1.01	15.5	15.35	1.04	0	0.961	1.02	
						2Tx Ant1	98.78	1.01	15.5	15.30	1.05	0			
	WLAN2.4G	802.11b	Left Cheek	6	1	2Tx Ant0	98.78	1.01	15.5	15.39	1.03	0.12	0.943	1.00	
						2Tx Ant1	98.78	1.01	15.5	15.29	1.05	0.12			

Note: Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WWAN ON / WWAN OFF														
	WLAN5.3G	802.11ac VHT80	Right Cheek	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.05	0.479	0.57
	WLAN5.3G	802.11ac VHT80	Right Tilted	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	-0.03	0.505	0.60
	WLAN5.3G	802.11ac VHT80	Left Cheek	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.07	0.806	0.96
18	WLAN5.3G	802.11ac VHT80	Left Tilted	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.13	0.995	1.18
	WLAN5.3G	802.11ac VHT80	Right Cheek	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	0.02	0.173	0.20
	WLAN5.3G	802.11ac VHT80	Right Tilted	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.06	0.213	0.25
	WLAN5.3G	802.11ac VHT80	Left Cheek	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.1	0.382	0.45
	WLAN5.3G	802.11ac VHT80	Left Tilted	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	0.09	0.359	0.42
	WLAN5.3G	802.11ac VHT80	Right Cheek	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.05	0.525	0.60
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.05		
	WLAN5.3G	802.11ac VHT80	Right Tilted	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	-0.06	0.526	0.60
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	-0.06		
	WLAN5.3G	802.11ac VHT80	Left Cheek	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.02	0.897	1.03
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.02		
	WLAN5.3G	802.11ac VHT80	Left Tilted	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.14	1.02	1.17
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.14		
	WLAN5.3G	802.11ac VHT80	Left Tilted	58	2	Ant 0	90.98	1.10	17.5	17.18	1.08	-0.08	0.943	1.12
	WLAN5.3G	802.11ac VHT80	Left Tilted	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.05	0.985	1.17
WWAN ON / WWAN OFF														
	WLAN5.6G	802.11ac VHT80	Right Cheek	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.05	0.388	0.44
	WLAN5.6G	802.11ac VHT80	Right Tilted	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	-0.03	0.415	0.47
	WLAN5.6G	802.11ac VHT80	Left Cheek	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.01	0.74	0.83
	WLAN5.6G	802.11ac VHT80	Left Tilted	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	-0.11	0.867	0.97
	WLAN5.6G	802.11ac VHT80	Right Cheek	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	0.06	0.129	0.15
	WLAN5.6G	802.11ac VHT80	Right Tilted	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	-0.02	0.139	0.16
	WLAN5.6G	802.11ac VHT80	Left Cheek	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	0.07	0.274	0.31
	WLAN5.6G	802.11ac VHT80	Left Tilted	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	0.03	0.243	0.28
	WLAN5.6G	802.11ac VHT80	Right Cheek	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.06	0.556	0.66
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.06		
	WLAN5.6G	802.11ac VHT80	Right Tilted	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.02	0.704	0.84
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.02		
19	WLAN5.6G	802.11ac VHT80	Left Cheek	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.18	0.904	1.07
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.18		
	WLAN5.6G	802.11ac VHT80	Left Tilted	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.05	0.884	1.05
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.05		
	WLAN5.6G	802.11ac VHT80	Left Cheek	122	1	Ant 0	90.98	1.10	17.5	17.36	1.03	0.04	0.729	0.83
	WLAN5.6G	802.11ac VHT80	Left Tilted	122	1	Ant 0	90.98	1.10	17.5	17.36	1.03	-0.12	0.834	0.94
	WLAN5.6G	802.11ac VHT80	Right Tilted	122	1	2Tx Ant0	90.98	1.10	17.5	17.38	1.03	0.03	0.698	0.82
						2Tx Ant1	90.98	1.10	17.5	17.20	1.07	0.03		
	WLAN5.6G	802.11ac VHT80	Left Cheek	122	1	2Tx Ant0	90.98	1.10	17.5	17.38	1.03	0.09	0.889	1.05
						2Tx Ant1	90.98	1.10	17.5	17.20	1.07	0.09		
	WLAN5.6G	802.11ac VHT80	Left Cheek	138	2	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.02	0.886	1.05
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.02		
	WLAN5.6G	802.11ac VHT80	Left Cheek	122	2	2Tx Ant0	90.98	1.10	17.5	17.38	1.03	0.07	0.869	1.02
						2Tx Ant1	90.98	1.10	17.5	17.20	1.07	0.07		
	WLAN5.6G	802.11ac VHT80	Left Cheek	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.03	0.889	1.06
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.03		

Note: Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WWAN ON / WWAN OFF														
	WLAN5.8G	802.11ac VHT80	Right Cheek	155	1	Ant 0	90.98	1.10	16.5	16.32	1.04	0.05	0.583	0.67
	WLAN5.8G	802.11ac VHT80	Right Tilted	155	1	Ant 0	90.98	1.10	16.5	16.32	1.04	-0.09	0.703	0.80
	WLAN5.8G	802.11ac VHT80	Left Cheek	155	1	Ant 0	90.98	1.10	16.5	16.32	1.04	0.01	0.79	0.90
	WLAN5.8G	802.11ac VHT80	Left Tilted	155	1	Ant 0	90.98	1.10	16.5	16.32	1.04	-0.13	0.950	1.09
	WLAN5.8G	802.11ac VHT80	Right Cheek	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Right Tilted	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Left Cheek	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	-0.18	0.303	0.36
	WLAN5.8G	802.11ac VHT80	Left Tilted	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0.02	0.198	0.23
	WLAN5.8G	802.11ac VHT80	Right Cheek	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.08	0.665	0.77
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.08		
	WLAN5.8G	802.11ac VHT80	Right Tilted	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.05	0.766	0.88
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.05		
	WLAN5.8G	802.11ac VHT80	Left Cheek	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.01	0.923	1.07
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.01		
20	WLAN5.8G	802.11ac VHT80	Left Tilted	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.14	1.02	1.18
							2Tx Ant1	90.98	1.10	17.5	17.30	1.05		
	WLAN5.8G	802.11ac VHT80	Left Tilted	155	2	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.00	0.994	1.15
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.00		
	WLAN5.8G	802.11ac VHT80	Left Tilted	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.14	1.02	1.18
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.14		
WWAN ON / WWAN OFF														
	BT	BDR	Right Cheek	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.05	0.082	0.12
	BT	BDR	Right Tilted	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.01	0.054	0.08
21	BT	BDR	Left Cheek	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.07	0.224	0.32
	BT	BDR	Left Cheek	39	2	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.08	0.135	0.19

Note:

1. "<0.001" means there is no SAR value or the SAR is too low to be measured.
2. Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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4.7.3 SAR Results for Body-worn Exposure Condition (Test Separation Distance is 10 mm)

Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON												
	GSM850	GPRS12	Front Face	189	1	Ant 0	29.0	28.33	1.17	0.05	0.047	0.05
	GSM850	GPRS12	Rear Face	189	1	Ant 0	29.0	28.33	1.17	0.01	0.081	0.09
	GSM850	GPRS12	Front Face	189	1	Ant 1	29.0	28.33	1.17	-0.05	0.072	0.08
22	GSM850	GPRS12	Rear Face	189	1	Ant 1	29.0	28.33	1.17	-0.13	0.109	0.13
	GSM850	GPRS12	Rear Face	189	2	Ant 1	29.0	28.33	1.17	-0.04	0.084	0.10
WLAN OFF												
	GSM1900	GPRS12	Front Face	810	1	Ant 0	26.5	25.50	1.26	0.09	0.112	0.14
	GSM1900	GPRS12	Rear Face	810	1	Ant 0	26.5	25.50	1.26	0.17	0.159	0.20
	GSM1900	GPRS12	Front Face	810	1	Ant 1	26.5	25.50	1.26	0.18	0.228	0.29
23	GSM1900	GPRS12	Rear Face	810	1	Ant 1	26.5	25.50	1.26	-0.11	0.431	0.54
	GSM1900	GPRS12	Rear Face	810	2	Ant 1	26.5	25.50	1.26	-0.08	0.409	0.52
WLAN ON												
	GSM1900	GPRS12	Front Face	810	1	Ant 0	26.5	25.50	1.26	0.09	0.112	0.14
	GSM1900	GPRS12	Rear Face	810	1	Ant 0	26.5	25.50	1.26	0.17	0.159	0.20
	GSM1900	GPRS12	Front Face	810	1	Ant 1	24.5	24.17	1.08	0.01	0.123	0.13
	GSM1900	GPRS12	Rear Face	810	1	Ant 1	24.5	24.17	1.08	-0.06	0.233	0.25
WLAN OFF												
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 0	25.7	24.88	1.21	0.15	0.218	0.26
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 0	25.7	24.88	1.21	-0.09	0.315	0.38
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 1	25.7	24.88	1.21	-0.01	0.423	0.51
24	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 1	25.7	24.88	1.21	-0.16	0.688	0.83
	WCDMA II	RMC12.2k	Rear Face	9262	1	Ant 1	25.7	24.59	1.29	-0.06	0.636	0.82
	WCDMA II	RMC12.2k	Rear Face	9400	1	Ant 1	25.7	24.76	1.24	-0.1	0.627	0.78
	WCDMA II	RMC12.2k	Rear Face	9538	2	Ant 1	25.7	24.88	1.21	-0.08	0.649	0.79
WLAN ON												
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 0	25.7	24.88	1.21	0.15	0.218	0.26
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 0	25.7	24.88	1.21	-0.09	0.315	0.38
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 1	21.6	21.14	1.11	0.01	0.158	0.18
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 1	21.6	21.14	1.11	-0.05	0.256	0.28
WLAN OFF												
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 0	24.0	23.08	1.24	0.08	0.303	0.38
25	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 0	24.0	23.08	1.24	0.05	0.513	0.64
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 1	24.0	23.08	1.24	0.07	0.095	0.12
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 1	24.0	23.08	1.24	0.18	0.141	0.17
	WCDMA IV	RMC12.2k	Rear Face	1413	2	Ant 0	24.0	23.08	1.24	-0.07	0.491	0.61
WLAN ON												
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 0	21.5	20.88	1.15	0.02	0.108	0.12
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 0	21.5	20.88	1.15	-0.1	0.183	0.21
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 1	24.0	23.08	1.24	0.07	0.095	0.12
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 1	24.0	23.08	1.24	0.18	0.141	0.17
WLAN OFF / WLAN ON												
	WCDMA V	RMC12.2k	Front Face	4233	1	Ant 0	24.5	23.76	1.19	-0.12	0.041	0.05
	WCDMA V	RMC12.2k	Rear Face	4233	1	Ant 0	24.5	23.76	1.19	0.17	0.068	0.08
	WCDMA V	RMC12.2k	Front Face	4233	1	Ant 1	24.5	23.76	1.19	0.12	0.098	0.12
26	WCDMA V	RMC12.2k	Rear Face	4233	1	Ant 1	24.5	23.76	1.19	0.07	0.124	0.15
	WCDMA V	RMC12.2k	Rear Face	4233	2	Ant 1	24.5	23.76	1.19	-0.08	0.114	0.14

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON												
	CDMA BC0	RTAP153.6	Front Face	1013	1	Ant 0	25.5	24.89	1.15	-0.12	0.046	0.05
	CDMA BC0	RTAP153.6	Rear Face	1013	1	Ant 0	25.5	24.89	1.15	-0.15	0.081	0.09
	CDMA BC0	RTAP153.6	Front Face	1013	1	Ant 1	25.5	24.89	1.15	-0.13	0.103	0.12
27	CDMA BC0	RTAP153.6	Rear Face	1013	1	Ant 1	25.5	24.89	1.15	-0.15	0.145	0.17
	CDMA BC0	RTAP153.6	Rear Face	1013	2	Ant 1	25.5	24.89	1.15	-0.08	0.131	0.15
WLAN OFF												
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 0	25.0	23.99	1.26	-0.15	0.161	0.20
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 0	25.0	23.99	1.26	0.01	0.254	0.32
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 1	25.0	23.99	1.26	0.01	0.309	0.39
28	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 1	25.0	23.99	1.26	-0.18	0.495	0.62
	CDMA BC1	RTAP153.6	Rear Face	1175	2	Ant 1	25.0	23.99	1.26	-0.12	0.461	0.58
WLAN ON												
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 0	25.0	23.99	1.26	-0.15	0.161	0.20
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 0	25.0	23.99	1.26	0.01	0.254	0.32
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 1	22.5	21.69	1.21	0.02	0.203	0.25
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 1	22.5	21.69	1.21	-0.08	0.322	0.39
WLAN OFF / WLAN ON												
	CDMA BC10	RTAP153.6	Front Face	684	1	Ant 0	25.5	24.90	1.15	0.17	0.028	0.03
	CDMA BC10	RTAP153.6	Rear Face	684	1	Ant 0	25.5	24.90	1.15	-0.13	0.049	0.06
	CDMA BC10	RTAP153.6	Front Face	684	1	Ant 1	25.5	24.90	1.15	-0.15	0.076	0.09
29	CDMA BC10	RTAP153.6	Rear Face	684	1	Ant 1	25.5	24.90	1.15	-0.01	0.099	0.11
	CDMA BC10	RTAP153.6	Rear Face	684	2	Ant 1	25.5	24.90	1.15	-0.08	0.079	0.09

Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF														
	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 2	24.5	24.01	1.12	0.08	0.508	0.57
30	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 2	24.5	24.01	1.12	-0.09	0.698	0.78
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.12	0.377	0.43
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.05	0.418	0.47
	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.07	0.127	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.02	0.346	0.39
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.07	0.103	0.12
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.12	0.289	0.33
	LTE 7	QPSK20M	Rear Face	20850	1	0	2	Ant 2	24.5	24.01	1.12	-0.08	0.589	0.66
WLAN ON														
	LTE 7	QPSK20M	Front Face	20850	1	99	1	Ant 2	21.0	20.44	1.14	0.02	0.186	0.21
	LTE 7	QPSK20M	Rear Face	20850	1	99	1	Ant 2	21.0	20.44	1.14	-0.08	0.205	0.23
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 2	21.0	20.40	1.15	0.18	0.139	0.16
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 2	21.0	20.40	1.15	0.02	0.155	0.18
	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.07	0.127	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.02	0.346	0.39
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.07	0.103	0.12
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.12	0.289	0.33



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Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON														
31	LTE 12	QPSK10M	Front Face	23130	1	24	1	Ant 0	25.7	24.44	1.34	0.02	0.121	0.16
	LTE 12	QPSK10M	Rear Face	23130	1	24	1	Ant 0	25.7	24.44	1.34	-0.03	0.177	0.24
	LTE 12	QPSK10M	Front Face	23130	25	12	1	Ant 0	24.7	23.52	1.31	-0.05	0.093	0.12
	LTE 12	QPSK10M	Rear Face	23130	25	12	1	Ant 0	24.7	23.52	1.31	0.07	0.143	0.19
	LTE 12	QPSK10M	Front Face	23130	1	24	1	Ant 1	25.7	24.44	1.34	0.05	0.031	0.04
	LTE 12	QPSK10M	Rear Face	23130	1	24	1	Ant 1	25.7	24.44	1.34	-0.02	0.068	0.09
	LTE 12	QPSK10M	Front Face	23130	25	12	1	Ant 1	24.7	23.52	1.31	0.09	0.028	0.04
	LTE 12	QPSK10M	Rear Face	23130	25	12	1	Ant 1	24.7	23.52	1.31	0.17	0.041	0.05
	LTE 12	QPSK10M	Rear Face	23130	1	24	2	Ant 0	25.7	24.44	1.34	-0.05	0.159	0.21
WLAN OFF / WLAN ON														
32	LTE 13	QPSK10M	Front Face	23230	1	24	1	Ant 0	25.3	24.37	1.24	-0.02	0.071	0.09
	LTE 13	QPSK10M	Rear Face	23230	1	24	1	Ant 0	25.3	24.37	1.24	-0.13	0.103	0.13
	LTE 13	QPSK10M	Front Face	23230	25	12	1	Ant 0	24.3	23.46	1.21	0.02	0.055	0.07
	LTE 13	QPSK10M	Rear Face	23230	25	12	1	Ant 0	24.3	23.46	1.21	-0.11	0.083	0.10
	LTE 13	QPSK10M	Front Face	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.02	0.141	0.17
	LTE 13	QPSK10M	Rear Face	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.09	0.182	0.23
	LTE 13	QPSK10M	Front Face	23230	25	12	1	Ant 1	24.3	23.46	1.21	-0.02	0.119	0.14
	LTE 13	QPSK10M	Rear Face	23230	25	12	1	Ant 1	24.3	23.46	1.21	0.18	0.149	0.18
	LTE 13	QPSK10M	Rear Face	23230	1	24	2	Ant 1	25.3	24.37	1.24	-0.08	0.174	0.22
WLAN OFF														
33	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.02	0.199	0.26
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 0	25.7	24.57	1.30	-0.08	0.346	0.45
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 0	24.7	23.59	1.29	-0.05	0.163	0.21
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.15	0.295	0.38
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 1	25.7	24.57	1.30	-0.02	0.369	0.48
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 1	25.7	24.57	1.30	-0.17	0.585	0.76
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 1	24.7	23.59	1.29	-0.09	0.332	0.43
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 1	24.7	23.59	1.29	-0.11	0.521	0.67
	LTE 25	QPSK20M	Rear Face	26365	1	0	2	Ant 1	25.7	24.57	1.30	-0.12	0.571	0.74
WLAN ON														
34	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 0	24.7	23.49	1.32	-0.11	0.086	0.11
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 0	24.7	23.49	1.32	0.06	0.149	0.20
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 0	24.7	23.39	1.35	0.07	0.071	0.10
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 0	24.7	23.39	1.35	-0.01	0.127	0.17
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 1	22.2	21.50	1.17	0.01	0.158	0.18
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 1	22.2	21.50	1.17	-0.03	0.252	0.29
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 1	22.2	21.35	1.22	0.02	0.143	0.17
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 1	22.2	21.35	1.22	-0.18	0.222	0.27
	WLAN OFF / WLAN ON													
34	LTE 26	QPSK15M	Front Face	26865	1	0	1	Ant 0	25.7	24.61	1.29	0.11	0.028	0.04
	LTE 26	QPSK15M	Rear Face	26865	1	0	1	Ant 0	25.7	24.61	1.29	0.05	0.049	0.06
	LTE 26	QPSK15M	Front Face	26865	36	0	1	Ant 0	24.7	23.69	1.26	0.15	0.023	0.03
	LTE 26	QPSK15M	Rear Face	26865	36	0	1	Ant 0	24.7	23.69	1.26	0.17	0.039	0.05
	LTE 26	QPSK15M	Front Face	26865	1	0	1	Ant 1	25.7	24.61	1.29	-0.01	0.062	0.08
	LTE 26	QPSK15M	Rear Face	26865	1	0	1	Ant 1	25.7	24.61	1.29	-0.18	0.082	0.11
	LTE 26	QPSK15M	Front Face	26865	36	0	1	Ant 1	24.7	23.69	1.26	0.07	0.051	0.06
	LTE 26	QPSK15M	Rear Face	26865	36	0	1	Ant 1	24.7	23.69	1.26	-0.17	0.061	0.08
	LTE 26	QPSK15M	Rear Face	26865	1	0	2	Ant 1	25.7	24.61	1.29	-0.09	0.074	0.10



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Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON														
	LTE 38	QPSK20M	Front Face	38150	1	99	1	Ant 2	25.7	24.69	1.26	0.08	0.199	0.25
	LTE 38	QPSK20M	Rear Face	38150	1	99	1	Ant 2	25.7	24.69	1.26	-0.02	0.261	0.33
	LTE 38	QPSK20M	Front Face	38150	50	50	1	Ant 2	24.7	23.67	1.27	-0.03	0.165	0.21
	LTE 38	QPSK20M	Rear Face	38150	50	50	1	Ant 2	24.7	23.67	1.27	0.03	0.235	0.30
	LTE 38	QPSK20M	Front Face	38150	1	99	1	Ant 3	25.7	24.69	1.26	0.01	0.090	0.11
35	LTE 38	QPSK20M	Rear Face	38150	1	99	1	Ant 3	25.7	24.69	1.26	0.05	0.308	0.39
	LTE 38	QPSK20M	Front Face	38150	50	50	1	Ant 3	24.7	23.67	1.27	0.04	0.075	0.10
	LTE 38	QPSK20M	Rear Face	38150	50	50	1	Ant 3	24.7	23.67	1.27	0.03	0.203	0.26
	LTE 38	QPSK20M	Rear Face	38150	1	99	2	Ant 3	25.7	24.69	1.26	0.07	0.281	0.35
WLAN OFF / WLAN ON														
	LTE 41	QPSK20M	Front Face	40185	1	0	1	Ant 2	25.0	23.98	1.26	0.03	0.193	0.24
	LTE 41	QPSK20M	Rear Face	40185	1	0	1	Ant 2	25.0	23.98	1.26	0.01	0.227	0.29
	LTE 41	QPSK20M	Front Face	40185	50	0	1	Ant 2	24.0	23.01	1.26	-0.07	0.152	0.19
	LTE 41	QPSK20M	Rear Face	40185	50	0	1	Ant 2	24.0	23.01	1.26	0.02	0.152	0.19
	LTE 41	QPSK20M	Front Face	40185	1	0	1	Ant 3	25.0	23.98	1.26	0.07	0.174	0.22
36	LTE 41	QPSK20M	Rear Face	40185	1	0	1	Ant 3	25.0	23.98	1.26	0.01	0.267	0.34
	LTE 41	QPSK20M	Front Face	40185	50	0	1	Ant 3	24.0	23.01	1.26	0.01	0.168	0.21
	LTE 41	QPSK20M	Rear Face	40185	50	0	1	Ant 3	24.0	23.01	1.26	-0.02	0.165	0.21
	LTE 41	QPSK20M	Rear Face	40185	1	0	2	Ant 3	25.0	23.98	1.26	-0.07	0.248	0.31
WLAN OFF														
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.03	0.225	0.28
37	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.05	0.349	0.44
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 0	23.5	22.44	1.28	-0.05	0.176	0.23
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.05	0.251	0.32
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.07	0.161	0.20
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.11	0.271	0.34
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.07	0.148	0.19
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	-0.08	0.199	0.25
	LTE 66	QPSK20M	Rear Face	132572	1	50	2	Ant 0	24.5	23.54	1.25	-0.03	0.322	0.40
WLAN ON														
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 0	23.7	22.56	1.30	0.08	0.146	0.19
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 0	23.7	22.56	1.30	-0.06	0.227	0.30
	LTE 66	QPSK20M	Front Face	132572	50	50	1	Ant 0	23.7	22.54	1.31	0.11	0.113	0.15
	LTE 66	QPSK20M	Rear Face	132572	50	50	1	Ant 0	23.7	22.54	1.31	0.15	0.165	0.22
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.07	0.161	0.20
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.11	0.271	0.34
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.07	0.148	0.19
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	-0.08	0.199	0.25

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WWAN ON / WWAN OFF														
	WLAN2.4G	802.11b	Front Face	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	0.06	0.251	0.28
	WLAN2.4G	802.11b	Rear Face	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	0.17	0.291	0.33
	WLAN2.4G	802.11b	Front Face	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	-0.02	0.167	0.19
	WLAN2.4G	802.11b	Rear Face	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	0.15	0.311	0.35
38	WLAN2.4G	802.11b	Front Face	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.07	0.403	0.46
						2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.07		
	WLAN2.4G	802.11b	Rear Face	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.16	0.525	0.60
						2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.16		
WLAN2.4G	802.11b	Rear Face	1	2	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.09	0.476	0.54	
					2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.09			
WWAN ON / WWAN OFF														
	WLAN5.3G	802.11ac VHT80	Front Face	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.14	0.171	0.20
	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.16	0.232	0.28
	WLAN5.3G	802.11ac VHT80	Front Face	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	0.08	0.148	0.17
39	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	0.04	0.665	0.78
	WLAN5.3G	802.11ac VHT80	Front Face	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.05	0.219	0.25
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.05		
	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.12	0.577	0.66
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.12		
	WLAN5.3G	802.11ac VHT80	Rear Face	58	2	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.08	0.635	0.74
WWAN ON / WWAN OFF														
	WLAN5.6G	802.11ac VHT80	Front Face	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.04	0.195	0.22
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.07	0.211	0.24
	WLAN5.6G	802.11ac VHT80	Front Face	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	-0.16	0.403	0.46
40	WLAN5.6G	802.11ac VHT80	Front Face	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.14	0.177	0.21
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.14		
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.01	0.470	0.56
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.01		
WLAN5.6G	802.11ac VHT80	Rear Face	138	2	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.05	0.442	0.53	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.05			
WWAN ON / WWAN OFF														
	WLAN5.8G	802.11ac VHT80	Front Face	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	0.01	0.144	0.17
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	0.11	0.248	0.29
	WLAN5.8G	802.11ac VHT80	Front Face	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0.03	0.373	0.44
41	WLAN5.8G	802.11ac VHT80	Front Face	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.09	0.139	0.16
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.09		
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.08	0.391	0.45
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.08		
WLAN5.8G	802.11ac VHT80	Rear Face	155	2	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.08	0.376	0.43	
					2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.08			
WWAN ON / WWAN OFF														
	BT	BDR	Front Face	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.11	0.031	0.04
42	BT	BDR	Rear Face	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.01	0.074	0.10
	BT	BDR	Rear Face	39	2	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.08	0.041	0.06

Note:

1. "<0.001" means there is no SAR value or the SAR is too low to be measured.
2. Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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4.7.4 SAR Results for Hotspot Exposure Condition (Test Separation Distance is 10 mm)

Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON												
	GSM850	GPRS12	Front Face	189	1	Ant 0	29.0	28.33	1.17	0.05	0.047	0.05
	GSM850	GPRS12	Rear Face	189	1	Ant 0	29.0	28.33	1.17	0.01	0.081	0.09
	GSM850	GPRS12	Left Side	189	1	Ant 0	29.0	28.33	1.17	0	<0.001	0.00
	GSM850	GPRS12	Right Side	189	1	Ant 0	29.0	28.33	1.17	-0.16	0.025	0.03
	GSM850	GPRS12	Bottom Side	189	1	Ant 0	29.0	28.33	1.17	0	<0.001	0.00
	GSM850	GPRS12	Front Face	189	1	Ant 1	29.0	28.33	1.17	-0.05	0.072	0.08
22	GSM850	GPRS12	Rear Face	189	1	Ant 1	29.0	28.33	1.17	-0.13	0.109	0.13
	GSM850	GPRS12	Left Side	189	1	Ant 1	29.0	28.33	1.17	-0.05	0.066	0.08
	GSM850	GPRS12	Top Side	189	1	Ant 1	29.0	28.33	1.17	0.15	0.077	0.09
	GSM850	GPRS12	Rear Face	189	2	Ant 1	29.0	28.33	1.17	-0.04	0.084	0.10
WLAN OFF												
	GSM1900	GPRS12	Front Face	810	1	Ant 0	26.5	25.50	1.26	0.09	0.112	0.14
	GSM1900	GPRS12	Rear Face	810	1	Ant 0	26.5	25.50	1.26	0.17	0.159	0.20
	GSM1900	GPRS12	Left Side	810	1	Ant 0	26.5	25.50	1.26	0.13	0.043	0.05
	GSM1900	GPRS12	Right Side	810	1	Ant 0	26.5	25.50	1.26	0	<0.001	0.00
	GSM1900	GPRS12	Bottom Side	810	1	Ant 0	26.5	25.50	1.26	0.02	0.222	0.28
	GSM1900	GPRS12	Front Face	810	1	Ant 1	26.5	25.50	1.26	0.18	0.228	0.29
23	GSM1900	GPRS12	Rear Face	810	1	Ant 1	26.5	25.50	1.26	-0.11	0.431	0.54
	GSM1900	GPRS12	Left Side	810	1	Ant 1	26.5	25.50	1.26	0.05	0.198	0.25
	GSM1900	GPRS12	Top Side	810	1	Ant 1	26.5	25.50	1.26	-0.17	0.392	0.49
	GSM1900	GPRS12	Rear Face	810	2	Ant 1	26.5	25.50	1.26	-0.08	0.409	0.52
WLAN ON												
	GSM1900	GPRS12	Front Face	810	1	Ant 0	26.5	25.50	1.26	0.09	0.112	0.14
	GSM1900	GPRS12	Rear Face	810	1	Ant 0	26.5	25.50	1.26	0.17	0.159	0.20
	GSM1900	GPRS12	Left Side	810	1	Ant 0	26.5	25.50	1.26	0.13	0.043	0.05
	GSM1900	GPRS12	Right Side	810	1	Ant 0	26.5	25.50	1.26	0	<0.001	0.00
	GSM1900	GPRS12	Bottom Side	810	1	Ant 0	26.5	25.50	1.26	0.02	0.222	0.28
	GSM1900	GPRS12	Front Face	810	1	Ant 1	24.5	24.17	1.08	0.01	0.123	0.13
	GSM1900	GPRS12	Rear Face	810	1	Ant 1	24.5	24.17	1.08	-0.06	0.233	0.25
	GSM1900	GPRS12	Left Side	810	1	Ant 1	24.5	24.17	1.08	0.05	0.107	0.12
	GSM1900	GPRS12	Top Side	810	1	Ant 1	24.5	24.17	1.08	-0.17	0.212	0.23
WLAN OFF												
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 0	25.7	24.88	1.21	0.15	0.218	0.26
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 0	25.7	24.88	1.21	-0.09	0.315	0.38
	WCDMA II	RMC12.2k	Left Side	9538	1	Ant 0	25.7	24.88	1.21	0.01	0.102	0.12
	WCDMA II	RMC12.2k	Right Side	9538	1	Ant 0	25.7	24.88	1.21	0	<0.001	0.00
	WCDMA II	RMC12.2k	Bottom Side	9538	1	Ant 0	25.7	24.88	1.21	-0.07	0.437	0.53
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 1	25.7	24.88	1.21	-0.01	0.423	0.51
24	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 1	25.7	24.88	1.21	-0.16	0.688	0.83
	WCDMA II	RMC12.2k	Left Side	9538	1	Ant 1	25.7	24.88	1.21	-0.1	0.307	0.37
	WCDMA II	RMC12.2k	Top Side	9538	1	Ant 1	25.7	24.88	1.21	0.15	0.586	0.71
	WCDMA II	RMC12.2k	Rear Face	9262	1	Ant 1	25.7	24.59	1.29	-0.06	0.636	0.82
	WCDMA II	RMC12.2k	Rear Face	9400	1	Ant 1	25.7	24.76	1.24	-0.1	0.627	0.78
	WCDMA II	RMC12.2k	Rear Face	9538	2	Ant 1	25.7	24.88	1.21	-0.08	0.649	0.79
WLAN ON												
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 0	25.7	24.88	1.21	0.15	0.218	0.26
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 0	25.7	24.88	1.21	-0.09	0.315	0.38
	WCDMA II	RMC12.2k	Left Side	9538	1	Ant 0	25.7	24.88	1.21	0.01	0.102	0.12
	WCDMA II	RMC12.2k	Right Side	9538	1	Ant 0	25.7	24.88	1.21	0	<0.001	0.00
	WCDMA II	RMC12.2k	Bottom Side	9538	1	Ant 0	25.7	24.88	1.21	-0.07	0.437	0.53
	WCDMA II	RMC12.2k	Front Face	9538	1	Ant 1	21.6	21.14	1.11	0.01	0.158	0.18
	WCDMA II	RMC12.2k	Rear Face	9538	1	Ant 1	21.6	21.14	1.11	-0.05	0.256	0.28
	WCDMA II	RMC12.2k	Left Side	9538	1	Ant 1	21.6	21.14	1.11	-0.18	0.113	0.13
	WCDMA II	RMC12.2k	Top Side	9538	1	Ant 1	21.6	21.14	1.11	0.02	0.218	0.24

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)	
WLAN OFF													
25	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 0	24.0	23.08	1.24	0.08	0.303	0.38	
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 0	24.0	23.08	1.24	0.05	0.513	0.64	
	WCDMA IV	RMC12.2k	Left Side	1413	1	Ant 0	24.0	23.08	1.24	-0.05	0.084	0.10	
	WCDMA IV	RMC12.2k	Right Side	1413	1	Ant 0	24.0	23.08	1.24	0	<0.001	0.00	
	WCDMA IV	RMC12.2k	Bottom Side	1413	1	Ant 0	24.0	23.08	1.24	0.05	0.305	0.38	
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 1	24.0	23.08	1.24	0.07	0.095	0.12	
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 1	24.0	23.08	1.24	0.18	0.141	0.17	
	WCDMA IV	RMC12.2k	Left Side	1413	1	Ant 1	24.0	23.08	1.24	-0.11	0.079	0.10	
	WCDMA IV	RMC12.2k	Top Side	1413	1	Ant 1	24.0	23.08	1.24	0.02	0.126	0.16	
	WCDMA IV	RMC12.2k	Rear Face	1413	2	Ant 0	24.0	23.08	1.24	-0.07	0.491	0.61	
WLAN ON													
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 0	21.5	20.88	1.15	0.02	0.108	0.12	
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 0	21.5	20.88	1.15	-0.1	0.183	0.21	
	WCDMA IV	RMC12.2k	Left Side	1413	1	Ant 0	21.5	20.88	1.15	0.17	0.031	0.04	
	WCDMA IV	RMC12.2k	Right Side	1413	1	Ant 0	21.5	20.88	1.15	0	<0.001	0.00	
	WCDMA IV	RMC12.2k	Bottom Side	1413	1	Ant 0	21.5	20.88	1.15	0.15	0.228	0.26	
	WCDMA IV	RMC12.2k	Front Face	1413	1	Ant 1	24.0	23.08	1.24	0.07	0.095	0.12	
	WCDMA IV	RMC12.2k	Rear Face	1413	1	Ant 1	24.0	23.08	1.24	0.18	0.141	0.17	
	WCDMA IV	RMC12.2k	Left Side	1413	1	Ant 1	24.0	23.08	1.24	-0.11	0.079	0.10	
	WCDMA IV	RMC12.2k	Top Side	1413	1	Ant 1	24.0	23.08	1.24	0.02	0.126	0.16	
	WLAN OFF / WLAN ON												
	WCDMA V	RMC12.2k	Front Face	4233	1	Ant 0	24.5	23.76	1.19	-0.12	0.041	0.05	
	WCDMA V	RMC12.2k	Rear Face	4233	1	Ant 0	24.5	23.76	1.19	0.17	0.068	0.08	
	WCDMA V	RMC12.2k	Left Side	4233	1	Ant 0	24.5	23.76	1.19	0	<0.001	0.00	
	WCDMA V	RMC12.2k	Right Side	4233	1	Ant 0	24.5	23.76	1.19	0	<0.001	0.00	
	WCDMA V	RMC12.2k	Bottom Side	4233	1	Ant 0	24.5	23.76	1.19	0	<0.001	0.00	
	WCDMA V	RMC12.2k	Front Face	4233	1	Ant 1	24.5	23.76	1.19	0.12	0.098	0.12	
	26	WCDMA V	RMC12.2k	Rear Face	4233	1	Ant 1	24.5	23.76	1.19	0.07	0.124	0.15
	WCDMA V	RMC12.2k	Left Side	4233	1	Ant 1	24.5	23.76	1.19	0.18	0.077	0.09	
	WCDMA V	RMC12.2k	Top Side	4233	1	Ant 1	24.5	23.76	1.19	0.09	0.091	0.11	
	WCDMA V	RMC12.2k	Rear Face	4233	2	Ant 1	24.5	23.76	1.19	-0.08	0.114	0.14	

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON												
	CDMA BC0	RTAP153.6	Front Face	1013	1	Ant 0	25.5	24.89	1.15	-0.12	0.046	0.05
	CDMA BC0	RTAP153.6	Rear Face	1013	1	Ant 0	25.5	24.89	1.15	-0.15	0.081	0.09
	CDMA BC0	RTAP153.6	Left Side	1013	1	Ant 0	25.5	24.89	1.15	0	<0.001	0.00
	CDMA BC0	RTAP153.6	Right Side	1013	1	Ant 0	25.5	24.89	1.15	0.11	0.029	0.03
	CDMA BC0	RTAP153.6	Bottom Side	1013	1	Ant 0	25.5	24.89	1.15	0.07	0.038	0.04
	CDMA BC0	RTAP153.6	Front Face	1013	1	Ant 1	25.5	24.89	1.15	-0.13	0.103	0.12
27	CDMA BC0	RTAP153.6	Rear Face	1013	1	Ant 1	25.5	24.89	1.15	-0.15	0.145	0.17
	CDMA BC0	RTAP153.6	Left Side	1013	1	Ant 1	25.5	24.89	1.15	0.04	0.117	0.13
	CDMA BC0	RTAP153.6	Top Side	1013	1	Ant 1	25.5	24.89	1.15	-0.08	0.098	0.11
	CDMA BC0	RTAP153.6	Rear Face	1013	2	Ant 1	25.5	24.89	1.15	-0.08	0.131	0.15
WLAN OFF												
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 0	25.0	23.99	1.26	-0.15	0.161	0.20
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 0	25.0	23.99	1.26	0.01	0.254	0.32
	CDMA BC1	RTAP153.6	Left Side	1175	1	Ant 0	25.0	23.99	1.26	-0.17	0.061	0.08
	CDMA BC1	RTAP153.6	Right Side	1175	1	Ant 0	25.0	23.99	1.26	0.14	0.049	0.06
	CDMA BC1	RTAP153.6	Bottom Side	1175	1	Ant 0	25.0	23.99	1.26	0.09	0.334	0.42
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 1	25.0	23.99	1.26	0.01	0.309	0.39
28	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 1	25.0	23.99	1.26	-0.18	0.495	0.62
	CDMA BC1	RTAP153.6	Left Side	1175	1	Ant 1	25.0	23.99	1.26	-0.07	0.227	0.29
	CDMA BC1	RTAP153.6	Top Side	1175	1	Ant 1	25.0	23.99	1.26	-0.02	0.413	0.52
	CDMA BC1	RTAP153.6	Rear Face	1175	2	Ant 1	25.0	23.99	1.26	-0.12	0.461	0.58
WLAN ON												
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 0	25.0	23.99	1.26	-0.15	0.161	0.20
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 0	25.0	23.99	1.26	0.01	0.254	0.32
	CDMA BC1	RTAP153.6	Left Side	1175	1	Ant 0	25.0	23.99	1.26	-0.17	0.061	0.08
	CDMA BC1	RTAP153.6	Right Side	1175	1	Ant 0	25.0	23.99	1.26	0.14	0.049	0.06
	CDMA BC1	RTAP153.6	Bottom Side	1175	1	Ant 0	25.0	23.99	1.26	0.09	0.334	0.42
	CDMA BC1	RTAP153.6	Front Face	1175	1	Ant 1	22.5	21.69	1.21	0.02	0.203	0.25
	CDMA BC1	RTAP153.6	Rear Face	1175	1	Ant 1	22.5	21.69	1.21	-0.08	0.322	0.39
	CDMA BC1	RTAP153.6	Left Side	1175	1	Ant 1	22.5	21.69	1.21	-0.01	0.151	0.18
	CDMA BC1	RTAP153.6	Top Side	1175	1	Ant 1	22.5	21.69	1.21	0.02	0.269	0.33
WLAN OFF / WLAN ON												
	CDMA BC10	RTAP153.6	Front Face	684	1	Ant 0	25.5	24.90	1.15	0.17	0.028	0.03
	CDMA BC10	RTAP153.6	Rear Face	684	1	Ant 0	25.5	24.90	1.15	-0.13	0.049	0.06
	CDMA BC10	RTAP153.6	Left Side	684	1	Ant 0	25.5	24.90	1.15	0	<0.001	0.00
	CDMA BC10	RTAP153.6	Right Side	684	1	Ant 0	25.5	24.90	1.15	0.02	0.019	0.02
	CDMA BC10	RTAP153.6	Bottom Side	684	1	Ant 0	25.5	24.90	1.15	0	<0.001	0.00
	CDMA BC10	RTAP153.6	Front Face	684	1	Ant 1	25.5	24.90	1.15	-0.15	0.076	0.09
29	CDMA BC10	RTAP153.6	Rear Face	684	1	Ant 1	25.5	24.90	1.15	-0.01	0.099	0.11
	CDMA BC10	RTAP153.6	Left Side	684	1	Ant 1	25.5	24.90	1.15	0.02	0.066	0.08
	CDMA BC10	RTAP153.6	Top Side	684	1	Ant 1	25.5	24.90	1.15	0.12	0.056	0.06
	CDMA BC10	RTAP153.6	Rear Face	684	2	Ant 1	25.5	24.90	1.15	-0.08	0.079	0.09

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

FCC SAR Test Report

Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF														
30	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 2	24.5	24.01	1.12	0.08	0.508	0.57
	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 2	24.5	24.01	1.12	-0.09	0.698	0.78
	LTE 7	QPSK20M	Right Side	20850	1	0	1	Ant 2	24.5	24.01	1.12	0.02	0.441	0.49
	LTE 7	QPSK20M	Bottom Side	20850	1	0	1	Ant 2	24.5	24.01	1.12	0.07	0.274	0.31
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.12	0.377	0.43
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.05	0.418	0.47
	LTE 7	QPSK20M	Right Side	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.03	0.398	0.45
	LTE 7	QPSK20M	Bottom Side	20850	50	50	1	Ant 2	23.5	22.96	1.13	0.01	0.131	0.15
	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.07	0.127	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.02	0.346	0.39
	LTE 7	QPSK20M	Left Side	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.05	0.251	0.28
	LTE 7	QPSK20M	Top Side	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.03	0.071	0.08
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.07	0.103	0.12
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.12	0.289	0.33
	LTE 7	QPSK20M	Left Side	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.09	0.211	0.24
	LTE 7	QPSK20M	Top Side	20850	50	50	1	Ant 3	23.5	22.96	1.13	-0.06	0.041	0.05
	LTE 7	QPSK20M	Rear Face	20850	1	0	2	Ant 2	24.5	24.01	1.12	-0.08	0.589	0.66
	WLAN ON													
	LTE 7	QPSK20M	Front Face	20850	1	99	1	Ant 2	21.0	20.44	1.14	0.02	0.186	0.21
	LTE 7	QPSK20M	Rear Face	20850	1	99	1	Ant 2	21.0	20.44	1.14	-0.08	0.205	0.23
	LTE 7	QPSK20M	Right Side	20850	1	99	1	Ant 2	21.0	20.44	1.14	0.03	0.151	0.17
	LTE 7	QPSK20M	Bottom Side	20850	1	99	1	Ant 2	21.0	20.44	1.14	-0.15	0.101	0.12
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 2	21.0	20.40	1.15	0.18	0.139	0.16
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 2	21.0	20.40	1.15	0.02	0.155	0.18
	LTE 7	QPSK20M	Right Side	20850	50	50	1	Ant 2	21.0	20.40	1.15	0.05	0.139	0.16
	LTE 7	QPSK20M	Bottom Side	20850	50	50	1	Ant 2	21.0	20.40	1.15	-0.01	0.048	0.06
	LTE 7	QPSK20M	Front Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.07	0.127	0.14
	LTE 7	QPSK20M	Rear Face	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.02	0.346	0.39
	LTE 7	QPSK20M	Left Side	20850	1	0	1	Ant 3	24.5	24.01	1.12	0.05	0.251	0.28
	LTE 7	QPSK20M	Top Side	20850	1	0	1	Ant 3	24.5	24.01	1.12	-0.03	0.071	0.08
	LTE 7	QPSK20M	Front Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.07	0.103	0.12
	LTE 7	QPSK20M	Rear Face	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.12	0.289	0.33
	LTE 7	QPSK20M	Left Side	20850	50	50	1	Ant 3	23.5	22.96	1.13	0.09	0.211	0.24
	LTE 7	QPSK20M	Top Side	20850	50	50	1	Ant 3	23.5	22.96	1.13	-0.06	0.041	0.05

FCC SAR Test Report

Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF / WLAN ON														
31	LTE 12	QPSK10M	Front Face	23130	1	24	1	Ant 0	25.7	24.44	1.34	0.02	0.121	0.16
	LTE 12	QPSK10M	Rear Face	23130	1	24	1	Ant 0	25.7	24.44	1.34	-0.03	0.177	0.24
	LTE 12	QPSK10M	Left Side	23130	1	24	1	Ant 0	25.7	24.44	1.34	-0.08	0.086	0.12
	LTE 12	QPSK10M	Right Side	23130	1	24	1	Ant 0	25.7	24.44	1.34	-0.01	0.113	0.15
	LTE 12	QPSK10M	Bottom Side	23130	1	24	1	Ant 0	25.7	24.44	1.34	0	<0.001	0.00
	LTE 12	QPSK10M	Front Face	23130	25	12	1	Ant 0	24.7	23.52	1.31	-0.05	0.093	0.12
	LTE 12	QPSK10M	Rear Face	23130	25	12	1	Ant 0	24.7	23.52	1.31	0.07	0.143	0.19
	LTE 12	QPSK10M	Left Side	23130	25	12	1	Ant 0	24.7	23.52	1.31	0.06	0.073	0.10
	LTE 12	QPSK10M	Right Side	23130	25	12	1	Ant 0	24.7	23.52	1.31	-0.08	0.105	0.14
	LTE 12	QPSK10M	Bottom Side	23130	25	12	1	Ant 0	24.7	23.52	1.31	0	<0.001	0.00
	LTE 12	QPSK10M	Front Face	23130	1	24	1	Ant 1	25.7	24.44	1.34	0.05	0.031	0.04
	LTE 12	QPSK10M	Rear Face	23130	1	24	1	Ant 1	25.7	24.44	1.34	-0.02	0.068	0.09
	LTE 12	QPSK10M	Left Side	23130	1	24	1	Ant 1	25.7	24.44	1.34	0.11	0.06	0.08
	LTE 12	QPSK10M	Top Side	23130	1	24	1	Ant 1	25.7	24.44	1.34	0	<0.001	0.00
	LTE 12	QPSK10M	Front Face	23130	25	12	1	Ant 1	24.7	23.52	1.31	0.09	0.028	0.04
	LTE 12	QPSK10M	Rear Face	23130	25	12	1	Ant 1	24.7	23.52	1.31	0.17	0.041	0.05
	LTE 12	QPSK10M	Left Side	23130	25	12	1	Ant 1	24.7	23.52	1.31	0.17	0.051	0.07
	LTE 12	QPSK10M	Top Side	23130	25	12	1	Ant 1	24.7	23.52	1.31	0	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	23130	1	24	2	Ant 0	25.7	24.44	1.34	-0.05	0.159	0.21
	WLAN OFF / WLAN ON													
32	LTE 13	QPSK10M	Front Face	23230	1	24	1	Ant 0	25.3	24.37	1.24	-0.02	0.071	0.09
	LTE 13	QPSK10M	Rear Face	23230	1	24	1	Ant 0	25.3	24.37	1.24	-0.13	0.103	0.13
	LTE 13	QPSK10M	Left Side	23230	1	24	1	Ant 0	25.3	24.37	1.24	0.12	0.045	0.06
	LTE 13	QPSK10M	Right Side	23230	1	24	1	Ant 0	25.3	24.37	1.24	0.05	0.071	0.09
	LTE 13	QPSK10M	Bottom Side	23230	1	24	1	Ant 0	25.3	24.37	1.24	0	<0.001	0.00
	LTE 13	QPSK10M	Front Face	23230	25	12	1	Ant 0	24.3	23.46	1.21	0.02	0.055	0.07
	LTE 13	QPSK10M	Rear Face	23230	25	12	1	Ant 0	24.3	23.46	1.21	-0.11	0.083	0.10
	LTE 13	QPSK10M	Left Side	23230	25	12	1	Ant 0	24.3	23.46	1.21	0	<0.001	0.00
	LTE 13	QPSK10M	Right Side	23230	25	12	1	Ant 0	24.3	23.46	1.21	0.01	0.053	0.06
	LTE 13	QPSK10M	Bottom Side	23230	25	12	1	Ant 0	24.3	23.46	1.21	0	<0.001	0.00
	LTE 13	QPSK10M	Front Face	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.02	0.141	0.17
	LTE 13	QPSK10M	Rear Face	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.09	0.182	0.23
	LTE 13	QPSK10M	Left Side	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.18	0.168	0.21
	LTE 13	QPSK10M	Top Side	23230	1	24	1	Ant 1	25.3	24.37	1.24	0.1	0.081	0.10
	LTE 13	QPSK10M	Front Face	23230	25	12	1	Ant 1	24.3	23.46	1.21	-0.02	0.119	0.14
	LTE 13	QPSK10M	Rear Face	23230	25	12	1	Ant 1	24.3	23.46	1.21	0.18	0.149	0.18
	LTE 13	QPSK10M	Left Side	23230	25	12	1	Ant 1	24.3	23.46	1.21	-0.08	0.146	0.18
	LTE 13	QPSK10M	Top Side	23230	25	12	1	Ant 1	24.3	23.46	1.21	-0.15	0.066	0.08
LTE 13	QPSK10M	Rear Face	23230	1	24	2	Ant 1	25.3	24.37	1.24	-0.08	0.174	0.22	

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

FCC SAR Test Report

Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF														
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.02	0.199	0.26
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 0	25.7	24.57	1.30	-0.08	0.346	0.45
	LTE 25	QPSK20M	Left Side	26365	1	0	1	Ant 0	25.7	24.57	1.30	-0.09	0.089	0.12
	LTE 25	QPSK20M	Right Side	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.02	0.047	0.06
	LTE 25	QPSK20M	Bottom Side	26365	1	0	1	Ant 0	25.7	24.57	1.30	0.01	0.388	0.50
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 0	24.7	23.59	1.29	-0.05	0.163	0.21
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.15	0.295	0.38
	LTE 25	QPSK20M	Left Side	26365	50	0	1	Ant 0	24.7	23.59	1.29	0.12	0.085	0.11
	LTE 25	QPSK20M	Right Side	26365	50	0	1	Ant 0	24.7	23.59	1.29	0	<0.001	0.00
	LTE 25	QPSK20M	Bottom Side	26365	50	0	1	Ant 0	24.7	23.59	1.29	-0.18	0.322	0.42
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 1	25.7	24.57	1.30	-0.02	0.369	0.48
33	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 1	25.7	24.57	1.30	-0.17	0.585	0.76
	LTE 25	QPSK20M	Left Side	26365	1	0	1	Ant 1	25.7	24.57	1.30	-0.02	0.299	0.39
	LTE 25	QPSK20M	Top Side	26365	1	0	1	Ant 1	25.7	24.57	1.30	0.08	0.378	0.49
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 1	24.7	23.59	1.29	-0.09	0.332	0.43
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 1	24.7	23.59	1.29	-0.11	0.521	0.67
	LTE 25	QPSK20M	Left Side	26365	50	0	1	Ant 1	24.7	23.59	1.29	0.06	0.232	0.30
	LTE 25	QPSK20M	Top Side	26365	50	0	1	Ant 1	24.7	23.59	1.29	0.18	0.312	0.40
	LTE 25	QPSK20M	Rear Face	26365	1	0	2	Ant 1	25.7	24.57	1.30	-0.12	0.571	0.74
WLAN ON														
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 0	24.7	23.49	1.32	-0.11	0.086	0.11
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 0	24.7	23.49	1.32	0.06	0.149	0.20
	LTE 25	QPSK20M	Left Side	26365	1	0	1	Ant 0	24.7	23.49	1.32	0.02	0.038	0.05
	LTE 25	QPSK20M	Right Side	26365	1	0	1	Ant 0	24.7	23.49	1.32	-0.18	0.021	0.03
	LTE 25	QPSK20M	Bottom Side	26365	1	0	1	Ant 0	24.7	23.49	1.32	-0.17	0.167	0.22
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 0	24.7	23.39	1.35	0.07	0.071	0.10
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 0	24.7	23.39	1.35	-0.01	0.127	0.17
	LTE 25	QPSK20M	Left Side	26365	50	0	1	Ant 0	24.7	23.39	1.35	0.05	0.035	0.05
	LTE 25	QPSK20M	Right Side	26365	50	0	1	Ant 0	24.7	23.39	1.35	0	<0.001	0.00
	LTE 25	QPSK20M	Bottom Side	26365	50	0	1	Ant 0	24.7	23.39	1.35	-0.08	0.139	0.19
	LTE 25	QPSK20M	Front Face	26365	1	0	1	Ant 1	22.2	21.50	1.17	0.01	0.158	0.18
	LTE 25	QPSK20M	Rear Face	26365	1	0	1	Ant 1	22.2	21.50	1.17	-0.03	0.252	0.29
	LTE 25	QPSK20M	Left Side	26365	1	0	1	Ant 1	22.2	21.50	1.17	0.05	0.129	0.15
	LTE 25	QPSK20M	Top Side	26365	1	0	1	Ant 1	22.2	21.50	1.17	-0.17	0.163	0.19
	LTE 25	QPSK20M	Front Face	26365	50	0	1	Ant 1	22.2	21.35	1.22	0.02	0.143	0.17
	LTE 25	QPSK20M	Rear Face	26365	50	0	1	Ant 1	22.2	21.35	1.22	-0.18	0.222	0.27
	LTE 25	QPSK20M	Left Side	26365	50	0	1	Ant 1	22.2	21.35	1.22	0.11	0.099	0.12
	LTE 25	QPSK20M	Top Side	26365	50	0	1	Ant 1	22.2	21.35	1.22	-0.11	0.135	0.16

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

FCC SAR Test Report

Plot No.	Band	Mode	Test Position	RB#	RB Offset	Ch.	EUT Config.	Tx Antenna	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WLAN OFF														
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.03	0.225	0.28
37	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.05	0.349	0.44
	LTE 66	QPSK20M	Left Side	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.01	0.056	0.07
	LTE 66	QPSK20M	Right Side	132572	1	50	1	Ant 0	24.5	23.54	1.25	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom Side	132572	1	50	1	Ant 0	24.5	23.54	1.25	0.07	0.295	0.37
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 0	23.5	22.44	1.28	-0.05	0.176	0.23
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 0	23.5	22.44	1.28	0.05	0.251	0.32
	LTE 66	QPSK20M	Left Side	132572	50	25	1	Ant 0	23.5	22.44	1.28	-0.03	0.041	0.05
	LTE 66	QPSK20M	Right Side	132572	50	25	1	Ant 0	23.5	22.44	1.28	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom Side	132572	50	25	1	Ant 0	23.5	22.44	1.28	-0.02	0.309	0.40
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.07	0.161	0.20
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.11	0.271	0.34
	LTE 66	QPSK20M	Left Side	132572	1	50	1	Ant 1	24.5	23.54	1.25	-0.09	0.156	0.20
	LTE 66	QPSK20M	Top Side	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.03	0.211	0.26
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.07	0.148	0.19
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	-0.08	0.199	0.25
	LTE 66	QPSK20M	Left Side	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.13	0.146	0.19
	LTE 66	QPSK20M	Top Side	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.08	0.151	0.19
	LTE 66	QPSK20M	Rear Face	132572	1	50	2	Ant 0	24.5	23.54	1.25	-0.03	0.322	0.40
WLAN ON														
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 0	23.7	22.56	1.30	0.08	0.146	0.19
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 0	23.7	22.56	1.30	-0.06	0.227	0.30
	LTE 66	QPSK20M	Left Side	132572	1	50	1	Ant 0	23.7	22.56	1.30	-0.02	0.037	0.05
	LTE 66	QPSK20M	Right Side	132572	1	50	1	Ant 0	23.7	22.56	1.30	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom Side	132572	1	50	1	Ant 0	23.7	22.56	1.30	0.05	0.337	0.44
	LTE 66	QPSK20M	Front Face	132572	50	50	1	Ant 0	23.7	22.54	1.31	0.11	0.113	0.15
	LTE 66	QPSK20M	Rear Face	132572	50	50	1	Ant 0	23.7	22.54	1.31	0.15	0.165	0.22
	LTE 66	QPSK20M	Left Side	132572	50	50	1	Ant 0	23.7	22.54	1.31	-0.02	0.027	0.04
	LTE 66	QPSK20M	Right Side	132572	50	50	1	Ant 0	23.7	22.54	1.31	0	<0.001	0.00
	LTE 66	QPSK20M	Bottom Side	132572	50	50	1	Ant 0	23.7	22.54	1.31	0.15	0.271	0.36
	LTE 66	QPSK20M	Front Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.07	0.161	0.20
	LTE 66	QPSK20M	Rear Face	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.11	0.271	0.34
	LTE 66	QPSK20M	Left Side	132572	1	50	1	Ant 1	24.5	23.54	1.25	-0.09	0.156	0.20
	LTE 66	QPSK20M	Top Side	132572	1	50	1	Ant 1	24.5	23.54	1.25	0.03	0.211	0.26
	LTE 66	QPSK20M	Front Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.07	0.148	0.19
	LTE 66	QPSK20M	Rear Face	132572	50	25	1	Ant 1	23.5	22.44	1.28	-0.08	0.199	0.25
	LTE 66	QPSK20M	Left Side	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.13	0.146	0.19
	LTE 66	QPSK20M	Top Side	132572	50	25	1	Ant 1	23.5	22.44	1.28	0.08	0.151	0.19

Note: "<0.001" means there is no SAR value or the SAR is too low to be measured.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WWAN ON / WWAN OFF														
	WLAN2.4G	802.11b	Front Face	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	0.06	0.251	0.28
	WLAN2.4G	802.11b	Rear Face	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	0.17	0.291	0.33
	WLAN2.4G	802.11b	Right Side	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	-0.07	0.153	0.17
	WLAN2.4G	802.11b	Top Side	6	1	Ant 0	98.78	1.01	18.0	17.49	1.12	0.03	0.151	0.17
	WLAN2.4G	802.11b	Front Face	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	-0.02	0.167	0.19
	WLAN2.4G	802.11b	Rear Face	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	0.15	0.311	0.35
	WLAN2.4G	802.11b	Right Side	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	0.05	0.203	0.23
	WLAN2.4G	802.11b	Top Side	6	1	Ant 1	99.19	1.01	18.0	17.48	1.13	0.19	0.045	0.05
38	WLAN2.4G	802.11b	Front Face	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.07	0.403	0.46
						2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.07		
	WLAN2.4G	802.11b	Rear Face	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.16	0.525	0.60
						2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.16		
	WLAN2.4G	802.11b	Right Side	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.11	0.313	0.36
						2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.11		
WLAN2.4G	802.11b	Top Side	1	1	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.07	0.177	0.20	
					2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.07			
WLAN2.4G	802.11b	Rear Face	1	2	2Tx Ant0	98.78	1.01	18.0	17.49	1.12	-0.09	0.476	0.54	
					2Tx Ant1	98.78	1.01	18.0	17.46	1.13	-0.09			
WWAN ON / WWAN OFF														
	WLAN5.2G	802.11ac VHT80	Front Face	42	1	Ant 0	90.98	1.10	17.5	17.31	1.04	0.03	0.193	0.22
	WLAN5.2G	802.11ac VHT80	Rear Face	42	1	Ant 0	90.98	1.10	17.5	17.31	1.04	0.14	0.289	0.33
	WLAN5.2G	802.11ac VHT80	Right Side	42	1	Ant 0	90.98	1.10	17.5	17.31	1.04	-0.14	0.131	0.15
	WLAN5.2G	802.11ac VHT80	Top Side	42	1	Ant 0	90.98	1.10	17.5	17.31	1.04	0.07	0.256	0.29
	WLAN5.2G	802.11ac VHT80	Front Face	42	1	Ant 1	91.48	1.09	17.5	17.08	1.10	0.03	0.125	0.15
43	WLAN5.2G	802.11ac VHT80	Rear Face	42	1	Ant 1	91.48	1.09	17.5	17.08	1.10	0.16	0.723	0.87
						Ant 1	91.48	1.09	17.5	17.08	1.10	-0.13		
	WLAN5.2G	802.11ac VHT80	Top Side	42	1	Ant 1	91.48	1.09	17.5	17.08	1.10	0.14	0.181	0.22
WLAN5.2G	802.11ac VHT80	Front Face	42	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.02	0.269	0.32	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.02			
WLAN5.2G	802.11ac VHT80	Rear Face	42	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.05	0.565	0.67	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.05			
WLAN5.2G	802.11ac VHT80	Right Side	42	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.04	0.481	0.57	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.04			
WLAN5.2G	802.11ac VHT80	Top Side	42	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.07	0.383	0.46	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.07			
WLAN5.2G	802.11ac VHT80	Rear Face	42	2	Ant 1	91.48	1.09	17.5	17.08	1.10	-0.03	0.652	0.78	

Note: Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
WWAN ON / WWAN OFF														
	WLAN5.8G	802.11ac VHT80	Front Face	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	0.01	0.144	0.17
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	0.11	0.248	0.29
	WLAN5.8G	802.11ac VHT80	Right Side	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	-0.08	0.105	0.12
	WLAN5.8G	802.11ac VHT80	Top Side	155	1	Ant 0	90.98	1.10	17.5	17.27	1.05	0.15	0.249	0.29
	WLAN5.8G	802.11ac VHT80	Front Face	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0	<0.001	0.00
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	0.03	0.373	0.44
44	WLAN5.8G	802.11ac VHT80	Right Side	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	-0.09	0.426	0.50
	WLAN5.8G	802.11ac VHT80	Top Side	155	1	Ant 1	91.48	1.09	17.5	17.18	1.08	-0.12	0.077	0.09
	WLAN5.8G	802.11ac VHT80	Front Face	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.09	0.139	0.16
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.09		
	WLAN5.8G	802.11ac VHT80	Rear Face	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.08	0.391	0.45
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.08		
	WLAN5.8G	802.11ac VHT80	Right Side	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	0.11	0.382	0.44
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	0.11		
	WLAN5.8G	802.11ac VHT80	Top Side	155	1	2Tx Ant0	90.98	1.10	17.5	17.39	1.03	-0.13	0.411	0.47
						2Tx Ant1	90.98	1.10	17.5	17.30	1.05	-0.13		
	WLAN5.8G	802.11ac VHT80	Right Side	155	2	Ant 1	91.48	1.09	17.5	17.18	1.08	-0.12	0.407	0.48
WWAN ON / WWAN OFF														
	BT	BDR	Front Face	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.11	0.031	0.04
42	BT	BDR	Rear Face	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.01	0.074	0.10
	BT	BDR	Right Side	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.07	0.022	0.03
	BT	BDR	Top Side	39	1	Ant 0	76.80	1.30	18.0	17.63	1.09	0.13	0.021	0.03
	BT	BDR	Rear Face	39	2	Ant 0	76.80	1.30	18.0	17.63	1.09	-0.08	0.041	0.06

Note:

1. "<0.001" means there is no SAR value or the SAR is too low to be measured.
2. Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

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4.7.5 SAR Results for Product Specific (Phablet) Exposure Condition (Test Separation Distance is 0 mm)

Plot No.	Band	Mode	Test Position	Ch.	EUT Config.	Tx Antenna	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-10g (W/kg)	Scaled SAR-10g (W/kg)
WWAN ON / WWAN OFF														
	WLAN5.3G	802.11ac VHT80	Front Face	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.15	0.589	0.70
	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.09	0.673	0.80
	WLAN5.3G	802.11ac VHT80	Right Side	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.13	0.234	0.28
	WLAN5.3G	802.11ac VHT80	Top Side	58	1	Ant 0	90.98	1.10	17.5	17.18	1.08	0.02	0.623	0.74
	WLAN5.3G	802.11ac VHT80	Front Face	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.09	0.427	0.50
	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	0.02	1.31	1.53
	WLAN5.3G	802.11ac VHT80	Right Side	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.16	0.993	1.16
	WLAN5.3G	802.11ac VHT80	Top Side	58	1	Ant 1	91.48	1.09	17.5	17.19	1.07	-0.12	0.333	0.39
45	WLAN5.3G	802.11ac VHT80	Front Face	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.15	0.878	1.00
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.15		
	WLAN5.3G	802.11ac VHT80	Rear Face	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.01	1.46	1.67
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.01		
	WLAN5.3G	802.11ac VHT80	Right Side	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.13	0.894	1.02
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.13		
	WLAN5.3G	802.11ac VHT80	Top Side	58	1	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	0.05	0.779	0.89
						2Tx Ant1	90.98	1.10	17.5	17.31	1.04	0.05		
WLAN5.3G	802.11ac VHT80	Rear Face	58	2	2Tx Ant0	90.98	1.10	17.5	17.37	1.03	-0.05	1.32	1.51	
					2Tx Ant1	90.98	1.10	17.5	17.31	1.04	-0.05			
WWAN ON / WWAN OFF														
	WLAN5.6G	802.11ac VHT80	Front Face	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.07	0.449	0.50
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	-0.05	0.631	0.71
	WLAN5.6G	802.11ac VHT80	Right Side	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	-0.13	0.115	0.13
	WLAN5.6G	802.11ac VHT80	Top Side	138	1	Ant 0	90.98	1.10	17.5	17.41	1.02	0.06	0.402	0.45
	WLAN5.6G	802.11ac VHT80	Front Face	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	-0.07	0.232	0.26
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	0.18	0.644	0.73
	WLAN5.6G	802.11ac VHT80	Right Side	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	-0.1	0.689	0.78
	WLAN5.6G	802.11ac VHT80	Top Side	138	1	Ant 1	91.48	1.09	17.5	17.31	1.04	-0.01	0.147	0.17
46	WLAN5.6G	802.11ac VHT80	Front Face	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.04	0.529	0.63
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.04		
	WLAN5.6G	802.11ac VHT80	Rear Face	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	-0.05	1.35	1.60
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	-0.05		
	WLAN5.6G	802.11ac VHT80	Right Side	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.13	0.861	1.02
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.13		
	WLAN5.6G	802.11ac VHT80	Top Side	138	1	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.09	1.02	1.21
						2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.09		
WLAN5.6G	802.11ac VHT80	Rear Face	138	2	2Tx Ant0	90.98	1.10	17.5	17.23	1.06	0.09	1.31	1.56	
					2Tx Ant1	90.98	1.10	17.5	17.16	1.08	0.09			

Note: Where MIMO mode is tested and there is a single hot spot that is not clearly associated with a specific antenna the highest scaling factor across both antennas is used.

4.7.6 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. If the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 , or when the original or repeated measurement is ≥ 1.45 W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Band	Mode	Test Position	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
GSM1900	GPRS12	Right Cheek	810	0.881	0.872	1.01	N/A	N/A	N/A	N/A
WCDMA II	RMC12.2K	Right Cheek	9538	0.829	0.813	1.02	N/A	N/A	N/A	N/A
LTE 25	QPSK20M	Right Cheek	26590	0.840	0.832	1.01	N/A	N/A	N/A	N/A
WLAN2.4G	802.11b	Left Cheek	6	0.983	0.943	1.04	N/A	N/A	N/A	N/A
WLAN5.3G	802.11ac VHT80	Left Tilted	58	0.995	0.985	1.01	N/A	N/A	N/A	N/A
WLAN5.6G	802.11ac VHT80	Left Cheek	138	0.904	0.889	1.02	N/A	N/A	N/A	N/A
WLAN5.8G	802.11ac VHT80	Left Tilted	155	1.02	1.02	1.00	N/A	N/A	N/A	N/A

4.7.7 Simultaneous Multi-band Transmission Evaluation

<Possibilities of Simultaneous Transmission>

The simultaneous transmission possibilities for this device are listed as below.

Simultaneous TX Combination	Capable Transmit Configurations	Head Exposure Condition	Body-worn Exposure Condition	Hotspot Exposure Condition
1	WWAN+WiFi 2.4G SISO (Ant0)	Yes	Yes	Yes
2	WWAN+WiFi 2.4G SISO (Ant1)	Yes	Yes	Yes
3	WWAN+WiFi 2.4G MIMO (Ant0+1)	Yes	Yes	Yes
4	WWAN+WiFi 5G	Yes	Yes	Yes
5	WWAN+Bluetooth (Ant0)	Yes	Yes	Yes
6	WWAN+WiFi 2.4G SISO (Ant1) + Bluetooth (Ant0)	Yes	Yes	Yes
7	WWAN+WiFi 2.4G SISO (Ant0) + WiFi 5G SISO(Ant1)	Yes	Yes	Yes
8	WWAN+WiFi 5G + Bluetooth	Yes	Yes	Yes

Note :

- Both GSM/WCDMA/CDMA and LTE can transmit through either antenna-0 or antenna-1 or antenna-2 or antenna-3. However, only one technology (GSM/WCDMA/CDMA or LTE) can transmit from an antenna at a time, and the other technology transmits through the other antenna.
- Condition1 is covered by condition 7.
- Condition2 is covered by condition 6.
- Condition4 is covered by condition 8.
- <SAR Summation Analysis>

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR_{1g} of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR_{1g} 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR_{1g} is greater than the SAR limit (SAR_{1g} 1.6 W/kg), SAR test exclusion is determined by the SPLSR.



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WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	13	5+8	5+7+13	5+6+10	5+12+13
		WWAN Ant 0	WWAN Ant 1	WWAN Ant 2	WWAN Ant 3	Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant0	WLAN 5GHz Ant1	WLAN 5GHz Ant 0+1	Max WLAN 5GHz	Bluetooth	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1gSAR W/kg	1gSAR W/kg	1gSAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg
GSM850	Right Cheek	0.09	0.46			0.46	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.80	0.89	1.19	1.35
GSM850	Right Tilted	0.04	0.40			0.40	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.72	0.62	1.16	1.36
GSM850	Left Cheek	0.09	0.20			0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.24	1.49	1.52	1.59
GSM850	Left Tilted	0.06	0.27			0.27	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.63	0.72	1.31	1.53
GSM1900	Right Cheek	0.00	0.28			0.28	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.62	0.71	1.01	1.17
GSM1900	Right Tilted	0.00	0.27			0.27	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.59	0.49	1.03	1.23
GSM1900	Left Cheek	0.05	0.10			0.10	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.14	1.39	1.42	1.49
GSM1900	Left Tilted	0.00	0.12			0.12	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.48	0.57	1.16	1.38
WCDMA II	Right Cheek	0.03	0.28			0.28	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.62	0.71	1.01	1.17
WCDMA II	Right Tilted	0.00	0.27			0.27	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.59	0.49	1.03	1.23
WCDMA II	Left Cheek	0.04	0.11			0.11	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.15	1.40	1.43	1.50
WCDMA II	Left Tilted	0.00	0.13			0.13	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.49	0.58	1.17	1.39
WCDMA IV	Right Cheek	0.00	0.54			0.54	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.88	0.97	1.27	1.43
WCDMA IV	Right Tilted	0.00	0.53			0.53	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.85	0.75	1.29	1.49
WCDMA IV	Left Cheek	0.00	0.13			0.13	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.17	1.42	1.45	1.52
WCDMA IV	Left Tilted	0.00	0.20			0.20	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.56	0.65	1.24	1.46
WCDMA V	Right Cheek	0.07	0.44			0.44	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.78	0.87	1.17	1.33
WCDMA V	Right Tilted	0.00	0.36			0.36	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.68	0.58	1.12	1.32
WCDMA V	Left Cheek	0.07	0.18			0.18	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.22	1.47	1.50	1.57
WCDMA V	Left Tilted	0.04	0.18			0.18	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.54	0.63	1.22	1.44
CDMA BC0	Right Cheek	0.11	0.67			0.67	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	1.01	1.10	1.40	1.56
CDMA BC0	Right Tilted	0.06	0.48			0.48	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.80	0.70	1.24	1.44
CDMA BC0	Left Cheek	0.10	0.20			0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.26	1.51	1.54	1.59
CDMA BC0	Left Tilted	0.07	0.28			0.28	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.64	0.73	1.32	1.54
CDMA BC1	Right Cheek	0.04	0.21			0.21	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.55	0.64	0.94	1.10
CDMA BC1	Right Tilted	0.00	0.09			0.09	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.41	0.31	0.85	1.05
CDMA BC1	Left Cheek	0.05	0.10			0.10	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.14	1.39	1.42	1.49
CDMA BC1	Left Tilted	0.00	0.20			0.20	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.56	0.65	1.24	1.46
CDMA BC10	Right Cheek	0.07	0.38			0.38	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.72	0.81	1.11	1.27
CDMA BC10	Right Tilted	0.04	0.35			0.35	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.67	0.57	1.11	1.31
CDMA BC10	Left Cheek	0.06	0.20			0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.26	1.51	1.54	1.59
CDMA BC10	Left Tilted	0.05	0.20			0.20	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.56	0.65	1.24	1.46

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WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	13	5+8	5+7+13	5+6+10	5+12+13
		WWAN Ant 0	WWAN Ant 1	WWAN Ant 2	WWAN Ant 3	Max WWAN	WLAN 2.4GHz Ant 0	WLAN 2.4GHz Ant 1	WLAN 2.4GHz Ant 0+1	WLAN 5GHz Ant 0	WLAN 5GHz Ant 1	WLAN 5GHz Ant 0+1	Max WLAN 5GHz	Bluetooth	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg	Summimg result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg
LTE 7	Right Cheek			0.61	0.63	0.63	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.97	1.06	1.36	1.52
LTE 7	Right Tilted			0.11	0.32	0.32	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.64	0.54	1.08	1.28
LTE 7	Left Cheek			0.19	0.20	0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.26	1.51	1.54	1.59
LTE 7	Left Tilted			0.16	0.16	0.16	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.52	0.61	1.20	1.42
LTE 12	Right Cheek	0.05	0.39												0.73	0.82	1.12	1.28
LTE 12	Right Tilted	0.03	0.33												0.65	0.55	1.09	1.29
LTE 12	Left Cheek	0.05	0.20												1.24	1.49	1.52	1.59
LTE 12	Left Tilted	0.04	0.20												0.56	0.65	1.24	1.46
LTE 13	Right Cheek	0.06	0.52												0.86	0.95	1.25	1.41
LTE 13	Right Tilted	0.04	0.38												0.70	0.60	1.14	1.34
LTE 13	Left Cheek	0.06	0.19												1.23	1.48	1.51	1.58
LTE 13	Left Tilted	0.04	0.15												0.51	0.60	1.19	1.41
LTE 25	Right Cheek	0.04	0.28												0.62	0.71	1.01	1.17
LTE 25	Right Tilted	0.00	0.27												0.59	0.49	1.03	1.23
LTE 25	Left Cheek	0.05	0.12												1.16	1.41	1.44	1.51
LTE 25	Left Tilted	0.03	0.14												0.50	0.59	1.18	1.40
LTE 26	Right Cheek	0.10	0.49												0.83	0.92	1.22	1.38
LTE 26	Right Tilted	0.06	0.45												0.77	0.67	1.21	1.41
LTE 26	Left Cheek	0.10	0.20												1.26	1.51	1.54	1.59
LTE 26	Left Tilted	0.07	0.23												0.59	0.68	1.27	1.49
LTE 66	Right Cheek	0.04	0.61												0.95	1.04	1.34	1.50
LTE 66	Right Tilted	0.00	0.62												0.94	0.84	1.38	1.58
LTE 66	Left Cheek	0.00	0.20												1.26	1.51	1.54	1.59
LTE 66	Left Tilted	0.00	0.32												0.68	0.77	1.36	1.58
LTE 38	Right Cheek			0.37	0.69	0.69	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	1.03	1.12	1.42	1.58
LTE 38	Right Tilted			0.10	0.34	0.34	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.66	0.56	1.10	1.30
LTE 38	Left Cheek			0.20	0.20	0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.26	1.51	1.54	1.59
LTE 38	Left Tilted			0.19	0.15	0.19	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.55	0.64	1.23	1.45
LTE 41	Right Cheek			0.36	0.61	0.61	0.53	0.31	0.34	0.67	0.20	0.77	0.77	0.12	0.95	1.04	1.34	1.50
LTE 41	Right Tilted			0.15	0.34	0.34	0.51	0.14	0.32	0.80	0.25	0.88	0.88	0.08	0.66	0.56	1.10	1.30
LTE 41	Left Cheek			0.20	0.20	0.20	0.87	0.97	1.04	0.96	0.45	1.07	1.07	0.32	1.26	1.51	1.54	1.59
LTE 41	Left Tilted			0.20	0.22	0.22	0.62	0.37	0.36	1.18	0.42	1.18	1.18	0.08	0.58	0.67	1.26	1.48



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CDMA BC10	Rear Face	0.06	0.11		0.11	0.33	0.35	0.60	0.33	0.87	0.67	0.87	0.10	0.71	0.56	1.31	1.08
CDMA BC10	Left Side	0.00	0.08		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08	0.08
CDMA BC10	Right Side	0.02	0.00		0.02	0.17	0.23	0.36	0.15	0.50	0.57	0.57	0.03	0.38	0.28	0.69	0.62
CDMA BC10	Top Side	0.00	0.06		0.06	0.17	0.05	0.20	0.29	0.22	0.47	0.47	0.03	0.26	0.14	0.45	0.56
CDMA BC10	Bottom Side	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FCC SAR Test Report

<WWAN On+Bluetooth (Ant0)>

WWAN Band	Exposure Position	A	B	C	D	E	13	E+13
		WWAN Ant 0	WWAN Ant 1	WWAN Ant 2	WWAN Ant 3	Max WWAN	Bluetooth	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg
GSM850	Right Cheek	0.09	0.46			0.46	0.12	0.58
GSM850	Right Tilted	0.04	0.4			0.4	0.08	0.48
GSM850	Left Cheek	0.09	0.2			0.2	0.32	0.52
GSM850	Left Tilted	0.06	0.27			0.27	0.08	0.35
GSM1900	Right Cheek	0	1			1	0.12	1.12
GSM1900	Right Tilted	0	0.97			0.97	0.08	1.05
GSM1900	Left Cheek	0.05	0.35			0.35	0.32	0.67
GSM1900	Left Tilted	0	0.39			0.39	0.08	0.47
WCDMA II	Right Cheek	0.03	0.99			0.99	0.12	1.11
WCDMA II	Right Tilted	0	0.96			0.96	0.08	1.04
WCDMA II	Left Cheek	0.04	0.38			0.38	0.32	0.70
WCDMA II	Left Tilted	0	0.4			0.4	0.08	0.48
WCDMA IV	Right Cheek	0	0.54			0.54	0.12	0.66
WCDMA IV	Right Tilted	0	0.53			0.53	0.08	0.61
WCDMA IV	Left Cheek	0	0.43			0.43	0.32	0.75
WCDMA IV	Left Tilted	0	0.2			0.2	0.08	0.28
WCDMA V	Right Cheek	0.07	0.44			0.44	0.12	0.56
WCDMA V	Right Tilted	0	0.36			0.36	0.08	0.44
WCDMA V	Left Cheek	0.07	0.18			0.18	0.32	0.50
WCDMA V	Left Tilted	0.04	0.18			0.18	0.08	0.26
CDMA BC0	Right Cheek	0.11	0.67			0.67	0.12	0.79
CDMA BC0	Right Tilted	0.06	0.48			0.48	0.08	0.56
CDMA BC0	Left Cheek	0.1	0.2			0.2	0.32	0.52
CDMA BC0	Left Tilted	0.07	0.28			0.28	0.08	0.36
CDMA BC1	Right Cheek	0.04	0.92			0.92	0.12	1.04
CDMA BC1	Right Tilted	0	0.89			0.89	0.08	0.97
CDMA BC1	Left Cheek	0.05	0.39			0.39	0.32	0.71
CDMA BC1	Left Tilted	0	0.41			0.41	0.08	0.49
CDMA BC10	Right Cheek	0.07	0.38			0.38	0.12	0.50
CDMA BC10	Right Tilted	0.04	0.35			0.35	0.08	0.43
CDMA BC10	Left Cheek	0.06	0.2			0.2	0.32	0.52
CDMA BC10	Left Tilted	0.05	0.2			0.2	0.08	0.28



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WWAN Band	Exposure Position	A		B		C		D		E		13	Summing result 1g SAR W/kg
		WWAN Ant 0	WWAN Ant 1	WWAN Ant 2	WWAN Ant 3	Max WWAN	Bluetooth	1g SAR W/kg	1g SAR W/kg				
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg				
LTE 7	Right Cheek			0.61	0.63	0.63	0.12	0.75					
LTE 7	Right Tilted			0.11	0.32	0.32	0.08	0.40					
LTE 7	Left Cheek			0.19	0.2	0.2	0.32	0.52					
LTE 7	Left Tilted			0.16	0.16	0.16	0.08	0.24					
LTE 12	Right Cheek	0.05	0.39			0.39	0.12	0.51					
LTE 12	Right Tilted	0.03	0.33			0.33	0.08	0.41					
LTE 12	Left Cheek	0.05	0.2			0.2	0.32	0.52					
LTE 12	Left Tilted	0.04	0.2			0.2	0.08	0.28					
LTE 13	Right Cheek	0.06	0.72			0.72	0.12	0.84					
LTE 13	Right Tilted	0.04	0.59			0.59	0.08	0.67					
LTE 13	Left Cheek	0.06	0.42			0.42	0.32	0.74					
LTE 13	Left Tilted	0.04	0.38			0.38	0.08	0.46					
LTE 25	Right Cheek	0.04	1			1	0.12	1.12					
LTE 25	Right Tilted	0	0.92			0.92	0.08	1.00					
LTE 25	Left Cheek	0.05	0.39			0.39	0.32	0.71					
LTE 25	Left Tilted	0.03	0.4			0.4	0.08	0.48					
LTE 26	Right Cheek	0.1	0.49			0.49	0.12	0.61					
LTE 26	Right Tilted	0.06	0.45			0.45	0.08	0.53					
LTE 26	Left Cheek	0.1	0.2			0.2	0.32	0.52					
LTE 26	Left Tilted	0.07	0.23			0.23	0.08	0.31					
LTE 66	Right Cheek	0.04	0.61			0.61	0.12	0.73					
LTE 66	Right Tilted	0	0.62			0.62	0.08	0.70					
LTE 66	Left Cheek	0	0.2			0.2	0.32	0.52					
LTE 66	Left Tilted	0	0.32			0.32	0.08	0.40					
LTE 38	Right Cheek			0.37	0.69	0.69	0.12	0.81					
LTE 38	Right Tilted			0.1	0.34	0.34	0.08	0.42					
LTE 38	Left Cheek			0.2	0.2	0.2	0.32	0.52					
LTE 38	Left Tilted			0.19	0.15	0.19	0.08	0.27					
LTE 41	Right Cheek			0.36	0.61	0.61	0.12	0.73					
LTE 41	Right Tilted			0.15	0.34	0.34	0.08	0.42					
LTE 41	Left Cheek			0.2	0.2	0.2	0.32	0.52					
LTE 41	Left Tilted			0.2	0.22	0.22	0.08	0.30					



FCC SAR Test Report

WWAN Band	Exposure Position	A	B	C	D	E	13	E+13
		WWAN Ant 0	WWAN Ant 1	WWAN Ant 2	WWAN Ant 3	Max WWAN	Bluetooth	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	
GSM850	Front Face	0.05	0.08			0.08	0.04	0.12
GSM850	Rear Face	0.09	0.13			0.13	0.1	0.23
GSM1900	Front Face	0.14	0.29			0.29	0.04	0.33
GSM1900	Rear Face	0.2	0.54			0.54	0.1	0.64
WCDMA II	Front Face	0.26	0.51			0.51	0.04	0.55
WCDMA II	Rear Face	0.38	0.83			0.83	0.1	0.93
WCDMA IV	Front Face	0.38	0.12			0.38	0.04	0.42
WCDMA IV	Rear Face	0.64	0.17			0.64	0.1	0.74
WCDMA V	Front Face	0.05	0.12			0.12	0.04	0.16
WCDMA V	Rear Face	0.08	0.15			0.15	0.1	0.25
CDMA BC0	Front Face	0.05	0.12			0.12	0.04	0.16
CDMA BC0	Rear Face	0.09	0.17			0.17	0.1	0.27
CDMA BC1	Front Face	0.2	0.39			0.39	0.04	0.43
CDMA BC1	Rear Face	0.32	0.62			0.62	0.1	0.72
CDMA BC10	Front Face	0.03	0.09			0.09	0.04	0.13
CDMA BC10	Rear Face	0.06	0.11			0.11	0.1	0.21
LTE 7	Front Face			0.57	0.14	0.57	0.04	0.61
LTE 7	Rear Face			0.78	0.39	0.78	0.1	0.88
LTE 12	Front Face	0.16	0.04			0.16	0.04	0.20
LTE 12	Rear Face	0.24	0.09			0.24	0.1	0.34
LTE 13	Front Face	0.09	0.17			0.17	0.04	0.21
LTE 13	Rear Face	0.13	0.23			0.23	0.1	0.33
LTE 25	Front Face	0.26	0.48			0.48	0.04	0.52
LTE 25	Rear Face	0.45	0.76			0.76	0.1	0.86
LTE 26	Front Face	0.04	0.08			0.08	0.04	0.12
LTE 26	Rear Face	0.06	0.11			0.11	0.1	0.21
LTE 66	Front Face	0.28	0.2			0.28	0.04	0.32
LTE 66	Rear Face	0.44	0.34			0.44	0.1	0.54
LTE 38	Front Face			0.25	0.11	0.25	0.04	0.29
LTE 38	Rear Face			0.33	0.39	0.39	0.1	0.49
LTE 41	Front Face			0.24	0.22	0.24	0.04	0.28
LTE 41	Rear Face			0.29	0.34	0.34	0.1	0.44

Test Engineer : Willy Chang, and Eric Wu

5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1013	Aug. 23, 2018	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 23, 2018	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Aug. 27, 2018	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Jan. 18, 2018	1 Year
System Validation Dipole	SPEAG	D2300V2	1004	Jan. 17, 2018	1 Year
System Validation Dipole	SPEAG	D2450V2	737	Aug. 24, 2018	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 24, 2018	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 22, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3898	Jun. 26, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3971	Mar. 26, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3650	Jul. 27, 2018	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	7472	Aug. 29, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE3	579	Aug. 27, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May. 30, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1431	Mar. 16, 2018	1 Year
Data Acquisition Electronics	SPEAG	DAE4	1277	Jan. 18, 2018	1 Year
Radio Communication Analyzer	Anritsu	MT8820C	6201381727	May. 09, 2018	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 23, 2018	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214281	Jun. 08, 2018	1 Year
MXG Analog Signal Generator	Agilent	N5181A	MY50143868	Jul. 03, 2018	1 Year
Vector Signal Generator	Anritsu	MG3710A	6201599977	Mar. 16, 2018	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jul. 03, 2018	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jul. 03, 2018	1 Year
Thermometer	YFE	YF-160A	130504591	Mar. 23, 2018	1 Year

6. Measurement Uncertainty

Source of Uncertainty	Uncertainty (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (± %, 1g)	Standard Uncertainty (± %, 10g)	Vi
Measurement System								
Probe Calibration	6.0	Normal	1	1	1	6.0	6.0	∞
Axial Isotropy	4.7	Rectangular	√3	√0.5	√0.5	1.9	1.9	∞
Hemispherical Isotropy	9.6	Rectangular	√3	√0.5	√0.5	3.9	3.9	∞
Boundary Effect	1.0	Rectangular	√3	1	1	0.6	0.6	∞
Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Probe Modulation Response	3.5	Rectangular	√3	1	1	2.0	2.0	∞
Readout Electronics	0.3	Normal	1	1	1	0.3	0.3	∞
Response Time	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Integration Time	1.7	Rectangular	√3	1	1	1.0	1.0	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	Rectangular	√3	1	1	0.2	0.2	∞
Probe Positioning with Respect to Phantom	2.9	Rectangular	√3	1	1	1.7	1.7	∞
Post-processing	2.0	Rectangular	√3	1	1	1.2	1.2	∞
Test Sample Related								
Test Sample Positioning	2.82 / 1.60	Normal	1	1	1	2.8	1.6	35
Device Holder Uncertainty	2.55 / 2.76	Normal	1	1	1	2.6	2.8	7
Power Drift of Measurement	5.0	Rectangular	√3	1	1	2.9	2.9	∞
Power Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty (Shape and Thickness Tolerances)	6.1	Rectangular	√3	1	1	3.5	3.5	∞
Liquid Conductivity (Temperature Uncertainty)	2.58	Rectangular	√3	0.78	0.71	1.2	1.1	∞
Liquid Conductivity (Measured)	2.95	Normal	1	0.78	0.71	2.3	2.1	61
Liquid Permittivity (Temperature Uncertainty)	1.97	Rectangular	√3	0.23	0.26	0.3	0.3	∞
Liquid Permittivity (Measured)	3.04	Normal	1	0.23	0.26	0.7	0.8	47
Combined Standard Uncertainty						± 11.0 %	± 10.7 %	
Expanded Uncertainty (K=2)						± 22.0 %	± 21.4 %	

Head SAR Uncertainty Budget for Frequency Range of 300 MHz to 3 GHz

FCC SAR Test Report

Source of Uncertainty	Uncertainty (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (± %, 1g)	Standard Uncertainty (± %, 10g)	Vi
Measurement System								
Probe Calibration	6.55	Normal	1	1	1	6.55	6.55	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	0.7	3.9	3.9	∞
Boundary Effect	2.0	Rectangular	√3	1	1	1.2	1.2	∞
Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Probe Modulation Response	3.5	Rectangular	√3	1	1	2.0	2.0	∞
Readout Electronics	0.3	Normal	1	1	1	0.3	0.3	∞
Response Time	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Integration Time	1.7	Rectangular	√3	1	1	1.0	1.0	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	Rectangular	√3	1	1	0.2	0.2	∞
Probe Positioning with Respect to Phantom	6.7	Rectangular	√3	1	1	3.9	3.9	∞
Post-processing	4.0	Rectangular	√3	1	1	2.3	2.3	∞
Test Sample Related								
Test Sample Positioning	2.82 / 1.60	Normal	1	1	1	2.8	1.6	35
Device Holder Uncertainty	2.55 / 2.76	Normal	1	1	1	2.6	2.8	7
Power Drift of Measurement	5.0	Rectangular	√3	1	1	2.9	2.9	∞
Power Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty (Shape and Thickness Tolerances)	6.6	Rectangular	√3	1	1	3.8	3.8	∞
Liquid Conductivity (Temperature Uncertainty)	2.58	Rectangular	√3	0.78	0.71	1.2	1.1	∞
Liquid Conductivity (Measured)	2.95	Normal	1	0.78	0.71	2.3	2.1	61
Liquid Permittivity (Temperature Uncertainty)	1.97	Rectangular	√3	0.23	0.26	0.3	0.3	∞
Liquid Permittivity (Measured)	3.04	Normal	1	0.23	0.26	0.7	0.8	47
Combined Standard Uncertainty						± 12.1 %	± 11.9 %	
Expanded Uncertainty (K=2)						± 24.2 %	± 23.8 %	

Head SAR Uncertainty Budget for Frequency Range of 3 GHz to 6 GHz

FCC SAR Test Report

Source of Uncertainty	Uncertainty (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (± %, 1g)	Standard Uncertainty (± %, 10g)	Vi
Measurement System								
Probe Calibration	6.0	Normal	1	1	1	6.0	6.0	∞
Axial Isotropy	4.7	Rectangular	√3	√0.5	√0.5	1.9	1.9	∞
Hemispherical Isotropy	9.6	Rectangular	√3	√0.5	√0.5	3.9	3.9	∞
Boundary Effect	1.0	Rectangular	√3	1	1	0.6	0.6	∞
Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Probe Modulation Response	3.5	Rectangular	√3	1	1	2.0	2.0	∞
Readout Electronics	0.3	Normal	1	1	1	0.3	0.3	∞
Response Time	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Integration Time	1.7	Rectangular	√3	1	1	1.0	1.0	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	Rectangular	√3	1	1	0.2	0.2	∞
Probe Positioning with Respect to Phantom	2.9	Rectangular	√3	1	1	1.7	1.7	∞
Post-processing	2.0	Rectangular	√3	1	1	1.2	1.2	∞
Test Sample Related								
Test Sample Positioning	3.68 / 1.73	Normal	1	1	1	3.7	1.7	29
Device Holder Uncertainty	2.55 / 2.76	Normal	1	1	1	2.6	2.8	7
Power Drift of Measurement	5.0	Rectangular	√3	1	1	2.9	2.9	∞
Power Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty (Shape and Thickness Tolerances)	7.2	Rectangular	√3	1	1	4.2	4.2	∞
Liquid Conductivity (Temperature Uncertainty)	2.58	Rectangular	√3	0.78	0.71	1.2	1.1	∞
Liquid Conductivity (Measured)	2.95	Normal	1	0.78	0.71	2.3	2.1	61
Liquid Permittivity (Temperature Uncertainty)	1.97	Rectangular	√3	0.23	0.26	0.3	0.3	∞
Liquid Permittivity (Measured)	3.04	Normal	1	0.23	0.26	0.7	0.8	47
Combined Standard Uncertainty						± 11.4 %	± 11.0 %	
Expanded Uncertainty (K=2)						± 22.8 %	± 22.0 %	

Body SAR Uncertainty Budget for Frequency Range of 300 MHz to 3 GHz

FCC SAR Test Report

Source of Uncertainty	Uncertainty (± %)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (± %, 1g)	Standard Uncertainty (± %, 10g)	Vi
Measurement System								
Probe Calibration	6.55	Normal	1	1	1	6.55	6.55	∞
Axial Isotropy	4.7	Rectangular	√3	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	0.7	3.9	3.9	∞
Boundary Effect	2.0	Rectangular	√3	1	1	1.2	1.2	∞
Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	∞
Detection Limits	0.25	Rectangular	√3	1	1	0.14	0.14	∞
Probe Modulation Response	3.5	Rectangular	√3	1	1	2.0	2.0	∞
Readout Electronics	0.3	Normal	1	1	1	0.3	0.3	∞
Response Time	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Integration Time	1.7	Rectangular	√3	1	1	1.0	1.0	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	Rectangular	√3	1	1	0.2	0.2	∞
Probe Positioning with Respect to Phantom	6.7	Rectangular	√3	1	1	3.9	3.9	∞
Post-processing	4.0	Rectangular	√3	1	1	2.3	2.3	∞
Test Sample Related								
Test Sample Positioning	3.68 / 1.73	Normal	1	1	1	3.7	1.7	29
Device Holder Uncertainty	2.55 / 2.76	Normal	1	1	1	2.6	2.8	7
Power Drift of Measurement	5.0	Rectangular	√3	1	1	2.9	2.9	∞
Power Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty (Shape and Thickness Tolerances)	7.6	Rectangular	√3	1	1	4.4	4.4	∞
Liquid Conductivity (Temperature Uncertainty)	2.58	Rectangular	√3	0.78	0.71	1.2	1.1	∞
Liquid Conductivity (Measured)	2.95	Normal	1	0.78	0.71	2.3	2.1	61
Liquid Permittivity (Temperature Uncertainty)	1.97	Rectangular	√3	0.23	0.26	0.3	0.3	∞
Liquid Permittivity (Measured)	3.04	Normal	1	0.23	0.26	0.7	0.8	47
Combined Standard Uncertainty						± 12.5 %	± 12.1 %	
Expanded Uncertainty (K=2)						± 25.0 %	± 24.2 %	

Body SAR Uncertainty Budget for Frequency Range of 3 GHz to 6 GHz

7. Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also.

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