FCC SAR Test Report

FCC ID: R9C-CPH2083

Project No.	:	2003C217
Equipment	:	Mobile Phone
Brand Name	:	OPPO
Test Model	:	CPH2083
Series Model	:	N/A
Date of Receipt	:	Mar. 27, 2020
Date of Test	:	Apr. 04, 2020 ~ Apr. 27, 2020
Issued Date	:	Apr. 30, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG202004017, DG202004016, DG202004018
Standard(s)	:	Please refer to page 2.
Applicant	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China
Manufacturer	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China
Factory	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China

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

Prepared by : Zmj Zhang

Approved by : Herbort Liu

Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town,Dongguan, Guangdong, China.
Tel: +86-769-8318-3000
Web: www.newbtl.com

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

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

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

Declaration

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

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

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

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

Limitation

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

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

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Apr. 30, 2020

1. RF EMISSIONS MEASUREMENT

1.1 TEST FACILITY

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

1.2 MEASUREMENT UNCERTAINTY

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

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone		
Brand Name	OPPO		
Model Name	CPH2083		
IMEI Code	Sample 1	863634040130058/863634040130041	
	Sample 2	863634040129894/863634040129886	
	Sample 3	863634040130199/863634040130181	
S/N	Sample 1	IVEM4PZ9INOZ8S8T	
	Sample 2	M7JF4SVWCES8FABM	
	Sample 3	HQOFMVH6S4GMFIOF	
Hardware Version	11		
Software Version	ColorOS V6.1.2		
Modulation	GSM(GMSK/8PSK), UMTS(QPSK/16QAM), LTE(QPSK/16QAM/64QAM), WiFi(DSSS/OFDM), BT(GFSK/π/4-DQPSK/8-DPSK)		
Operation Frequency Range(s)	Band	TX (MHz)	RX (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	UMTS B2	1850~1910	1930~1990
	UMTS B4	1710~1755	2110~2155
	UMTS B5	824~849	869~894
	LTE B2	1850~1910	1930~1990
	LTE B4	1710~1755	2110~2155
	LTE B5	824~849	869~894
	LTE B7	2500~2570	2620~2690
	LTE B12	699~716	729~746
	LTE B26	814~849	859~894
	LTE B66	1710~1780	2110~2180
	LTE B38	2570~2620	
	LTE B41	2535~2655	
	Bluetooth	2400~2483.5	
	2.4G WLAN	2400~2483.5	
	5.2G WLAN	5150~5250	
	5.3G WLAN	5250~5350	
	5.6G WLAN	5470~5725	
	5.8G WLAN	5725~5850	
GPRS/EDGE Multislot Class(12)	Max Number of Timeslots in Uplink:	4	
	Max Number of Timeslots in Downlink:	4	
	Max Total Timeslot:	5	
GSM Device class	Class B		
HSDPA UE Category	14		
HSUPA UE Category	6		
DC-HSDPA Category	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all up bits” (UMTS B2/4/5)		
	3, tested with power control “all Max” (LTE B2/4/5/7/12/26/38/41/66)		

<table>
<tr><td rowspan="19">Test Channels
(low-mid-high)</td><td colspan="5">128-190-251 (GSM850)</td></tr>
<tr><td colspan="5">512-661-810 (GSM1900)</td></tr>
<tr><td colspan="5">9262-9400-9538 (UMTS B2)</td></tr>
<tr><td colspan="5">1312-1413-1513 (UMTS B4)</td></tr>
<tr><td colspan="5">4132-4182-4233 (UMTS B5)</td></tr>
<tr><td colspan="5">18700-18900-19100 (LTE B2 BW=20MHz)</td></tr>
<tr><td colspan="5">20050-20175-20300 (LTE B4 BW=20MHz)</td></tr>
<tr><td colspan="5">20450-20525-20600 (LTE B5 BW=10MHz)</td></tr>
<tr><td colspan="5">20850-21100-21350 (LTE B7 BW=20MHz)</td></tr>
<tr><td colspan="5">23060-23095-23130 (LTE B12 BW=10MHz)</td></tr>
<tr><td colspan="5">26765-26865-26965 (LTE B26 BW=15MHz)</td></tr>
<tr><td colspan="5">37850-38000-38150 (LTE B38 BW=20MHz)</td></tr>
<tr><td colspan="5">40140-40440-40840-41140 (LTE B41 BW=20MHz)</td></tr>
<tr><td colspan="5">132072-132322-132572 (LTE B66 BW=20MHz)</td></tr>
<tr><td colspan="5">0-39-78 (BT)</td></tr>
<tr><td colspan="5">0-19-39 (BLE)</td></tr>
<tr><td colspan="5">1-2-6-10-11 (2.4G WIFI 802.11b/g/n HT20)</td></tr>
<tr><td>5G WIFI</td><td>5.2G</td><td>5.3G</td><td>5.6G</td><td>5.8G</td></tr>
<tr><td>802.11a/n HT20/
ac VHT20</td><td>36-40-44-48</td><td>52-56-60-64</td><td>100-104-108-
112-116-132-
136-140</td><td>149-153-157-
161-165</td></tr>
<tr><td>802.11n HT40/
ac VHT40</td><td>38-46</td><td>54-62</td><td>102-110-118-
126-134</td><td>151-159</td></tr>
<tr><td>802.11ac VHT80</td><td>42</td><td>58</td><td>106-122</td><td>155</td></tr>
<tr><td rowspan="20">Antenna Gain</td><td>Band</td><td colspan="2">Main antenna(dBi)</td><td>Second antenna(dBi)</td><td>WiFi antenna(dBi)</td></tr>
<tr><td>GSM 850</td><td colspan="2">-5.10</td><td>-8.70</td><td>/</td></tr>
<tr><td>GSM 1900</td><td colspan="2">-2.82</td><td>0.45</td><td>/</td></tr>
<tr><td>UMTS B2</td><td colspan="2">-2.82</td><td>0.45</td><td>/</td></tr>
<tr><td>UMTS B4</td><td colspan="2">-5.43</td><td>0.47</td><td>/</td></tr>
<tr><td>UMTS B5</td><td colspan="2">-5.10</td><td>-8.70</td><td>/</td></tr>
<tr><td>LTE B2</td><td colspan="2">-2.82</td><td>0.45</td><td>/</td></tr>
<tr><td>LTE B4</td><td colspan="2">-5.43</td><td>0.47</td><td>/</td></tr>
<tr><td>LTE B5</td><td colspan="2">-5.10</td><td>-8.70</td><td>/</td></tr>
<tr><td>LTE B7</td><td colspan="2">-0.67</td><td>-0.40</td><td>/</td></tr>
<tr><td>LTE B12</td><td colspan="2">-5.90</td><td>-14.9</td><td>/</td></tr>
<tr><td>LTE B26</td><td colspan="2">-5.24</td><td>-9.00</td><td>/</td></tr>
<tr><td>LTE B38</td><td colspan="2">-0.76</td><td>-0.165</td><td>/</td></tr>
<tr><td>LTE B41</td><td colspan="2">-0.95</td><td>-0.39</td><td>/</td></tr>
<tr><td>LTE B66</td><td colspan="2">-5.17</td><td>0.36</td><td>/</td></tr>
<tr><td>Bluetooth</td><td colspan="2">/</td><td>/</td><td>-3.00</td></tr>
<tr><td>WLAN 2.4G</td><td colspan="2">/</td><td>/</td><td>-3.00</td></tr>
<tr><td>WLAN 5G</td><td colspan="2">/</td><td>/</td><td>-3.00</td></tr>
<tr><td colspan="6">Other Information</td></tr>
<tr><td rowspan="3">Battery</td><td>Power Rating</td><td colspan="4">3.85Vdc, 4100mAh/15.78Wh</td></tr>
<tr><td rowspan="3">Factory / Model</td><td colspan="4">1# Desay / BLP673 (DA-P673-940)</td></tr>
<tr><td colspan="4">2# Desay / BLP673 (DD-P673-935)</td></tr>
<tr><td colspan="4">3# Scud / BLP673 (FA-P673-93)</td></tr>
<tr><td rowspan="2">Earphone</td><td>Model</td><td colspan="4">MH156</td></tr>
<tr><td>Manufacturer</td><td colspan="4">Jiangxi Risound Electronics Co., Ltd</td></tr>
</table>

2.2 STATEMENT OF COMPLIANCE

Mode	Highest Reported Head SAR-1g (W/kg)	Highest Reported Body-worn (15mm) SAR-1g (W/kg)	Highest Reported Hotspot (10mm) SAR-1g (W/kg)	Highest Reported Product Specific (0mm) SAR-10g (W/kg)
GSM850	0.55	0.28	0.51	/
GSM1900	1.00	0.35	0.98	/
UMTS B2	0.97	0.51	1.06	/
UMTS B4	0.97	0.47	0.93	/
UMTS B5	0.67	0.27	0.32	/
LTE B2	1.03	0.48	1.06	/
LTE B4	1.09	0.47	1.06	/
LTE B5	0.56	0.26	0.28	/
LTE B7	0.93	0.41	1.13	/
LTE B12	0.14	0.26	0.30	/
LTE B26	0.68	0.28	0.30	/
LTE B38	0.66	0.46	1.01	/
LTE B41	0.70	0.41	0.96	/
LTE B66	0.96	0.47	1.08	/
2.4G WLAN	0.89	0.18	0.40	/
5.2G WLAN	/	/	0.68	/
5.3G WLAN	1.04	0.49	/	2.02
5.6G WLAN	1.18	0.71	/	1.66
5.8G WLAN	1.06	0.47	0.75	/
Bluetooth	0.06	0.01	/	/

Note:
1) The highest reported SAR for head, body-worn, hotspot and product Specific SAR-10g are 1.18W/kg, 0.71W/kg, 1.13W/kg and 2.02W/kg respectively.
2) The highest simultaneous SAR are 1.36W/kg(head), 0.86W/kg(body-worn), 1.39W/kg(hotspot) and 0.73W/kg(product specific 10g SAR) respectively.

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

2.3 LABORATORY ENVIRONMENT

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

2.4 MAIN TEST INSTRUMENTS

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	Data Acquisition Electronics	Speag	DAE4	1390	May 25, 2019	1 Year
2	Data Acquisition Electronics	Speag	DAE3	420	Jun. 21, 2019	1 Year
3	E-field Probe	Speag	ES3DV3	3228	Jun. 19, 2019	1 Year
4	E-field Probe	Speag	EX3DV4	7544	Sep. 09, 2019	1 Year
5	System Validation Dipole	Speag	D750V3	1095	Jun. 05, 2018	3 Years
6	System Validation Dipole	Speag	D835V2	4d160	Jun. 05, 2018	3 Years
7	System Validation Dipole	Speag	D1750V2	1101	Jun. 07, 2018	3 Years
8	System Validation Dipole	Speag	D1900V2	5d179	Jun. 07, 2018	3 Years
9	System Validation Dipole	Speag	D2450V2	919	Jun. 11, 2018	3 Years
10	System Validation Dipole	Speag	D2600V2	1067	Jun. 11, 2018	3 Years
11	System Validation Dipole	Speag	D5GHzV2	1160	Jun. 20, 2018	3 Years
12	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1896	N/A	N/A
13	8960 Series 10 Wireless Com Test set	Agilent	E5515E	MY52112163	Sep. 17, 2019	1 Year
14	Wideband Radio Communication Tester	R&S	CMW500	104462	Aug. 10, 2019	1 Year
15	Bluetooth Test Set	Anritsu	Mt8852B-042	1132009	Aug. 03, 2019	1 Year
16	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	Mar. 10, 2020	1 Year
17	Power Amplifier	Mini-Circuits	ZVE-8G+	520701341	Mar. 10, 2020	1 Year
18	DC Source metter	Iteck	IT6154	006104126768201001	Aug. 03, 2019	1 Year
19	ENA Network Analyzer	Agilent	E5071C	MY46102965	Mar. 01, 2020	1 Year
20	MXG Analog Signal Generator	Agilent	N5181A	MY49060710	Aug. 03, 2019	1 Year
21	EXG -B RF Vector Signal Generator	Agilent	N5172B	MY53050758	Mar. 01, 2020	1 Year
22	P-series Power Meter	Agilent	N1911A	MY45100473	Sep. 23, 2019	1 Year
23	Wideband Power Sensor	Agilent	N1921A	MY51100041	Sep. 23, 2019	1 Year
24	Smart Power Sensor	R&S	NRP-Z21	102209	Mar. 07, 2020	1 Year
25	Dielectric Assessment Kit	Speag	DAK-3.5	1226	N/A	N/A
26	Dual directional coupler	Woken	TS-PCC0M-05	107090019	Mar. 01, 2020	1 Year
27	Coupler	Woken	0110A05601O-10	COM5BNW1A2	Mar. 01, 2020	1 Year
28	Digital Themometer	LKM	DTM3000	3519	Jul. 08, 2019	1 Year

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

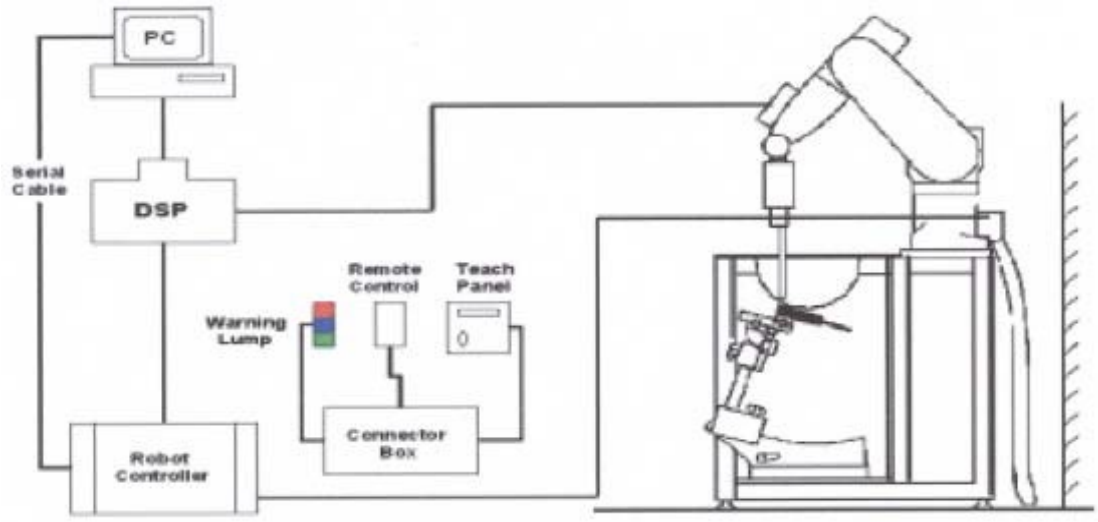
3. SAR MEASUREMENTS SYSTEM CONFIGURATION

3.1 SAR MEASUREMENT SET-UP

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

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. TheDASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows 7
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

3.1.1 TEST SETUP LAYOUT



3.2 DASY5 E-FIELD PROBE SYSTEM

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

3.2.1 PROBE SPECIFICATION

EX3DV4

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity:± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm

ES3DV3

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 4 GHz Linearity: ± 0.2 dB (30 MHz to 4 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	5 µW/g to > 100 mW/g Linearity:± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 4 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm

E-field Probe

3.2.2 E-FIELD PROBE CALIBRATION

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

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

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

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

Where: Δt = Exposure time (30 seconds),

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

ΔT = Temperature increase due to RF exposure.

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

Where: σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m3).

3.2.3 OTHER TEST EQUIPMENT

3.2.3.1. Device Holder for Transmitters

Construction: Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices (e.g., laptops, cameras, etc.) It is light weight and fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin SAM, ELI4 and SAM v6.0 Phantoms.
Material: POM, Acrylic glass, Foam

3.2.3.2 Phantom

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

3.2.4 SCANNING PROCEDURE

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

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

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

- Area Scan

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

- Zoom Scan

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

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

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

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

3.2.5 SPATIAL PEAK SAR EVALUATION

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

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

Extrapolation

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

Interpolation

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

Volume Averaging

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

Advanced Extrapolation

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

3.2.6 DATA STORAGE AND EVALUATION

3.2.6.1 Data Storage

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

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

3.2.7 DATA EVALUATION BY SEMCAD

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

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

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

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics.

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

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

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

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

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

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

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

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)
[mV/(V/m)^2] for E-field Probes

ConvF = sensitivity enhancement in solution

aij = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

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

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

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

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

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

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

With SAR = local specific absorption rate in mW/g

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

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid. The power flow density is calculated assuming the excitation field to be a free space field.

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

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

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

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

4. SYSTEM VERIFICATION PROCEDURE

4.1 TISSUE VERIFICATION

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

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

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

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

Tissue Verification									
Tissue Type	Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ) (%)	Deviation Permittivity (εr) (%)	Date
Head	750	22.3	0.894	41.446	0.89	41.9	0.45	-1.08	Apr. 07, 2020
Head	835	22.2	0.903	42.919	0.90	41.5	0.33	3.42	Apr. 08, 2020
Head	835	22.4	0.935	41.801	0.90	41.5	3.89	0.73	Apr. 09, 2020
Head	835	22.1	0.920	42.990	0.90	41.5	2.22	3.59	Apr. 10, 2020
Head	1750	22.3	1.321	40.183	1.37	40.1	-3.58	0.21	Apr. 14, 2020
Head	1750	22.4	1.398	39.355	1.37	40.1	2.04	-1.86	Apr. 15, 2020
Head	1750	22.2	1.320	40.066	1.37	40.1	-3.65	-0.08	Apr. 16, 2020
Head	1750	22.5	1.320	40.141	1.37	40.1	-3.65	0.10	Apr. 24, 2020
Head	1750	22.1	1.413	41.313	1.37	40.1	3.14	3.02	Apr. 25, 2020
Head	1900	22.3	1.424	39.132	1.40	40.0	1.71	-2.17	Apr. 04, 2020
Head	1900	22.4	1.442	39.194	1.40	40.0	3.00	-2.01	Apr. 05, 2020
Head	1900	22.5	1.443	38.941	1.40	40.0	3.07	-2.65	Apr. 06, 2020
Head	1900	22.3	1.379	39.607	1.40	40.0	-1.50	-0.98	Apr. 22, 2020
Head	1900	22.5	1.384	39.557	1.40	40.0	-1.14	-1.11	Apr. 23, 2020
Head	2450	22.4	1.874	38.309	1.80	39.2	4.11	-2.27	Apr. 17, 2020
Head	2450	22.6	1.874	38.309	1.80	39.2	4.11	-2.27	Apr. 17, 2020
Head	2600	22.2	2.048	37.716	1.96	39.0	4.49	-3.29	Apr. 11, 2020
Head	2600	22.3	2.024	38.655	1.96	39.0	3.27	-0.88	Apr. 12, 2020
Head	2600	22.1	2.027	38.946	1.96	39.0	3.42	-0.14	Apr. 13, 2020
Head	2600	22.4	2.024	38.849	1.96	39.0	3.27	-0.39	Apr. 20, 2020
Head	2600	22.3	2.024	38.836	1.96	39.0	3.27	-0.42	Apr. 21, 2020
Head	5200	22.5	4.703	36.197	4.66	36.0	0.92	0.55	Apr. 18, 2020
Head	5200	22.2	4.664	37.549	4.66	36.0	0.09	4.30	Apr. 26, 2020
Head	5300	22.5	4.815	35.945	4.76	35.9	1.16	0.13	Apr. 18, 2020
Head	5300	22.2	4.803	37.348	4.76	35.9	0.90	4.03	Apr. 26, 2020
Head	5500	22.2	5.045	36.832	4.96	35.6	1.71	3.46	Apr. 26, 2020
Head	5600	22.2	5.168	36.653	5.07	35.5	1.93	3.25	Apr. 26, 2020
Head	5800	22.6	5.416	36.203	5.27	35.3	2.77	2.56	Apr. 27, 2020

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

4.2 SYSTEM CHECK

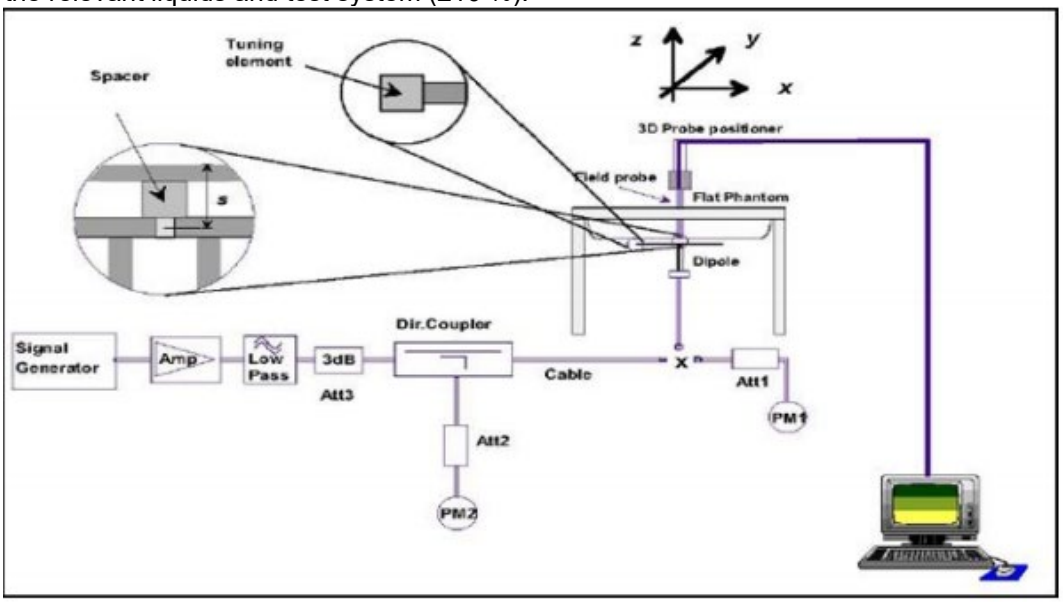
The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE Std 1528 (described above). The following table shows system check results for all frequency bands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

System Check	Date	Frequency (MHz)	Targeted SAR-1g (W/kg)	Measured SAR-1g (W/kg)	normalized SAR-1g (W/kg)	Deviation (%)	Dipole S/N
Head	Apr. 07, 2020	750	8.47	2.21	8.84	4.37	1095
Head	Apr. 08, 2020	835	9.23	2.22	8.88	-3.79	4d160
Head	Apr. 09, 2020	835	9.23	2.39	9.56	3.58	4d160
Head	Apr. 10, 2020	835	9.23	2.32	9.28	0.54	4d160
Head	Apr. 14, 2020	1750	37.00	8.99	35.96	-2.81	1101
Head	Apr. 15, 2020	1750	37.00	9.03	36.12	-2.38	1101
Head	Apr. 16, 2020	1750	37.00	8.82	35.28	-4.65	1101
Head	Apr. 24, 2020	1750	37.00	8.91	35.64	-3.68	1101
Head	Apr. 25, 2020	1750	37.00	9.20	36.80	-0.54	1101
Head	Apr. 04, 2020	1900	39.50	9.76	39.04	-1.16	5d179
Head	Apr. 05, 2020	1900	39.50	10.30	41.20	4.30	5d179
Head	Apr. 06, 2020	1900	39.50	10.00	40.00	1.27	5d179
Head	Apr. 22, 2020	1900	39.50	9.98	39.92	1.06	5d179
Head	Apr. 23, 2020	1900	39.50	9.87	39.48	-0.05	5d179
Head	Apr. 17, 2020	2450	52.10	13.00	52.00	-0.19	919
Head	Apr. 17, 2020	2450	52.10	13.20	52.80	1.34	919
Head	Apr. 11, 2020	2600	56.10	14.20	56.80	1.25	1067
Head	Apr. 12, 2020	2600	56.10	14.00	56.00	-0.18	1067
Head	Apr. 13, 2020	2600	56.10	14.50	58.00	3.39	1067
Head	Apr. 20, 2020	2600	56.10	14.40	57.60	2.67	1067
Head	Apr. 21, 2020	2600	56.10	13.90	55.60	-0.89	1067
Head	Apr. 18, 2020	5200	75.30	7.35	73.50	-2.39	1160
Head	Apr. 26, 2020	5200	75.30	7.26	72.60	-3.59	1160
Head	Apr. 18, 2020	5300	76.80	7.48	74.80	-2.60	1160
Head	Apr. 26, 2020	5300	76.80	7.79	77.90	1.43	1160
Head	Apr. 26, 2020	5500	80.80	8.31	83.10	2.85	1160
Head	Apr. 26, 2020	5600	78.60	8.18	81.80	4.07	1160
Head	Apr. 27, 2020	5800	77.90	7.75	77.50	-0.51	1160

4.3 SYSTEM CHECK PROCEDURE

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

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



5. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

5.1 SAR MEASUREMENT VARIABILITY

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

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

The detailed repeated measurement results are shown in Section 7.2.

6. OPERATIONAL CONDITIONS DURING TEST

6.1 SAR TEST CONFIGURATION

6.1.1 GSM TEST CONFIGURATION

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

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

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

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

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

6.1.2 UMTS TEST CONFIGURATION

1. Output Power Verification

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

2. WCDMA

(1).Head SAR Measurements

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

(2).Body SAR Measurements

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

3. HSDPA

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

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

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

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

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

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

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

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

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

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

HSDPA UE category

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

4. HSUPA

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

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

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

Subtests for WCDMA Release 6 HSUPA

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

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

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

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

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

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

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

HSUPA UE category

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

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

5. DC-HSDPA

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

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

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

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

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

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

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

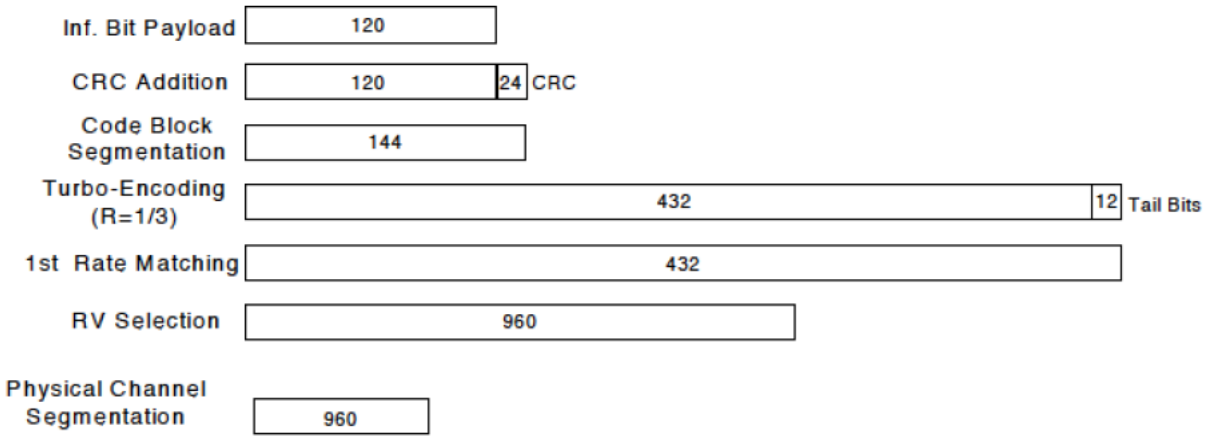


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

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

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

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

6.1.3 LTE TEST CONFIGURATION

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

1. Spectrum Plots for RB configurations

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

2. MPR

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

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

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

3. A-MPR

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

4. LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

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

ii) QPSK with 50% RB allocation

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

iii) QPSK with 100% RB allocation

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

iv) Higher order modulations

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

B) Other channel bandwidth standalone SAR test requirements

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

LTE (TDD) Test Configuration

According to KDB 941225 D05 SAR for LTE Devices V02r05, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
TDD LTE B38/41 supports 3GPP TS 36 for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
TDD LTE B38/41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Figure 4.2-1: Frame structure type 2

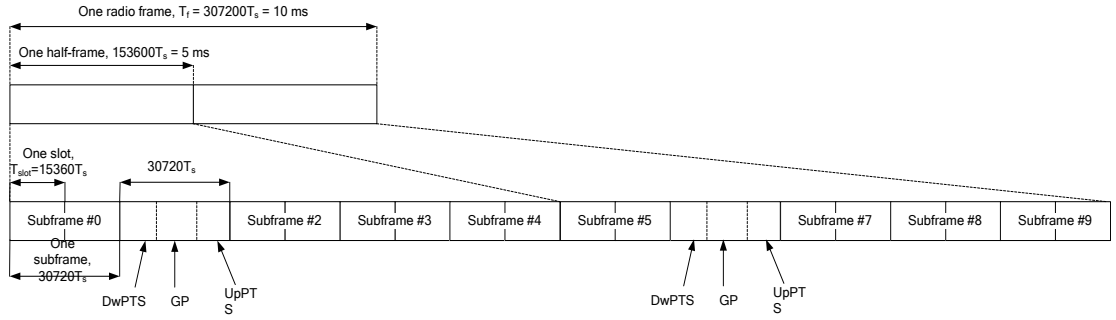


Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 4.2-2: Uplink-downlink configurations

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

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

Duty cycle =(30720Ts*Ups+Uplink Component*Specials)/(307200Ts)

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

Uplink Component=UpPTS

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

Duty cycle =[(30720Ts*Ups)+ UpPTS *Specials]/(307200Ts)

And we can get different Duty cycles under different configurations:

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

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

6.1.4 WIFI TEST CONFIGURATION

For WLAN SAR testing, WLAN engineering testing software installed on the DUT can provide continuous transmitting RF signal.
2.4G

Mode	802.11b	802.11g	802.11n HT20
Duty cycle	100%		
Crest factor	1		

5G

Mode	802.11a	802.11n HT20	802.11n HT40	802.11ac HT20	802.11ac HT40	802.11ac VH80
Duty cycle	100%					
Crest factor	1					

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

6.1.4.1 2.4G SAR Test Requirements

802.11b DSSS SAR Test Requirements

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

2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements

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

SAR Test Requirements for OFDM configurations

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

6.1.4.2 5G SAR Test Requirements

✧ **U-NII-1 and U-NII-2A Band**

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

✧ **U-NII-2C, U-NII-3 Bands**

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

6.1.4.3 OFDM transmission mode and SAR test channel selection

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

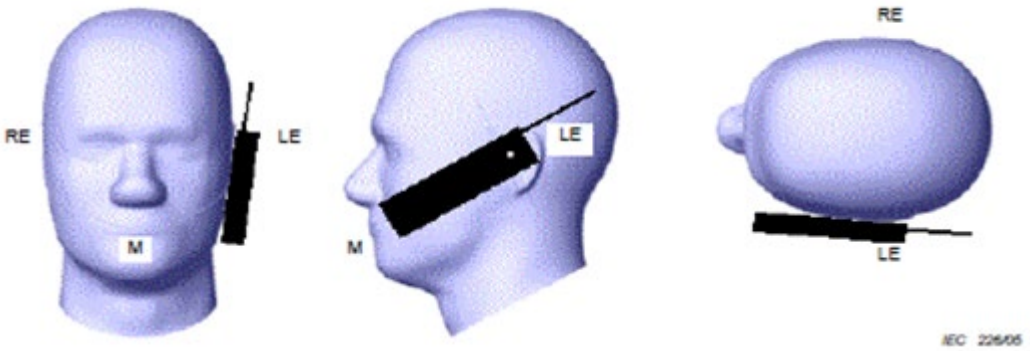
6.1.4.4 Initial test configuration procedure

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

6.2 TEST POSITION

6.2.1 HEAD TEST CONFIGURATION

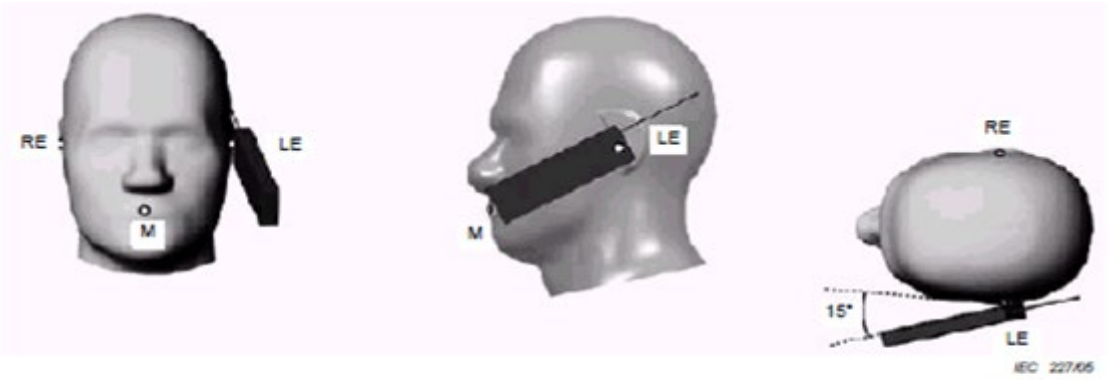
Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.



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

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

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



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

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

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

6.2.2 BODY-WORN TEST CONFIGURATION

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

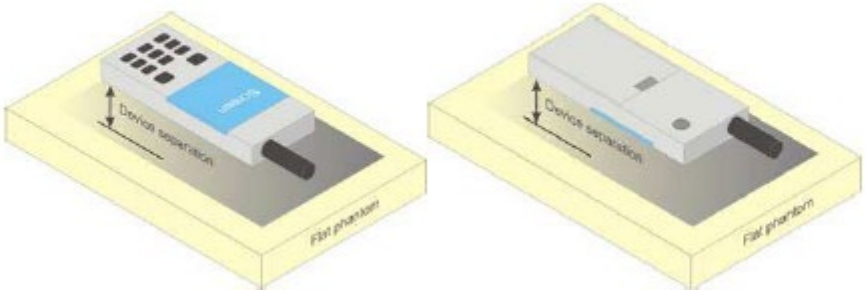


Figure 3 Test positions for body-worn device

6.2.3 HOTSPOT TEST CONFIGURATION

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

6.2.4 PRODUCT SPECIFIC 10-G SAR TEST CONFIGURATION

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

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

6.3 GENERAL DESCRIPTION OF TEST PROCEDURES

Connection to the EUT is established via air interface with Agilent 8960 & RS CMW500, and the EUT is set to maximum output power by Agilent 8960 & RS CMW500. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. The antenna connected to the output of the base station simulator shall be placed at least 50cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30dB.

6.4 RECEIVER DETECTION MECHANISM

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

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

Table: Summery of Receiver detection mechanism

Antenna	Receiver on (Head)	Receiver off (Body-worn & Hotspot & Specific 10g SAR)
2G&3G&4G second ant	Power Level A1	Power Level B1
2G&3G&4G main ant	Power Level A2	Power Level B2

Main Antenna Max Power (dBm)														
Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B26	LTE B38	LTE B41	LTE B66
Receiver on (Head)	33.5	31	24	24	24	24	24	24	24	24	24	24	24	24
Receiver off (Body-worn & Hotspot & Specific 10g SAR)	33.5	31	23.5	22.5	24	23.5	23.5	24	22	24	24	24	24	22.5

Second Antenna Max Power (dBm)														
Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B26	LTE B38	LTE B41	LTE B66
Receiver on (Head)	33.5	27	18	17.5	24	17.5	18	24	17	24	24	18.5	18.5	17
Receiver off (Body-worn & Hotspot & Specific 10g SAR)	33.5	30.5	22	22	24	22.5	21.5	24	20.5	24	24	24	23.5	21.5

6.4.2 GENERAL DESCRIPTION OF RECEIVER DETECTION MECHANISM OF WIFI

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

Antenna	**WiFi Power Reduction**	
	WiFi only	WiFi Antenna Simultaneous with 2G&3G&4G
WiFi ant	Power Level A3	Power Level B3

Power scenario	2.4G			5G (5150MHz~5250MHz)				5G (5750MHz~5850MHz)			
	802.11 b	802.11 g	802.11 n20	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80
Receiver off (Body-worn & Hotspot)	20	19	19	20	20	19	15	20	20	19	14
Receiver on (Head)	17.5	16.5	16.5	16	16	15	15	16	16	15	14
WiFi Antenna Simultaneous with 2G&3G&4G receiver off (Body-worn & Hotspot & Specific 10g SAR)	17	16	16	16.5	16.5	15.5	15	16.5	16.5	15.5	14
WiFi Antenna Simultaneous with 2G&3G&4G receiver on (Head)	14.5	13.5	13.5	13	13	12.5	12.5	13	13	12.5	12.5

Power scenario	2.4G		5G (5260MHz~5350MHz)				5G (5500MHz~5700MHz)			
	BT	BLE	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80	802.11 a	802.11 n20/ ac20	802.11 n40/ ac40	802.11 ac80
Receiver off (Body-worn & Hotspot)	12.5	7	18	18	17	17	16	16	15	15
Receiver on (Head)	12.5	7	16	16	15	14	17	17	16	16
WiFi Antenna Simultaneous with 2G&3G&4G receiver off (Body-worn & Hotspot & Specific 10g SAR)	12.5	7	15	15	14.5	14.5	13.5	13.5	13	13
WiFi Antenna Simultaneous with 2G&3G&4G receiver on (Head)	12.5	7	12.5	12.5	12	12	13.5	13.5	13	13

6.4.3 MORE DETAILS INFORMATION FOLLOWINGS

For head SAR test,
1) Standalone Head SAR of 2G&3G&4G second ant is evaluated at power level A1;
2) Standalone Head SAR of 2G&3G&4G main ant is evaluated at power level A2;
3) Standalone Head SAR of WiFi Antenna receiver on is evaluated at power level A3;
4) Standalone Head SAR of WiFi Antenna Simultaneous with 2G&3G&4G receiver on is evaluated at power level B3;
Note: As the receiver only works in voice mode when the user is making a call in head scenario, In LTE Data/ WCDMA RMC (Data) mode, the mobile phone won't ring and answer, it just can be connected with the test instrument. Therefore, for Head SAR test of UMTS and LTE, we're planning to test LTE Data/ WCDMA RMC (Data) mode through triggering the receiver on by XML test scripts in order to simulate the users' scene (LTE VOIP, WCDMA VOIP).

For body-worn & hotspot & specific 10g SAR test,
1) Standalone body-worn & hotspot & specific 10g SAR of 2G&3G&4G second ant is evaluated at power level B1;
2) Standalone body-worn & hotspot & specific 10g SAR of 2G&3G&4G main ant is evaluated at power level B2;
3) Standalone body-worn & hotspot & specific 10g SAR of Antenna receiver off is evaluated at power level A3;
4) Standalone body-worn & hotspot & specific 10g SAR of WiFi Antenna Simultaneous with 2G&3G&4G receiver on is evaluated at power level B3;
Note: As the receiver will not work during body-worn voice mode operation with the headset connected. When the receiver is off, the power level with headset connected is the same as those without headset connected. So body-worn & hotspot SAR with headset is tested at the body-worn & hotspot & specific 10g SAR worst case without headset connected at the same power level.

7. TEST RESULT

7.1 CONDUCTED POWER RESULTS

7.1.1 CONDUCTED POWER MEASUREMENTS OF GSM

1. Conducted power measurements of GSM850

Main antenna

GSM850		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			128/ 824.2	190/ 836.6	251/ 848.8		128/ 824.2	190/ 836.6	251/ 848.8
GSM (CS)		33.50	32.85	**32.76**	32.80	24.31	23.66	23.57	23.61
GPRS/ EDGE (GMSK)	1 Tx Slot	33.50	32.85	32.76	32.80	24.31	23.66	23.57	23.61
	2 Tx Slot	32.50	31.03	**30.94**	30.98	26.37	24.90	24.81	24.85
	3 Tx Slot	30.00	28.98	28.85	28.86	25.58	24.56	24.43	24.44
	4 Tx Slot	29.00	27.93	27.81	27.83	25.82	24.75	24.63	24.65
EDGE (8PSK)	1 Tx Slot	27.50	26.53	26.48	26.41	18.31	17.34	17.29	17.22
	2 Tx Slot	26.50	25.32	25.23	25.17	20.37	19.19	19.10	19.04
	3 Tx Slot	24.50	24.09	23.96	23.89	20.08	19.67	19.54	19.47
	4 Tx Slot	23.50	22.92	22.74	22.65	20.32	19.74	19.56	19.47

Second antenna

GSM850		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			128/ 824.2	190/ 836.6	251/ 848.8		128/ 824.2	190/ 836.6	251/ 848.8
GSM (CS)		33.50	32.88	**32.80**	32.84	24.31	23.69	23.61	23.65
GPRS/ EDGE (GMSK)	1 Tx Slot	33.50	32.88	32.80	32.84	24.31	23.69	23.61	23.65
	2 Tx Slot	32.50	31.08	**30.99**	31.04	26.37	24.95	24.86	24.91
	3 Tx Slot	30.00	29.04	28.91	28.94	25.58	24.62	24.49	24.52
	4 Tx Slot	29.00	27.95	27.86	27.88	25.82	24.77	24.68	24.70
EDGE (8PSK)	1 Tx Slot	27.50	26.62	26.54	26.47	18.31	17.43	17.35	17.28
	2 Tx Slot	26.50	25.44	25.41	25.32	20.37	19.31	19.28	19.19
	3 Tx Slot	24.50	24.26	24.17	24.04	20.08	19.84	19.75	19.62
	4 Tx Slot	23.50	22.76	22.52	22.65	20.32	19.58	19.34	19.47

Note:
1) The conducted power of GSM850 is measured with RMS detector.
2) Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 time slots.
3) 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:
Frame-averaged power=10 x log (Burst-averaged power mW x Slot used/8)
4) The tested channels are marks in bold.
5) The receiver on/off power of GSM850 main antenna and second antenna are the same.

2. Conducted power measurements of GSM1900

Main antenna

GSM1900		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			512/ 1850.2	661/ 1880	810/ 1909.8		512/ 1850.2	661/ 1880	810/ 1909.8
GSM (CS)		31.00	29.74	**29.80**	29.77	21.81	20.55	20.61	20.58
GPRS/ EDGE (GMSK)	1 Tx Slot	30.50	29.74	29.80	29.77	21.31	20.55	20.61	20.58
	2 Tx Slot	28.50	26.78	26.91	26.98	22.37	20.65	20.78	20.85
	3 Tx Slot	27.50	25.72	25.88	25.97	23.08	21.30	21.46	21.55
	4 Tx Slot	26.50	**25.20**	**25.37**	**25.46**	23.32	22.02	22.19	22.28
EDGE (8PSK)	1 Tx Slot	27.00	25.24	25.21	25.12	17.81	16.05	16.02	15.93
	2 Tx Slot	26.00	24.24	24.25	24.19	19.87	18.11	18.12	18.06
	3 Tx Slot	24.00	23.27	23.24	23.17	19.58	18.85	18.82	18.75
	4 Tx Slot	23.00	22.02	21.98	21.92	19.82	18.84	18.80	18.74

Second antenna_Receiver on

GSM1900		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			512/ 1850.2	661/ 1880	810/ 1909.8		512/ 1850.2	661/ 1880	810/ 1909.8
GSM (CS)		27.00	**26.27**	**26.44**	**26.49**	17.81	17.08	17.25	17.30
GPRS/ EDGE (GMSK)	1 Tx Slot	26.50	26.25	26.41	26.47	17.31	17.06	17.22	17.28
	2 Tx Slot	24.50	23.28	23.48	23.63	18.37	17.15	17.35	17.50
	3 Tx Slot	23.50	21.53	21.74	21.85	19.08	17.11	17.32	17.43
	4 Tx Slot	21.50	20.17	20.41	20.54	18.32	16.99	17.23	17.36
EDGE (8PSK)	1 Tx Slot	23.00	21.61	21.64	21.59	13.81	12.42	12.45	12.40
	2 Tx Slot	20.00	18.83	18.92	18.77	13.87	12.70	12.79	12.64
	3 Tx Slot	18.00	16.93	17.01	17.03	13.58	12.51	12.59	12.61
	4 Tx Slot	17.00	15.58	15.54	15.67	13.82	12.40	12.36	12.49

Second antenna_Receiver off

GSM1900		Max Burst Average Power (dBm)				Max Frame Average Power (dBm)			
		Max. Tune-up	Channel/Frequency(MHz)			Max. Tune-up	Channel/Frequency(MHz)		
			512/ 1850.2	661/ 1880	810/ 1909.8		512/ 1850.2	661/ 1880	810/ 1909.8
GSM (CS)		30.50	29.30	**29.34**	29.29	21.31	20.11	20.15	20.10
GPRS/ EDGE (GMSK)	1 Tx Slot	30.00	29.30	29.34	29.29	20.81	20.11	20.15	20.10
	2 Tx Slot	28.00	**26.81**	**26.94**	**27.02**	21.87	20.68	20.81	20.89
	3 Tx Slot	26.00	24.81	24.97	25.09	21.58	20.39	20.55	20.67
	4 Tx Slot	25.00	23.51	23.66	23.82	21.82	20.33	20.48	20.64
EDGE (8PSK)	1 Tx Slot	26.50	24.70	24.74	24.77	17.31	15.51	15.55	15.58
	2 Tx Slot	23.00	21.67	21.64	21.81	16.87	15.54	15.51	15.68
	3 Tx Slot	21.00	19.97	19.90	19.95	16.58	15.55	15.48	15.53
	4 Tx Slot	20.00	18.84	18.62	18.66	16.82	15.66	15.44	15.48

Note:
1) The conducted power of GSM1900 is measured with RMS detector.
2) Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 time slots.
3) 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:
Frame-averaged power=10 x log (Burst-averaged power mW x Slot used/8)
4) The tested channels are marks in bold.
5) The receiver on/off power of GSM1900 main antenna is the same.

7.1.2 CONDUCTED POWER MEASUREMENTS OF UMTS

1. Conducted power measurements of UMTS B2

Main antenna_Receiver on

Band	UMTS B2 Average Conducted Power(dBm)			
Tx Channel	Max.	9262	9400	9538
Frequency(MHz)	Tune-up	1852.4	1880	1907.6
AMR Voice	24.00	23.19	23.28	23.31
RMC 12.2K	24.00	23.19	**23.28**	23.31
RMC 64K	24.00	23.16	23.22	23.27
RMC 144K	24.00	23.15	23.26	23.26
RMC 384K	24.00	23.16	23.22	23.27
HSDPA Subtest-1	23.00	22.04	22.21	22.32
HSDPA Subtest-2	23.00	22.05	22.21	22.30
HSDPA Subtest-3	23.00	21.61	21.73	21.79
HSDPA Subtest-4	23.00	21.54	21.68	21.78
HSUPA Subtest-1	22.50	21.11	21.20	21.28
HSUPA Subtest-2	22.50	21.14	21.24	21.32
HSUPA Subtest-3	22.50	22.12	22.21	22.30
HSUPA Subtest-4	22.50	20.58	20.72	20.81
HSUPA Subtest-5	22.50	22.08	22.15	22.25
DC-HSDPA Subtest-1	23.00	21.09	21.26	21.35
DC-HSDPA Subtest-2	23.00	21.11	21.32	21.34
DC-HSDPA Subtest-3	23.00	21.08	21.35	21.32
DC-HSDPA Subtest-4	23.00	21.12	21.41	21.33
HSPA+ Subtest-1	21.50	20.35	20.47	20.57

Main antenna_Receiver off

Band	UMTS B2 Average Conducted Power(dBm)			
Tx Channel	Max.	9262	9400	9538
Frequency(MHz)	Tune-up	1852.4	1880	1907.6
AMR Voice	23.50	22.66	22.82	22.94
RMC 12.2K	23.50	**22.66**	**22.82**	**22.94**
RMC 64K	23.50	22.68	22.79	22.87
RMC 144K	23.50	22.71	22.84	22.90
RMC 384K	23.50	22.65	22.78	22.88
HSDPA Subtest-1	22.50	22.06	22.18	22.21
HSDPA Subtest-2	22.50	22.01	22.12	22.18
HSDPA Subtest-3	22.50	21.51	21.64	21.66
HSDPA Subtest-4	22.50	21.48	21.61	21.72
HSUPA Subtest-1	22.00	20.88	20.93	21.02
HSUPA Subtest-2	22.00	20.16	20.21	20.26
HSUPA Subtest-3	22.00	21.25	20.94	21.39
HSUPA Subtest-4	22.00	20.51	20.67	20.76
HSUPA Subtest-5	22.00	21.43	21.64	21.70
DC-HSDPA Subtest-1	22.50	22.06	22.18	22.21
DC-HSDPA Subtest-2	22.50	22.01	22.12	22.18
DC-HSDPA Subtest-3	22.50	21.51	21.64	21.66
DC-HSDPA Subtest-4	22.50	21.48	21.61	21.72

Second antenna_Receiver on

Band	UMTS B2 Average Conducted Power(dBm)			
Tx Channel	Max.	9262	9400	9538
Frequency(MHz)	Tune-up	1852.4	1880	1907.6
AMR Voice	18.00	17.17	17.28	17.25
RMC 12.2K	18.00	**17.17**	**17.28**	**17.25**
RMC 64K	18.00	17.13	17.31	17.22
RMC 144K	18.00	17.15	17.29	17.24
RMC 384K	18.00	17.16	17.26	17.25
HSDPA Subtest-1	17.00	16.07	16.28	16.39
HSDPA Subtest-2	17.00	16.04	16.27	16.34
HSDPA Subtest-3	17.00	16.06	16.25	16.29
HSDPA Subtest-4	17.00	16.02	16.26	16.30
HSUPA Subtest-1	16.50	15.70	15.33	15.87
HSUPA Subtest-2	16.50	15.15	15.32	15.34
HSUPA Subtest-3	16.50	16.15	16.33	16.30
HSUPA Subtest-4	16.50	14.72	14.85	14.93
HSUPA Subtest-5	16.50	15.99	16.14	16.21
DC-HSDPA Subtest-1	17.00	16.07	16.28	16.39
DC-HSDPA Subtest-2	17.00	16.04	16.27	16.34
DC-HSDPA Subtest-3	17.00	16.06	16.25	16.29
DC-HSDPA Subtest-4	17.00	16.02	16.26	16.30
HSPA+ Subtest-1	16.50	16.03	16.24	16.32

Second antenna_Receiver off

Band	UMTS B2 Average Conducted Power(dBm)			
Tx Channel	Max.	9262	9400	9538
Frequency(MHz)	Tune-up	1852.4	1880	1907.6
AMR Voice	22.00	21.07	21.25	21.34
RMC 12.2K	22.00	**21.07**	**21.25**	**21.34**
RMC 64K	22.00	21.09	21.28	21.35
RMC 144K	22.00	21.08	21.24	21.38
RMC 384K	22.00	21.06	21.27	21.38
HSDPA Subtest-1	21.00	20.24	20.33	20.44
HSDPA Subtest-2	21.00	20.18	20.35	20.40
HSDPA Subtest-3	21.00	20.62	20.82	20.86
HSDPA Subtest-4	21.00	20.58	20.77	20.84
HSUPA Subtest-1	20.50	19.03	19.17	19.21
HSUPA Subtest-2	20.50	19.16	19.21	19.27
HSUPA Subtest-3	20.50	20.11	20.18	20.29
HSUPA Subtest-4	20.50	18.68	18.77	18.89
HSUPA Subtest-5	20.50	20.08	20.31	20.38
DC-HSDPA Subtest-1	21.00	20.24	20.33	20.44
DC-HSDPA Subtest-2	21.00	20.18	20.35	20.40
DC-HSDPA Subtest-3	21.00	20.62	20.82	20.86
DC-HSDPA Subtest-4	21.00	20.58	20.77	20.84
HSPA+ Subtest-1	19.50	19.15	19.47	19.33

Note:
1) The conducted power of UMTS B2 is measured with RMS detector.
2) Note: Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
3) The tested channels are marks in bold.
4) The power of single channel and double channel is smaller than RMC12.2K, so SAR need not be tested.

2. Conducted power measurements of UMTS B4

Main antenna_Receiver on

Band	UMTS B4 Average Conducted Power(dBm)			
Tx Channel	Max.	1312	1413	1513
Frequency(MHz)	Tune-up	1712.4	1732.6	1752.6
AMR Voice	24.00	23.29	23.34	23.32
RMC 12.2K	24.00	23.29	**23.34**	23.32
RMC 64K	24.00	23.20	23.18	23.22
RMC 144K	24.00	23.19	23.18	23.21
RMC 384K	24.00	23.20	23.19	23.23
HSDPA Subtest-1	23.00	21.97	22.17	22.21
HSDPA Subtest-2	23.00	21.96	21.95	22.15
HSDPA Subtest-3	23.00	21.64	21.58	21.62
HSDPA Subtest-4	23.00	21.55	21.57	21.60
HSUPA Subtest-1	22.50	21.12	21.10	21.14
HSUPA Subtest-2	22.50	21.15	21.08	21.12
HSUPA Subtest-3	22.50	22.00	22.00	21.95
HSUPA Subtest-4	22.50	20.53	20.58	20.68
HSUPA Subtest-5	22.50	22.03	22.04	22.00
DC-HSDPA Subtest-1	23.00	21.30	21.28	21.32
DC-HSDPA Subtest-2	23.00	21.28	21.26	21.29
DC-HSDPA Subtest-3	23.00	21.27	21.25	21.36
DC-HSDPA Subtest-4	23.00	21.25	21.27	21.31
HSPA+ Subtest-1	21.50	20.69	20.54	20.12

Main antenna_Receiver off

Band	UMTS B4 Average Conducted Power(dBm)			
Tx Channel	Max.	1312	1413	1513
Frequency(MHz)	Tune-up	1712.4	1732.6	1752.6
AMR Voice	22.50	21.91	21.84	21.87
RMC 12.2K	22.50	**21.91**	**21.84**	**21.87**
RMC 64K	22.50	21.85	21.77	21.75
RMC 144K	22.50	21.86	21.84	21.84
RMC 384K	22.50	21.89	21.76	21.81
HSDPA Subtest-1	22.00	21.59	21.67	21.64
HSDPA Subtest-2	22.00	21.66	21.56	21.58
HSDPA Subtest-3	21.50	21.13	21.06	21.11
HSDPA Subtest-4	21.50	21.05	21.04	21.13
HSUPA Subtest-1	21.00	20.18	20.12	20.05
HSUPA Subtest-2	21.00	19.21	19.13	19.22
HSUPA Subtest-3	21.00	20.11	20.14	20.03
HSUPA Subtest-4	21.00	19.69	19.55	19.66
HSUPA Subtest-5	21.00	20.57	20.61	20.65
DC-HSDPA Subtest-1	22.00	21.59	21.67	21.64
DC-HSDPA Subtest-2	22.00	21.66	21.56	21.58
DC-HSDPA Subtest-3	21.50	21.13	21.06	21.11
DC-HSDPA Subtest-4	21.50	21.05	21.04	21.13
HSPA+ Subtest-1	20.00	19.69	19.72	19.53

Second antenna_Receiver on

Band	UMTS B4 Average Conducted Power(dBm)			
Tx Channel	Max.	1312	1413	1513
Frequency(MHz)	Tune-up	1712.4	1732.6	1752.6
AMR Voice	17.50	16.96	17.01	16.95
RMC 12.2K	17.50	**16.96**	**17.01**	**16.95**
RMC 64K	17.50	16.97	16.98	16.93
RMC 144K	17.50	17.00	16.99	16.93
RMC 384K	17.50	16.98	16.99	16.97
HSDPA Subtest-1	16.50	15.89	15.93	16.02
HSDPA Subtest-2	16.50	15.92	16.03	15.96
HSDPA Subtest-3	16.50	15.90	15.96	15.98
HSDPA Subtest-4	16.50	15.89	16.04	15.93
HSUPA Subtest-1	16.00	15.50	15.53	15.55
HSUPA Subtest-2	16.00	14.94	15.03	15.07
HSUPA Subtest-3	16.00	15.90	15.91	15.99
HSUPA Subtest-4	16.00	14.62	14.55	14.64
HSUPA Subtest-5	16.00	15.86	15.88	15.92
DC-HSDPA Subtest-1	16.50	15.89	15.93	16.02
DC-HSDPA Subtest-2	16.50	15.92	16.03	15.96
DC-HSDPA Subtest-3	16.50	15.90	15.96	15.98
DC-HSDPA Subtest-4	16.50	15.89	16.04	15.93
HSPA+ Subtest-1	16.50	15.93	16.01	15.99

Second antenna_Receiver off

Band	UMTS B4 Average Conducted Power(dBm)			
Tx Channel	Max.	1312	1413	1513
Frequency(MHz)	Tune-up	1712.4	1732.6	1752.6
AMR Voice	22.00	21.27	21.32	21.33
RMC 12.2K	22.00	**21.27**	**21.32**	**21.33**
RMC 64K	22.00	21.26	21.37	21.39
RMC 144K	22.00	21.32	21.39	21.41
RMC 384K	22.00	21.25	21.32	21.36
HSDPA Subtest-1	21.00	20.26	20.20	20.32
HSDPA Subtest-2	21.00	20.25	20.28	20.30
HSDPA Subtest-3	21.00	20.78	20.81	20.87
HSDPA Subtest-4	21.00	20.75	20.78	20.82
HSUPA Subtest-1	20.50	19.32	19.34	19.28
HSUPA Subtest-2	20.50	19.31	19.34	19.36
HSUPA Subtest-3	20.50	20.27	20.34	20.28
HSUPA Subtest-4	20.50	18.78	18.82	18.92
HSUPA Subtest-5	20.50	20.35	20.39	20.34
DC-HSDPA Subtest-1	21.00	20.26	20.20	20.32
DC-HSDPA Subtest-2	21.00	20.25	20.28	20.30
DC-HSDPA Subtest-3	21.00	20.78	20.81	20.87
DC-HSDPA Subtest-4	21.00	20.75	20.78	20.82
HSPA+ Subtest-1	19.50	19.24	19.14	19.01

Note:
1) The conducted power of UMTS B4 is measured with RMS detector.
2) Note: Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
3) The tested channels are marks in bold.
4) The power of single channel and double channel is smaller than RMC12.2K, so SAR need not be tested.

3. Conducted power measurements of UMTS B5

Main antenna

Band	UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max.	4132	4182	4233
Frequency(MHz)	Tune-up	826.4	836.4	846.6
AMR Voice	24.00	23.21	23.23	23.19
RMC 12.2K	24.00	23.21	**23.23**	23.19
RMC 64K	24.00	23.17	23.22	23.24
RMC 144K	24.00	23.22	23.24	23.30
RMC 384K	24.00	23.18	23.19	23.25
HSDPA Subtest-1	23.00	22.24	22.22	22.27
HSDPA Subtest-2	23.00	22.21	22.24	22.28
HSDPA Subtest-3	23.00	22.19	22.22	22.25
HSDPA Subtest-4	23.00	22.22	22.19	22.27
HSUPA Subtest-1	22.50	20.95	21.05	21.07
HSUPA Subtest-2	22.50	21.18	21.22	21.25
HSUPA Subtest-3	22.50	21.79	21.87	21.84
HSUPA Subtest-4	22.50	20.74	20.86	20.71
HSUPA Subtest-5	22.50	22.49	22.45	22.49
DC-HSDPA Subtest-1	23.00	22.24	22.22	22.27
DC-HSDPA Subtest-2	23.00	22.21	22.24	22.28
DC-HSDPA Subtest-3	23.00	22.19	22.22	22.25
DC-HSDPA Subtest-4	23.00	22.22	22.19	22.27
HSPA+ Subtest-1	21.50	20.37	20.42	20.46

Second antenna

Band	UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max.	4132	4182	4233
Frequency(MHz)	Tune-up	826.4	836.4	846.6
AMR Voice	24.00	23.27	23.33	23.28
RMC 12.2K	24.00	23.27	**23.33**	23.28
RMC 64K	24.00	23.26	23.35	23.25
RMC 144K	24.00	23.22	23.34	23.27
RMC 384K	24.00	23.25	23.35	23.30
HSDPA Subtest-1	23.00	22.22	22.24	22.28
HSDPA Subtest-2	23.00	22.25	22.27	22.32
HSDPA Subtest-3	23.00	22.19	22.23	22.27
HSDPA Subtest-4	23.00	22.24	22.28	22.31
HSUPA Subtest-1	22.50	21.03	21.09	21.14
HSUPA Subtest-2	22.50	21.23	21.28	21.34
HSUPA Subtest-3	22.50	21.92	21.95	22.01
HSUPA Subtest-4	22.50	20.81	20.78	20.84
HSUPA Subtest-5	22.50	22.13	22.15	22.22
DC-HSDPA Subtest-1	23.00	22.22	22.24	22.28
DC-HSDPA Subtest-2	23.00	22.25	22.27	22.32
DC-HSDPA Subtest-3	23.00	22.19	22.23	22.27
DC-HSDPA Subtest-4	23.00	22.24	22.28	22.31
HSPA+ Subtest-1	21.50	20.64	20.57	20.48

Note:
1) The conducted power of UMTS B5 is measured with RMS detector.
2) Note: Per KDB941225 D01, When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.
3) The tested channels are marks in bold.
4) The power of single channel and double channel is smaller than RMC12.2K, so SAR need not be tested.
5) The receiver on/off power of UMTS B5 main antenna and second antenna are the same.

7.1.3 CONDUCTED POWER MEASUREMENTS OF LTE

1. Conducted power measurement results of LTE B2

Main antenna_Receiver on

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880	19193/ 1909.3				18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1/0	24.00	22.97	22.95	22.88	QPSK	1/0	24.00	22.92	23.01	22.92
	1/2	24.00	22.99	23.08	23.02		1/7	24.00	23.07	23.17	23.12
	1/5	24.00	22.95	22.94	22.91		1/14	24.00	22.94	23.00	22.95
	3/0	24.00	23.01	23.05	23.00		8/0	23.00	22.04	22.00	22.00
	3/1	24.00	23.03	23.08	23.07		8/3	23.00	22.05	22.03	22.07
	3/3	24.00	23.02	23.03	23.05		8/7	23.00	21.99	21.97	22.01
	6/0	23.00	22.05	22.02	22.04		15/0	23.00	22.02	22.00	22.00
16QAM	1/0	23.00	22.29	21.95	22.02	16QAM	1/0	23.00	21.91	22.32	21.96
	1/2	23.00	22.40	22.01	22.11		1/7	23.00	22.00	22.49	22.15
	1/5	23.00	22.30	21.96	22.02		1/14	23.00	21.85	22.33	21.93
	3/0	23.00	22.20	22.13	22.02		8/0	22.00	21.10	21.04	20.98
	3/1	23.00	22.22	22.22	22.08		8/3	22.00	21.13	21.08	21.07
	3/3	23.00	22.20	22.17	22.02		8/7	22.00	21.08	21.05	21.01
	6/0	22.00	20.90	21.15	21.11		15/0	22.00	21.02	20.99	20.94
64QAM	1/0	22.00	21.36	21.05	21.12	64QAM	1/0	22.00	21.37	21.11	21.21
	1/2	22.00	21.52	21.20	21.24		1/7	22.00	21.50	21.30	21.38
	1/5	22.00	21.37	21.04	21.14		1/14	22.00	21.35	21.17	21.17
	3/0	22.00	21.36	21.13	20.99		8/0	21.00	20.12	20.03	19.93
	3/1	22.00	21.40	21.17	21.03		8/3	21.00	20.15	20.07	19.97
	3/3	22.00	21.36	21.14	21.04		8/7	21.00	20.08	20.03	19.96
	6/0	21.00	19.98	20.25	20.07		15/0	21.00	20.03	20.01	20.01

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	24.00	22.96	22.87	22.90	QPSK	1/0	24.00	22.90	22.94	22.90
	1/12	24.00	23.07	23.00	23.07		1/24	24.00	23.07	23.15	23.06
	1/24	24.00	22.90	22.87	22.94		1/49	24.00	22.81	22.97	22.94
	12/0	23.00	21.96	22.01	22.08		25/0	23.00	21.94	22.07	22.11
	12/6	23.00	22.01	22.05	22.06		25/12	23.00	22.00	22.03	22.01
	12/13	23.00	22.05	22.01	22.01		25/25	23.00	22.07	21.98	21.89
	25/0	23.00	21.99	21.98	21.99		50/0	23.00	22.02	22.06	22.04
16QAM	1/0	23.00	22.08	22.35	21.93	16QAM	1/0	23.00	21.89	22.29	21.88
	1/12	23.00	22.15	22.48	22.12		1/24	23.00	21.97	22.44	22.07
	1/24	23.00	21.99	22.34	21.97		1/49	23.00	21.74	22.31	21.95
	12/0	22.00	21.04	21.09	21.08		25/0	22.00	20.96	21.09	21.15
	12/6	22.00	21.08	21.14	21.06		25/12	22.00	21.01	21.05	21.07
	12/13	22.00	21.09	21.09	21.01		25/25	22.00	21.10	21.00	20.95
	25/0	22.00	21.00	21.03	20.93		50/0	22.00	20.99	21.06	21.04
64QAM	1/0	22.00	20.96	21.22	21.13	64QAM	1/0	22.00	21.36	21.10	21.11
	1/12	22.00	21.05	21.35	21.31		1/24	22.00	21.47	21.29	21.29
	1/24	22.00	20.86	21.21	21.19		1/49	22.00	21.23	21.12	21.16
	12/0	21.00	20.04	19.94	20.05		25/0	21.00	20.00	20.17	20.12
	12/6	21.00	20.08	19.98	20.06		25/12	21.00	20.08	20.11	20.02
	12/13	21.00	20.11	19.94	20.03		25/25	21.00	20.13	20.08	19.94
	25/0	21.00	19.99	19.97	20.00		50/0	21.00	20.05	20.11	19.98

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	24.00	22.91	22.92	22.91	QPSK	1/0	24.00	23.15	22.99	23.03
	1/37	24.00	22.91	23.02	23.00		1/50	24.00	23.44	**23.45**	23.45
	1/74	24.00	22.78	22.89	22.90		1/99	24.00	23.03	22.99	23.05
	36/0	23.00	21.99	22.12	22.02		50/0	23.00	22.11	**22.39**	22.06
	36/19	23.00	22.02	22.06	22.07		50/25	23.00	22.24	22.27	22.19
	36/39	23.00	22.06	22.04	21.92		50/50	23.00	22.17	22.23	21.99
	75/0	23.00	22.01	22.06	21.95		100/0	23.00	22.08	22.30	22.04
16QAM	1/0	23.00	21.88	22.23	22.25	16QAM	1/0	23.00	22.25	22.15	22.08
	1/37	23.00	21.82	22.36	22.26		1/50	23.00	22.54	22.57	22.41
	1/74	23.00	21.69	22.20	22.24		1/99	23.00	22.14	22.17	22.11
	36/0	22.00	20.93	21.10	20.93		50/0	22.00	20.81	21.16	20.78
	36/19	22.00	20.95	21.05	20.94		50/25	22.00	20.94	21.03	20.94
	36/39	22.00	20.94	21.02	20.81		50/50	22.00	20.90	20.96	20.69
	75/0	22.00	20.95	21.04	20.88		100/0	22.00	20.88	21.07	20.76
64QAM	1/0	22.00	21.31	21.03	21.50	64QAM	1/0	22.00	21.18	21.38	20.97
	1/37	22.00	21.34	21.16	21.58		1/50	22.00	21.46	21.77	21.32
	1/74	22.00	21.18	21.04	21.55		1/99	22.00	21.05	21.39	20.97
	36/0	21.00	20.02	20.13	19.97		50/0	21.00	19.88	20.18	19.81
	36/19	21.00	20.05	20.10	20.01		50/25	21.00	19.98	20.08	19.91
	36/39	21.00	20.06	20.05	19.87		50/50	21.00	19.88	20.02	19.74
	75/0	21.00	20.05	20.07	19.99		100/0	21.00	19.90	20.08	19.74

Main antenna_Receiver off

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880	19193/ 1909.3				18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1/0	23.50	22.47	22.32	22.38	QPSK	1/0	23.50	22.38	22.42	22.35
	1/2	23.50	22.58	22.45	22.51		1/7	23.50	22.55	22.59	22.54
	1/5	23.50	22.46	22.34	22.40		1/14	23.50	22.38	22.44	22.36
	3/0	23.50	22.55	22.44	22.45		8/0	22.50	22.01	21.95	21.92
	3/1	23.50	22.59	22.52	22.50		8/3	22.50	22.05	21.97	21.99
	3/3	23.50	22.53	22.50	22.46		8/7	22.50	21.98	21.91	21.95
	6/0	22.50	22.02	21.95	21.98		15/0	22.50	22.01	21.93	21.91
16QAM	1/0	22.50	22.02	22.00	22.26	16QAM	1/0	22.50	21.92	22.28	21.92
	1/2	22.50	22.09	22.13	22.36		1/7	22.50	22.03	22.49	22.12
	1/5	22.50	22.02	22.02	22.25		1/14	22.50	21.88	22.30	21.91
	3/0	22.50	22.22	22.04	22.17		8/0	21.50	21.14	21.04	20.97
	3/1	22.50	22.27	22.07	22.20		8/3	21.50	21.15	21.08	21.03
	3/3	22.50	22.24	22.02	22.15		8/7	21.50	21.09	21.02	20.98
	6/0	21.50	21.20	21.10	20.86		15/0	21.50	21.03	20.97	20.88
64QAM	1/0	21.50	21.13	21.28	21.02	64QAM	1/0	21.50	21.29	21.03	21.09
	1/2	21.50	21.21	21.46	21.18		1/7	21.50	21.42	21.19	21.30
	1/5	21.50	21.16	21.28	21.01		1/14	21.50	21.25	21.07	21.06
	3/0	21.50	21.00	21.29	21.10		8/0	20.50	20.05	19.93	19.84
	3/1	21.50	21.04	21.34	21.15		8/3	20.50	20.08	19.98	19.92
	3/3	21.50	21.01	21.30	21.12		8/7	20.50	19.99	19.92	19.83
	6/0	20.50	20.07	19.87	20.18		15/0	20.50	19.98	19.90	19.91

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	23.50	22.42	22.28	22.32	QPSK	1/0	23.50	22.40	22.41	22.35
	1/12	23.50	22.52	22.44	22.50		1/24	23.50	22.48	22.60	22.48
	1/24	23.50	22.38	22.27	22.36		1/49	23.50	22.30	22.41	22.36
	12/0	22.50	21.96	21.97	22.02		25/0	22.50	21.94	22.03	22.01
	12/6	22.50	22.00	21.98	21.98		25/12	22.50	21.99	21.95	21.91
	12/13	22.50	22.04	21.94	21.94		25/25	22.50	22.08	21.95	21.81
	25/0	22.50	21.97	21.95	21.96		50/0	22.50	22.01	21.98	21.96
16QAM	1/0	22.50	22.08	22.35	21.89	16QAM	1/0	22.50	21.92	22.28	21.89
	1/12	22.50	22.19	22.50	22.10		1/24	22.50	22.01	22.44	22.03
	1/24	22.50	22.04	22.34	21.95		1/49	22.50	21.79	22.26	21.92
	12/0	21.50	21.05	21.09	21.06		25/0	21.50	20.97	21.10	21.11
	12/6	21.50	21.10	21.12	21.03		25/12	21.50	21.02	21.01	21.02
	12/13	21.50	21.13	21.08	20.99		25/25	21.50	21.11	20.98	20.91
	25/0	21.50	21.03	21.02	20.91		50/0	21.50	20.99	21.03	20.99
64QAM	1/0	21.50	20.88	21.16	21.05	64QAM	1/0	21.50	21.29	21.03	21.08
	1/12	21.50	20.98	21.30	21.21		1/24	21.50	21.41	21.20	21.19
	1/24	21.50	20.78	21.15	21.07		1/49	21.50	21.17	21.02	21.08
	12/0	20.50	19.98	19.85	19.97		25/0	20.50	19.96	20.06	19.99
	12/6	20.50	20.01	19.87	19.98		25/12	20.50	20.01	20.01	19.91
	12/13	20.50	20.03	19.84	19.90		25/25	20.50	20.10	19.97	19.81
	25/0	20.50	19.91	19.87	19.90		50/0	20.50	20.02	19.99	19.84

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	23.50	22.35	22.35	22.28	QPSK	1/0	23.50	22.18	22.05	22.08
	1/37	23.50	22.38	22.48	22.45		1/50	23.50	**22.62**	**22.85**	**22.75**
	1/74	23.50	22.19	22.27	22.31		1/99	23.50	22.02	22.02	22.08
	36/0	22.50	21.97	22.27	21.98		50/0	22.50	21.78	**22.12**	21.78
	36/19	22.50	22.02	22.00	21.98		50/25	22.50	**21.94**	21.96	**21.93**
	36/39	22.50	22.04	21.97	21.83		50/50	22.50	21.85	21.85	21.65
	75/0	22.50	22.03	21.99	21.88		100/0	22.50	21.83	**22.00**	21.73
16QAM	1/0	22.50	21.87	22.19	22.24	16QAM	1/0	22.50	22.23	22.08	22.07
	1/37	22.50	21.88	22.35	22.30		1/50	22.50	22.37	21.92	22.22
	1/74	22.50	21.69	22.14	22.21		1/99	22.50	22.13	22.10	22.04
	36/0	21.50	20.94	21.14	20.90		50/0	21.50	20.84	21.15	20.79
	36/19	21.50	20.98	21.04	20.90		50/25	21.50	21.00	21.01	20.95
	36/39	21.50	20.97	20.99	20.78		50/50	21.50	20.92	20.89	20.65
	75/0	21.50	21.01	21.02	20.85		100/0	21.50	20.86	21.03	20.76
64QAM	1/0	21.50	21.23	20.96	21.44	64QAM	1/0	21.50	21.05	21.26	21.03
	1/37	21.50	21.27	21.09	21.42		1/50	21.50	21.37	19.88	21.43
	1/74	21.50	21.08	20.90	21.42		1/99	21.50	20.94	21.25	21.01
	36/0	20.50	19.96	19.90	19.91		50/0	20.50	19.83	20.10	19.84
	36/19	20.50	20.01	20.02	19.93		50/25	20.50	19.96	19.98	19.97
	36/39	20.50	19.99	19.97	19.80		50/50	20.50	19.88	19.86	19.72
	75/0	20.50	20.00	20.01	19.89		100/0	20.50	19.82	19.95	19.75

Second antenna_Receiver on

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880	19193/ 1909.3				18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1/0	17.50	16.56	16.43	16.45	QPSK	1/0	17.50	16.50	16.54	16.43
	1/2	17.50	16.69	16.56	16.64		1/7	17.50	16.64	16.70	16.55
	1/5	17.50	16.59	16.43	16.44		1/14	17.50	16.53	16.53	16.43
	3/0	17.50	16.68	16.59	16.63		8/0	17.50	16.60	16.52	16.51
	3/1	17.50	16.72	16.66	16.64		8/3	17.50	16.60	16.55	16.53
	3/3	17.50	16.64	16.66	16.58		8/7	17.50	16.53	16.48	16.47
	6/0	17.50	16.60	16.53	16.53		15/0	17.50	16.58	16.53	16.49
16QAM	1/0	17.50	16.99	16.56	16.57	16QAM	1/0	17.50	16.69	16.53	16.89
	1/2	17.50	16.90	16.65	16.68		1/7	17.50	16.73	16.65	16.92
	1/5	17.50	16.99	16.58	16.58		1/14	17.50	16.59	16.50	16.95
	3/0	17.50	16.91	16.80	16.81		8/0	17.50	16.66	16.70	16.64
	3/1	17.50	16.94	16.87	16.90		8/3	17.50	16.75	16.72	16.69
	3/3	17.50	16.90	16.82	16.85		8/7	17.50	16.61	16.64	16.63
	6/0	17.50	16.55	16.74	16.73		15/0	17.50	16.61	16.61	16.57
64QAM	1/0	17.50	16.80	16.94	16.65	64QAM	1/0	17.50	16.94	16.69	16.74
	1/2	17.50	16.88	16.91	16.80		1/7	17.50	17.06	16.86	16.91
	1/5	17.50	16.83	16.98	16.66		1/14	17.50	16.90	16.73	16.68
	3/0	17.50	16.64	16.99	16.74		8/0	17.50	16.70	16.62	16.50
	3/1	17.50	16.71	17.03	16.79		8/3	17.50	16.74	16.66	16.56
	3/3	17.50	16.69	16.99	16.72		8/7	17.50	16.65	16.61	16.49
	6/0	17.50	16.72	16.59	16.88		15/0	17.50	16.63	16.60	16.57

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	17.50	16.53	16.42	16.43	QPSK	1/0	17.50	16.49	16.53	16.41
	1/12	17.50	16.63	16.57	16.61		1/24	17.50	16.64	16.65	16.57
	1/24	17.50	16.47	16.42	16.46		1/49	17.50	16.42	16.53	16.43
	12/0	17.50	16.55	16.54	16.58		25/0	17.50	16.50	16.64	16.54
	12/6	17.50	16.59	16.62	16.54		25/12	17.50	16.56	16.56	16.49
	12/13	17.50	16.61	16.52	16.47		25/25	17.50	16.67	16.47	16.24
	25/0	17.50	16.56	16.49	16.49		50/0	17.50	16.59	16.58	16.46
16QAM	1/0	17.50	16.71	16.95	16.54	16QAM	1/0	17.50	16.66	16.51	16.91
	1/12	17.50	16.81	16.93	16.71		1/24	17.50	16.71	16.68	17.05
	1/24	17.50	16.68	16.98	16.59		1/49	17.50	16.58	16.49	16.93
	12/0	17.50	16.68	16.71	16.67		25/0	17.50	16.71	16.74	16.66
	12/6	17.50	16.71	16.74	16.67		25/12	17.50	16.74	16.64	16.60
	12/13	17.50	16.71	16.70	16.55		25/25	17.50	16.81	16.54	16.37
	25/0	17.50	16.62	16.63	16.51		50/0	17.50	16.70	16.64	16.47
64QAM	1/0	17.50	16.49	16.80	16.40	64QAM	1/0	17.50	16.79	16.85	16.64
	1/12	17.50	16.60	16.93	16.58		1/24	17.50	16.86	17.01	16.78
	1/24	17.50	16.43	16.79	16.43		1/49	17.50	16.69	16.84	16.68
	12/0	17.50	16.64	16.52	16.66		25/0	17.50	16.67	16.76	16.67
	12/6	17.50	16.70	16.56	16.65		25/12	17.50	16.72	16.65	16.64
	12/13	17.50	16.67	16.52	16.55		25/25	17.50	16.81	16.57	16.39
	25/0	17.50	16.58	16.53	16.57		50/0	17.50	16.66	16.66	16.51

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	17.50	16.44	16.49	16.41	QPSK	1/0	17.50	16.48	16.45	16.38
	1/37	17.50	16.49	16.60	16.53		1/50	17.50	**16.85**	**16.74**	**16.84**
	1/74	17.50	16.31	16.41	16.40		1/99	17.50	16.36	16.37	16.36
	36/0	17.50	16.54	16.41	16.46		50/0	17.50	16.59	**16.83**	16.52
	36/19	17.50	16.58	16.60	16.53		50/25	17.50	**16.77**	16.79	**16.75**
	36/39	17.50	16.61	16.51	16.34		50/50	17.50	16.74	16.60	16.38
	75/0	17.50	16.57	16.62	16.38		100/0	17.50	16.69	**16.86**	16.48
16QAM	1/0	17.50	16.53	16.86	16.98	16QAM	1/0	17.50	16.86	16.82	16.70
	1/37	17.50	16.54	17.01	17.08		1/50	17.50	17.06	16.62	16.94
	1/74	17.50	16.37	16.81	16.95		1/99	17.50	16.75	16.82	16.66
	36/0	17.50	16.55	16.81	16.47		50/0	17.50	16.48	16.92	16.36
	36/19	17.50	16.61	16.64	16.53		50/25	17.50	16.65	16.66	16.57
	36/39	17.50	16.64	16.55	16.33		50/50	17.50	16.62	16.48	16.21
	75/0	17.50	16.62	16.61	16.42		100/0	17.50	16.55	16.76	16.32
64QAM	1/0	17.50	16.88	16.63	16.88	64QAM	1/0	17.50	16.57	16.59	16.93
	1/37	17.50	16.93	16.75	16.98		1/50	17.50	16.96	16.60	17.04
	1/74	17.50	16.72	16.55	16.86		1/99	17.50	16.45	16.55	16.91
	36/0	17.50	16.59	16.55	16.48		50/0	17.50	16.46	16.93	16.40
	36/19	17.50	16.64	16.67	16.54		50/25	17.50	16.66	16.71	16.60
	36/39	17.50	16.70	16.60	16.32		50/50	17.50	16.60	16.52	16.28
	75/0	17.50	16.63	16.67	16.43		100/0	17.50	16.57	16.77	16.30

Second antenna_Receiver off

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880	19193/ 1909.3				18615/ 1851.5	18900/ 1880	19185/ 1908.5
QPSK	1/0	22.50	21.88	21.83	21.72	QPSK	1/0	22.50	21.82	21.84	21.74
	1/2	22.50	21.97	21.93	21.84		1/7	22.50	21.98	22.03	21.90
	1/5	22.50	21.85	21.82	21.71		1/14	22.50	21.86	21.87	21.73
	3/0	22.50	21.96	21.92	21.87		8/0	22.50	21.92	21.85	21.77
	3/1	22.50	21.99	21.95	21.93		8/3	22.50	21.96	21.87	21.85
	3/3	22.50	21.96	21.87	21.89		8/7	22.50	21.89	21.80	21.76
	6/0	22.50	21.92	21.84	21.84		15/0	22.50	21.93	21.80	21.74
16QAM	1/0	22.50	21.91	21.88	22.10	16QAM	1/0	22.50	21.84	22.14	21.73
	1/2	22.50	21.99	22.01	22.19		1/7	22.50	21.93	22.16	21.93
	1/5	22.50	21.91	21.91	22.11		1/14	22.50	21.79	22.00	21.72
	3/0	22.50	22.12	21.98	22.02		8/0	21.50	21.30	21.20	21.05
	3/1	22.50	22.19	21.97	22.05		8/3	21.50	21.33	21.21	21.13
	3/3	22.50	22.17	21.93	22.06		8/7	21.50	21.27	21.16	21.08
	6/0	21.50	21.37	21.23	20.99		15/0	21.50	21.22	21.13	20.97
64QAM	1/0	21.50	21.31	21.44	21.14	64QAM	1/0	21.50	21.45	21.17	21.16
	1/2	21.50	21.41	21.41	21.28		1/7	21.50	21.41	21.36	21.36
	1/5	21.50	21.31	21.45	21.14		1/14	21.50	21.41	21.22	21.15
	3/0	21.50	21.15	21.46	21.19		8/0	20.50	20.19	20.08	19.90
	3/1	21.50	21.22	21.50	21.25		8/3	20.50	20.24	20.13	19.97
	3/3	21.50	21.18	21.45	21.21		8/7	20.50	20.16	20.09	19.90
	6/0	20.50	20.22	20.02	20.28		15/0	20.50	20.13	20.08	19.97

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	22.50	21.88	21.71	21.67	QPSK	1/0	22.50	21.83	21.83	21.70
	1/12	22.50	21.98	21.86	21.88		1/24	22.50	21.92	21.97	21.81
	1/24	22.50	21.83	21.73	21.78		1/49	22.50	21.76	21.83	21.76
	12/0	22.50	21.86	21.84	21.86		25/0	22.50	21.83	21.94	21.82
	12/6	22.50	21.92	21.88	21.83		25/12	22.50	21.91	21.86	21.72
	12/13	22.50	21.94	21.83	21.75		25/25	22.50	22.02	21.79	21.59
	25/0	22.50	21.91	21.82	21.78		50/0	22.50	21.94	21.91	21.75
16QAM	1/0	22.50	21.98	22.23	21.71	16QAM	1/0	22.50	21.84	22.18	21.69
	1/12	22.50	22.08	22.16	21.89		1/24	22.50	21.91	22.13	21.85
	1/24	22.50	21.94	22.05	21.78		1/49	22.50	21.72	22.17	21.76
	12/0	21.50	21.20	21.25	21.14		25/0	21.50	21.14	21.27	21.17
	12/6	21.50	21.24	21.25	21.12		25/12	21.50	21.19	21.17	21.08
	12/13	21.50	21.29	21.22	21.05		25/25	21.50	21.32	21.11	20.93
	25/0	21.50	21.18	21.16	20.99		50/0	21.50	21.17	21.16	21.03
64QAM	1/0	21.50	21.01	21.30	21.08	64QAM	1/0	21.50	21.44	21.16	21.11
	1/12	21.50	21.14	21.44	21.28		1/24	21.50	21.35	21.34	21.24
	1/24	21.50	20.98	21.29	21.16		1/49	21.50	21.35	21.18	21.17
	12/0	20.50	20.12	20.02	20.04		25/0	20.50	20.10	20.24	20.03
	12/6	20.50	20.17	20.04	20.01		25/12	20.50	20.17	20.16	19.96
	12/13	20.50	20.20	19.99	19.95		25/25	20.50	20.28	20.11	19.81
	25/0	20.50	20.10	20.02	19.93		50/0	20.50	20.20	20.17	19.88

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	22.50	21.79	21.76	21.70	QPSK	1/0	22.50	21.63	21.50	21.51
	1/37	22.50	21.83	21.90	21.79		1/50	22.50	**21.99**	**21.80**	**21.55**
	1/74	22.50	21.64	21.71	21.72		1/99	22.50	21.51	21.46	21.53
	36/0	22.50	21.87	21.71	21.78		50/0	22.50	21.67	**22.07**	21.56
	36/19	22.50	21.96	21.92	21.81		50/25	22.50	**21.84**	21.88	**21.77**
	36/39	22.50	21.99	21.83	21.65		50/50	22.50	21.80	21.72	21.44
	75/0	22.50	21.94	21.91	21.69		100/0	22.50	21.77	**22.03**	21.52
16QAM	1/0	22.50	21.76	22.09	22.05	16QAM	1/0	22.50	22.14	22.05	22.02
	1/37	22.50	21.81	22.23	22.07		1/50	22.50	22.25	21.12	22.08
	1/74	22.50	21.58	22.05	22.05		1/99	22.50	22.01	22.03	21.94
	36/0	21.50	21.10	21.05	20.95		50/0	21.50	20.98	21.40	20.87
	36/19	21.50	21.13	21.20	20.99		50/25	21.50	21.17	21.18	21.06
	36/39	21.50	21.19	21.13	20.83		50/50	21.50	21.12	21.03	20.76
	75/0	21.50	21.19	21.18	20.89		100/0	21.50	21.07	21.26	20.82
64QAM	1/0	21.50	21.40	21.10	21.31	64QAM	1/0	21.50	21.21	21.39	20.97
	1/37	21.50	21.44	21.25	21.36		1/50	21.50	21.38	20.02	21.31
	1/74	21.50	21.22	21.03	21.49		1/99	21.50	21.09	21.38	20.94
	36/0	20.50	20.12	20.03	19.95		50/0	20.50	19.99	20.28	19.79
	36/19	20.50	20.16	20.18	19.96		50/25	20.50	20.14	20.13	19.94
	36/39	20.50	20.22	20.10	19.79		50/50	20.50	20.02	19.97	19.60
	75/0	20.50	20.17	20.15	19.92		100/0	20.50	20.02	20.15	19.70

Note: The tested channels are marks in bold.

2. Conducted power measurement results of LTE B4

Main antenna_Receiver on

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20393/ 1754.3				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
QPSK	1/0	24.00	22.88	22.90	22.94	QPSK	1/0	24.00	22.92	22.94	22.94
	1/2	24.00	23.05	23.01	23.07		1/7	24.00	23.04	23.09	23.04
	1/5	24.00	22.90	22.88	22.96		1/14	24.00	22.95	22.96	22.89
	3/0	24.00	23.04	22.96	22.98		8/0	23.00	21.93	21.90	21.92
	3/1	24.00	23.01	23.00	23.04		8/3	23.00	21.98	21.95	21.95
	3/3	24.00	23.08	22.97	22.97		8/7	23.00	21.93	21.90	21.93
	6/0	23.00	22.00	21.96	21.98		15/0	23.00	21.94	21.89	21.89
16QAM	1/0	23.00	22.02	22.27	21.89	16QAM	1/0	23.00	21.89	22.28	21.94
	1/2	23.00	22.15	22.36	22.00		1/7	23.00	21.98	22.45	22.07
	1/5	23.00	22.03	22.26	21.91		1/14	23.00	21.86	22.29	21.90
	3/0	23.00	22.04	22.18	22.11		8/0	22.00	21.12	21.05	21.02
	3/1	23.00	22.08	22.21	22.17		8/3	22.00	21.13	21.08	21.04
	3/3	23.00	22.06	22.17	22.13		8/7	22.00	21.09	21.04	20.99
	6/0	22.00	21.17	20.90	21.16		15/0	22.00	21.04	21.00	20.94
64QAM	1/0	22.00	21.37	21.13	21.10	64QAM	1/0	22.00	21.33	21.09	21.21
	1/2	22.00	21.56	21.21	21.23		1/7	22.00	21.49	21.25	21.33
	1/5	22.00	21.39	21.08	21.15		1/14	22.00	21.31	21.15	21.10
	3/0	22.00	21.39	21.19	21.00		8/0	21.00	20.07	20.00	19.93
	3/1	22.00	21.44	21.21	21.04		8/3	21.00	20.09	20.07	19.96
	3/3	22.00	21.39	21.17	21.05		8/7	21.00	20.05	20.00	19.94
	6/0	21.00	20.03	20.31	20.08		15/0	21.00	20.00	20.01	20.01

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	24.00	22.93	22.84	22.89	QPSK	1/0	24.00	22.88	22.92	22.86
	1/12	24.00	23.05	22.94	23.00		1/24	24.00	23.05	23.11	23.01
	1/24	24.00	22.92	22.82	22.88		1/49	24.00	22.88	22.91	22.84
	12/0	23.00	21.92	21.89	21.92		25/0	23.00	21.93	21.90	21.91
	12/6	23.00	21.94	21.93	21.96		25/12	23.00	21.96	21.93	21.91
	12/13	23.00	21.95	21.96	21.96		25/25	23.00	21.92	21.96	21.93
	25/0	23.00	21.93	21.90	21.90		50/0	23.00	21.96	21.94	21.93
16QAM	1/0	23.00	22.04	22.33	21.94	16QAM	1/0	23.00	21.83	22.25	21.87
	1/12	23.00	22.18	22.45	22.05		1/24	23.00	22.01	22.40	22.04
	1/24	23.00	22.03	22.33	21.96		1/49	23.00	21.84	22.25	21.87
	12/0	22.00	21.04	21.06	20.99		25/0	22.00	21.03	21.03	21.04
	12/6	22.00	21.09	21.13	21.03		25/12	22.00	21.07	21.04	21.05
	12/13	22.00	21.10	21.13	21.04		25/25	22.00	21.01	21.08	21.08
	25/0	22.00	21.02	21.04	20.92		50/0	22.00	21.00	21.05	21.02
64QAM	1/0	22.00	20.88	21.22	21.13	64QAM	1/0	22.00	21.28	21.10	21.14
	1/12	22.00	20.99	21.29	21.25		1/24	22.00	21.42	21.30	21.31
	1/24	22.00	20.89	21.22	21.14		1/49	22.00	21.27	21.09	21.11
	12/0	21.00	20.03	19.88	20.01		25/0	21.00	20.08	20.09	20.08
	12/6	21.00	20.09	19.94	20.06		25/12	21.00	20.09	20.10	20.07
	12/13	21.00	20.07	19.97	20.07		25/25	21.00	20.05	20.12	20.08
	25/0	21.00	19.97	19.94	19.98		50/0	21.00	20.07	20.10	20.00

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	24.00	22.84	22.87	22.87	QPSK	1/0	24.00	22.96	22.94	22.93
	1/37	24.00	22.93	23.00	23.02		1/50	24.00	**23.41**	23.39	23.37
	1/74	24.00	22.76	22.79	22.85		1/99	24.00	22.92	22.92	22.95
	36/0	23.00	21.99	21.97	21.96		50/0	23.00	22.23	22.18	22.19
	36/19	23.00	21.98	21.97	22.02		50/25	23.00	22.24	**22.25**	22.23
	36/39	23.00	21.95	22.01	22.03		50/50	23.00	22.19	22.24	22.23
	75/0	23.00	21.96	21.96	21.98		100/0	23.00	22.19	22.21	22.21
16QAM	1/0	23.00	21.77	22.21	22.26	16QAM	1/0	23.00	22.20	22.13	22.04
	1/37	23.00	21.89	22.33	22.36		1/50	23.00	22.65	22.54	22.46
	1/74	23.00	21.74	22.17	22.21		1/99	23.00	22.16	22.09	22.01
	36/0	22.00	21.01	21.02	20.95		50/0	22.00	21.07	20.96	20.89
	36/19	22.00	21.01	21.05	21.00		50/25	22.00	21.06	21.06	20.97
	36/39	22.00	20.98	21.05	21.00		50/50	22.00	21.00	20.98	20.95
	75/0	22.00	20.99	21.02	21.00		100/0	22.00	21.03	20.98	20.97
64QAM	1/0	22.00	21.25	21.09	21.50	64QAM	1/0	22.00	21.11	21.38	20.97
	1/37	22.00	21.33	21.20	21.63		1/50	22.00	21.48	21.82	21.37
	1/74	22.00	21.18	20.97	21.48		1/99	22.00	21.05	21.34	20.93
	36/0	21.00	20.05	20.09	20.02		50/0	21.00	20.12	20.01	20.00
	36/19	21.00	20.05	20.10	20.06		50/25	21.00	20.10	20.08	20.06
	36/39	21.00	20.02	20.11	20.05		50/50	21.00	20.08	20.07	20.04
	75/0	21.00	20.02	20.07	20.09		100/0	21.00	20.04	20.03	20.05

Main antenna_Receiver off

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20393/ 1754.3				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
QPSK	1/0	23.50	22.30	22.21	22.31	QPSK	1/0	23.50	22.24	22.32	22.28
	1/2	23.50	22.41	22.34	22.43		1/7	23.50	22.45	22.46	22.42
	1/5	23.50	22.31	22.23	22.30		1/14	23.50	22.30	22.33	22.25
	3/0	23.50	22.36	22.37	22.38		8/0	22.50	21.84	21.77	21.83
	3/1	23.50	22.41	22.40	22.41		8/3	22.50	21.86	21.83	21.85
	3/3	23.50	22.33	22.39	22.38		8/7	22.50	21.80	21.76	21.82
	6/0	22.50	21.82	21.83	21.85		15/0	22.50	21.79	21.79	21.81
16QAM	1/0	22.50	21.79	21.89	21.78	16QAM	1/0	22.50	21.83	21.76	22.14
	1/2	22.50	21.86	22.01	21.87		1/7	22.50	21.99	21.89	22.32
	1/5	22.50	21.78	21.91	21.79		1/14	22.50	21.80	21.72	22.17
	3/0	22.50	21.99	21.90	21.99		8/0	21.50	20.88	20.96	20.94
	3/1	22.50	22.07	21.95	22.05		8/3	21.50	20.94	20.97	20.98
	3/3	22.50	22.01	21.89	21.97		8/7	21.50	20.89	20.97	20.94
	6/0	21.50	21.05	21.01	21.03		15/0	21.50	20.81	20.87	20.88
64QAM	1/0	21.50	20.94	21.00	21.18	64QAM	1/0	21.50	21.12	20.95	21.03
	1/2	21.50	21.06	21.07	21.36		1/7	21.50	21.32	21.11	21.15
	1/5	21.50	20.92	20.99	21.20		1/14	21.50	21.17	21.00	20.96
	3/0	21.50	20.98	20.84	21.21		8/0	20.50	19.90	19.87	19.78
	3/1	21.50	21.07	20.89	21.25		8/3	20.50	19.93	19.91	19.81
	3/3	21.50	21.02	20.86	21.20		8/7	20.50	19.87	19.88	19.76
	6/0	20.50	20.12	19.92	19.83		15/0	20.50	19.82	19.86	19.86

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	23.50	22.27	22.21	22.25	QPSK	1/0	23.50	22.26	22.32	22.27
	1/12	23.50	22.45	22.33	22.36		1/24	23.50	22.42	22.48	22.42
	1/24	23.50	22.30	22.19	22.24		1/49	23.50	22.30	22.32	22.26
	12/0	22.50	21.83	21.75	21.82		25/0	22.50	21.87	21.81	21.86
	12/6	22.50	21.87	21.83	21.84		25/12	22.50	21.87	21.82	21.81
	12/13	22.50	21.88	21.84	21.82		25/25	22.50	21.85	21.88	21.82
	25/0	22.50	21.86	21.79	21.79		50/0	22.50	21.87	21.84	21.86
16QAM	1/0	22.50	21.88	22.23	21.80	16QAM	1/0	22.50	21.71	22.17	21.79
	1/12	22.50	22.02	22.33	21.90		1/24	22.50	21.88	22.30	21.94
	1/24	22.50	21.94	22.22	21.80		1/49	22.50	21.75	22.14	21.75
	12/0	21.50	20.92	20.96	20.90		25/0	21.50	20.95	20.90	20.99
	12/6	21.50	20.97	21.01	20.92		25/12	21.50	20.93	20.91	20.96
	12/13	21.50	20.97	21.02	20.90		25/25	21.50	20.92	20.97	20.96
	25/0	21.50	20.90	20.92	20.79		50/0	21.50	20.92	20.94	20.93
64QAM	1/0	21.50	20.69	21.08	20.99	64QAM	1/0	21.50	21.11	20.96	20.99
	1/12	21.50	20.83	21.18	21.09		1/24	21.50	21.29	21.11	21.13
	1/24	21.50	20.74	21.05	20.99		1/49	21.50	21.15	20.95	20.98
	12/0	20.50	19.87	19.73	19.89		25/0	20.50	19.95	19.93	19.96
	12/6	20.50	19.91	19.81	19.92		25/12	20.50	19.93	19.96	19.93
	12/13	20.50	19.91	19.82	19.90		25/25	20.50	19.94	20.01	19.94
	25/0	20.50	19.82	19.80	19.84		50/0	20.50	19.91	19.94	19.88

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	23.50	22.17	22.28	22.28	QPSK	1/0	23.50	22.50	22.55	22.52
	1/37	23.50	22.29	22.40	22.38		1/50	23.50	**22.99**	**22.94**	**22.97**
	1/74	23.50	22.12	22.22	22.24		1/99	23.50	22.49	22.53	22.51
	36/0	22.50	21.89	22.22	21.89		50/0	22.50	21.84	21.74	21.79
	36/19	22.50	21.91	21.90	21.92		50/25	22.50	**21.87**	**21.94**	**21.84**
	36/39	22.50	21.89	21.93	21.91		50/50	22.50	21.84	21.88	21.79
	75/0	22.50	21.89	21.88	21.90		100/0	22.50	21.85	21.80	**21.88**
16QAM	1/0	22.50	21.63	22.09	22.15	16QAM	1/0	22.50	22.03	22.03	21.94
	1/37	22.50	21.77	22.20	22.25		1/50	22.50	22.48	21.91	22.32
	1/74	22.50	21.63	22.05	22.09		1/99	22.50	22.06	21.96	21.89
	36/0	21.50	20.87	21.05	20.85		50/0	21.50	20.94	20.80	20.78
	36/19	21.50	20.89	20.94	20.87		50/25	21.50	20.96	20.91	20.85
	36/39	21.50	20.89	20.99	20.86		50/50	21.50	20.91	20.94	20.81
	75/0	21.50	20.92	20.93	20.89		100/0	21.50	20.93	20.84	20.82
64QAM	1/0	21.50	21.05	20.92	21.06	64QAM	1/0	21.50	20.88	21.22	20.82
	1/37	21.50	21.17	21.01	21.17		1/50	21.50	21.36	19.92	21.21
	1/74	21.50	21.01	20.86	21.03		1/99	21.50	20.88	21.19	20.78
	36/0	20.50	19.91	19.86	19.89		50/0	20.50	19.97	19.83	19.84
	36/19	20.50	19.91	19.95	19.90		50/25	20.50	19.97	19.90	19.90
	36/39	20.50	19.91	19.98	19.89		50/50	20.50	19.92	19.96	19.85
	75/0	20.50	19.90	19.92	19.89		100/0	20.50	19.93	19.88	19.82

Second antenna_Receiver on

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20393/ 1754.3				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
QPSK	1/0	18.00	16.86	16.94	17.04	QPSK	1/0	18.00	16.87	17.04	17.03
	1/2	18.00	17.00	17.06	17.17		1/7	18.00	16.99	17.19	17.15
	1/5	18.00	16.88	16.92	17.05		1/14	18.00	16.94	17.04	17.00
	3/0	18.00	17.11	17.06	17.13		8/0	18.00	16.97	16.98	17.05
	3/1	18.00	17.11	17.11	17.18		8/3	18.00	17.00	17.02	17.10
	3/3	18.00	17.12	17.07	17.14		8/7	18.00	16.94	16.97	17.04
	6/0	18.00	16.95	17.00	17.06		15/0	18.00	16.96	16.98	17.04
16QAM	1/0	18.00	17.04	17.15	17.44	16QAM	1/0	18.00	16.97	17.39	17.14
	1/2	18.00	17.11	17.24	17.55		1/7	18.00	17.12	17.55	17.28
	1/5	18.00	17.05	17.11	17.44		1/14	18.00	16.98	17.41	17.07
	3/0	18.00	17.27	17.13	17.35		8/0	18.00	17.14	17.12	17.10
	3/1	18.00	17.34	17.17	17.39		8/3	18.00	17.19	17.14	17.14
	3/3	18.00	17.30	17.15	17.36		8/7	18.00	17.12	17.08	17.09
	6/0	18.00	17.20	17.18	17.01		15/0	18.00	17.06	17.04	17.04
64QAM	1/0	18.00	17.39	17.12	17.27	64QAM	1/0	18.00	17.32	17.12	17.29
	1/2	18.00	17.57	17.29	17.34		1/7	18.00	17.49	17.31	17.44
	1/5	18.00	17.40	17.16	17.28		1/14	18.00	17.35	17.17	17.23
	3/0	18.00	17.46	17.22	17.09		8/0	18.00	17.10	17.07	17.04
	3/1	18.00	17.46	17.28	17.11		8/3	18.00	17.12	17.11	17.08
	3/3	18.00	17.44	17.22	17.09		8/7	18.00	17.08	17.07	17.03
	6/0	18.00	17.03	17.36	17.19		15/0	18.00	17.03	17.06	17.12

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	18.00	16.90	16.88	17.00	QPSK	1/0	18.00	16.88	17.02	16.95
	1/12	18.00	17.07	17.01	17.12		1/24	18.00	17.02	17.16	17.13
	1/24	18.00	16.94	16.90	16.99		1/49	18.00	16.93	17.01	16.97
	12/0	18.00	16.95	16.95	17.04		25/0	18.00	16.97	16.97	17.04
	12/6	18.00	17.02	17.02	17.10		25/12	18.00	17.03	17.01	17.06
	12/13	18.00	17.01	17.01	17.08		25/25	18.00	17.00	17.00	17.04
	25/0	18.00	16.98	16.97	17.03		50/0	18.00	17.00	17.00	17.05
16QAM	1/0	18.00	17.12	17.44	17.12	16QAM	1/0	18.00	16.96	17.37	17.09
	1/12	18.00	17.24	17.57	17.24		1/24	18.00	17.15	17.55	17.21
	1/24	18.00	17.16	17.43	17.16		1/49	18.00	16.99	17.40	17.11
	12/0	18.00	17.08	17.12	17.10		25/0	18.00	17.08	17.05	17.17
	12/6	18.00	17.17	17.18	17.17		25/12	18.00	17.12	17.13	17.20
	12/13	18.00	17.15	17.17	17.13		25/25	18.00	17.10	17.11	17.18
	25/0	18.00	17.06	17.06	17.03		50/0	18.00	17.07	17.06	17.12
64QAM	1/0	18.00	16.86	17.28	17.27	64QAM	1/0	18.00	17.31	17.15	17.23
	1/12	18.00	17.00	17.41	17.36		1/24	18.00	17.47	17.30	17.39
	1/24	18.00	16.91	17.29	17.28		1/49	18.00	17.34	17.18	17.25
	12/0	18.00	17.04	16.97	17.12		25/0	18.00	17.08	17.11	17.16
	12/6	18.00	17.13	17.05	17.19		25/12	18.00	17.13	17.16	17.19
	12/13	18.00	17.10	17.03	17.17		25/25	18.00	17.13	17.16	17.14
	25/0	18.00	17.01	17.02	17.11		50/0	18.00	17.08	17.12	17.09

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	18.00	16.84	16.93	16.95	QPSK	1/0	18.00	16.90	16.90	16.90
	1/37	18.00	16.95	17.08	17.10		1/50	18.00	**17.35**	**17.24**	**17.34**
	1/74	18.00	16.80	16.92	16.94		1/99	18.00	16.92	16.92	16.93
	36/0	18.00	16.99	16.92	17.06		50/0	18.00	17.19	17.20	17.25
	36/19	18.00	17.06	17.04	17.07		50/25	18.00	**17.27**	**17.25**	**17.28**
	36/39	18.00	17.04	17.00	17.06		50/50	18.00	17.24	17.25	17.24
	75/0	18.00	17.02	16.99	17.04		100/0	18.00	17.23	17.23	**17.26**
16QAM	1/0	18.00	16.85	17.33	17.46	16QAM	1/0	18.00	17.26	17.29	17.27
	1/37	18.00	17.02	17.46	17.59		1/50	18.00	17.55	17.11	17.47
	1/74	18.00	16.87	17.31	17.49		1/99	18.00	17.29	17.34	17.29
	36/0	18.00	17.01	17.31	17.03		50/0	18.00	17.08	17.06	17.11
	36/19	18.00	17.07	17.10	17.06		50/25	18.00	17.15	17.12	17.53
	36/39	18.00	17.06	17.10	17.02		50/50	18.00	17.11	17.09	17.11
	75/0	18.00	17.04	17.06	17.04		100/0	18.00	17.13	17.06	17.11
64QAM	1/0	18.00	17.24	17.09	17.40	64QAM	1/0	18.00	17.08	17.42	17.02
	1/37	18.00	17.38	17.21	17.55		1/50	18.00	17.56	17.16	17.44
	1/74	18.00	17.23	17.06	17.42		1/99	18.00	17.10	17.47	17.06
	36/0	18.00	17.05	17.06	17.07		50/0	18.00	17.10	17.07	17.12
	36/19	18.00	17.09	17.13	17.11		50/25	18.00	17.19	17.13	17.14
	36/39	18.00	17.08	17.12	17.10		50/50	18.00	17.16	17.09	17.10
	75/0	18.00	17.05	17.07	17.12		100/0	18.00	17.10	17.05	17.10

Second antenna_Receiver off

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20393/ 1754.3				19965/ 1711.5	20175/ 1732.5	20385/ 1753.5
QPSK	1/0	21.50	20.46	20.39	20.49	QPSK	1/0	21.50	20.38	20.48	20.49
	1/2	21.50	20.57	20.50	20.60		1/7	21.50	20.58	20.63	20.63
	1/5	21.50	20.46	20.40	20.49		1/14	21.50	20.46	20.50	20.45
	3/0	21.50	20.56	20.53	20.58		8/0	21.50	20.50	20.47	20.54
	3/1	21.50	20.56	20.59	20.62		8/3	21.50	20.50	20.51	20.55
	3/3	21.50	20.53	20.59	20.60		8/7	21.50	20.47	20.45	20.51
	6/0	21.50	20.48	20.49	20.56		15/0	21.50	20.49	20.46	20.51
16QAM	1/0	21.50	20.83	20.53	20.65	16QAM	1/0	21.50	20.40	20.83	20.59
	1/2	21.50	20.90	20.59	20.76		1/7	21.50	20.56	21.03	20.74
	1/5	21.50	20.80	20.53	20.66		1/14	21.50	20.38	20.87	20.54
	3/0	21.50	20.73	20.73	20.67		8/0	21.50	20.61	20.60	20.59
	3/1	21.50	20.76	20.79	20.69		8/3	21.50	20.62	20.63	20.63
	3/3	21.50	20.76	20.76	20.64		8/7	21.50	20.60	20.58	20.57
	6/0	21.50	20.38	20.69	20.74		15/0	21.50	20.53	20.52	20.52
64QAM	1/0	21.50	20.62	20.88	20.65	64QAM	1/0	21.50	20.74	20.60	20.75
	1/2	21.50	20.68	21.04	20.79		1/7	21.50	20.94	20.77	20.88
	1/5	21.50	20.61	20.89	20.63		1/14	21.50	20.77	20.65	20.65
	3/0	21.50	20.44	20.89	20.73		8/0	21.50	20.05	20.02	19.98
	3/1	21.50	20.51	20.94	20.79		8/3	21.50	20.09	20.09	20.01
	3/3	21.50	20.48	20.89	20.75		8/7	21.50	20.01	20.04	19.98
	6/0	21.50	20.05	19.99	20.34		15/0	21.50	19.96	20.00	20.06

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	21.50	20.43	20.39	20.44	QPSK	1/0	21.50	20.39	20.50	20.46
	1/12	21.50	20.58	20.49	20.57		1/24	21.50	20.56	20.64	20.56
	1/24	21.50	20.45	20.39	20.46		1/49	21.50	20.45	20.49	20.46
	12/0	21.50	20.45	20.44	20.48		25/0	21.50	20.51	20.51	20.55
	12/6	21.50	20.52	20.52	20.54		25/12	21.50	20.54	20.52	20.51
	12/13	21.50	20.55	20.51	20.52		25/25	21.50	20.57	20.55	20.55
	25/0	21.50	20.50	20.47	20.48		50/0	21.50	20.56	20.55	20.54
16QAM	1/0	21.50	20.56	20.91	20.57	16QAM	1/0	21.50	20.45	20.88	20.53
	1/12	21.50	20.68	21.02	20.67		1/24	21.50	20.55	20.99	20.69
	1/24	21.50	20.59	20.91	20.57		1/49	21.50	20.44	20.87	20.54
	12/0	21.50	20.56	20.60	20.58		25/0	21.50	20.55	20.58	20.66
	12/6	21.50	20.63	20.67	20.63		25/12	21.50	20.59	20.58	20.67
	12/13	21.50	20.62	20.67	20.61		25/25	21.50	20.61	20.63	20.66
	25/0	21.50	20.54	20.58	20.50		50/0	21.50	20.54	20.61	20.64
64QAM	1/0	21.50	20.34	20.74	20.68	64QAM	1/0	21.50	20.76	20.63	20.68
	1/12	21.50	20.45	20.84	20.82		1/24	21.50	20.90	20.74	20.83
	1/24	21.50	20.35	20.73	20.70		1/49	21.50	20.81	20.64	20.69
	12/0	21.50	19.99	19.92	20.08		25/0	21.50	20.05	20.12	20.15
	12/6	21.50	20.07	19.99	20.12		25/12	21.50	20.08	20.11	20.15
	12/13	21.50	20.08	19.98	20.14		25/25	21.50	20.12	20.14	20.14
	25/0	21.50	19.97	19.98	20.05		50/0	21.50	20.07	20.12	20.10

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	21.50	20.32	20.39	20.42	QPSK	1/0	21.50	20.21	20.17	20.17
	1/37	21.50	20.45	20.52	20.53		1/50	21.50	**20.68**	20.56	**20.61**
	1/74	21.50	20.29	20.40	20.43		1/99	21.50	20.22	**20.18**	20.20
	36/0	21.50	20.51	20.40	20.56		50/0	21.50	20.49	20.44	20.51
	36/19	21.50	20.56	20.55	20.59		50/25	21.50	**20.56**	**20.52**	**20.54**
	36/39	21.50	20.59	20.54	20.58		50/50	21.50	20.56	20.53	20.52
	75/0	21.50	20.55	20.54	20.57		100/0	21.50	20.50	20.48	**20.52**
16QAM	1/0	21.50	20.36	20.79	20.89	16QAM	1/0	21.50	20.73	20.75	20.67
	1/37	21.50	20.45	20.91	21.05		1/50	21.50	21.21	20.59	21.08
	1/74	21.50	20.31	20.78	20.92		1/99	21.50	20.73	20.76	20.69
	36/0	21.50	20.48	20.78	20.52		50/0	21.50	20.52	20.51	20.50
	36/19	21.50	20.54	20.60	20.53		50/25	21.50	20.59	20.59	20.56
	36/39	21.50	20.55	20.59	20.54		50/50	21.50	20.59	20.60	20.54
	75/0	21.50	20.54	20.58	20.56		100/0	21.50	20.59	20.55	20.54
64QAM	1/0	21.50	20.69	20.55	21.05	64QAM	1/0	21.50	20.53	20.87	20.55
	1/37	21.50	20.80	20.69	21.18		1/50	21.50	20.99	20.12	20.99
	1/74	21.50	20.67	20.52	21.01		1/99	21.50	20.55	20.90	20.60
	36/0	21.50	20.00	20.52	20.05		50/0	21.50	20.03	20.01	20.09
	36/19	21.50	20.06	20.11	20.08		50/25	21.50	20.11	20.08	20.12
	36/39	21.50	20.08	20.14	20.08		50/50	21.50	20.12	20.10	20.08
	75/0	21.50	20.05	20.06	20.12		100/0	21.50	20.06	20.03	20.06

Note: The tested channels are marks in bold.

3. Conducted power measurement results of LTE B5

Main antenna

LTE B5/BW=1.4M		Average Conducted Power(dBm)				LTE B5/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20407/ 824.7	20525/ 836.5	20643/ 848.3				20415/ 825.5	20525/ 836.5	20635/ 847.5
QPSK	1/0	24.00	22.75	22.83	22.82	QPSK	1/0	24.00	22.85	22.91	22.85
	1/2	24.00	22.91	22.94	22.96		1/7	24.00	23.03	23.03	22.93
	1/5	24.00	22.82	22.83	22.83		1/14	24.00	22.94	22.88	22.82
	3/0	24.00	22.89	22.88	22.89		8/0	23.00	21.97	21.86	21.84
	3/1	24.00	22.95	22.93	22.94		8/3	23.00	21.96	21.89	21.90
	3/3	24.00	22.94	22.89	22.89		8/7	23.00	21.89	21.82	21.83
	6/0	23.00	21.95	21.88	21.90		15/0	23.00	21.95	21.83	21.81
16QAM	1/0	23.00	21.88	21.89	22.09	16QAM	1/0	23.00	21.86	22.19	21.84
	1/2	23.00	21.95	22.00	22.19		1/7	23.00	21.94	22.33	21.92
	1/5	23.00	21.86	21.88	22.09		1/14	23.00	21.81	22.19	21.75
	3/0	23.00	22.11	21.89	21.99		8/0	22.00	21.95	21.84	21.73
	3/1	23.00	22.15	21.93	22.01		8/3	22.00	21.95	21.85	21.80
	3/3	23.00	22.12	21.89	21.97		8/7	22.00	21.88	21.80	21.72
	6/0	22.00	21.99	21.92	21.64		15/0	22.00	21.87	21.76	21.66
64QAM	1/0	22.00	21.12	21.27	20.97	64QAM	1/0	22.00	21.31	21.02	21.13
	1/2	22.00	21.19	21.44	21.14		1/7	22.00	21.45	21.17	21.21
	1/5	22.00	21.18	21.26	20.97		1/14	22.00	21.31	21.07	21.01
	3/0	22.00	20.97	21.30	21.07		8/0	21.00	20.07	19.99	19.87
	3/1	22.00	21.00	21.35	21.12		8/3	21.00	20.08	20.02	19.91
	3/3	22.00	20.97	21.28	21.06		8/7	21.00	20.01	19.97	19.85
	6/0	21.00	20.06	19.94	20.23		15/0	21.00	19.95	19.98	19.94

LTE B5/BW=5M		Average Conducted Power(dBm)				LTE B5/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20425/ 826.5	20525/ 836.5	20625/ 846.5				20450/ 829	20525/ 836.5	20600/ 844
QPSK	1/0	24.00	22.87	22.85	22.81	QPSK	1/0	24.00	22.87	22.98	22.86
	1/12	24.00	22.99	22.89	22.91		1/24	24.00	**23.07**	23.06	22.98
	1/24	24.00	22.91	22.76	22.82		1/49	24.00	22.89	22.87	22.82
	12/0	23.00	21.95	21.87	21.89		25/0	23.00	21.99	21.93	21.94
	12/6	23.00	21.91	21.93	21.88		25/12	23.00	21.93	21.93	21.88
	12/13	23.00	21.90	21.91	21.86		25/25	23.00	**22.00**	21.90	21.77
	25/0	23.00	21.87	21.85	21.82		50/0	23.00	21.98	21.91	21.87
16QAM	1/0	23.00	22.01	22.32	21.85	16QAM	1/0	23.00	21.86	22.29	21.78
	1/12	23.00	22.03	22.37	21.92		1/24	23.00	22.00	22.36	21.93
	1/24	23.00	21.97	22.25	21.82		1/49	23.00	21.80	22.19	21.73
	12/0	22.00	21.88	21.87	21.80		25/0	22.00	21.91	21.84	21.85
	12/6	22.00	21.87	21.92	21.80		25/12	22.00	21.84	21.84	21.80
	12/13	22.00	21.86	21.89	21.75		25/25	22.00	21.92	21.85	21.72
	25/0	22.00	21.79	21.81	21.64		50/0	22.00	21.88	21.81	21.76
64QAM	1/0	22.00	20.88	21.23	21.07	64QAM	1/0	22.00	21.32	21.17	21.11
	1/12	22.00	20.95	21.30	21.17		1/24	22.00	21.48	21.24	21.27
	1/24	22.00	20.87	21.15	21.07		1/49	22.00	21.36	21.04	21.09
	12/0	21.00	20.01	19.90	20.01		25/0	21.00	20.17	20.07	20.12
	12/6	21.00	20.07	19.92	20.00		25/12	21.00	20.07	20.09	20.07
	12/13	21.00	20.04	19.92	19.97		25/25	21.00	20.13	20.07	19.97
	25/0	21.00	19.96	19.91	19.90		50/0	21.00	20.12	20.07	19.97

Second antenna

LTE B5/BW=1.4M		Average Conducted Power(dBm)				LTE B5/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20407/ 824.7	20525/ 836.5	20643/ 848.3				20415/ 825.5	20525/ 836.5	20635/ 847.5
QPSK	1/0	24.00	22.86	22.81	22.87	QPSK	1/0	24.00	22.86	22.92	22.88
	1/2	24.00	23.00	22.92	23.02		1/7	24.00	23.04	23.05	22.96
	1/5	24.00	22.91	22.80	22.89		1/14	24.00	22.92	22.91	22.87
	3/0	24.00	22.94	22.91	22.91		8/0	23.00	21.91	21.87	21.89
	3/1	24.00	23.01	23.00	22.95		8/3	23.00	21.92	21.92	21.96
	3/3	24.00	22.96	22.96	22.92		8/7	23.00	21.88	21.84	21.87
	6/0	23.00	21.88	21.90	21.93		15/0	23.00	21.89	21.85	21.86
16QAM	1/0	23.00	21.85	21.93	22.13	16QAM	1/0	23.00	21.79	22.27	21.88
	1/2	23.00	21.94	22.04	22.23		1/7	23.00	21.96	22.35	21.95
	1/5	23.00	21.90	21.92	22.12		1/14	23.00	21.84	22.20	21.78
	3/0	23.00	22.06	21.95	22.04		8/0	22.00	21.91	21.88	21.80
	3/1	23.00	22.12	21.98	22.06		8/3	22.00	21.93	21.88	21.85
	3/3	23.00	22.11	21.92	22.04		8/7	22.00	21.90	21.83	21.77
	6/0	22.00	21.94	21.94	21.70		15/0	22.00	21.85	21.78	21.70
64QAM	1/0	22.00	21.21	20.98	21.00	64QAM	1/0	22.00	21.23	21.06	21.14
	1/2	22.00	21.44	21.11	21.09		1/7	22.00	21.41	21.17	21.18
	1/5	22.00	21.26	20.96	21.03		1/14	22.00	21.31	21.05	21.01
	3/0	22.00	21.26	21.07	20.86		8/0	21.00	20.05	19.95	19.86
	3/1	22.00	21.29	21.13	20.90		8/3	21.00	20.03	20.00	19.89
	3/3	22.00	21.28	21.07	20.87		8/7	21.00	19.99	19.97	19.83
	6/0	21.00	19.85	20.22	19.98		15/0	21.00	19.93	19.96	19.94

LTE B5/BW=5M		Average Conducted Power(dBm)				LTE B5/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20425/ 826.5	20525/ 836.5	20625/ 846.5				20450/ 829	20525/ 836.5	20600/ 844
QPSK	1/0	24.00	22.89	22.88	22.89	QPSK	1/0	24.00	22.85	22.96	22.86
	1/12	24.00	22.98	22.93	22.94		1/24	24.00	23.08	**23.14**	23.03
	1/24	24.00	22.93	22.83	22.89		1/49	24.00	22.89	22.94	22.89
	12/0	23.00	21.92	21.90	21.93		25/0	23.00	**22.02**	21.92	21.96
	12/6	23.00	21.95	21.94	21.93		25/12	23.00	21.95	21.97	21.97
	12/13	23.00	21.94	21.93	21.91		25/25	23.00	21.97	21.91	21.80
	25/0	23.00	21.90	21.89	21.85		50/0	23.00	21.99	21.95	21.91
16QAM	1/0	23.00	21.97	22.34	21.95	16QAM	1/0	23.00	21.79	22.28	21.75
	1/12	23.00	22.08	22.37	21.99		1/24	23.00	22.04	22.39	21.92
	1/24	23.00	22.04	22.29	21.87		1/49	23.00	21.81	22.22	21.71
	12/0	22.00	21.89	21.89	21.84		25/0	22.00	21.95	21.88	21.86
	12/6	22.00	21.90	21.93	21.83		25/12	22.00	21.88	21.90	21.87
	12/13	22.00	21.89	21.91	21.78		25/25	22.00	21.92	21.81	21.71
	25/0	22.00	21.84	21.83	21.69		50/0	22.00	21.89	21.83	21.75
64QAM	1/0	22.00	20.78	21.21	21.11	64QAM	1/0	22.00	21.08	21.28	20.98
	1/12	22.00	20.89	21.24	21.14		1/24	22.00	21.32	21.41	21.21
	1/24	22.00	20.87	21.12	21.09		1/49	22.00	21.13	21.21	21.01
	12/0	21.00	20.02	19.88	19.97		25/0	21.00	20.18	20.01	20.05
	12/6	21.00	20.03	19.91	19.99		25/12	21.00	20.07	20.05	20.09
	12/13	21.00	19.99	19.89	19.95		25/25	21.00	20.12	19.98	19.95
	25/0	21.00	19.96	19.89	19.88		50/0	21.00	20.03	19.97	19.97

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B5 main antenna and second antenna are the same.

4. Conducted power measurement results of LTE B7

Main antenna_Receiver on

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	24.00	23.00	22.91	22.82	QPSK	1/0	24.00	23.03	22.98	22.89
	1/12	24.00	23.11	23.01	22.93		1/24	24.00	23.19	23.12	23.06
	1/24	24.00	22.96	22.87	22.77		1/49	24.00	23.03	22.94	22.85
	12/0	23.00	21.99	21.90	21.87		25/0	23.00	22.00	21.92	21.97
	12/6	23.00	22.09	21.94	21.91		25/12	23.00	22.04	21.94	21.91
	12/13	23.00	22.08	21.94	21.91		25/25	23.00	22.09	21.97	21.89
	25/0	23.00	21.98	21.90	21.83		50/0	23.00	22.03	21.93	21.93
16QAM	1/0	23.00	21.99	21.91	22.21	16QAM	1/0	23.00	21.87	22.20	21.79
	1/12	23.00	22.09	22.03	22.31		1/24	23.00	21.99	22.36	22.01
	1/24	23.00	21.95	21.89	22.19		1/49	23.00	21.83	22.14	21.78
	12/0	22.00	21.01	20.94	21.00		25/0	22.00	21.00	20.96	21.04
	12/6	22.00	21.11	21.00	21.02		25/12	22.00	21.06	20.97	21.01
	12/13	22.00	21.10	20.99	20.98		25/25	22.00	21.08	21.02	20.98
	25/0	22.00	20.97	20.91	20.91		50/0	22.00	21.04	20.98	20.94
64QAM	1/0	22.00	21.23	20.80	21.13	64QAM	1/0	22.00	21.35	21.11	21.05
	1/12	22.00	21.32	20.92	21.25		1/24	22.00	21.46	21.23	21.26
	1/24	22.00	21.19	20.75	21.10		1/49	22.00	21.26	21.04	21.04
	12/0	21.00	20.07	19.95	19.89		25/0	21.00	20.04	20.05	20.07
	12/6	21.00	20.15	19.99	19.90		25/12	21.00	20.10	20.08	20.03
	12/13	21.00	20.17	20.02	19.89		25/25	21.00	20.15	20.13	20.04
	25/0	21.00	20.08	19.91	19.90		50/0	21.00	20.10	20.10	19.99

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	24.00	22.95	22.92	22.91	QPSK	1/0	24.00	22.88	22.78	22.75
	1/37	24.00	23.07	22.97	23.00		1/50	24.00	**23.31**	23.18	23.17
	1/74	24.00	22.84	22.82	22.81		1/99	24.00	22.76	22.69	22.67
	36/0	23.00	22.05	21.97	22.04		50/0	23.00	22.01	21.94	21.96
	36/19	23.00	22.15	22.01	22.02		50/25	23.00	**22.10**	22.00	21.96
	36/39	23.00	22.11	22.00	21.96		50/50	23.00	22.00	21.99	21.87
	75/0	23.00	22.07	21.97	21.99		100/0	23.00	21.97	21.98	21.95
16QAM	1/0	23.00	21.81	22.14	22.07	16QAM	1/0	23.00	22.21	22.10	22.08
	1/37	23.00	21.86	22.23	22.17		1/50	23.00	22.59	22.42	22.49
	1/74	23.00	21.68	22.02	22.05		1/99	23.00	22.08	21.96	22.07
	36/0	22.00	20.99	20.99	20.94		50/0	22.00	20.94	20.92	20.90
	36/19	22.00	21.05	20.99	20.95		50/25	22.00	21.02	20.96	20.96
	36/39	22.00	21.04	21.00	20.90		50/50	22.00	20.95	20.93	20.84
	75/0	22.00	21.05	20.98	20.96		100/0	22.00	20.96	20.90	20.92
64QAM	1/0	22.00	21.27	21.05	21.42	64QAM	1/0	22.00	21.11	21.32	20.81
	1/37	22.00	21.35	21.10	21.53		1/50	22.00	21.45	21.67	21.18
	1/74	22.00	21.15	20.93	21.38		1/99	22.00	20.97	21.20	20.81
	36/0	21.00	20.04	20.07	20.00		50/0	21.00	20.01	19.94	19.89
	36/19	21.00	20.12	20.07	20.01		50/25	21.00	20.06	20.01	19.95
	36/39	21.00	20.10	20.05	19.94		50/50	21.00	19.99	20.01	19.86
	75/0	21.00	20.08	20.04	20.04		100/0	21.00	19.98	19.93	19.91

Main antenna_Receiver off

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	22.00	21.18	21.15	21.01	QPSK	1/0	22.00	21.16	21.22	21.06
	1/12	22.00	21.34	21.30	21.21		1/24	22.00	21.35	21.37	21.27
	1/24	22.00	21.14	21.09	21.01		1/49	22.00	21.18	21.15	21.07
	12/0	22.00	21.16	21.16	21.15		25/0	22.00	21.13	21.16	21.15
	12/6	22.00	21.31	21.26	21.20		25/12	22.00	21.22	21.21	21.13
	12/13	22.00	21.30	21.22	21.19		25/25	22.00	21.20	21.26	21.19
	25/0	22.00	21.20	21.18	21.12		50/0	22.00	21.16	21.21	21.17
16QAM	1/0	22.00	21.23	21.24	21.50	16QAM	1/0	22.00	21.11	21.53	21.07
	1/12	22.00	21.37	21.40	21.68		1/24	22.00	21.27	21.65	21.29
	1/24	22.00	21.22	21.23	21.50		1/49	22.00	21.03	21.45	21.13
	12/0	22.00	21.21	21.22	21.27		25/0	22.00	21.16	21.19	21.23
	12/6	22.00	21.31	21.29	21.30		25/12	22.00	21.24	21.26	21.21
	12/13	22.00	21.29	21.29	21.32		25/25	22.00	21.20	21.28	21.26
	25/0	22.00	21.17	21.20	21.19		50/0	22.00	21.15	21.24	21.20
64QAM	1/0	22.00	21.42	21.27	20.92	64QAM	1/0	22.00	21.45	21.26	21.19
	1/12	22.00	21.57	21.43	21.13		1/24	22.00	21.60	21.42	21.42
	1/24	22.00	21.35	21.25	20.92		1/49	22.00	21.41	21.20	21.22
	12/0	21.00	20.06	20.18	20.12		25/0	21.00	20.18	20.20	20.22
	12/6	21.00	20.20	20.24	20.20		25/12	21.00	20.20	20.24	20.19
	12/13	21.00	20.19	20.25	20.19		25/25	21.00	20.17	20.28	20.19
	25/0	21.00	20.16	20.17	20.08		50/0	21.00	20.17	20.25	20.15

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	22.00	21.10	21.17	21.11	QPSK	1/0	22.00	20.92	20.88	20.87
	1/37	22.00	21.21	21.24	21.16		1/50	22.00	**21.40**	**21.30**	**21.25**
	1/74	22.00	21.05	21.02	21.00		1/99	22.00	20.89	20.79	20.79
	36/0	22.00	21.27	21.22	21.29		50/0	22.00	21.09	21.07	21.14
	36/19	22.00	21.33	21.25	21.26		50/25	22.00	**21.26**	21.20	21.13
	36/39	22.00	21.28	21.31	21.24		50/50	22.00	21.04	21.20	21.04
	75/0	22.00	21.24	21.25	21.23		100/0	22.00	21.07	**21.15**	21.13
16QAM	1/0	22.00	21.02	21.47	21.35	16QAM	1/0	22.00	21.43	21.37	21.16
	1/37	22.00	21.09	21.55	21.51		1/50	22.00	21.51	21.47	21.29
	1/74	22.00	20.95	21.32	21.41		1/99	22.00	21.34	21.21	21.20
	36/0	22.00	21.17	21.19	21.15		50/0	22.00	21.09	21.05	21.12
	36/19	22.00	21.25	21.27	21.18		50/25	22.00	21.17	21.21	21.09
	36/39	22.00	21.20	21.29	21.14		50/50	22.00	21.06	21.18	20.99
	75/0	22.00	21.20	21.26	21.17		100/0	22.00	21.08	21.11	21.10
64QAM	1/0	22.00	21.38	21.20	21.50	64QAM	1/0	22.00	21.12	21.17	21.33
	1/37	22.00	21.44	21.27	21.63		1/50	22.00	21.15	21.29	21.45
	1/74	22.00	21.32	21.05	21.51		1/99	22.00	21.04	21.08	21.37
	36/0	21.00	20.17	20.20	20.13		50/0	21.00	20.05	20.12	20.15
	36/19	21.00	20.24	20.24	20.12		50/25	21.00	20.16	20.26	20.12
	36/39	21.00	20.21	20.25	20.11		50/50	21.00	20.05	20.26	20.04
	75/0	21.00	20.19	20.20	20.16		100/0	21.00	20.05	20.15	20.08

Second antenna_Receiver on

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	17.00	16.36	16.33	16.26	QPSK	1/0	17.00	16.41	16.43	16.25
	1/12	17.00	16.55	16.49	16.46		1/24	17.00	16.61	16.58	16.45
	1/24	17.00	16.38	16.31	16.26		1/49	17.00	16.43	16.39	16.22
	12/0	17.00	16.34	16.35	16.26		25/0	17.00	16.30	16.31	16.28
	12/6	17.00	16.51	16.44	16.35		25/12	17.00	16.46	16.41	16.27
	12/13	17.00	16.51	16.44	16.31		25/25	17.00	16.41	16.42	16.28
	25/0	17.00	16.37	16.34	16.26		50/0	17.00	16.34	16.36	16.30
16QAM	1/0	17.00	16.35	16.36	16.62	16QAM	1/0	17.00	16.24	16.40	16.19
	1/12	17.00	16.50	16.52	16.73		1/24	17.00	16.41	16.60	16.36
	1/24	17.00	16.35	16.34	16.58		1/49	17.00	16.21	16.36	16.14
	12/0	17.00	16.48	16.48	16.52		25/0	17.00	16.42	16.45	16.49
	12/6	17.00	16.64	16.60	16.57		25/12	17.00	16.56	16.56	16.47
	12/13	17.00	16.65	16.58	16.54		25/25	17.00	16.56	16.57	16.48
	25/0	17.00	16.50	16.49	16.46		50/0	17.00	16.47	16.51	16.46
64QAM	1/0	17.00	16.53	16.41	16.11	64QAM	1/0	17.00	16.42	16.40	16.30
	1/12	17.00	16.75	16.57	16.36		1/24	17.00	16.57	16.54	16.50
	1/24	17.00	16.55	16.40	16.16		1/49	17.00	16.37	16.32	16.31
	12/0	17.00	16.37	16.48	16.41		25/0	17.00	16.42	16.49	16.49
	12/6	17.00	16.54	16.60	16.45		25/12	17.00	16.61	16.59	16.48
	12/13	17.00	16.55	16.60	16.42		25/25	17.00	16.59	16.62	16.47
	25/0	17.00	16.48	16.52	16.35		50/0	17.00	16.52	16.57	16.43

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	17.00	16.34	16.37	16.37	QPSK	1/0	17.00	16.20	16.16	16.10
	1/37	17.00	16.45	16.47	16.40		1/50	17.00	**16.61**	**16.55**	**16.47**
	1/74	17.00	16.32	16.26	16.21		1/99	17.00	16.12	16.05	15.98
	36/0	17.00	16.46	16.46	16.47		50/0	17.00	16.26	16.27	16.23
	36/19	17.00	16.57	16.51	16.46		50/25	17.00	16.35	16.40	16.29
	36/39	17.00	16.51	16.51	16.41		50/50	17.00	16.28	**16.44**	16.21
	75/0	17.00	16.45	16.45	16.43		100/0	17.00	16.28	**16.38**	16.31
16QAM	1/0	17.00	16.35	16.57	16.58	16QAM	1/0	17.00	16.54	16.57	16.30
	1/37	17.00	16.43	16.65	16.70		1/50	17.00	16.63	16.63	16.41
	1/74	17.00	16.27	16.48	16.55		1/99	17.00	16.52	16.44	16.29
	36/0	17.00	16.36	16.45	16.34		50/0	17.00	16.22	16.21	16.29
	36/19	17.00	16.46	16.52	16.35		50/25	17.00	16.34	16.31	16.19
	36/39	17.00	16.41	16.50	16.29		50/50	17.00	16.22	16.39	16.11
	75/0	17.00	16.39	16.47	16.37		100/0	17.00	16.22	16.29	16.25
64QAM	1/0	17.00	16.53	16.31	16.53	64QAM	1/0	17.00	16.37	16.66	16.25
	1/37	17.00	16.62	16.39	16.60		1/50	17.00	16.55	16.66	16.45
	1/74	17.00	16.48	16.21	16.52		1/99	17.00	16.37	16.57	16.25
	36/0	17.00	16.41	16.48	16.37		50/0	17.00	16.24	16.19	16.37
	36/19	17.00	16.50	16.54	16.37		50/25	17.00	16.39	16.32	16.30
	36/39	17.00	16.44	16.53	16.32		50/50	17.00	16.26	16.38	16.21
	75/0	17.00	16.42	16.46	16.39		100/0	17.00	16.21	16.25	16.31

Second antenna_Receiver off

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	20.50	19.56	19.48	19.45	QPSK	1/0	20.50	19.55	19.57	19.42
	1/12	20.50	19.75	19.63	19.63		1/24	20.50	19.71	19.75	19.61
	1/24	20.50	19.58	19.45	19.45		1/49	20.50	19.51	19.53	19.43
	12/0	20.50	19.56	19.55	19.56		25/0	20.50	19.55	19.56	19.56
	12/6	20.50	19.70	19.66	19.60		25/12	20.50	19.64	19.61	19.56
	12/13	20.50	19.71	19.66	19.55		25/25	20.50	19.64	19.67	19.54
	25/0	20.50	19.64	19.59	19.52		50/0	20.50	19.61	19.62	19.58
16QAM	1/0	20.50	19.72	20.02	19.50	16QAM	1/0	20.50	19.54	19.97	19.48
	1/12	20.50	19.87	19.97	19.68		1/24	20.50	19.67	19.93	19.67
	1/24	20.50	19.67	19.98	19.51		1/49	20.50	19.47	19.87	19.50
	12/0	20.50	19.67	19.72	19.60		25/0	20.50	19.60	19.65	19.67
	12/6	20.50	19.78	19.80	19.64		25/12	20.50	19.67	19.68	19.66
	12/13	20.50	19.78	19.81	19.62		25/25	20.50	19.65	19.75	19.66
	25/0	20.50	19.71	19.70	19.49		50/0	20.50	19.61	19.68	19.62
64QAM	1/0	20.50	19.85	19.72	19.32	64QAM	1/0	20.50	19.88	19.69	19.59
	1/12	20.50	20.02	19.88	19.49		1/24	20.50	20.07	19.86	19.81
	1/24	20.50	19.83	19.67	19.30		1/49	20.50	19.84	19.63	19.62
	12/0	20.50	19.52	19.65	19.56		25/0	20.50	19.59	19.69	19.64
	12/6	20.50	19.64	19.72	19.64		25/12	20.50	19.68	19.71	19.63
	12/13	20.50	19.64	19.72	19.55		25/25	20.50	19.64	19.75	19.60
	25/0	20.50	19.62	19.64	19.51		50/0	20.50	19.63	19.70	19.61

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	20.50	19.47	19.55	19.44	QPSK	1/0	20.50	19.43	19.40	19.28
	1/37	20.50	19.56	19.63	19.51		1/50	20.50	**19.80**	**19.77**	**19.67**
	1/74	20.50	19.41	19.44	19.38		1/99	20.50	19.37	19.27	19.27
	36/0	20.50	19.59	19.58	19.62		50/0	20.50	19.51	19.46	19.50
	36/19	20.50	19.68	19.61	19.57		50/25	20.50	**19.60**	19.59	**19.55**
	36/39	20.50	19.62	19.66	19.57		50/50	20.50	19.52	**19.67**	19.43
	75/0	20.50	19.63	19.61	19.58		100/0	20.50	19.53	**19.57**	19.54
16QAM	1/0	20.50	19.45	19.89	19.78	16QAM	1/0	20.50	19.87	19.86	19.57
	1/37	20.50	19.50	19.97	19.93		1/50	20.50	20.01	20.00	19.78
	1/74	20.50	19.37	19.76	19.86		1/99	20.50	19.79	19.70	19.60
	36/0	20.50	19.56	19.60	19.54		50/0	20.50	19.54	19.52	19.53
	36/19	20.50	19.63	19.65	19.54		50/25	20.50	19.65	19.66	19.50
	36/39	20.50	19.60	19.69	19.51		50/50	20.50	19.50	19.72	19.41
	75/0	20.50	19.61	19.64	19.56		100/0	20.50	19.56	19.58	19.51
64QAM	1/0	20.50	19.84	19.64	19.96	64QAM	1/0	20.50	19.67	19.96	19.35
	1/37	20.50	19.91	19.71	20.08		1/50	20.50	19.81	20.03	19.78
	1/74	20.50	19.75	19.51	19.96		1/99	20.50	19.62	19.81	19.39
	36/0	20.50	19.60	19.62	19.51		50/0	20.50	19.55	19.54	19.53
	36/19	20.50	19.65	19.68	19.51		50/25	20.50	19.65	19.65	19.53
	36/39	20.50	19.62	19.70	19.51		50/50	20.50	19.52	19.69	19.42
	75/0	20.50	19.60	19.64	19.57		100/0	20.50	19.53	19.55	19.50

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B7 main antenna and second antenna are the same.

5. Conducted power measurement results of LTE B12

Main antenna

LTE B12/BW=1.4M		Average Conducted Power(dBm)				LTE B12/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23017/ 699.7	23095/ 707.5	23173/ 715.3				23025/ 700.5	23095/ 707.5	23165/ 714.5
QPSK	1/0	24.00	22.70	22.73	22.71	QPSK	1/0	24.00	22.75	22.79	22.74
	1/2	24.00	22.80	22.82	22.82		1/7	24.00	22.91	22.92	22.86
	1/5	24.00	22.67	22.68	22.70		1/14	24.00	22.77	22.77	22.66
	3/0	24.00	22.82	22.80	22.85		8/0	23.00	21.80	21.77	21.79
	3/1	24.00	22.89	22.83	22.89		8/3	23.00	21.82	21.78	21.79
	3/3	24.00	22.86	22.81	22.79		8/7	23.00	21.77	21.73	21.74
	6/0	23.00	21.78	21.77	21.74		15/0	23.00	21.77	21.74	21.75
16QAM	1/0	23.00	21.79	21.82	22.06	16QAM	1/0	23.00	21.71	22.10	21.78
	1/2	23.00	21.86	21.92	22.12		1/7	23.00	21.82	22.26	21.89
	1/5	23.00	21.76	21.81	22.04		1/14	23.00	21.68	22.09	21.68
	3/0	23.00	22.00	21.84	21.97		8/0	22.00	20.90	20.88	20.84
	3/1	23.00	22.07	21.89	21.99		8/3	22.00	20.93	20.88	20.86
	3/3	23.00	22.03	21.86	22.00		8/7	22.00	20.88	20.85	20.77
	6/0	22.00	20.96	20.90	20.65		15/0	22.00	20.83	20.80	20.74
64QAM	1/0	22.00	21.04	21.16	20.92	64QAM	1/0	22.00	21.19	20.95	21.03
	1/2	22.00	21.08	21.34	21.03		1/7	22.00	21.30	21.04	21.16
	1/5	22.00	21.03	21.14	20.88		1/14	22.00	21.13	20.93	20.91
	3/0	22.00	20.85	21.30	20.97		8/0	21.00	19.98	19.89	19.85
	3/1	22.00	20.90	21.24	21.02		8/3	21.00	20.02	19.93	19.87
	3/3	22.00	20.88	21.23	20.98		8/7	21.00	19.94	19.87	19.80
	6/0	21.00	19.96	19.84	20.15		15/0	21.00	19.89	19.91	19.91

LTE B12/BW=5M		Average Conducted Power(dBm)				LTE B12/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23035/ 701.5	23095/ 707.5	23155/ 713.5				23060/ 704	23095/ 707.5	23130/ 711
QPSK	1/0	24.00	22.77	22.67	22.70	QPSK	1/0	24.00	22.72	22.80	22.69
	1/12	24.00	22.84	22.79	22.80		1/24	24.00	22.89	**22.94**	22.89
	1/24	24.00	22.73	22.69	22.68		1/49	24.00	22.70	22.81	22.69
	12/0	23.00	21.77	21.78	21.76		25/0	23.00	21.81	**21.85**	21.79
	12/6	23.00	21.82	21.80	21.78		25/12	23.00	21.82	21.82	21.79
	12/13	23.00	21.77	21.79	21.78		25/25	23.00	21.76	21.77	21.77
	25/0	23.00	21.74	21.76	21.72		50/0	23.00	21.81	21.81	21.80
16QAM	1/0	23.00	21.85	22.21	21.75	16QAM	1/0	23.00	21.68	22.13	21.74
	1/12	23.00	21.95	22.28	21.88		1/24	23.00	21.84	22.29	21.93
	1/24	23.00	21.85	22.18	21.72		1/49	23.00	21.65	22.14	21.71
	12/0	22.00	20.85	20.94	20.82		25/0	22.00	20.88	20.94	20.91
	12/6	22.00	20.89	20.97	20.84		25/12	22.00	20.88	20.90	20.92
	12/13	22.00	20.85	20.94	20.83		25/25	22.00	20.86	20.88	20.88
	25/0	22.00	20.80	20.87	20.70		50/0	22.00	20.84	20.86	20.87
64QAM	1/0	22.00	20.72	21.06	20.97	64QAM	1/0	22.00	21.16	20.98	21.01
	1/12	22.00	20.80	21.18	21.08		1/24	22.00	21.33	21.13	21.22
	1/24	22.00	20.70	21.08	20.91		1/49	22.00	21.15	20.96	20.96
	12/0	21.00	19.94	19.84	19.90		25/0	21.00	20.01	20.08	20.05
	12/6	21.00	19.99	19.86	19.95		25/12	21.00	20.01	20.03	20.03
	12/13	21.00	19.94	19.85	19.95		25/25	21.00	19.99	20.01	19.98
	25/0	21.00	19.88	19.85	19.87		50/0	21.00	19.96	19.98	19.94

Second antenna

LTE B12/BW=1.4M		Average Conducted Power(dBm)				LTE B12/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23017/ 699.7	23095/ 707.5	23173/ 715.3				23025/ 700.5	23095/ 707.5	23165/ 714.5
QPSK	1/0	24.00	22.74	22.80	22.76	QPSK	1/0	24.00	22.73	22.88	22.80
	1/2	24.00	22.87	22.92	22.92		1/7	24.00	22.98	23.00	22.90
	1/5	24.00	22.79	22.80	22.75		1/14	24.00	22.84	22.87	22.74
	3/0	24.00	22.90	22.88	22.88		8/0	23.00	21.84	21.84	21.81
	3/1	24.00	22.95	22.94	22.94		8/3	23.00	21.89	21.89	21.83
	3/3	24.00	22.97	22.93	22.84		8/7	23.00	21.85	21.84	21.81
	6/0	23.00	21.84	21.85	21.85		15/0	23.00	21.88	21.88	21.79
16QAM	1/0	23.00	22.19	21.85	21.82	16QAM	1/0	23.00	21.74	22.16	21.86
	1/2	23.00	22.28	21.90	21.95		1/7	23.00	21.92	22.35	21.95
	1/5	23.00	22.22	21.87	21.80		1/14	23.00	21.74	22.20	21.73
	3/0	23.00	22.11	22.08	21.87		8/0	22.00	20.98	20.95	20.84
	3/1	23.00	22.14	22.14	21.92		8/3	22.00	21.04	21.00	20.89
	3/3	23.00	22.15	22.11	21.86		8/7	22.00	20.98	20.96	20.84
	6/0	22.00	20.77	21.03	20.97		15/0	22.00	20.94	20.93	20.77
64QAM	1/0	22.00	20.98	21.16	20.91	64QAM	1/0	22.00	21.13	20.93	21.04
	1/2	22.00	21.07	21.35	21.05		1/7	22.00	21.32	21.08	21.13
	1/5	22.00	21.03	21.16	20.88		1/14	22.00	21.16	20.97	20.94
	3/0	22.00	20.85	21.23	21.01		8/0	21.00	20.00	19.93	19.83
	3/1	22.00	20.94	21.29	21.05		8/3	21.00	20.05	20.00	19.85
	3/3	22.00	20.91	21.27	21.01		8/7	21.00	19.97	19.94	19.83
	6/0	21.00	19.98	19.90	20.17		15/0	21.00	19.96	19.99	19.92

LTE B12/BW=5M		Average Conducted Power(dBm)				LTE B12/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			23035/ 701.5	23095/ 707.5	23155/ 713.5				23060/ 704	23095/ 707.5	23130/ 711
QPSK	1/0	24.00	22.82	22.77	22.71	QPSK	1/0	24.00	22.71	22.81	22.74
	1/12	24.00	22.98	22.83	22.89		1/24	24.00	22.91	**22.97**	22.85
	1/24	24.00	22.84	22.72	22.73		1/49	24.00	22.78	22.86	22.74
	12/0	23.00	21.86	21.86	21.80		25/0	23.00	21.87	21.87	21.84
	12/6	23.00	21.92	21.91	21.87		25/12	23.00	21.84	**21.89**	21.84
	12/13	23.00	21.87	21.90	21.83		25/25	23.00	21.80	21.81	21.79
	25/0	23.00	21.83	21.87	21.78		50/0	23.00	21.83	21.86	21.82
16QAM	1/0	23.00	21.90	22.27	21.83	16QAM	1/0	23.00	21.67	22.13	21.74
	1/12	23.00	22.01	22.37	21.93		1/24	23.00	21.87	22.30	21.90
	1/24	23.00	21.91	22.23	21.79		1/49	23.00	21.71	22.20	21.70
	12/0	22.00	20.91	21.03	20.85		25/0	22.00	20.89	20.92	20.96
	12/6	22.00	21.01	21.07	20.93		25/12	22.00	20.92	20.94	20.95
	12/13	22.00	20.96	21.03	20.86		25/25	22.00	20.87	20.89	20.88
	25/0	22.00	20.85	20.98	20.78		50/0	22.00	20.86	20.91	20.86
64QAM	1/0	22.00	20.69	21.07	20.94	64QAM	1/0	22.00	20.97	21.10	20.87
	1/12	22.00	20.81	21.18	21.12		1/24	22.00	21.15	21.23	21.02
	1/24	22.00	20.69	21.06	20.90		1/49	22.00	21.01	21.12	20.90
	12/0	21.00	19.95	19.85	19.95		25/0	21.00	20.04	19.96	20.04
	12/6	21.00	20.00	19.91	20.00		25/12	21.00	20.03	20.00	20.01
	12/13	21.00	19.94	19.88	19.94		25/25	21.00	20.02	19.96	19.96
	25/0	21.00	19.89	19.90	19.90		50/0	21.00	19.95	19.94	19.95

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B12 main antenna and second antenna are the same.

6. Conducted power measurement results of LTE B26

Main antenna

LTE B26/BW=1.4M		Average Conducted Power(dBm)				LTE B26/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26697/ 814.7	26865/ 831	27033/ 848.3				26705/ 815.5	26865/ 831	27025/ 847.5
QPSK	1/0	24.00	22.73	22.61	22.72	QPSK	1/0	24.00	22.97	22.87	22.70
	1/2	24.00	22.84	22.72	22.88		1/7	24.00	23.20	23.13	22.74
	1/5	24.00	22.69	22.60	22.59		1/14	24.00	22.98	22.84	22.69
	3/0	24.00	22.72	22.72	22.39		8/0	23.00	22.02	21.95	21.58
	3/1	24.00	22.72	22.71	22.21		8/3	23.00	22.07	21.98	21.63
	3/3	24.00	22.69	22.72	22.21		8/7	23.00	22.04	21.93	21.62
	6/0	23.00	21.69	21.65	21.18		15/0	23.00	21.99	21.92	21.58
16QAM	1/0	23.00	21.43	21.48	21.42	16QAM	1/0	23.00	22.17	22.18	21.64
	1/2	23.00	21.57	21.60	21.61		1/7	23.00	22.39	22.32	21.60
	1/5	23.00	21.44	21.46	21.40		1/14	23.00	22.15	22.09	21.30
	3/0	23.00	21.51	21.49	21.47		8/0	22.00	21.13	21.05	20.73
	3/1	23.00	21.51	21.48	21.38		8/3	22.00	21.16	21.08	20.67
	3/3	23.00	21.51	21.51	21.42		8/7	22.00	21.18	21.03	20.62
	6/0	22.00	20.54	20.51	20.52		15/0	22.00	21.09	20.92	20.62
64QAM	1/0	22.00	21.26	21.29	21.21	64QAM	1/0	22.00	20.92	21.17	21.42
	1/2	22.00	21.34	21.42	21.32		1/7	22.00	21.12	21.36	21.52
	1/5	22.00	21.28	21.30	21.14		1/14	22.00	20.91	21.14	21.38
	3/0	22.00	21.16	21.28	21.25		8/0	21.00	20.09	19.97	20.16
	3/1	22.00	21.19	21.42	21.30		8/3	21.00	20.14	19.98	20.16
	3/3	22.00	21.14	21.35	21.29		8/7	21.00	20.12	19.92	20.07
	6/0	21.00	20.19	20.13	20.39		15/0	21.00	19.99	19.89	20.04

LTE B26/BW=5M		Average Conducted Power(dBm)				LTE B26/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26715/ 816.5	26865/ 831	27015/ 846.5				26740/ 819	26865/ 831	26990/ 844
QPSK	1/0	24.00	22.88	22.90	22.67	QPSK	1/0	24.00	22.67	22.95	22.66
	1/12	24.00	23.01	22.97	22.76		1/24	24.00	22.80	23.05	22.73
	1/24	24.00	22.87	22.88	22.69		1/49	24.00	22.69	23.00	22.68
	12/0	23.00	21.98	21.87	21.72		25/0	23.00	21.60	21.97	21.80
	12/6	23.00	22.07	21.96	21.74		25/12	23.00	21.60	22.04	21.81
	12/13	23.00	22.08	21.94	21.72		25/25	23.00	21.69	21.99	21.64
	25/0	23.00	22.06	21.91	21.73		50/0	23.00	21.62	22.01	21.69
16QAM	1/0	23.00	22.18	22.10	21.55	16QAM	1/0	23.00	21.46	22.17	21.62
	1/12	23.00	22.34	22.16	21.68		1/24	23.00	21.57	22.26	21.71
	1/24	23.00	22.27	22.06	21.55		1/49	23.00	21.51	22.14	21.61
	12/0	22.00	21.08	20.85	20.72		25/0	22.00	20.70	21.02	20.78
	12/6	22.00	21.19	20.94	20.67		25/12	22.00	20.68	21.08	20.78
	12/13	22.00	21.20	20.93	20.67		25/25	22.00	20.74	21.03	20.65
	25/0	22.00	21.13	20.97	20.73		50/0	22.00	20.68	21.11	20.72
64QAM	1/0	22.00	21.07	20.90	20.98	64QAM	1/0	22.00	20.92	21.04	21.40
	1/12	22.00	21.14	21.00	21.13		1/24	22.00	20.99	21.17	20.57
	1/24	22.00	21.09	20.86	20.94		1/49	22.00	20.88	20.99	21.39
	12/0	21.00	20.04	19.85	20.17		25/0	21.00	20.09	19.99	20.24
	12/6	21.00	20.11	19.97	20.23		25/12	21.00	20.14	20.07	20.21
	12/13	21.00	20.15	19.95	20.15		25/25	21.00	20.11	19.98	20.10
	25/0	21.00	20.19	19.98	20.10		50/0	21.00	20.02	20.01	20.12

LTE B26/BW=15M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26765/ 821.5	26865/ 831	26965/ 841.5
QPSK	1/0	24.00	23.01	23.01	23.08
	1/37	24.00	23.03	**23.15**	23.10
	1/74	24.00	22.98	23.07	23.01
	36/0	23.00	22.04	22.19	22.21
	36/19	23.00	22.07	22.18	22.21
	36/39	23.00	22.07	22.20	**22.23**
	75/0	23.00	22.05	22.27	22.20
16QAM	1/0	23.00	21.81	21.99	21.81
	1/37	23.00	21.94	22.15	21.86
	1/74	23.00	21.75	22.01	21.73
	36/0	22.00	21.15	21.20	21.19
	36/19	22.00	21.17	21.20	21.13
	36/39	22.00	21.11	21.19	21.17
	75/0	22.00	21.11	21.21	21.21
64QAM	1/0	22.00	21.56	21.53	21.55
	1/37	22.00	21.68	21.66	21.63
	1/74	22.00	21.50	21.53	21.49
	36/0	21.00	20.51	20.64	20.54
	36/19	21.00	20.54	20.62	20.62
	36/39	21.00	20.53	20.59	20.58
	75/0	21.00	20.47	20.61	20.52

Second antenna

LTE B26/BW=1.4M		Average Conducted Power(dBm)				LTE B26/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26697/ 814.7	26865/ 831	27033/ 848.3				26705/ 815.5	26865/ 831	27025/ 847.5
QPSK	1/0	24.00	23.11	23.08	22.96	QPSK	1/0	24.00	23.04	23.09	23.05
	1/2	24.00	23.20	23.17	23.10		1/7	24.00	23.18	23.21	23.13
	1/5	24.00	23.07	23.06	22.99		1/14	24.00	23.06	23.11	23.00
	3/0	24.00	23.12	23.13	23.01		8/0	23.00	22.06	22.02	22.07
	3/1	24.00	23.16	23.19	23.08		8/3	23.00	22.08	22.07	22.08
	3/3	24.00	23.14	23.12	23.05		8/7	23.00	22.02	22.05	21.99
	6/0	23.00	22.12	22.06	22.09		15/0	23.00	22.05	22.06	22.02
16QAM	1/0	23.00	22.34	22.04	21.96	16QAM	1/0	23.00	21.98	22.40	22.01
	1/2	23.00	22.43	22.12	22.07		1/7	23.00	22.07	22.55	22.07
	1/5	23.00	22.32	22.05	21.96		1/14	23.00	21.90	22.41	21.88
	3/0	23.00	22.30	22.25	22.01		8/0	22.00	21.21	21.17	21.10
	3/1	23.00	22.28	22.33	22.02		8/3	22.00	21.24	21.21	21.11
	3/3	23.00	22.27	22.28	21.97		8/7	22.00	21.24	21.16	21.04
	6/0	22.00	21.01	21.26	21.18		15/0	22.00	21.15	21.13	21.01
64QAM	1/0	22.00	21.36	21.19	21.15	64QAM	1/0	22.00	21.45	21.17	21.28
	1/2	22.00	21.57	21.29	21.22		1/7	22.00	21.55	21.32	21.29
	1/5	22.00	21.39	21.17	21.13		1/14	22.00	21.40	21.21	21.12
	3/0	22.00	21.43	21.27	21.04		8/0	21.00	20.15	20.08	19.97
	3/1	22.00	21.48	21.31	21.07		8/3	21.00	20.19	20.14	19.99
	3/3	22.00	21.45	21.28	21.00		8/7	21.00	20.16	20.13	19.91
	6/0	21.00	20.05	20.38	20.09		15/0	21.00	20.12	20.12	20.02

LTE B26/BW=5M		Average Conducted Power(dBm)				LTE B26/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26715/ 816.5	26865/ 831	27015/ 846.5				26740/ 819	26865/ 831	26990/ 844
QPSK	1/0	24.00	23.09	22.96	22.97	QPSK	1/0	24.00	23.14	23.09	23.03
	1/12	24.00	23.19	23.07	23.11		1/24	24.00	23.24	23.22	23.15
	1/24	24.00	23.10	22.99	22.99		1/49	24.00	23.05	23.10	23.04
	12/0	23.00	22.02	22.01	22.04		25/0	23.00	22.04	22.09	22.12
	12/6	23.00	22.09	22.08	22.09		25/12	23.00	22.10	22.10	22.08
	12/13	23.00	22.11	22.14	22.03		25/25	23.00	22.10	22.14	21.96
	25/0	23.00	22.06	22.03	22.02		50/0	23.00	22.04	22.11	22.03
16QAM	1/0	23.00	22.10	22.47	22.03	16QAM	1/0	23.00	21.97	22.41	22.00
	1/12	23.00	22.20	22.58	22.10		1/24	23.00	22.11	22.51	22.10
	1/24	23.00	22.13	22.46	21.93		1/49	23.00	21.94	22.37	21.91
	12/0	22.00	21.10	21.15	21.06		25/0	22.00	21.08	21.25	21.24
	12/6	22.00	21.22	21.28	21.14		25/12	22.00	21.17	21.20	21.22
	12/13	22.00	21.23	21.30	21.07		25/25	22.00	21.15	21.24	21.09
	25/0	22.00	21.13	21.17	21.00		50/0	22.00	21.08	21.18	21.13
64QAM	1/0	22.00	20.97	21.28	21.20	64QAM	1/0	22.00	21.43	21.24	21.23
	1/12	22.00	21.07	21.42	21.28		1/24	22.00	21.56	21.40	21.35
	1/24	22.00	20.97	21.34	21.14		1/49	22.00	21.38	21.22	21.17
	12/0	21.00	20.07	19.99	20.10		25/0	21.00	20.10	20.26	20.23
	12/6	21.00	20.16	20.05	20.12		25/12	21.00	20.19	20.20	20.19
	12/13	21.00	20.17	20.08	20.05		25/25	21.00	20.15	20.24	20.05
	25/0	21.00	20.04	20.02	20.01		50/0	21.00	20.09	20.20	20.05

LTE B26/BW=15M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			26765/ 821.5	26865/ 831	26965/ 841.5
QPSK	1/0	24.00	23.00	23.03	23.00
	1/37	24.00	23.03	**23.10**	23.07
	1/74	24.00	22.88	22.99	23.02
	36/0	23.00	22.03	22.99	22.15
	36/19	23.00	22.13	22.12	22.12
	36/39	23.00	22.07	**22.17**	22.09
	75/0	23.00	22.06	22.15	22.13
16QAM	1/0	23.00	21.86	21.92	22.37
	1/37	23.00	21.95	22.00	22.35
	1/74	23.00	21.82	21.83	22.22
	36/0	22.00	21.03	21.83	21.16
	36/19	22.00	21.12	21.15	21.17
	36/39	22.00	21.08	21.14	21.10
	75/0	22.00	21.08	21.19	21.13
64QAM	1/0	22.00	21.63	21.33	21.17
	1/37	22.00	21.68	21.41	21.14
	1/74	22.00	21.62	21.28	21.05
	36/0	21.00	20.04	20.28	20.21
	36/19	21.00	20.13	20.17	20.15
	36/39	21.00	20.06	20.18	20.10
	75/0	21.00	20.10	20.18	20.13

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B26 main antenna and second antenna are the same.

7. Conducted power measurement results of LTE B38

Main antenna

LTE B38/BW=5M		Average Conducted Power(dBm)				LTE B38/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37775/ 2572.5	38000/ 2595	38225/ 2617.5				37800/ 2575	38000/ 2595	38200/ 2615
QPSK	1/0	24.00	22.88	22.85	22.90	QPSK	1/0	24.00	22.96	23.09	22.99
	1/12	24.00	23.00	23.00	23.02		1/24	24.00	23.21	23.37	23.26
	1/24	24.00	22.83	22.85	22.91		1/49	24.00	22.95	23.05	22.99
	12/0	23.00	22.00	21.96	21.99		25/0	23.00	22.04	22.05	22.03
	12/6	23.00	22.03	22.00	22.06		25/12	23.00	22.04	22.04	22.06
	12/13	23.00	22.06	22.02	22.06		25/25	23.00	22.05	22.03	22.06
	25/0	23.00	21.99	21.99	22.00		50/0	23.00	22.03	22.02	22.02
16QAM	1/0	23.00	22.32	22.10	22.15	16QAM	1/0	23.00	22.30	22.43	22.36
	1/12	23.00	22.45	22.24	22.30		1/24	23.00	22.54	22.67	22.65
	1/24	23.00	22.30	22.08	22.17		1/49	23.00	22.29	22.40	22.36
	12/0	22.00	21.15	21.06	21.01		25/0	22.00	21.14	21.13	21.12
	12/6	22.00	21.19	21.12	21.08		25/12	22.00	21.11	21.11	21.12
	12/13	22.00	21.19	21.12	21.08		25/25	22.00	21.16	21.10	21.13
	25/0	22.00	21.09	21.05	21.09		50/0	22.00	21.12	21.11	21.15
64QAM	1/0	22.00	21.31	21.03	21.52	64QAM	1/0	22.00	20.92	21.59	21.28
	1/12	22.00	21.45	21.17	21.63		1/24	22.00	21.17	21.83	21.54
	1/24	22.00	21.31	21.00	21.51		1/49	22.00	20.92	21.56	21.28
	12/0	21.00	19.95	19.93	20.05		25/0	21.00	20.09	19.97	19.92
	12/6	21.00	19.98	19.95	20.10		25/12	21.00	20.08	19.96	19.91
	12/13	21.00	19.96	19.95	20.09		25/25	21.00	20.09	19.95	19.92
	25/0	21.00	19.91	19.96	19.92		50/0	21.00	20.04	19.94	19.93

LTE B38/BW=15M		Average Conducted Power(dBm)				LTE B38/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37825/ 2577.5	38000/ 2595	38175/ 2612.5				37850/ 2580	38000/ 2595	38150/ 2610
QPSK	1/0	24.00	22.88	22.99	22.94	QPSK	1/0	24.00	22.77	22.80	22.80
	1/37	24.00	22.96	23.10	23.02		1/50	24.00	**23.28**	**23.30**	**23.24**
	1/74	24.00	22.81	22.92	22.92		1/99	24.00	22.69	22.76	22.75
	36/0	23.00	22.05	22.05	22.08		50/0	23.00	22.05	22.05	22.07
	36/19	23.00	22.07	22.06	22.06		50/25	23.00	22.09	**22.12**	22.09
	36/39	23.00	22.07	22.05	22.05		50/50	23.00	22.02	22.05	22.00
	75/0	23.00	22.04	22.06	22.07		100/0	23.00	**22.08**	22.07	22.04
16QAM	1/0	23.00	22.24	22.36	22.23	16QAM	1/0	23.00	22.12	21.97	22.05
	1/37	23.00	22.28	22.45	22.32		1/50	23.00	22.59	22.42	22.51
	1/74	23.00	22.12	22.29	22.20		1/99	23.00	22.02	21.89	22.05
	36/0	22.00	21.04	21.05	21.09		50/0	22.00	21.02	21.05	21.04
	36/19	22.00	21.06	21.06	21.08		50/25	22.00	21.06	21.09	21.05
	36/39	22.00	21.07	21.02	21.06		50/50	22.00	21.06	21.01	20.98
	75/0	22.00	21.10	21.08	21.10		100/0	22.00	21.04	21.06	21.01
64QAM	1/0	22.00	20.87	21.55	21.08	64QAM	1/0	22.00	21.42	20.95	21.20
	1/37	22.00	20.92	21.64	21.15		1/50	22.00	21.89	21.42	21.64
	1/74	22.00	20.78	21.48	21.04		1/99	22.00	21.33	20.89	21.19
	36/0	21.00	20.10	20.11	20.01		50/0	21.00	19.96	19.92	19.97
	36/19	21.00	20.14	20.14	20.00		50/25	21.00	20.02	19.97	19.98
	36/39	21.00	20.14	20.11	19.97		50/50	21.00	20.01	19.92	19.90
	75/0	21.00	20.05	20.07	20.05		100/0	21.00	19.96	19.93	19.93

Second antenna_Receiver on

LTE B38/BW=5M		Average Conducted Power(dBm)				LTE B38/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37775/ 2572.5	38000/ 2595	38225/ 2617.5				37800/ 2575	38000/ 2595	38200/ 2615
QPSK	1/0	18.50	17.44	17.32	17.31	QPSK	1/0	18.50	17.45	17.59	17.40
	1/12	18.50	17.55	17.46	17.42		1/24	18.50	17.72	17.84	17.66
	1/24	18.50	17.38	17.28	17.28		1/49	18.50	17.39	17.53	17.33
	12/0	18.50	17.53	17.47	17.40		25/0	18.50	17.58	17.57	17.49
	12/6	18.50	17.60	17.54	17.48		25/12	18.50	17.59	17.52	17.49
	12/13	18.50	17.62	17.51	17.47		25/25	18.50	17.55	17.51	17.48
	25/0	18.50	17.56	17.49	17.42		50/0	18.50	17.51	17.51	17.42
16QAM	1/0	18.50	17.91	17.64	17.60	16QAM	1/0	18.50	17.86	17.97	17.90
	1/12	18.50	18.03	17.77	17.78		1/24	18.50	17.88	18.04	17.96
	1/24	18.50	17.88	17.60	17.62		1/49	18.50	17.79	17.96	17.86
	12/0	18.50	17.69	17.54	17.41		25/0	18.50	17.65	17.59	17.56
	12/6	18.50	17.73	17.54	17.47		25/12	18.50	17.62	17.56	17.54
	12/13	18.50	17.72	17.57	17.48		25/25	18.50	17.62	17.56	17.55
	25/0	18.50	17.61	17.49	17.49		50/0	18.50	17.57	17.52	17.54
64QAM	1/0	18.50	18.09	17.72	17.43	64QAM	1/0	18.50	17.41	18.07	17.75
	1/12	18.50	17.99	17.87	17.58		1/24	18.50	17.65	18.13	17.80
	1/24	18.50	18.03	17.70	17.41		1/49	18.50	17.30	18.00	17.68
	12/0	18.50	17.69	17.48	17.43		25/0	18.50	17.65	17.59	17.46
	12/6	18.50	17.75	17.49	17.51		25/12	18.50	17.67	17.52	17.45
	12/13	18.50	17.74	17.51	17.51		25/25	18.50	17.64	17.53	17.47
	25/0	18.50	17.57	17.41	17.54		50/0	18.50	17.55	17.48	17.49

LTE B38/BW=15M		Average Conducted Power(dBm)				LTE B38/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37825/ 2577.5	38000/ 2595	38175/ 2612.5				37850/ 2580	38000/ 2595	38150/ 2610
QPSK	1/0	18.50	17.40	17.48	17.34	QPSK	1/0	18.50	17.29	17.25	17.25
	1/37	18.50	17.43	17.56	17.39		1/50	18.50	17.74	**17.76**	17.72
	1/74	18.50	17.28	17.39	17.25		1/99	18.50	17.17	17.16	17.15
	36/0	18.50	17.52	17.51	17.42		50/0	18.50	17.54	17.48	17.46
	36/19	18.50	17.55	17.52	17.43		50/25	18.50	**17.67**	17.50	17.54
	36/39	18.50	17.49	17.46	17.38		50/50	18.50	17.51	17.42	17.37
	75/0	18.50	17.49	17.51	17.41		100/0	18.50	17.49	17.49	17.42
16QAM	1/0	18.50	17.80	17.94	17.75	16QAM	1/0	18.50	17.64	17.47	17.50
	1/37	18.50	17.83	18.02	17.82		1/50	18.50	17.89	17.76	17.76
	1/74	18.50	17.68	17.86	17.65		1/99	18.50	17.54	17.41	17.41
	36/0	18.50	17.54	17.52	17.49		50/0	18.50	17.54	17.52	17.53
	36/19	18.50	17.54	17.52	17.49		50/25	18.50	17.55	17.52	17.53
	36/39	18.50	17.48	17.47	17.47		50/50	18.50	17.53	17.47	17.48
	75/0	18.50	17.54	17.53	17.48		100/0	18.50	17.51	17.52	17.51
64QAM	1/0	18.50	17.35	18.00	17.52	64QAM	1/0	18.50	17.76	17.81	17.38
	1/37	18.50	17.39	18.11	17.56		1/50	18.50	18.00	18.11	17.84
	1/74	18.50	17.21	17.93	17.42		1/99	18.50	17.64	17.75	17.29
	36/0	18.50	17.59	17.59	17.42		50/0	18.50	17.63	17.50	17.54
	36/19	18.50	17.63	17.60	17.41		50/25	18.50	17.63	17.54	17.49
	36/39	18.50	17.58	17.54	17.37		50/50	18.50	17.59	17.47	17.46
	75/0	18.50	17.53	17.55	17.48		100/0	18.50	17.60	17.51	17.48

Second antenna_Receiver off

LTE B38/BW=5M		Average Conducted Power(dBm)				LTE B38/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37775/ 2572.5	38000/ 2595	38225/ 2617.5				37800/ 2575	38000/ 2595	38200/ 2615
QPSK	1/0	24.00	22.95	22.95	22.83	QPSK	1/0	24.00	23.03	23.14	22.96
	1/12	24.00	23.06	23.08	22.96		1/24	24.00	23.30	23.43	23.25
	1/24	24.00	22.91	22.91	22.83		1/49	24.00	22.94	23.07	22.92
	12/0	23.00	22.05	22.01	21.94		25/0	23.00	22.11	22.09	22.06
	12/6	23.00	22.12	22.08	22.03		25/12	23.00	22.13	22.10	22.03
	12/13	23.00	22.12	22.07	22.00		25/25	23.00	22.10	22.05	22.05
	25/0	23.00	22.08	22.01	21.98		50/0	23.00	22.10	22.07	21.99
16QAM	1/0	23.00	22.39	22.18	22.14	16QAM	1/0	23.00	22.37	22.48	22.39
	1/12	23.00	22.51	22.31	22.29		1/24	23.00	22.63	22.75	22.68
	1/24	23.00	22.37	22.13	22.15		1/49	23.00	22.29	22.42	22.37
	12/0	22.00	21.22	21.12	20.98		25/0	22.00	21.19	21.19	21.15
	12/6	22.00	21.27	21.17	21.06		25/12	22.00	21.21	21.16	21.12
	12/13	22.00	21.29	21.16	21.05		25/25	22.00	21.20	21.13	21.11
	25/0	22.00	21.18	21.08	21.08		50/0	22.00	21.17	21.14	21.08
64QAM	1/0	22.00	21.60	21.25	20.93	64QAM	1/0	22.00	20.98	21.61	21.23
	1/12	22.00	21.74	21.39	21.10		1/24	22.00	21.21	21.88	21.50
	1/24	22.00	21.57	21.21	20.93		1/49	22.00	20.90	21.56	21.19
	12/0	21.00	20.12	19.91	19.86		25/0	21.00	20.10	20.01	19.89
	12/6	21.00	20.18	19.96	19.93		25/12	21.00	20.11	20.02	19.89
	12/13	21.00	20.22	19.90	19.93		25/25	21.00	20.10	19.96	19.89
	25/0	21.00	20.01	19.83	19.93		50/0	21.00	20.03	19.98	19.92

LTE B38/BW=15M		Average Conducted Power(dBm)				LTE B38/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			37825/ 2577.5	38000/ 2595	38175/ 2612.5				37850/ 2580	38000/ 2595	38150/ 2610
QPSK	1/0	24.00	22.94	23.03	22.92	QPSK	1/0	24.00	22.82	22.84	22.78
	1/37	24.00	23.01	23.12	23.01		1/50	24.00	**23.30**	**23.35**	**23.27**
	1/74	24.00	22.83	22.97	22.83		1/99	24.00	22.68	22.74	22.69
	36/0	23.00	22.10	22.10	22.03		50/0	23.00	22.01	22.00	21.96
	36/19	23.00	22.12	22.11	22.02		50/25	23.00	**22.06**	**22.03**	**21.97**
	36/39	23.00	22.09	22.07	22.00		50/50	23.00	22.01	21.96	21.89
	75/0	23.00	22.10	22.09	22.02		100/0	23.00	**22.02**	22.01	21.94
16QAM	1/0	23.00	22.26	22.41	22.25	16QAM	1/0	23.00	22.15	22.00	22.15
	1/37	23.00	22.35	22.49	22.32		1/50	23.00	22.59	22.45	22.64
	1/74	23.00	22.17	22.33	22.16		1/99	23.00	22.03	21.89	22.09
	36/0	22.00	21.10	21.09	21.08		50/0	22.00	21.09	21.09	21.08
	36/19	22.00	21.13	21.10	21.07		50/25	22.00	21.13	21.14	21.07
	36/39	22.00	21.09	21.02	21.01		50/50	22.00	21.07	21.04	20.99
	75/0	22.00	21.14	21.12	21.04		100/0	22.00	21.06	21.07	21.01
64QAM	1/0	22.00	20.88	21.51	21.01	64QAM	1/0	22.00	21.45	20.91	21.17
	1/37	22.00	20.93	21.61	21.09		1/50	22.00	21.90	21.41	21.64
	1/74	22.00	20.77	21.45	20.92		1/99	22.00	21.34	20.85	21.11
	36/0	21.00	20.11	20.12	19.94		50/0	21.00	19.99	19.95	19.95
	36/19	21.00	20.14	20.09	19.93		50/25	21.00	20.04	19.97	19.97
	36/39	21.00	20.12	20.07	19.88		50/50	21.00	20.01	19.89	19.91
	75/0	21.00	20.08	20.06	19.97		100/0	21.00	19.99	19.94	19.93

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B38 second antenna is the same.

8. Conducted power measurement results of LTE B41

Main antenna

LTE B41/ BW=5M		Average Conducted Power(dBm)					LTE B41/ BW=10M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40065/ 2537.5	40440/ 2575	40840/ 2615	41215/ 2652.5				40090/ 2540	40440/ 2575	40840/ 2615	41190/ 2650
QPSK	1/0	24.00	22.94	22.95	22.97	23.01	QPSK	1/0	24.00	23.17	22.98	23.10	23.05
	1/12	24.00	23.06	22.97	23.31	23.10		1/24	24.00	23.42	23.10	23.18	23.29
	1/24	24.00	22.92	22.92	22.96	22.99		1/49	24.00	23.15	22.99	23.06	22.96
	12/0	23.00	22.00	22.01	22.05	21.98		25/0	23.00	22.16	22.01	22.07	22.09
	12/6	23.00	22.06	22.06	22.07	22.01		25/12	23.00	22.15	22.05	22.08	22.08
	12/13	23.00	22.10	22.04	21.99	22.00		25/25	23.00	22.22	22.07	22.04	22.03
	25/0	23.00	22.01	22.02	22.01	21.96		50/0	23.00	22.18	22.04	22.20	22.06
16QAM	1/0	23.00	22.32	22.29	22.20	22.11	16QAM	1/0	23.00	22.20	22.30	22.48	22.27
	1/12	23.00	22.44	22.61	22.55	22.26		1/24	23.00	22.30	22.41	22.57	22.44
	1/24	23.00	22.34	22.27	22.19	22.09		1/49	23.00	22.13	22.32	22.44	22.17
	12/0	22.00	21.14	21.08	21.07	21.20		25/0	22.00	21.15	21.09	21.15	21.28
	12/6	22.00	21.19	21.15	21.09	21.15		25/12	22.00	21.19	21.16	21.10	21.28
	12/13	22.00	21.20	21.10	21.02	21.18		25/25	22.00	21.24	21.15	21.12	21.23
	25/0	22.00	21.07	21.08	21.07	21.22		50/0	22.00	21.17	21.10	21.14	21.28
64QAM	1/0	22.00	21.30	21.02	21.45	20.98	64QAM	1/0	22.00	20.92	20.97	21.50	20.82
	1/12	22.00	21.44	21.68	21.70	21.09		1/24	22.00	21.22	21.06	21.59	21.10
	1/24	22.00	21.33	21.24	21.35	20.95		1/49	22.00	20.91	20.95	21.47	20.76
	12/0	21.00	19.92	19.95	19.99	19.86		25/0	21.00	20.00	19.99	20.02	19.99
	12/6	21.00	19.97	20.01	20.07	19.91		25/12	21.00	19.99	20.02	20.00	19.98
	12/13	21.00	19.99	19.97	19.95	19.89		25/25	21.00	20.06	20.08	19.98	19.95
	25/0	21.00	19.86	20.02	19.89	19.90		50/0	21.00	20.02	19.96	19.99	19.93

LTE B41/ BW=15M		Average Conducted Power(dBm)					LTE B41/ BW=20M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40115/ 2542.5	40440/ 2575	40840/ 2615	41165/ 2647.5				40140/ 2545	40440/ 2575	40840/ 2615	41140/ 2645
QPSK	1/0	24.00	23.05	22.92	23.03	22.98	QPSK	1/0	24.00	22.89	22.74	22.77	22.96
	1/37	24.00	23.13	23.23	23.32	23.04		1/50	24.00	**23.36**	**23.20**	**23.26**	**23.35**
	1/74	24.00	22.94	22.87	22.96	22.85		1/99	24.00	22.78	22.70	22.75	22.79
	36/0	23.00	22.15	22.05	22.12	22.10		50/0	23.00	22.09	22.00	22.13	22.10
	36/19	23.00	22.12	22.10	22.10	22.08		50/25	23.00	**22.21**	**22.10**	**22.15**	**22.19**
	36/39	23.00	22.16	22.08	22.06	22.08		50/50	23.00	22.12	22.01	22.03	22.06
	75/0	23.00	22.13	22.06	22.08	22.11		100/0	23.00	**22.15**	22.05	22.09	22.13
16QAM	1/0	23.00	22.27	22.26	22.43	22.21	16QAM	1/0	23.00	21.97	22.01	22.00	22.04
	1/37	23.00	22.30	22.54	22.75	22.23		1/50	23.00	22.40	22.40	22.54	22.29
	1/74	23.00	22.15	22.18	22.36	22.02		1/99	23.00	21.87	21.95	22.02	21.82
	36/0	22.00	21.30	21.10	21.08	21.28		50/0	22.00	21.25	20.97	21.04	21.27
	36/19	22.00	21.30	20.92	21.11	21.28		50/25	22.00	21.23	21.02	21.10	21.25
	36/39	22.00	21.32	21.14	21.02	21.19		50/50	22.00	21.27	21.03	20.95	21.18
	75/0	22.00	21.29	21.07	21.08	21.21		100/0	22.00	21.27	21.00	21.04	21.23
64QAM	1/0	22.00	20.81	20.88	21.14	21.03	64QAM	1/0	22.00	21.00	21.17	20.95	21.31
	1/37	22.00	20.92	21.16	21.38	21.12		1/50	22.00	21.45	21.62	21.42	21.39
	1/74	22.00	20.79	20.84	21.02	20.97		1/99	22.00	20.97	21.14	20.91	21.25
	36/0	21.00	20.10	20.05	20.03	19.94		50/0	21.00	19.94	19.88	19.90	19.92
	36/19	21.00	20.15	20.07	20.05	19.97		50/25	21.00	20.03	19.89	20.03	19.97
	36/39	21.00	20.13	20.08	19.98	19.91		50/50	21.00	20.01	19.97	19.93	19.87
	75/0	21.00	20.05	20.04	20.02	20.00		100/0	21.00	19.99	19.94	19.95	19.88

Second antenna_Receiver on

LTE B41/ BW=5M		Average Conducted Power(dBm)					LTE B41/ BW=10M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40065/ 2537.5	40440/ 2575	40840/ 2615	41215/ 2652.5				40090/ 2540	40440/ 2575	40840/ 2615	41190/ 2650
QPSK	1/0	18.50	17.58	17.35	17.30	17.23	QPSK	1/0	18.50	17.62	17.45	17.39	17.38
	1/12	18.50	17.97	17.68	17.65	17.57		1/24	18.50	17.79	17.62	17.53	17.55
	1/24	18.50	17.58	17.31	17.29	17.24		1/49	18.50	17.62	17.41	17.33	17.43
	12/0	18.50	17.56	17.40	17.36	17.35		25/0	18.50	17.60	17.48	17.44	17.42
	12/6	18.50	17.65	17.48	17.41	17.42		25/12	18.50	17.67	17.52	17.45	17.40
	12/13	18.50	17.62	17.42	17.37	17.32		25/25	18.50	17.68	17.49	17.41	17.36
	25/0	18.50	17.61	17.43	17.36	17.29		50/0	18.50	17.64	17.48	17.43	17.41
16QAM	1/0	18.50	17.54	17.55	17.45	17.54	16QAM	1/0	18.50	17.68	17.53	17.49	17.44
	1/12	18.50	17.84	17.85	17.77	17.86		1/24	18.50	17.85	17.66	17.61	17.57
	1/24	18.50	17.56	17.49	17.42	17.51		1/49	18.50	17.66	17.48	17.43	17.44
	12/0	18.50	17.69	17.43	17.42	17.35		25/0	18.50	17.70	17.51	17.52	17.45
	12/6	18.50	17.72	17.52	17.48	17.42		25/12	18.50	17.71	17.57	17.47	17.41
	12/13	18.50	17.69	17.44	17.41	17.37		25/25	18.50	17.77	17.54	17.48	17.35
	25/0	18.50	17.71	17.50	17.45	17.35		50/0	18.50	17.75	17.49	17.51	17.45
64QAM	1/0	18.50	17.57	17.55	17.76	17.50	64QAM	1/0	18.50	17.28	17.56	17.05	17.60
	1/12	18.50	17.66	17.93	17.99	17.64		1/24	18.50	17.45	17.68	17.20	17.73
	1/24	18.50	17.57	17.51	17.75	17.51		1/49	18.50	17.24	17.53	16.99	17.60
	12/0	18.50	17.60	17.43	17.45	17.34		25/0	18.50	17.68	17.48	17.50	17.41
	12/6	18.50	17.67	17.52	17.49	17.39		25/12	18.50	17.68	17.53	17.45	17.40
	12/13	18.50	17.66	17.44	17.44	17.31		25/25	18.50	17.76	17.48	17.48	17.34
	25/0	18.50	17.69	17.53	17.49	17.33		50/0	18.50	17.73	17.48	17.49	17.39

LTE B41/ BW=15M		Average Conducted Power(dBm)					LTE B41/ BW=20M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40115/ 2542.5	40440/ 2575	40840/ 2615	41165/ 2647.5				40140/ 2545	40440/ 2575	40840/ 2615	41140/ 2645
QPSK	1/0	18.50	17.68	17.44	17.32	17.32	QPSK	1/0	18.50	17.48	17.31	17.19	17.18
	1/37	18.50	17.95	17.45	17.38	17.61		1/50	18.50	**17.84**	**17.64**	**17.52**	**17.54**
	1/74	18.50	17.56	17.40	17.23	17.31		1/99	18.50	17.41	17.23	17.11	17.16
	36/0	18.50	17.66	17.53	17.47	17.41		50/0	18.50	17.63	**17.53**	17.49	17.36
	36/19	18.50	17.72	17.55	17.49	17.38		50/25	18.50	17.70	17.53	**17.50**	**17.39**
	36/39	18.50	17.70	17.51	17.41	17.36		50/50	18.50	**17.72**	17.49	17.43	17.33
	75/0	18.50	17.65	17.52	17.43	17.39		100/0	18.50	**17.70**	17.51	17.47	17.36
16QAM	1/0	18.50	17.71	17.49	17.56	17.25	16QAM	1/0	18.50	17.58	17.13	17.25	17.13
	1/37	18.50	18.00	17.71	18.06	17.52		1/50	18.50	17.95	17.47	17.45	17.56
	1/74	18.50	17.65	17.39	17.53	17.25		1/99	18.50	17.52	17.04	17.10	17.18
	36/0	18.50	17.66	17.56	17.50	17.42		50/0	18.50	17.65	17.53	17.51	17.42
	36/19	18.50	17.71	17.60	17.48	17.41		50/25	18.50	17.73	17.56	17.52	17.43
	36/39	18.50	17.71	17.52	17.44	17.38		50/50	18.50	17.77	17.55	17.48	17.35
	75/0	18.50	17.72	17.52	17.50	17.39		100/0	18.50	17.73	17.54	17.55	17.34
64QAM	1/0	18.50	17.86	17.39	17.67	17.21	64QAM	1/0	18.50	17.70	17.21	17.13	17.01
	1/37	18.50	17.96	17.65	17.86	17.55		1/50	18.50	17.85	17.55	17.44	17.33
	1/74	18.50	17.81	17.32	17.55	17.18		1/99	18.50	17.63	17.13	17.13	17.02
	36/0	18.50	17.70	17.50	17.54	17.40		50/0	18.50	17.61	17.56	17.54	17.47
	36/19	18.50	17.75	17.53	17.53	17.38		50/25	18.50	17.75	17.58	17.55	17.48
	36/39	18.50	17.75	17.50	17.48	17.33		50/50	18.50	17.74	17.52	17.45	17.35
	75/0	18.50	17.69	17.39	17.52	17.40		100/0	18.50	17.72	17.55	17.53	17.42

Second antenna_Receiver off

LTE B41/ BW=5M		Average Conducted Power(dBm)					LTE B41/ BW=10M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40065/ 2537.5	40440/ 2575	40840/ 2615	41215/ 2652.5				40090/ 2540	40440/ 2575	40840/ 2615	41190/ 2650
QPSK	1/0	23.50	22.61	22.39	22.34	22.39	QPSK	1/0	23.50	22.74	22.49	22.51	22.39
	1/12	23.50	22.99	22.75	22.69	22.73		1/24	23.50	22.95	22.58	22.53	22.46
	1/24	23.50	22.63	22.34	22.31	22.37		1/49	23.50	22.73	22.45	22.45	22.35
	12/0	22.50	22.18	21.96	21.95	21.94		25/0	22.50	22.24	22.06	21.97	21.96
	12/6	22.50	22.24	22.03	21.97	22.03		25/12	22.50	22.22	22.03	21.98	21.95
	12/13	22.50	22.18	21.98	21.90	21.92		25/25	22.50	22.28	22.02	21.92	21.97
	25/0	22.50	22.18	21.97	21.91	21.91		50/0	22.50	22.26	22.06	21.98	21.91
16QAM	1/0	22.50	22.38	22.17	22.19	22.08	16QAM	1/0	22.50	22.27	22.37	22.34	22.12
	1/12	22.50	22.43	22.48	22.21	22.42		1/24	22.50	22.44	22.34	22.37	22.25
	1/24	22.50	22.39	22.14	22.15	22.06		1/49	22.50	22.23	22.29	22.33	22.18
	12/0	21.50	21.20	21.18	20.98	21.19		25/0	21.50	21.26	21.13	21.06	21.03
	12/6	21.50	21.24	21.07	21.06	21.02		25/12	21.50	21.27	21.13	21.08	21.01
	12/13	21.50	21.22	21.11	20.98	20.95		25/25	21.50	21.33	21.13	21.01	20.97
	25/0	21.50	21.28	21.03	20.99	20.97		50/0	21.50	21.31	21.08	21.03	21.00
64QAM	1/0	21.50	21.35	21.17	21.13	21.28	64QAM	1/0	21.50	21.46	20.95	21.42	20.81
	1/12	21.50	21.47	21.40	21.49	21.39		1/24	21.50	21.45	21.02	21.32	20.88
	1/24	21.50	21.37	21.14	21.11	21.28		1/49	21.50	21.43	20.92	21.47	20.87
	12/0	20.50	20.24	19.97	19.89	19.93		25/0	20.50	20.15	19.97	19.95	19.91
	12/6	20.50	20.17	19.98	19.93	19.89		25/12	20.50	20.18	20.03	19.96	19.87
	12/13	20.50	20.06	19.96	19.87	19.78		25/25	20.50	20.23	20.02	19.91	19.87
	25/0	20.50	20.09	19.89	19.91	19.79		50/0	20.50	20.17	19.97	19.92	19.88

LTE B41/ BW=15M		Average Conducted Power(dBm)					LTE B41/ BW=20M		Average Conducted Power(dBm)				
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)				Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			
			40115/ 2542.5	40440/ 2575	40840/ 2615	41165/ 2647.5				40140/ 2545	40440/ 2575	40840/ 2615	41140/ 2645
QPSK	1/0	23.50	22.66	22.50	22.34	22.34	QPSK	1/0	23.50	22.49	22.42	22.20	22.13
	1/37	23.50	23.03	22.85	22.54	22.65		1/50	23.50	**22.84**	**22.76**	**22.54**	**22.65**
	1/74	23.50	22.55	22.45	22.25	22.36		1/99	23.50	22.34	22.34	22.12	22.28
	36/0	22.50	22.24	22.02	22.02	22.01		50/0	22.50	22.14	22.01	21.97	21.86
	36/19	22.50	22.28	22.07	22.01	21.96		50/25	22.50	**22.24**	22.01	**21.98**	**21.93**
	36/39	22.50	22.24	22.06	21.96	21.94		50/50	22.50	22.14	**22.02**	21.91	21.84
	75/0	22.50	22.28	22.04	21.98	21.93		100/0	22.50	**22.14**	22.04	21.87	21.91
16QAM	1/0	22.50	22.20	21.91	21.84	21.86	16QAM	1/0	22.50	21.92	21.85	21.66	21.65
	1/37	22.50	21.56	22.16	22.04	22.25		1/50	22.50	22.29	22.01	22.03	22.02
	1/74	22.50	22.13	21.82	21.79	21.86		1/99	22.50	21.82	21.75	21.60	21.66
	36/0	21.50	21.18	21.05	21.01	20.98		50/0	21.50	21.18	21.07	20.97	20.96
	36/19	21.50	21.23	21.02	21.01	20.95		50/25	21.50	21.23	21.10	21.05	20.95
	36/39	21.50	21.24	21.04	20.95	20.89		50/50	21.50	21.29	21.04	20.94	20.86
	75/0	21.50	21.21	21.01	20.96	20.92		100/0	21.50	21.24	21.02	21.03	20.97
64QAM	1/0	21.50	21.41	20.86	20.50	21.07	64QAM	1/0	21.50	21.22	20.75	20.61	20.53
	1/37	21.50	21.44	21.28	20.66	21.25		1/50	21.50	21.35	21.07	20.98	20.92
	1/74	21.50	21.35	20.81	20.40	21.04		1/99	21.50	21.03	20.68	20.53	20.53
	36/0	20.50	20.11	19.97	19.97	19.94		50/0	20.50	20.07	19.97	19.97	19.84
	36/19	20.50	20.20	20.03	19.98	19.93		50/25	20.50	20.13	20.01	19.95	19.86
	36/39	20.50	20.25	19.96	19.97	19.86		50/50	20.50	20.13	20.07	19.93	19.79
	75/0	20.50	20.19	20.01	19.92	19.88		100/0	20.50	20.13	19.99	19.91	19.82

Note:
1) The tested channels are marks in bold.
2) The receiver on/off power of LTE B41 second antenna is the same.

9. Conducted power measurement results of LTE B66

Main antenna_Receiver on

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745	132665/ 1779.3				131987/ 1711.5	132322/ 1745	132657/ 1778.5
QPSK	1/0	24.00	22.77	22.72	22.70	QPSK	1/0	24.00	22.75	22.76	22.80
	1/2	24.00	22.86	22.85	22.83		1/7	24.00	22.89	22.90	22.92
	1/5	24.00	22.79	22.72	22.70		1/14	24.00	22.79	22.79	22.78
	3/0	24.00	22.82	22.78	22.83		8/0	23.00	21.83	21.78	21.84
	3/1	24.00	22.86	22.82	22.89		8/3	23.00	21.85	21.82	21.85
	3/3	24.00	22.84	22.77	22.89		8/7	23.00	21.84	21.76	21.85
	6/0	23.00	21.85	21.81	21.85		15/0	23.00	21.82	21.74	21.79
16QAM	1/0	23.00	21.81	21.82	22.18	16QAM	1/0	23.00	21.76	22.13	21.86
	1/2	23.00	21.90	21.92	22.27		1/7	23.00	21.89	22.26	22.03
	1/5	23.00	21.83	21.82	22.17		1/14	23.00	21.76	22.16	21.86
	3/0	23.00	22.00	21.82	22.06		8/0	22.00	20.96	20.86	20.87
	3/1	23.00	22.10	21.86	22.10		8/3	22.00	20.96	20.86	20.89
	3/3	23.00	22.05	21.82	22.06		8/7	22.00	20.93	20.82	20.87
	6/0	22.00	21.00	20.91	20.74		15/0	22.00	20.87	20.78	20.79
64QAM	1/0	22.00	21.14	20.82	20.94	64QAM	1/0	22.00	21.09	20.86	21.01
	1/2	22.00	21.33	20.96	21.03		1/7	22.00	21.25	21.00	21.16
	1/5	22.00	21.16	20.81	20.97		1/14	22.00	21.11	20.88	20.94
	3/0	22.00	21.16	20.89	20.81		8/0	21.00	19.91	19.82	19.80
	3/1	22.00	21.20	20.97	20.85		8/3	21.00	19.91	19.85	19.81
	3/3	22.00	21.17	20.92	20.81		8/7	21.00	19.86	19.83	19.78
	6/0	21.00	19.81	20.07	19.90		15/0	21.00	19.80	19.79	19.85

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132622/ 1775
QPSK	1/0	24.00	22.80	22.65	22.74	QPSK	1/0	24.00	22.75	22.76	22.72
	1/12	24.00	22.91	22.78	22.86		1/24	24.00	22.96	22.92	22.88
	1/24	24.00	22.78	22.66	22.74		1/49	24.00	22.74	22.73	22.71
	12/0	23.00	21.78	21.72	21.81		25/0	23.00	21.83	21.75	21.88
	12/6	23.00	21.84	21.80	21.87		25/12	23.00	21.85	21.78	21.81
	12/13	23.00	21.84	21.81	21.82		25/25	23.00	21.85	21.79	21.80
	25/0	23.00	21.81	21.75	21.79		50/0	23.00	21.85	21.79	21.83
16QAM	1/0	23.00	21.95	22.18	21.85	16QAM	1/0	23.00	21.75	22.11	21.78
	1/12	23.00	22.03	22.29	21.96		1/24	23.00	21.90	22.25	21.94
	1/24	23.00	21.96	22.18	21.85		1/49	23.00	21.76	22.10	21.80
	12/0	22.00	20.88	20.86	20.85		25/0	22.00	20.86	20.79	20.99
	12/6	22.00	20.95	20.92	20.86		25/12	22.00	20.87	20.80	20.92
	12/13	22.00	20.97	20.90	20.85		25/25	22.00	20.85	20.82	20.89
	25/0	22.00	20.86	20.79	20.76		50/0	22.00	20.85	20.81	20.86
64QAM	1/0	22.00	20.67	20.99	20.95	64QAM	1/0	22.00	21.10	20.86	20.94
	1/12	22.00	20.82	21.07	21.07		1/24	22.00	21.25	20.99	21.11
	1/24	22.00	20.69	20.95	20.99		1/49	22.00	21.10	20.85	20.95
	12/0	21.00	19.85	19.69	19.90		25/0	21.00	19.87	19.88	19.97
	12/6	21.00	19.90	19.75	19.91		25/12	21.00	19.90	19.87	19.91
	12/13	21.00	19.89	19.76	19.92		25/25	21.00	19.90	19.92	19.90
	25/0	21.00	19.82	19.73	19.86		50/0	21.00	19.87	19.90	19.89

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	24.00	22.71	22.73	22.75	QPSK	1/0	24.00	22.73	22.71	22.67
	1/37	24.00	22.79	22.81	22.85		1/50	24.00	**23.15**	23.11	23.10
	1/74	24.00	22.63	22.69	22.74		1/99	24.00	22.74	22.68	22.70
	36/0	23.00	21.89	21.86	21.96		50/0	23.00	22.01	21.89	**22.07**
	36/19	23.00	21.89	21.88	21.92		50/25	23.00	22.03	21.99	22.02
	36/39	23.00	21.89	21.87	21.90		50/50	23.00	22.01	21.97	21.91
	75/0	23.00	21.90	21.86	21.93		100/0	23.00	22.01	21.94	21.97
16QAM	1/0	23.00	21.70	22.07	22.17	16QAM	1/0	23.00	22.08	22.07	21.98
	1/37	23.00	21.82	22.18	22.28		1/50	23.00	22.52	22.42	22.38
	1/74	23.00	21.62	22.04	22.14		1/99	23.00	22.10	21.99	22.03
	36/0	22.00	20.84	20.82	20.85		50/0	22.00	20.87	20.74	20.87
	36/19	22.00	20.88	20.87	20.85		50/25	22.00	20.90	20.80	20.84
	36/39	22.00	20.86	20.87	20.79		50/50	22.00	20.86	20.77	20.74
	75/0	22.00	20.86	20.83	20.91		100/0	22.00	20.84	20.80	20.81
64QAM	1/0	22.00	21.04	20.84	21.29	64QAM	1/0	22.00	20.80	20.91	21.14
	1/37	22.00	21.14	20.91	21.42		1/50	22.00	21.20	21.20	21.56
	1/74	22.00	20.99	20.77	21.31		1/99	22.00	20.79	20.85	21.18
	36/0	21.00	19.85	19.89	19.88		50/0	21.00	19.90	19.85	19.95
	36/19	21.00	19.87	19.88	19.85		50/25	21.00	19.93	19.88	19.87
	36/39	21.00	19.87	19.90	19.82		50/50	21.00	19.90	19.89	19.77
	75/0	21.00	19.88	19.84	19.91		100/0	21.00	19.90	19.83	19.84

Main antenna_Receiver off

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745	132665/ 1779.3				131987/ 1711.5	132322/ 1745	132657/ 1778.5
QPSK	1/0	22.50	21.23	21.09	21.18	QPSK	1/0	22.50	21.18	21.18	21.16
	1/2	22.50	21.32	21.20	21.27		1/7	22.50	21.33	21.32	21.29
	1/5	22.50	21.21	21.08	21.17		1/14	22.50	21.24	21.17	21.15
	3/0	22.50	21.31	21.20	21.25		8/0	22.50	21.27	21.15	21.18
	3/1	22.50	21.36	21.26	21.30		8/3	22.50	21.26	21.20	21.22
	3/3	22.50	21.31	21.26	21.26		8/7	22.50	21.22	21.14	21.19
	6/0	22.50	21.25	21.20	21.24		15/0	22.50	21.26	21.15	21.20
16QAM	1/0	22.50	21.25	21.25	21.59	16QAM	1/0	22.50	21.20	21.53	21.17
	1/2	22.50	21.33	21.37	21.67		1/7	22.50	21.30	21.67	21.27
	1/5	22.50	21.26	21.27	21.59		1/14	22.50	21.19	21.52	21.13
	3/0	22.50	21.48	21.29	21.47		8/0	21.50	20.84	20.72	20.81
	3/1	22.50	21.54	21.33	21.51		8/3	21.50	20.86	20.77	20.82
	3/3	22.50	21.52	21.28	21.50		8/7	21.50	20.82	20.71	20.81
	6/0	21.50	20.91	20.83	20.65		15/0	21.50	20.76	20.66	20.73
64QAM	1/0	21.50	20.87	20.95	20.79	64QAM	1/0	21.50	21.03	20.75	20.91
	1/2	21.50	20.96	21.14	20.95		1/7	21.50	21.17	20.90	21.04
	1/5	21.50	20.88	20.97	20.79		1/14	21.50	21.04	20.81	20.83
	3/0	21.50	20.73	21.00	20.88		8/0	20.50	19.81	19.69	19.68
	3/1	21.50	20.78	21.06	20.92		8/3	20.50	19.82	19.75	19.69
	3/3	21.50	20.76	21.00	20.88		8/7	20.50	19.77	19.70	19.65
	6/0	20.50	19.84	19.63	20.03		15/0	20.50	19.72	19.68	19.73

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132622/ 1775
QPSK	1/0	22.50	21.27	21.07	21.16	QPSK	1/0	22.50	21.18	21.17	21.15
	1/12	22.50	21.34	21.15	21.24		1/24	22.50	21.35	21.29	21.27
	1/24	22.50	21.26	21.08	21.15		1/49	22.50	21.19	21.13	21.13
	12/0	22.50	21.26	21.12	21.17		25/0	22.50	21.27	21.15	21.26
	12/6	22.50	21.29	21.18	21.23		25/12	22.50	21.27	21.15	21.21
	12/13	22.50	21.28	21.17	21.21		25/25	22.50	21.26	21.17	21.21
	25/0	22.50	21.27	21.12	21.19		50/0	22.50	21.28	21.17	21.26
16QAM	1/0	22.50	21.38	21.62	21.26	16QAM	1/0	22.50	21.20	21.53	21.25
	1/12	22.50	21.47	21.70	21.36		1/24	22.50	21.35	21.65	21.34
	1/24	22.50	21.38	21.64	21.29		1/49	22.50	21.20	21.54	21.22
	12/0	21.50	20.82	20.78	20.73		25/0	21.50	20.82	20.72	20.88
	12/6	21.50	20.86	20.82	20.78		25/12	21.50	20.81	20.71	20.81
	12/13	21.50	20.87	20.83	20.77		25/25	21.50	20.82	20.75	20.83
	25/0	21.50	20.81	20.73	20.67		50/0	21.50	20.79	20.72	20.82
64QAM	1/0	21.50	20.61	20.89	20.83	64QAM	1/0	21.50	21.00	20.72	20.87
	1/12	21.50	20.72	20.98	20.95		1/24	21.50	21.18	20.87	21.01
	1/24	21.50	20.62	20.88	20.85		1/49	21.50	21.03	20.75	20.81
	12/0	20.50	19.78	19.59	19.73		25/0	20.50	19.83	19.78	19.90
	12/6	20.50	19.81	19.63	19.78		25/12	20.50	19.82	19.76	19.80
	12/13	20.50	19.83	19.64	19.78		25/25	20.50	19.84	19.79	19.83
	25/0	20.50	19.74	19.64	19.74		50/0	20.50	19.81	19.75	19.83

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	22.50	21.18	21.06	21.20	QPSK	1/0	22.50	21.22	21.10	21.09
	1/37	22.50	21.27	21.17	21.27		1/50	22.50	**21.65**	**21.46**	**21.51**
	1/74	22.50	21.16	21.06	21.15		1/99	22.50	21.17	21.07	21.10
	36/0	22.50	21.29	21.06	21.36		50/0	22.50	21.50	21.34	**21.59**
	36/19	22.50	21.31	21.27	21.32		50/25	22.50	**21.53**	**21.40**	21.44
	36/39	22.50	21.30	21.28	21.27		50/50	22.50	21.46	21.34	21.35
	75/0	22.50	21.30	21.27	21.33		100/0	22.50	**21.49**	21.35	21.40
16QAM	1/0	22.50	21.13	21.50	21.63	16QAM	1/0	22.50	21.72	21.66	21.54
	1/37	22.50	21.23	21.58	21.71		1/50	22.50	21.83	21.72	21.68
	1/74	22.50	21.11	21.47	21.60		1/99	22.50	21.71	21.60	21.55
	36/0	21.50	20.79	21.47	20.79		50/0	21.50	21.02	20.86	20.97
	36/19	21.50	20.79	20.79	20.77		50/25	21.50	21.05	20.90	20.93
	36/39	21.50	20.78	20.77	20.72		50/50	21.50	21.02	20.86	20.83
	75/0	21.50	20.81	20.76	20.80		100/0	21.50	21.03	20.85	20.95
64QAM	1/0	21.50	20.98	20.73	21.25	64QAM	1/0	21.50	21.01	21.28	20.82
	1/37	21.50	21.08	20.82	21.33		1/50	21.50	21.46	20.07	21.27
	1/74	21.50	20.97	20.69	21.22		1/99	21.50	20.99	21.20	20.85
	36/0	20.50	19.79	19.69	19.80		50/0	20.50	20.06	19.90	20.06
	36/19	20.50	19.80	19.80	19.76		50/25	20.50	20.08	19.95	20.00
	36/39	20.50	19.81	19.78	19.72		50/50	20.50	20.07	19.91	19.93
	75/0	20.50	19.80	19.76	19.86		100/0	20.50	19.86	19.66	19.80

Second antenna_Receiver on

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745	132665/ 1779.3				131987/ 1711.5	132322/ 1745	132657/ 1778.5
QPSK	1/0	17.00	15.78	15.86	16.00	QPSK	1/0	17.00	15.82	15.95	15.97
	1/2	17.00	15.89	15.97	16.15		1/7	17.00	15.95	16.07	16.11
	1/5	17.00	15.79	15.83	16.00		1/14	17.00	15.83	15.96	15.95
	3/0	17.00	15.96	15.97	16.08		8/0	17.00	15.87	15.87	16.00
	3/1	17.00	16.02	16.00	16.13		8/3	17.00	15.88	15.91	16.00
	3/3	17.00	16.03	15.97	16.06		8/7	17.00	15.84	15.85	15.96
	6/0	17.00	15.88	15.89	16.00		15/0	17.00	15.89	15.87	16.00
16QAM	1/0	17.00	15.95	16.02	16.39	16QAM	1/0	17.00	15.87	16.32	16.09
	1/2	17.00	16.07	16.14	16.48		1/7	17.00	15.95	16.46	16.21
	1/5	17.00	15.97	16.03	16.38		1/14	17.00	15.85	16.34	16.03
	3/0	17.00	16.20	16.04	16.30		8/0	17.00	16.05	16.03	16.05
	3/1	17.00	16.26	16.07	16.34		8/3	17.00	16.04	16.04	16.09
	3/3	17.00	16.22	16.04	16.32		8/7	17.00	15.99	16.00	16.03
	6/0	17.00	16.13	16.07	15.94		15/0	17.00	15.97	15.94	15.98
64QAM	1/0	17.00	16.02	16.09	16.18	64QAM	1/0	17.00	16.22	16.01	16.22
	1/2	17.00	16.20	16.17	16.35		1/7	17.00	16.29	16.18	16.34
	1/5	17.00	16.00	16.12	16.18		1/14	17.00	16.27	16.08	16.16
	3/0	17.00	16.16	15.95	16.46		8/0	17.00	15.99	15.92	15.97
	3/1	17.00	16.23	15.98	16.49		8/3	17.00	16.01	15.98	15.99
	3/3	17.00	16.17	15.98	16.42		8/7	17.00	15.91	15.95	15.96
	6/0	17.00	16.26	16.01	16.02		15/0	17.00	15.90	15.96	16.05

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132622/ 1775
QPSK	1/0	17.00	15.89	15.83	15.96	QPSK	1/0	17.00	15.81	15.91	15.95
	1/12	17.00	15.96	15.93	16.04		1/24	17.00	15.95	16.07	16.04
	1/24	17.00	15.88	15.84	15.97		1/49	17.00	15.81	15.92	15.91
	12/0	17.00	15.84	15.90	15.97		25/0	17.00	15.88	15.90	16.05
	12/6	17.00	15.91	15.94	16.03		25/12	17.00	15.92	15.93	16.00
	12/13	17.00	15.93	15.92	16.00		25/25	17.00	15.91	15.88	15.92
	25/0	17.00	15.89	15.88	15.97		50/0	17.00	15.88	15.92	16.02
16QAM	1/0	17.00	16.04	16.36	16.08	16QAM	1/0	17.00	15.85	16.28	16.06
	1/12	17.00	16.14	16.43	16.14		1/24	17.00	16.00	16.40	16.12
	1/24	17.00	16.05	16.37	16.11		1/49	17.00	15.85	16.27	16.03
	12/0	17.00	15.97	16.02	16.06		25/0	17.00	15.95	15.97	16.17
	12/6	17.00	16.04	16.08	16.09		25/12	17.00	15.97	15.97	16.10
	12/13	17.00	16.03	16.06	16.09		25/25	17.00	15.95	15.95	16.07
	25/0	17.00	15.93	15.96	15.96		50/0	17.00	15.90	15.95	16.10
64QAM	1/0	17.00	15.80	16.17	16.18	64QAM	1/0	17.00	16.21	16.03	16.19
	1/12	17.00	15.89	16.28	16.26		1/24	17.00	16.36	16.17	16.27
	1/24	17.00	15.81	16.18	16.20		1/49	17.00	16.21	16.05	16.16
	12/0	17.00	15.92	15.81	16.06		25/0	17.00	15.97	16.01	16.16
	12/6	17.00	15.99	15.88	16.10		25/12	17.00	16.00	16.04	16.09
	12/13	17.00	15.98	15.87	16.08		25/25	17.00	15.99	16.01	16.29
	25/0	17.00	15.89	15.86	16.04		50/0	17.00	15.95	15.98	16.05

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	17.00	15.75	15.89	15.94	QPSK	1/0	17.00	15.86	15.84	15.85
	1/37	17.00	15.88	15.98	16.00		1/50	17.00	**16.25**	**16.15**	**16.28**
	1/74	17.00	15.74	15.86	15.89		1/99	17.00	15.81	15.86	15.90
	36/0	17.00	15.89	15.86	16.04		50/0	17.00	16.10	**16.16**	**16.27**
	36/19	17.00	15.92	15.92	16.02		50/25	17.00	16.15	16.15	16.21
	36/39	17.00	15.92	15.92	15.94		50/50	17.00	**16.15**	16.13	16.10
	75/0	17.00	15.90	15.89	16.00		100/0	17.00	16.14	16.12	**16.21**
16QAM	1/0	17.00	15.79	16.26	16.49	16QAM	1/0	17.00	16.00	16.10	16.01
	1/37	17.00	15.90	16.34	16.53		1/50	17.00	16.40	15.84	16.49
	1/74	17.00	15.79	16.22	16.46		1/99	17.00	15.98	16.08	16.07
	36/0	17.00	15.86	16.22	16.02		50/0	17.00	15.96	16.01	16.12
	36/19	17.00	15.92	16.00	16.00		50/25	17.00	16.02	16.00	16.07
	36/39	17.00	15.92	15.95	15.93		50/50	17.00	16.04	15.97	15.94
	75/0	17.00	15.90	15.95	16.01		100/0	17.00	15.99	15.98	16.04
64QAM	1/0	17.00	16.17	15.97	16.40	64QAM	1/0	17.00	16.00	16.38	15.95
	1/37	17.00	16.26	16.09	16.45		1/50	17.00	16.40	16.05	16.37
	1/74	17.00	16.13	15.98	16.36		1/99	17.00	15.99	16.39	15.97
	36/0	17.00	15.91	15.98	16.04		50/0	17.00	16.00	16.00	16.11
	36/19	17.00	15.93	16.00	16.04		50/25	17.00	16.03	16.00	16.07
	36/39	17.00	15.94	16.00	15.94		50/50	17.00	16.05	15.96	15.96
	75/0	17.00	15.91	15.94	16.06		100/0	17.00	15.98	15.96	16.05

Second antenna_Receiver off

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745	132665/ 1779.3				131987/ 1711.5	132322/ 1745	132657/ 1778.5
QPSK	1/0	21.50	20.36	20.19	20.41	QPSK	1/0	21.50	20.30	20.32	20.40
	1/2	21.50	20.46	20.34	20.50		1/7	21.50	20.46	20.45	20.52
	1/5	21.50	20.33	20.23	20.39		1/14	21.50	20.35	20.34	20.39
	3/0	21.50	20.44	20.33	20.50		8/0	21.50	20.37	20.29	20.42
	3/1	21.50	20.49	20.42	20.53		8/3	21.50	20.40	20.32	20.45
	3/3	21.50	20.42	20.42	20.49		8/7	21.50	20.35	20.28	20.41
	6/0	21.50	20.37	20.34	20.42		15/0	21.50	20.37	20.28	20.42
16QAM	1/0	21.50	20.37	20.40	20.77	16QAM	1/0	21.50	20.33	20.68	20.46
	1/2	21.50	20.45	20.49	20.86		1/7	21.50	20.42	20.83	20.59
	1/5	21.50	20.38	20.41	20.77		1/14	21.50	20.31	20.70	20.42
	3/0	21.50	20.59	20.43	20.68		8/0	21.50	20.47	20.40	20.46
	3/1	21.50	20.64	20.46	20.72		8/3	21.50	20.50	20.46	20.49
	3/3	21.50	20.62	20.43	20.69		8/7	21.50	20.48	20.38	20.44
	6/0	21.50	20.55	20.48	20.37		15/0	21.50	20.39	20.35	20.38
64QAM	1/0	21.50	20.50	20.70	20.53	64QAM	1/0	21.50	20.66	20.43	20.61
	1/2	21.50	20.57	20.86	20.66		1/7	21.50	20.79	20.59	20.74
	1/5	21.50	20.52	20.72	20.52		1/14	21.50	20.68	20.49	20.53
	3/0	21.50	20.37	20.74	20.60		8/0	21.50	19.93	19.88	19.88
	3/1	21.50	20.44	20.79	20.65		8/3	21.50	19.96	19.90	19.90
	3/3	21.50	20.41	20.73	20.62		8/7	21.50	19.91	19.88	19.86
	6/0	21.50	19.96	19.83	20.24		15/0	21.50	19.85	19.86	19.94

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132622/ 1775
QPSK	1/0	21.50	20.38	20.20	20.38	QPSK	1/0	21.50	20.32	20.32	20.36
	1/12	21.50	20.41	20.29	20.48		1/24	21.50	20.49	20.44	20.47
	1/24	21.50	20.38	20.25	20.41		1/49	21.50	20.32	20.32	20.34
	12/0	21.50	20.34	20.29	20.41		25/0	21.50	20.37	20.33	20.48
	12/6	21.50	20.41	20.33	20.46		25/12	21.50	20.40	20.33	20.42
	12/13	21.50	20.41	20.31	20.46		25/25	21.50	20.42	20.36	20.41
	25/0	21.50	20.38	20.29	20.41		50/0	21.50	20.43	20.34	20.49
16QAM	1/0	21.50	20.47	20.74	20.45	16QAM	1/0	21.50	20.31	20.70	20.42
	1/12	21.50	20.57	20.84	20.53		1/24	21.50	20.44	20.81	20.56
	1/24	21.50	20.51	20.74	20.47		1/49	21.50	20.30	20.68	20.43
	12/0	21.50	20.44	20.41	20.45		25/0	21.50	20.39	20.41	20.60
	12/6	21.50	20.47	20.47	20.48		25/12	21.50	20.44	20.41	20.49
	12/13	21.50	20.50	20.49	20.48		25/25	21.50	20.46	20.43	20.50
	25/0	21.50	20.41	20.39	20.38		50/0	21.50	20.43	20.40	20.52
64QAM	1/0	21.50	20.27	20.57	20.58	64QAM	1/0	21.50	20.66	20.44	20.56
	1/12	21.50	20.34	20.67	20.64		1/24	21.50	20.80	20.58	20.69
	1/24	21.50	20.26	20.57	20.56		1/49	21.50	20.70	20.44	20.56
	12/0	21.50	19.89	19.76	19.96		25/0	21.50	19.93	19.96	20.12
	12/6	21.50	19.94	19.81	19.99		25/12	21.50	19.95	19.93	20.01
	12/13	21.50	19.95	19.83	20.00		25/25	21.50	19.99	19.98	20.01
	25/0	21.50	19.86	19.80	19.94		50/0	21.50	19.94	19.96	20.02

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	21.50	20.26	20.26	20.37	QPSK	1/0	21.50	20.11	20.06	20.07
	1/37	21.50	20.37	20.37	20.46		1/50	21.50	**20.53**	**20.45**	**20.55**
	1/74	21.50	20.25	20.23	20.34		1/99	21.50	20.11	20.04	20.10
	36/0	21.50	20.39	20.23	20.54		50/0	21.50	20.36	20.33	20.47
	36/19	21.50	20.44	20.37	20.52		50/25	21.50	**20.43**	**20.36**	**20.45**
	36/39	21.50	20.46	20.37	20.47		50/50	21.50	20.45	20.32	20.34
	75/0	21.50	20.43	20.33	20.49		100/0	21.50	20.41	20.34	**20.42**
16QAM	1/0	21.50	20.25	20.61	20.83	16QAM	1/0	21.50	20.64	20.62	20.51
	1/37	21.50	20.33	20.71	20.87		1/50	21.50	21.05	20.45	20.94
	1/74	21.50	20.23	20.60	20.78		1/99	21.50	20.64	20.58	20.55
	36/0	21.50	20.35	20.60	20.50		50/0	21.50	20.39	20.38	20.47
	36/19	21.50	20.43	20.44	20.48		50/25	21.50	20.47	20.40	20.45
	36/39	21.50	20.42	20.43	20.42		50/50	21.50	20.45	20.39	20.30
	75/0	21.50	20.41	20.42	20.50		100/0	21.50	20.44	20.37	20.43
64QAM	1/0	21.50	20.61	20.41	20.96	64QAM	1/0	21.50	20.44	20.74	20.41
	1/37	21.50	20.73	20.49	21.01		1/50	21.50	20.88	20.02	20.89
	1/74	21.50	20.59	20.38	20.92		1/99	21.50	20.43	20.74	20.45
	36/0	21.50	19.90	20.38	20.02		50/0	21.50	19.95	19.90	20.05
	36/19	21.50	19.92	19.95	19.98		50/25	21.50	20.00	19.93	20.02
	36/39	21.50	19.98	19.97	19.96		50/50	21.50	20.02	19.92	19.92
	75/0	21.50	19.93	19.93	20.04		100/0	21.50	19.94	19.88	19.96

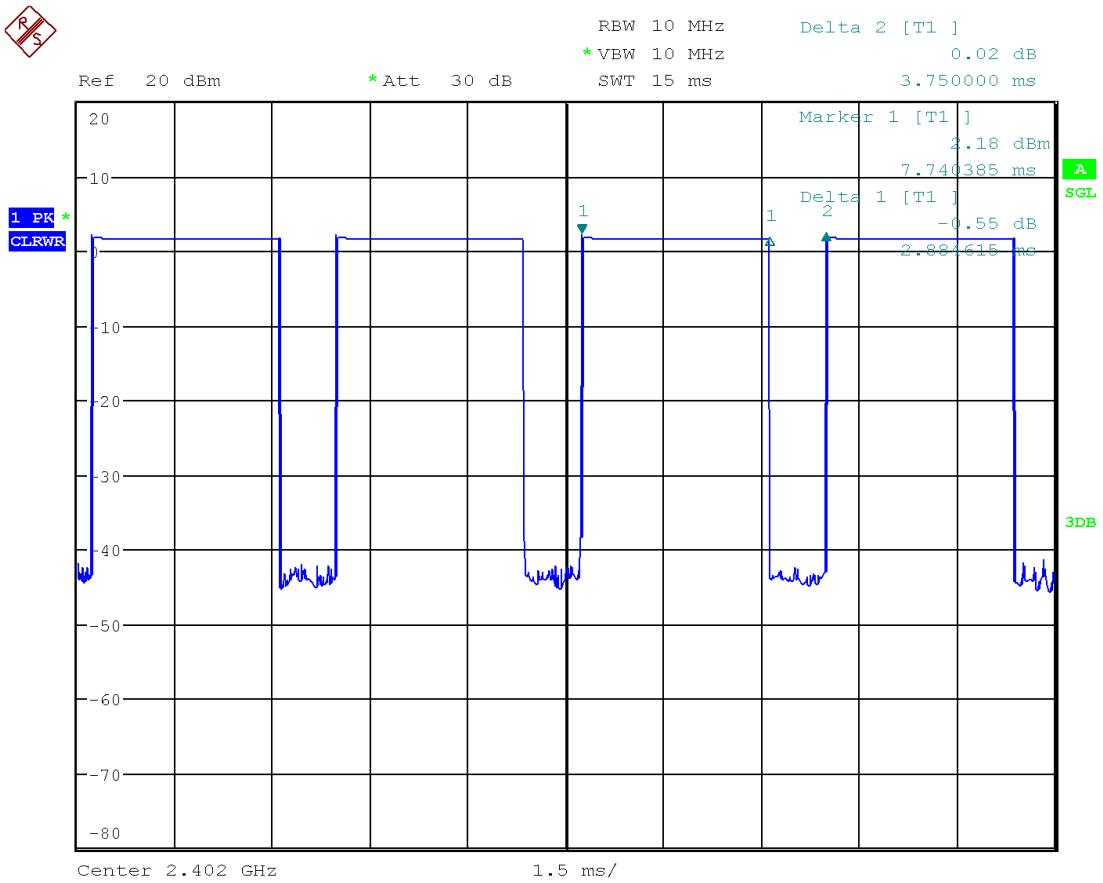
Note: The tested channels are marks in bold.

7.1.4 CONDUCTED POWER MEASUREMENTS OF BT

For BT SAR testing, BT engineering testing software installed on the EUT can provide continuous transmitting RF signal with maximum output power, and the CBT control the EUT operating with hoping off and data rate set for 2DH5. The SAR measurement takes full account of the BT duty cycle and is reflected in the report, and the duty factor of the device is as follow:

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402MHz	CH39 2441MHz	CH78 2480MHz
DH5	12.50	**10.60**	10.37	8.84
2DH5	11.00	10.43	10.04	9.00
3DH5	11.00	10.13	10.06	9.03

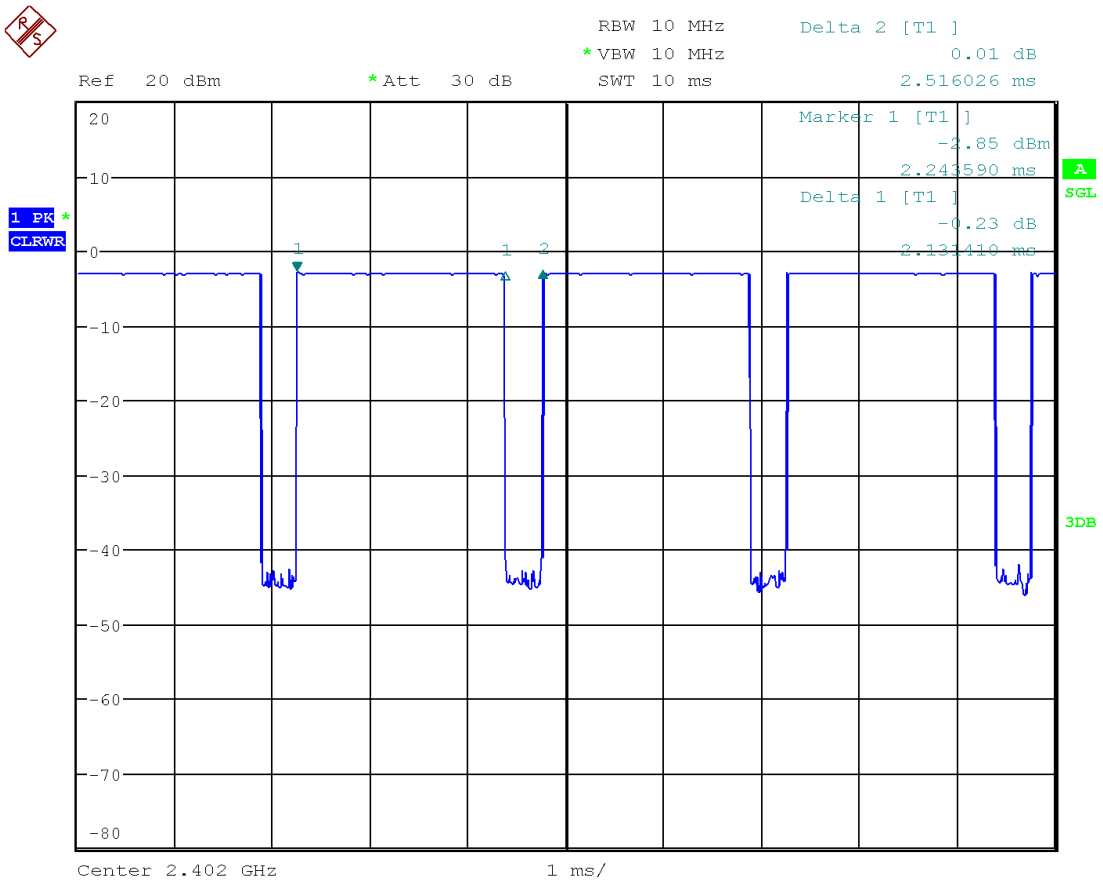
MODE	ON Time (ms)	Total Time (ms)	Duty cycle
BT	2.88	3.75	77%



Date: 27.APR.2020 12:01:46

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402MHz	CH19 2441MHz	CH39 2480MHz
BLE(1M)	7.00	5.16	5.31	4.43
BLE(2M)	7.00	3.59	3.24	2.68

MODE	ON Time (ms)	Total Time (ms)	Duty cycle
BLE	2.13	2.51	85%



Date: 27.APR.2020 12:06:24

Note:
1) The conducted power of BT is measured with RMS detector.
2) The tested channels are marks in bold.

7.1.5 CONDUCTED POWER MEASUREMENTS OF WIFI

1. Conducted power measurement results of WiFi 2.4G

Receiver on

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	14.00	13.66
	2	2417		17.50	**17.17**
	6	2437		17.50	**17.26**
	10	2457		17.50	17.16
	11	2462		14.00	13.75
802.11g	1	2412	6	14.00	13.82
	2	2417		16.50	16.44
	6	2437		16.50	16.12
	10	2457		16.50	16.38
	11	2462		14.00	13.93
802.11n HT20	1	2412	6.5	13.50	13.32
	2	2417		16.50	15.94
	6	2437		16.50	16.11
	10	2457		16.50	16.35
	11	2462		14.00	13.88

Receiver off

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	14.00	13.66
	2	2417		20.00	19.73
	6	2437		20.00	**19.79**
	10	2457		20.00	19.77
	11	2462		14.00	13.75
802.11g	1	2412	6	14.00	13.82
	2	2417		19.00	18.78
	6	2437		19.00	18.84
	10	2457		19.00	18.65
	11	2462		14.00	13.93
802.11n HT20	1	2412	6.5	13.50	13.32
	2	2417		19.00	18.79
	6	2437		19.00	18.45
	10	2457		19.00	18.78
	11	2462		14.00	13.88

WiFi Antenna simultaneous with 2G&3G&4G receiver on

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	14.00	13.66
	2	2417		14.50	14.28
	6	2437		14.50	**14.41**
	10	2457		14.50	14.34
	11	2462		14.00	13.75
802.11g	1	2412	6	13.50	13.02
	2	2417		13.50	13.17
	6	2437		13.50	13.11
	10	2457		13.50	13.18
	11	2462		13.50	13.02
802.11n HT20	1	2412	6.5	13.50	13.32
	2	2417		13.50	13.11
	6	2437		13.50	13.10
	10	2457		13.50	13.13
	11	2462		13.50	12.92

WiFi Antenna simultaneous with 2G&3G&4G receiver off

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	14.00	13.66
	2	2417		17.00	16.75
	6	2437		17.00	**16.92**
	10	2457		17.00	16.79
	11	2462		14.00	13.75
802.11g	1	2412	6	14.00	13.82
	2	2417		16.00	15.60
	6	2437		16.00	15.67
	10	2457		16.00	15.49
	11	2462		14.00	13.93
802.11n HT20	1	2412	6.5	13.50	13.32
	2	2417		16.00	15.92
	6	2437		16.00	15.67
	10	2457		16.00	15.53
	11	2462		14.00	13.88

Note:
1) The Average conducted power of WiFi 2.4G is measured with RMS detector.
2) Per KDB248227 D01, for WiFi 2.4GHz, the highest measured maximum output power Channel for DSSS modes (802.11b) was selected for SAR measurement. SAR for OFDM modes (2.4GHz 802.11g/n) was not required When the highest reported SAR for DSSS is adjusted by the ratio of OFDM modes (802.11g/n) to DSSS modes (802.11b) specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
3) The tested channels are marks in bold.

2. Conducted power measurement results of WiFi 5.2G

Receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.2G	802.11a	36	5180	6	16.00	15.60
		40	5200		16.00	15.60
		44	5220		16.00	15.63
		48	5240		16.00	15.00
	802.11n HT20	36	5180	MCS0	16.00	15.46
		40	5200		16.00	15.52
		44	5220		16.00	15.48
		48	5240		16.00	15.39
	802.11n HT40	38	5190	MCS0	15.00	14.42
		46	5230		15.00	14.84
	802.11ac VHT20	36	5180	MCS0	16.00	15.42
		40	5200		16.00	15.47
		44	5220		16.00	15.37
		48	5240		16.00	15.38
	802.11ac VHT40	38	5190	MCS0	15.00	14.35
		46	5230		15.00	14.26
	802.11ac VHT80	42	5210	MCS0	15.00	14.68

Receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.2G	802.11a	36	5180	6	17.00	16.51
		40	5200		20.00	19.34
		44	5220		20.00	19.67
		48	5240		20.00	**19.72**
	802.11n HT20	36	5180	MCS0	17.00	16.33
		40	5200		20.00	19.47
		44	5220		20.00	19.56
		48	5240		20.00	19.58
	802.11n HT40	38	5190	MCS0	16.00	15.84
		46	5230		19.00	18.67
	802.11ac VHT20	36	5180	MCS0	17.00	16.87
		40	5200		20.00	19.56
		44	5220		20.00	19.43
		48	5240		20.00	19.51
	802.11ac VHT40	38	5190	MCS0	16.50	16.16
		46	5230		19.00	18.67
	802.11ac VHT80	42	5210	MCS0	15.00	14.68

WiFi Antenna simultaneous with 2G&3G&4G receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.2G	802.11a	36	5180	6	13.00	12.24
		40	5200		13.00	12.15
		44	5220		13.00	12.18
		48	5240		13.00	12.27
	802.11n HT20	36	5180	MCS0	13.00	12.70
		40	5200		13.00	12.62
		44	5220		13.00	12.65
		48	5240		13.00	12.66
	802.11n HT40	38	5190	MCS0	12.50	12.17
		46	5230		12.50	12.03
	802.11ac VHT20	36	5180	MCS0	13.00	12.66
		40	5200		13.00	12.77
		44	5220		13.00	12.66
		48	5240		13.00	12.72
	802.11ac VHT40	38	5190	MCS0	12.50	12.14
		46	5230		12.50	12.13
	802.11ac VHT80	42	5210	MCS0	12.50	12.09

WiFi Antenna simultaneous with 2G&3G&4G receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.2G	802.11a	36	5180	6	16.50	16.20
		40	5200		16.50	**16.31**
		44	5220		16.50	16.22
		48	5240		16.50	16.26
	802.11n HT20	36	5180	MCS0	16.50	16.24
		40	5200		16.50	16.10
		44	5220		16.50	16.18
		48	5240		16.50	16.16
	802.11n HT40	38	5190	MCS0	15.50	15.17
		46	5230		15.50	15.13
	802.11ac VHT20	36	5180	MCS0	16.50	16.17
		40	5200		16.50	16.15
		44	5220		16.50	16.13
		48	5240		16.50	16.20
	802.11ac VHT40	38	5190	MCS0	15.50	15.02
		46	5230		15.50	15.11
	802.11ac VHT80	42	5210	MCS0	15.00	14.56

Note: The Average conducted power of WiFi 5.2G is measured with RMS detector.

3. Conducted power measurement results of WiFi 5.3G

Receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.3G	802.11a	52	5260	6	16.00	**15.60**
		56	5280		16.00	15.54
		60	5300		16.00	**15.60**
		64	5320		16.00	15.43
	802.11n HT20	52	5260	MCS0	16.00	15.43
		56	5280		16.00	15.37
		60	5300		16.00	15.45
		64	5320		16.00	15.38
	802.11n HT40	54	5270	MCS0	15.00	14.85
		62	5310		15.00	14.47
	802.11ac VHT20	52	5260	MCS0	16.00	15.24
		56	5280		16.00	15.42
		60	5300		16.00	15.32
		64	5320		16.00	15.35
	802.11ac VHT40	54	5270	MCS0	15.00	13.88
		62	5310		15.00	14.43
	802.11ac VHT80	58	5290	MCS0	14.00	13.38

Receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.3G	802.11a	52	5260	6	20.00	**19.71**
		56	5280		20.00	19.45
		60	5300		20.00	**19.55**
		64	5320		17.00	16.74
	802.11n HT20	52	5260	MCS0	20.00	19.63
		56	5280		20.00	19.68
		60	5300		20.00	19.71
		64	5320		17.00	16.53
	802.11n HT40	54	5270	MCS0	19.00	18.77
		62	5310		15.00	14.47
	802.11ac VHT20	52	5260	MCS0	20.00	19.62
		56	5280		20.00	19.65
		60	5300		20.00	19.59
		64	5320		17.00	16.84
	802.11ac VHT40	54	5270	MCS0	19.00	18.65
		62	5310		16.00	15.61
	802.11ac VHT80	58	5290	MCS0	14.00	13.38

WiFi Antenna simultaneous with 2G&3G&4G receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.3G	802.11a	52	5260	6	13.00	12.30
		56	5280		13.00	12.28
		60	5300		13.00	12.23
		64	5320		13.00	**12.38**
	802.11n HT20	52	5260	MCS0	13.00	12.64
		56	5280		13.00	12.62
		60	5300		13.00	12.74
		64	5320		13.00	12.76
	802.11n HT40	54	5270	MCS0	12.50	12.07
		62	5310		12.50	11.74
	802.11ac VHT20	52	5260	MCS0	13.00	12.68
		56	5280		13.00	12.58
		60	5300		13.00	12.81
		64	5320		13.00	12.68
	802.11ac VHT40	54	5270	MCS0	12.50	12.24
		62	5310		12.50	12.24
	802.11ac VHT80	58	5290	MCS0	12.50	12.24

WiFi Antenna simultaneous with 2G&3G&4G receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.3G	802.11a	52	5260	6	16.50	16.13
		56	5280		16.50	16.12
		60	5300		16.50	**16.15**
		64	5320		16.50	16.02
	802.11n HT20	52	5260	MCS0	16.50	16.13
		56	5280		16.50	16.41
		60	5300		16.50	16.38
		64	5320		16.50	16.27
	802.11n HT40	54	5270	MCS0	15.50	14.83
		62	5310		15.00	14.81
	802.11ac VHT20	52	5260	MCS0	16.50	16.11
		56	5280		16.50	15.94
		60	5300		16.50	16.03
		64	5320		16.50	15.87
	802.11ac VHT40	54	5270	MCS0	15.50	15.02
		62	5310		15.50	14.94
	802.11ac VHT80	58	5290	MCS0	14.00	13.94

Note:
1) The Average conducted power of WiFi 5.3G is measured with RMS detector.
2) The tested channels are marks in bold.

4. Conducted power measurement results of WiFi 5.6G

Receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.6G	802.11a	100	5500	6	16.00	15.78
		104	5520		16.00	**15.87**
		108	5540		16.00	15.58
		112	5560		16.00	15.62
		116	5580		16.00	15.61
		132	5660		16.00	**15.89**
		136	5680		16.00	15.75
		140	5700		16.00	15.83
	802.11n HT20	100	5500	MCS0	16.00	15.21
		104	5520		16.00	15.36
		108	5540		16.00	15.36
		112	5560		16.00	15.37
		116	5580		16.00	15.31
		132	5660		16.00	15.53
		136	5680		16.00	15.70
		140	5700		16.00	15.78
	802.11n HT40	102	5510	MCS0	14.00	13.69
		110	5550		15.00	14.85
		118	5590		15.00	14.82
		126	5630		15.00	14.48
		134	5670		15.00	14.64
	802.11ac VHT20	100	5500	MCS0	16.00	15.65
		104	5520		16.00	15.73
		108	5540		16.00	15.71
		112	5560		16.00	15.76
		116	5580		16.00	15.78
		132	5660		16.00	15.57
		136	5680		16.00	15.75
		140	5700		16.00	15.64
	802.11ac VHT40	102	5510	MCS0	15.00	14.57
		110	5550		15.00	14.61
		118	5590		15.00	14.80
		126	5630		15.00	14.49
		134	5670		15.00	14.51
	802.11ac VHT80	106	5530	MCS0	14.00	13.52
		122	5610		15.00	14.38

Receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.6G	802.11a	100	5500	6	17.00	16.53
		104	5520		18.00	17.59
		108	5540		18.00	17.45
		112	5560		18.00	17.66
		116	5580		18.00	17.60
		132	5660		18.00	**17.85**
		136	5680		18.00	**17.74**
		140	5700		17.00	16.47
	802.11n HT20	100	5500	MCS0	17.00	16.43
		104	5520		18.00	17.83
		108	5540		18.00	17.92
		112	5560		18.00	17.50
		116	5580		18.00	17.41
		132	5660		18.00	17.67
		136	5680		18.00	17.77
		140	5700		16.00	15.78
	802.11n HT40	102	5510	MCS0	14.00	13.69
		110	5550		17.00	16.81
		118	5590		17.00	16.89
		126	5630		17.00	16.62
		134	5670		17.00	16.45
	802.11ac VHT20	100	5500	MCS0	16.50	16.44
		104	5520		18.00	17.92
		108	5540		18.00	17.45
		112	5560		18.00	17.53
		116	5580		18.00	17.57
		132	5660		18.00	17.60
		136	5680		18.00	17.66
		140	5700		16.00	15.64
	802.11ac VHT40	102	5510	MCS0	16.00	15.76
		110	5550		17.00	16.23
		118	5590		17.00	16.91
		126	5630		17.00	16.48
		134	5670		17.00	16.39
	802.11ac VHT80	106	5530	MCS0	14.00	13.52
		122	5610		17.00	16.41

WiFi Antenna simultaneous with 2G&3G&4G receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.6G	802.11a	100	5500	6	12.50	12.08
		104	5520		12.50	12.26
		108	5540		12.50	11.77
		112	5560		12.50	**12.38**
		116	5580		12.50	12.28
		132	5660		12.50	12.14
		136	5680		12.50	12.02
		140	5700		12.50	12.14
	802.11n HT20	100	5500	MCS0	12.50	12.02
		104	5520		12.50	12.20
		108	5540		12.50	12.05
		112	5560		12.50	12.16
		116	5580		12.50	12.13
		132	5660		12.50	12.42
		136	5680		12.50	12.32
		140	5700		12.50	11.98
	802.11n HT40	102	5510	MCS0	12.00	11.52
		110	5550		12.00	11.69
		118	5590		12.00	11.70
		126	5630		12.00	11.51
		134	5670		12.00	11.93
	802.11ac VHT20	100	5500	MCS0	12.50	12.13
		104	5520		12.50	11.97
		108	5540		12.50	12.17
		112	5560		12.50	12.23
		116	5580		12.50	12.13
		132	5660		12.50	12.07
		136	5680		12.50	11.92
		140	5700		12.50	11.95
	802.11ac VHT40	102	5510	MCS0	12.00	11.56
		110	5550		12.00	11.67
		118	5590		12.00	11.78
		126	5630		12.00	11.86
		134	5670		12.00	11.95
	802.11ac VHT80	106	5530	MCS0	12.00	11.51
		122	5610		12.00	11.68

WiFi Antenna simultaneous with 2G&3G&4G receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.6G	802.11a	100	5500	6	15.00	14.76
		104	5520		15.00	14.32
		108	5540		15.00	**14.93**
		112	5560		15.00	14.83
		116	5580		15.00	14.42
		132	5660		15.00	14.67
		136	5680		15.00	14.35
		140	5700		15.00	14.87
	802.11n HT20	100	5500	MCS0	15.00	14.64
		104	5520		15.00	14.66
		108	5540		15.00	14.63
		112	5560		15.00	14.65
		116	5580		15.00	14.45
		132	5660		15.00	14.51
		136	5680		15.00	14.57
		140	5700		15.00	14.57
	802.11n HT40	102	5510	MCS0	14.00	13.92
		110	5550		14.50	14.05
		118	5590		14.50	14.46
		126	5630		14.50	14.08
		134	5670		14.50	14.07
	802.11ac VHT20	100	5500	MCS0	15.00	14.53
		104	5520		15.00	14.64
		108	5540		15.00	14.78
		112	5560		15.00	14.80
		116	5580		15.00	14.76
		132	5660		15.00	14.58
		136	5680		15.00	14.59
		140	5700		15.00	14.58
	802.11ac VHT40	102	5510	MCS0	14.50	14.02
		110	5550		14.50	14.25
		118	5590		14.50	14.33
		126	5630		14.50	14.46
		134	5670		14.50	14.04
	802.11ac VHT80	106	5530	MCS0	14.00	13.95
		122	5610		14.50	14.15

Note:
1) The Average conducted power of WiFi 5.6G is measured with RMS detector.
2) The tested channels are marks in bold.

5. Conducted power measurement results of WiFi 5.8G

Receiver on

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.8G	802.11a	149	5745	6	17.00	**16.47**
		153	5765		17.00	**16.43**
		157	5785		17.00	16.42
		161	5805		17.00	16.41
		165	5825		17.00	16.39
	802.11n HT20	149	5745	MCS0	15.00	14.73
		153	5765		17.00	16.31
		157	5785		17.00	16.31
		161	5805		17.00	16.28
		165	5825		17.00	16.72
	802.11n HT40	151	5755	MCS0	15.00	14.39
		159	5795		16.00	15.85
	802.11ac VHT20	149	5745	MCS0	17.00	16.77
		153	5765		17.00	16.33
		157	5785		17.00	16.36
		161	5805		17.00	16.27
		165	5825		17.00	16.92
	802.11ac VHT40	151	5755	MCS0	16.00	15.66
		159	5795		16.00	15.77
	802.11ac VHT80	155	5775	MCS0	16.00	15.77

Receiver off

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.8G	802.11a	149	5745	6	16.00	15.97
		153	5765		16.00	15.50
		157	5785		16.00	**15.63**
		161	5805		16.00	15.50
		165	5825		16.00	**15.61**
	802.11n HT20	149	5745	MCS0	15.00	14.73
		153	5765		16.00	15.30
		157	5785		16.00	15.28
		161	5805		16.00	15.35
		165	5825		16.00	15.50
	802.11n HT40	151	5755	MCS0	15.00	14.39
		159	5795		15.00	14.92
	802.11ac VHT20	149	5745	MCS0	16.00	15.38
		153	5765		16.00	15.30
		157	5785		16.00	15.88
		161	5805		16.00	15.90
		165	5825		16.00	15.46
	802.11ac VHT40	151	5755	MCS0	15.00	14.70
		159	5795		15.00	14.83
	802.11ac VHT80	155	5775	MCS0	15.00	14.81

WiFi Antenna simultaneous with 2G&3G&4G

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Max. Tune up	Average Power(dBm)
5.8G	802.11a	149	5745	6	13.50	13.14
		153	5765		13.50	13.17
		157	5785		13.50	13.30
		161	5805		13.50	**13.43**
		165	5825		13.50	13.38
	802.11n HT20	149	5745	MCS0	13.50	13.07
		153	5765		13.50	13.17
		157	5785		13.50	13.21
		161	5805		13.50	13.06
		165	5825		13.50	13.18
	802.11n HT40	151	5755	MCS0	13.00	12.65
		159	5795		13.00	12.62
	802.11ac VHT20	149	5745	MCS0	13.50	13.17
		153	5765		13.50	13.04
		157	5785		13.50	13.13
		161	5805		13.50	13.18
		165	5825		13.50	13.26
	802.11ac VHT40	151	5755	MCS0	13.00	12.23
		159	5795		13.00	12.63
	802.11ac VHT80	155	5775	MCS0	13.00	12.70

Note:
1) The Average conducted power of WiFi 5.8G is measured with RMS detector.
2) The tested channels are marks in bold.
3) The WiFi Antenna simultaneous with 2G&3G&4G receiver on/off power of WiFi 5.8G are the same.

7.2 SAR TEST RESULTS

General Notes:

1) Per KDB447498 D01, all measurement SAR results are scaled to the maximum tune-up tolerance limit to demonstrate compliant.
2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is: ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.
3) Per KDB865664 D01,for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8W/kg; if the deviation among the repeated measurement is ≤ 20%,and the measured SAR < 1.45W/kg, only one repeated measurement is required.
4) Per KDB941225 D06, the DUT Dimension is bigger than 9 cm x 5 cm, so 10mm is chosen as the test separation distance for Hotspot mode. When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.
5) Per KDB648474 D04, SAR is evaluated without a headset connected to the device. When the standalone reported body-worn SAR is ≤1.2 W/kg, no additional SAR evaluations using a headset are required.
6) Per KDB865664 D02, SAR plot is only required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination; Plots are also required when the measured SAR is > 1.5 W/kg, or > 7.0 W/kg for occupational exposure. The published RF exposure KDB procedures may require additional plots; for example, to support SAR to peak location separation ratio test exclusion and/or volume scan post-processing.

GSM Notes:

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

UMTS Notes:

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

LTE notes:

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

WLAN Notes:

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

7.2.1 SAR MEASUREMENT RESULT OF HEAD

1. Head SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G01	GSM 850	GSM	190	Right Cheek	Main	1	33.5	32.76	0.01	0.167	0.128	0.198
G02	GSM 850	GSM	190	Right Tilted	Main	1	33.5	32.76	0.07	0.101	0.082	0.120
G03	GSM 850	GSM	190	Left Cheek	Main	1	33.5	32.76	-0.08	**0.203**	**0.155**	**0.241**
G04	GSM 850	GSM	190	Left Tilted	Main	1	33.5	32.76	0.03	0.128	0.104	0.152
G05	GSM 850	GSM	190	Left Cheek	Main	2	33.5	32.76	-0.02	0.192	0.144	0.228
G06	GSM 850	GSM	190	Left Cheek	Main	3	33.5	32.76	0.1	0.179	0.135	0.212
G08	GSM 850	GSM	190	Right Cheek	Second	1	33.5	32.8	0.09	0.438	0.245	0.515
G09	GSM 850	GSM	190	Right Tilted	Second	1	33.5	32.8	-0.01	0.375	0.207	0.441
G10	GSM 850	GSM	190	Left Cheek	Second	1	33.5	32.8	0.02	0.382	0.221	0.449
G11	GSM 850	GSM	190	Left Tilted	Second	1	33.5	32.8	0.07	0.370	0.205	0.435
G12	GSM 850	GSM	190	Right Cheek	Second	2	33.5	32.8	0	0.396	0.232	0.465
G13	GSM 850	GSM	190	Right Cheek	Second	3	33.5	32.8	0.03	**0.470**	**0.276**	**0.552**
G15	GSM 1900	GSM	661	Right Cheek	Main	1	31	29.8	0.07	0.011	0.007	0.014
G16	GSM 1900	GSM	661	Right Tilted	Main	1	31	29.8	0.02	0.004	0.001	0.006
G17	GSM 1900	GSM	661	Left Cheek	Main	1	31	29.8	-0.03	0.013	0.007	0.017
G18	GSM 1900	GSM	661	Left Tilted	Main	1	31	29.8	0.06	0.004	0.002	0.006
G19	GSM 1900	GSM	661	Left Cheek	Main	2	31	29.8	0.09	**0.014**	**0.008**	**0.019**
G20	GSM 1900	GSM	661	Left Cheek	Main	3	31	29.8	0.07	0.012	0.006	0.015
G22	GSM 1900	GSM	661	Right Cheek	Second	1	27	26.44	0.01	0.734	0.361	0.835
G23	GSM 1900	GSM	661	Right Tilted	Second	1	27	26.44	0.09	**0.857**	**0.403**	**0.975**
G24	GSM 1900	GSM	661	Left Cheek	Second	1	27	26.44	0.06	0.564	0.283	0.642
G25	GSM 1900	GSM	661	Left Tilted	Second	1	27	26.44	0.01	0.653	0.318	0.743
G26	GSM 1900	GSM	512	Right Tilted	Second	1	27	26.27	-0.02	0.821	0.385	0.971
G27	GSM 1900	GSM	810	Right Tilted	Second	1	27	26.49	0.09	0.768	0.368	0.864
G28	GSM 1900	GSM	512	Right Cheek	Second	1	27	26.27	0.03	0.708	0.342	0.838
G29	GSM 1900	GSM	810	Right Cheek	Second	1	27	26.49	0.05	0.712	0.345	0.801
G30	GSM 1900	GSM	661	Right Tilted	Second	2	27	26.44	0.01	0.816	0.379	0.928
G31	GSM 1900	GSM	661	Right Tilted	Second	3	27	26.44	0.15	0.837	0.388	0.952
G32	GSM 1900	GSM	661	Right Tilted (Repeated)	Second	1	27	26.44	0.03	0.842	0.395	0.958

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

2. Head SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U01	UMTS B2	RMC12.2K	9400	Right Cheek	Main	1	24	23.28	0.08	0.021	0.013	0.025
U02	UMTS B2	RMC12.2K	9400	Right Tilted	Main	1	24	23.28	0	0.014	0.005	0.017
U03	UMTS B2	RMC12.2K	9400	Left Cheek	Main	1	24	23.28	0.01	**0.032**	**0.019**	**0.037**
U04	UMTS B2	RMC12.2K	9400	Left Tilted	Main	1	24	23.28	0.03	0.012	0.006	0.014
U05	UMTS B2	RMC12.2K	9400	Left Cheek	Main	2	24	23.28	0.03	0.028	0.017	0.033
U06	UMTS B2	RMC12.2K	9400	Left Cheek	Main	3	24	23.28	0.08	0.029	0.018	0.035
U08	UMTS B2	RMC12.2K	9400	Right Cheek	Second	1	18	17.28	0.03	0.673	0.321	0.794
U09	UMTS B2	RMC12.2K	9400	Right Tilted	Second	1	18	17.28	0.14	0.787	0.368	0.929
U10	UMTS B2	RMC12.2K	9400	Left Cheek	Second	1	18	17.28	0.07	0.552	0.276	0.652
U11	UMTS B2	RMC12.2K	9400	Left Tilted	Second	1	18	17.28	0.01	0.652	0.303	0.770
U12	UMTS B2	RMC12.2K	9262	Right Tilted	Second	1	18	17.17	-0.02	0.768	0.359	0.930
U13	UMTS B2	RMC12.2K	9538	Right Tilted	Second	1	18	17.25	0.08	**0.813**	**0.377**	**0.966**
U14	UMTS B2	RMC12.2K	9538	Right Tilted	Second	2	18	17.25	-0.05	0.775	0.362	0.921
U15	UMTS B2	RMC12.2K	9538	Right Tilted	Second	3	18	17.25	0.11	0.784	0.365	0.932
U16	UMTS B2	RMC12.2K	9538	Right Tilted (Repeated)	Second	1	18	17.25	0.02	0.802	0.373	0.953
U18	UMTS B4	RMC12.2K	1413	Right Cheek	Main	1	24	23.34	0.15	0.015	0.009	0.017
U19	UMTS B4	RMC12.2K	1413	Right Tilted	Main	1	24	23.34	0.08	0.005	0.002	0.006
U20	UMTS B4	RMC12.2K	1413	Left Cheek	Main	1	24	23.34	0.09	**0.028**	**0.016**	**0.032**
U21	UMTS B4	RMC12.2K	1413	Left Tilted	Main	1	24	23.34	0.04	0.005	0.002	0.006
U22	UMTS B4	RMC12.2K	1413	Left Cheek	Main	2	24	23.34	-0.01	0.026	0.015	0.030
U23	UMTS B4	RMC12.2K	1413	Left Cheek	Main	3	24	23.34	0.03	0.026	0.016	0.031
U25	UMTS B4	RMC12.2K	1413	Right Cheek	Second	1	17.5	17.01	0.02	0.791	0.398	0.885
U26	UMTS B4	RMC12.2K	1413	Right Tilted	Second	1	17.5	17.01	0.06	**0.866**	**0.408**	**0.969**
U27	UMTS B4	RMC12.2K	1413	Left Cheek	Second	1	17.5	17.01	0.11	0.590	0.317	0.660
U28	UMTS B4	RMC12.2K	1413	Left Tilted	Second	1	17.5	17.01	-0.05	0.731	0.379	0.818
U29	UMTS B4	RMC12.2K	1312	Right Cheek	Second	1	17.5	16.96	0.02	0.752	0.376	0.852
U30	UMTS B4	RMC12.2K	1513	Right Cheek	Second	1	17.5	16.95	0.07	0.773	0.382	0.877
U31	UMTS B4	RMC12.2K	1312	Right Tilted	Second	1	17.5	16.96	-0.01	0.825	0.402	0.934
U32	UMTS B4	RMC12.2K	1513	Right Tilted	Second	1	17.5	16.95	0.02	0.841	0.409	0.955
U33	UMTS B4	RMC12.2K	1312	Left Tilted	Second	1	17.5	16.96	0.05	0.712	0.334	0.806
U34	UMTS B4	RMC12.2K	1513	Left Tilted	Second	1	17.5	16.95	0.01	0.683	0.315	0.775
U35	UMTS B4	RMC12.2K	1413	Right Tilted	Second	2	17.5	17.01	0.07	0.838	0.405	0.938
U36	UMTS B4	RMC12.2K	1413	Right Tilted	Second	3	17.5	17.01	0.09	0.852	0.411	0.954
U37	UMTS B4	RMC12.2K	1413	Right Tilted (Repeated)	Second	1	17.5	17.01	-0.04	0.859	0.406	0.962
U39	UMTS B5	RMC12.2K	4182	Right Cheek	Main	1	24	23.23	-0.02	0.146	0.109	0.174
U40	UMTS B5	RMC12.2K	4182	Right Tilted	Main	1	24	23.23	0.04	0.092	0.074	0.110
U41	UMTS B5	RMC12.2K	4182	Left Cheek	Main	1	24	23.23	-0.08	0.154	0.117	0.184
U42	UMTS B5	RMC12.2K	4182	Left Tilted	Main	1	24	23.23	0.13	0.104	0.083	0.124
U43	UMTS B5	RMC12.2K	4182	Left Cheek	Main	2	24	23.23	0.01	0.162	0.124	0.193
U44	UMTS B5	RMC12.2K	4182	Left Cheek	Main	3	24	23.23	0.09	**0.167**	**0.128**	**0.199**
U46	UMTS B5	RMC12.2K	4182	Right Cheek	Second	1	24	23.33	0.03	0.558	0.319	0.651
U47	UMTS B5	RMC12.2K	4182	Right Tilted	Second	1	24	23.33	0.05	0.472	0.253	0.551
U48	UMTS B5	RMC12.2K	4182	Left Cheek	Second	1	24	23.33	0.02	0.494	0.267	0.576
U49	UMTS B5	RMC12.2K	4182	Left Tilted	Second	1	24	23.33	-0.17	0.455	0.246	0.531
U50	UMTS B5	RMC12.2K	4182	Right Cheek	Second	2	24	23.33	-0.01	**0.574**	**0.330**	**0.670**
U51	UMTS B5	RMC12.2K	4182	Right Cheek	Second	3	24	23.33	0.08	0.563	0.324	0.657

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

3. Head SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L01	LTE B2	QPSK20M	18900	1	50	Right Cheek	Main	1	24	23.45	0.05	0.019	0.012	0.022
L02	LTE B2	QPSK20M	18900	1	50	Right Tilted	Main	1	24	23.45	0.01	0.016	0.010	0.019
L03	LTE B2	QPSK20M	18900	1	50	Left Cheek	Main	1	24	23.45	0.02	0.036	0.022	0.041
L04	LTE B2	QPSK20M	18900	1	50	Left Tilted	Main	1	24	23.45	0.03	0.018	0.011	0.021
L05	LTE B2	QPSK20M	18900	50	0	Right Cheek	Main	1	23	22.39	0.01	0.015	0.009	0.017
L06	LTE B2	QPSK20M	18900	50	0	Right Tilted	Main	1	23	22.39	0.09	0.013	0.008	0.015
L07	LTE B2	QPSK20M	18900	50	0	Left Cheek	Main	1	23	22.39	0.04	0.029	0.018	0.033
L08	LTE B2	QPSK20M	18900	50	0	Left Tilted	Main	1	23	22.39	0.04	0.017	0.009	0.019
L09	LTE B2	QPSK20M	18900	1	50	Left Cheek	Main	2	24	23.45	-0.01	0.034	0.022	0.038
L10	LTE B2	QPSK20M	18900	1	50	Left Cheek	Main	3	24	23.45	0.05	**0.036**	**0.023**	**0.041**
L12	LTE B2	QPSK20M	18700	1	50	Right Cheek	Second	1	17.5	16.85	0.01	0.680	0.334	0.790
L13	LTE B2	QPSK20M	18700	1	50	Right Tilted	Second	1	17.5	16.85	-0.04	0.770	0.370	0.894
L14	LTE B2	QPSK20M	18700	1	50	Left Cheek	Second	1	17.5	16.85	0.12	0.570	0.285	0.662
L15	LTE B2	QPSK20M	18700	1	50	Left Tilted	Second	1	17.5	16.85	0.05	0.655	0.310	0.760
L16	LTE B2	QPSK20M	18900	50	0	Right Cheek	Second	1	17.5	16.83	0.07	0.769	0.373	0.897
L17	LTE B2	QPSK20M	18900	50	0	Right Tilted	Second	1	17.5	16.83	0.02	**0.883**	**0.411**	**1.030**
L18	LTE B2	QPSK20M	18900	50	0	Left Cheek	Second	1	17.5	16.83	-0.09	0.576	0.291	0.672
L19	LTE B2	QPSK20M	18900	50	0	Left Tilted	Second	1	17.5	16.83	0.01	0.740	0.349	0.863
L22	LTE B2	QPSK20M	18900	1	50	Right Tilted	Second	1	17.5	16.74	0.02	0.807	0.371	0.961
L23	LTE B2	QPSK20M	19100	1	50	Right Tilted	Second	1	17.5	16.84	0.03	0.804	0.366	0.936
L26	LTE B2	QPSK20M	18700	50	25	Right Cheek	Second	1	17.5	16.77	0.02	0.673	0.330	0.796
L27	LTE B2	QPSK20M	19100	50	25	Right Cheek	Second	1	17.5	16.75	0.05	0.688	0.333	0.817
L28	LTE B2	QPSK20M	18700	50	25	Right Tilted	Second	1	17.5	16.77	0.08	0.807	0.373	0.955
L29	LTE B2	QPSK20M	19100	50	25	Right Tilted	Second	1	17.5	16.75	0.12	0.794	0.365	0.944
L30	LTE B2	QPSK20M	18700	50	25	Left Tilted	Second	1	17.5	16.77	0.09	0.607	0.287	0.718
L31	LTE B2	QPSK20M	19100	50	25	Left Tilted	Second	1	17.5	16.75	0.03	0.610	0.285	0.726
L32	LTE B2	QPSK20M	18900	100	0	Right Cheek	Second	1	17.5	16.86	0	0.725	0.354	0.840
L33	LTE B2	QPSK20M	18900	100	0	Right Tilted	Second	1	17.5	16.86	0.01	0.848	0.390	0.982
L34	LTE B2	QPSK20M	18900	100	0	Left Tilted	Second	1	17.5	16.86	-0.06	0.668	0.313	0.774
L35	LTE B2	QPSK20M	18900	50	0	Right Tilted	Second	2	17.5	16.83	0.07	0.858	0.396	1.001
L36	LTE B2	QPSK20M	18900	50	0	Right Tilted	Second	3	17.5	16.83	0.05	0.849	0.389	0.990
L37	LTE B2	QPSK20M	18900	50	0	Right Tilted (Repeated)	Second	1	17.5	16.83	0.03	0.863	0.402	1.008

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L39	LTE B4	QPSK20M	20050	1	50	Right Cheek	Main	1	24	23.41	0.09	0.005	0.003	0.006
L40	LTE B4	QPSK20M	20050	1	50	Right Tilted	Main	1	24	23.41	0.09	0.003	0.001	0.003
L41	LTE B4	QPSK20M	20050	1	50	Left Cheek	Main	1	24	23.41	0.03	0.018	0.010	0.021
L42	LTE B4	QPSK20M	20050	1	50	Left Tilted	Main	1	24	23.41	-0.11	0.005	0.002	0.006
L43	LTE B4	QPSK20M	20175	50	25	Right Cheek	Main	1	23	22.25	0.01	0.005	0.002	0.006
L44	LTE B4	QPSK20M	20175	50	25	Right Tilted	Main	1	23	22.25	-0.09	0.002	0.001	0.003
L45	LTE B4	QPSK20M	20175	50	25	Left Cheek	Main	1	23	22.25	0	**0.018**	**0.010**	**0.022**
L46	LTE B4	QPSK20M	20175	50	25	Left Tilted	Main	1	23	22.25	0.02	0.005	0.003	0.006
L47	LTE B4	QPSK20M	20175	50	25	Left Cheek	Main	2	23	22.25	0.07	0.018	0.010	0.021
L48	LTE B4	QPSK20M	20175	50	25	Left Cheek	Main	3	23	22.25	0.03	0.018	0.010	0.021
L50	LTE B4	QPSK20M	20050	1	50	Right Cheek	Second	1	18	17.35	-0.02	0.662	0.346	0.769
L51	LTE B4	QPSK20M	20050	1	50	Right Tilted	Second	1	18	17.35	0.01	0.849	0.405	0.986
L52	LTE B4	QPSK20M	20050	1	50	Left Cheek	Second	1	18	17.35	0.012	0.375	0.182	0.436
L53	LTE B4	QPSK20M	20050	1	50	Left Tilted	Second	1	18	17.35	0.03	0.768	0.389	0.892
L54	LTE B4	QPSK20M	20300	50	25	Right Cheek	Second	1	18	17.28	0.05	0.751	0.393	0.886
L55	LTE B4	QPSK20M	20300	50	25	Right Tilted	Second	1	18	17.28	0	0.886	0.419	1.046
L56	LTE B4	QPSK20M	20300	50	25	Left Cheek	Second	1	18	17.28	0.01	0.598	0.314	0.706
L57	LTE B4	QPSK20M	20300	50	25	Left Tilted	Second	1	18	17.28	-0.07	0.767	0.379	0.905
L58	LTE B4	QPSK20M	20175	1	50	Right Tilted	Second	1	18	17.24	0.18	0.905	0.428	1.078
L59	LTE B4	QPSK20M	20300	1	50	Right Tilted	Second	1	18	17.34	0.06	0.889	0.419	1.035
L60	LTE B4	QPSK20M	20175	1	50	Left Tilted	Second	1	18	17.24	0.02	0.752	0.365	0.896
L61	LTE B4	QPSK20M	20300	1	50	Left Tilted	Second	1	18	17.34	-0.02	0.768	0.373	0.894
L62	LTE B4	QPSK20M	20050	50	25	Right Cheek	Second	1	18	17.27	0.02	0.817	0.417	0.967
L63	LTE B4	QPSK20M	20175	50	25	Right Cheek	Second	1	18	17.25	0.08	0.822	0.419	0.977
L64	LTE B4	QPSK20M	20050	50	25	Right Tilted	Second	1	18	17.27	0.11	0.870	0.419	1.029
L65	LTE B4	QPSK20M	20175	50	25	Right Tilted	Second	1	18	17.25	-0.05	0.895	0.431	1.064
L66	LTE B4	QPSK20M	20050	50	25	Left Tilted	Second	1	18	17.27	0.01	0.709	0.345	0.839
L67	LTE B4	QPSK20M	20175	50	25	Left Tilted	Second	1	18	17.25	0.01	0.722	0.351	0.858
L68	LTE B4	QPSK20M	20300	100	0	Right Cheek	Second	1	18	17.26	0.05	0.829	0.421	0.983
L69	LTE B4	QPSK20M	20300	100	0	Right Tilted	Second	1	18	17.26	-0.01	0.874	0.419	1.036
L70	LTE B4	QPSK20M	20300	100	0	Left Tilted	Second	1	18	17.26	-0.07	0.721	0.350	0.855
L71	LTE B4	QPSK20M	20175	1	50	Right Tilted	Second	2	18	17.24	0.18	**0.912**	**0.434**	**1.086**
L72	LTE B4	QPSK20M	20175	1	50	Right Tilted	Second	3	18	17.24	0.02	0.895	0.423	1.066
L73	LTE B4	QPSK20M	20175	1	50	Right Tilted (Repeated)	Second	2	18	17.24	-0.03	0.901	0.425	1.073

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L75	LTE B5	QPSK10M	20450	1	24	Right Cheek	Main	1	24	23.07	-0.02	0.121	0.095	0.150
L76	LTE B5	QPSK10M	20450	1	24	Right Tilted	Main	1	24	23.07	0.01	0.083	0.068	0.103
L77	LTE B5	QPSK10M	20450	1	24	Left Cheek	Main	1	24	23.07	-0.11	**0.148**	**0.115**	**0.183**
L78	LTE B5	QPSK10M	20450	1	24	Left Tilted	Main	1	24	23.07	0.07	0.098	0.081	0.122
L79	LTE B5	QPSK10M	20450	25	25	Right Cheek	Main	1	23	22	0.09	0.097	0.075	0.123
L80	LTE B5	QPSK10M	20450	25	25	Right Tilted	Main	1	23	22	0	0.070	0.057	0.088
L81	LTE B5	QPSK10M	20450	25	25	Left Cheek	Main	1	23	22	0.04	0.118	0.091	0.149
L82	LTE B5	QPSK10M	20450	25	25	Left Tilted	Main	1	23	22	-0.02	0.078	0.064	0.098
L83	LTE B5	QPSK10M	20450	1	24	Left Cheek	Main	2	24	23.07	0.01	0.129	0.099	0.160
L84	LTE B5	QPSK10M	20450	1	24	Left Cheek	Main	3	24	23.07	0.15	0.137	0.106	0.170
L86	LTE B5	QPSK10M	20525	1	24	Right Cheek	Second	1	24	23.14	0.09	0.437	0.254	0.533
L87	LTE B5	QPSK10M	20525	1	24	Right Tilted	Second	1	24	23.14	-0.02	0.380	0.209	0.463
L88	LTE B5	QPSK10M	20525	1	24	Left Cheek	Second	1	24	23.14	0.01	0.391	0.232	0.477
L89	LTE B5	QPSK10M	20525	1	24	Left Tilted	Second	1	24	23.14	0.12	0.339	0.189	0.413
L90	LTE B5	QPSK10M	20450	25	0	Right Cheek	Second	1	23	22.02	0.07	0.309	0.183	0.387
L91	LTE B5	QPSK10M	20450	25	0	Right Tilted	Second	1	23	22.02	0.03	0.255	0.141	0.320
L92	LTE B5	QPSK10M	20450	25	0	Left Cheek	Second	1	23	22.02	-0.04	0.268	0.159	0.336
L93	LTE B5	QPSK10M	20450	25	0	Left Tilted	Second	1	23	22.02	0.1	0.235	0.131	0.294
L94	LTE B5	QPSK10M	20525	1	24	Right Cheek	Second	2	24	23.14	0.07	**0.462**	**0.273**	**0.563**
L95	LTE B5	QPSK10M	20525	1	24	Right Cheek	Second	3	24	23.14	-0.03	0.458	0.269	0.558
L97	LTE B7	QPSK20M	20850	1	50	Right Cheek	Main	1	24	23.31	-0.02	**0.086**	**0.047**	**0.100**
L98	LTE B7	QPSK20M	20850	1	50	Right Tilted	Main	1	24	23.31	0.03	0.081	0.044	0.095
L99	LTE B7	QPSK20M	20850	1	50	Left Cheek	Main	1	24	23.31	-0.08	0.054	0.029	0.064
L100	LTE B7	QPSK20M	20850	1	50	Left Tilted	Main	1	24	23.31	0.03	0.060	0.032	0.071
L101	LTE B7	QPSK20M	20850	50	25	Right Cheek	Main	1	23	22.1	-0.14	0.070	0.036	0.086
L102	LTE B7	QPSK20M	20850	50	25	Right Tilted	Main	1	23	22.1	0.08	0.068	0.036	0.084
L103	LTE B7	QPSK20M	20850	50	25	Left Cheek	Main	1	23	22.1	0.02	0.049	0.026	0.060
L104	LTE B7	QPSK20M	20850	50	25	Left Tilted	Main	1	23	22.1	-0.03	0.064	0.033	0.078
L105	LTE B7	QPSK20M	20850	1	50	Right Cheek	Main	2	24	23.31	0.01	0.084	0.046	0.098
L106	LTE B7	QPSK20M	20850	1	50	Right Cheek	Main	3	24	23.31	0.07	0.085	0.047	0.099
L108	LTE B7	QPSK20M	20850	1	50	Right Cheek	Second	1	17	16.61	0.07	0.609	0.284	0.666
L109	LTE B7	QPSK20M	20850	1	50	Right Tilted	Second	1	17	16.61	0.09	**0.846**	**0.345**	**0.925**
L110	LTE B7	QPSK20M	20850	1	50	Left Cheek	Second	1	17	16.61	0.03	0.234	0.110	0.256
L111	LTE B7	QPSK20M	20850	1	50	Left Tilted	Second	1	17	16.61	0.06	0.325	0.146	0.356
L112	LTE B7	QPSK20M	21100	50	50	Right Cheek	Second	1	17	16.44	0.14	0.578	0.255	0.658
L113	LTE B7	QPSK20M	21100	50	50	Right Tilted	Second	1	17	16.44	0.08	0.680	0.281	0.774
L114	LTE B7	QPSK20M	21100	50	50	Left Cheek	Second	1	17	16.44	-0.02	0.210	0.103	0.239
L115	LTE B7	QPSK20M	21100	50	50	Left Tilted	Second	1	17	16.44	0.03	0.289	0.132	0.329
L116	LTE B7	QPSK20M	21100	1	50	Right Tilted	Second	1	17	16.55	-0.13	0.753	0.311	0.835
L117	LTE B7	QPSK20M	21350	1	50	Right Tilted	Second	1	17	16.47	0.02	0.704	0.292	0.795
L120	LTE B7	QPSK20M	21100	100	0	Right Tilted	Second	1	17	16.38	0.12	0.732	0.302	0.844
L121	LTE B7	QPSK20M	20850	1	50	Right Tilted	Second	2	17	16.61	0.03	0.829	0.335	0.907
L122	LTE B7	QPSK20M	20850	1	50	Right Tilted	Second	3	17	16.61	0.08	0.815	0.322	0.892
L123	LTE B7	QPSK20M	20850	1	50	Right Tilted (Repeated)	Second	1	17	16.61	-0.01	0.836	0.339	0.915

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L125	LTE B12	QPSK10M	23095	1	24	Right Cheek	Main	1	24	22.94	0.02	0.081	0.064	0.103
L126	LTE B12	QPSK10M	23095	1	24	Right Tilted	Main	1	24	22.94	-0.01	0.066	0.052	0.084
L127	LTE B12	QPSK10M	23095	1	24	Left Cheek	Main	1	24	22.94	0.07	0.100	0.078	0.127
L128	LTE B12	QPSK10M	23095	1	24	Left Tilted	Main	1	24	22.94	0.12	0.074	0.058	0.094
L129	LTE B12	QPSK10M	23095	25	0	Right Cheek	Main	1	23	21.85	-0.05	0.066	0.051	0.085
L130	LTE B12	QPSK10M	23095	25	0	Right Tilted	Main	1	23	21.85	0.09	0.049	0.039	0.064
L131	LTE B12	QPSK10M	23095	25	0	Left Cheek	Main	1	23	21.85	0	0.088	0.068	0.114
L132	LTE B12	QPSK10M	23095	25	0	Left Tilted	Main	1	23	21.85	0.01	0.061	0.048	0.079
L133	LTE B12	QPSK10M	23095	1	24	Left Cheek	Main	2	24	22.94	-0.04	0.099	0.076	0.126
L134	LTE B12	QPSK10M	23095	1	24	Left Cheek	Main	3	24	22.94	0.04	**0.109**	**0.086**	**0.139**
L136	LTE B12	QPSK10M	23095	1	24	Right Cheek	Second	1	24	22.97	0.12	**0.074**	**0.046**	**0.093**
L137	LTE B12	QPSK10M	23095	1	24	Right Tilted	Second	1	24	22.97	0.11	0.065	0.038	0.083
L138	LTE B12	QPSK10M	23095	1	24	Left Cheek	Second	1	24	22.97	-0.08	0.043	0.027	0.055
L139	LTE B12	QPSK10M	23095	1	24	Left Tilted	Second	1	24	22.97	0.16	0.037	0.023	0.047
L140	LTE B12	QPSK10M	23095	25	12	Right Cheek	Second	1	23	21.89	0.16	0.058	0.036	0.075
L141	LTE B12	QPSK10M	23095	25	12	Right Tilted	Second	1	23	21.89	0.11	0.051	0.030	0.066
L142	LTE B12	QPSK10M	23095	25	12	Left Cheek	Second	1	23	21.89	0.16	0.034	0.021	0.044
L143	LTE B12	QPSK10M	23095	25	12	Left Tilted	Second	1	23	21.89	0.17	0.030	0.018	0.038
L144	LTE B12	QPSK10M	23095	1	24	Right Cheek	Second	2	24	22.97	0.04	0.063	0.041	0.079
L145	LTE B12	QPSK10M	23095	1	24	Right Cheek	Second	3	24	22.97	-0.01	0.068	0.044	0.086
L147	LTE B26	QPSK15M	26865	1	37	Right Cheek	Main	1	24	23.15	0.05	0.141	0.110	0.171
L148	LTE B26	QPSK15M	26865	1	37	Right Tilted	Main	1	24	23.15	0.09	0.089	0.073	0.109
L149	LTE B26	QPSK15M	26865	1	37	Left Cheek	Main	1	24	23.15	-0.01	**0.169**	**0.130**	**0.206**
L150	LTE B26	QPSK15M	26865	1	37	Left Tilted	Main	1	24	23.15	0.1	0.101	0.082	0.123
L151	LTE B26	QPSK15M	26965	36	39	Right Cheek	Main	1	23	22.23	-0.12	0.114	0.089	0.136
L152	LTE B26	QPSK15M	26965	36	39	Right Tilted	Main	1	23	22.23	0.03	0.067	0.055	0.080
L153	LTE B26	QPSK15M	26965	36	39	Left Cheek	Main	1	23	22.23	0.06	0.133	0.102	0.159
L154	LTE B26	QPSK15M	26965	36	39	Left Tilted	Main	1	23	22.23	0.04	0.079	0.065	0.094
L155	LTE B26	QPSK15M	26865	1	37	Left Cheek	Main	2	24	23.15	-0.09	0.154	0.127	0.187
L156	LTE B26	QPSK15M	26865	1	37	Left Cheek	Main	3	24	23.15	0.1	0.161	0.123	0.196
L158	LTE B26	QPSK15M	26865	1	37	Right Cheek	Second	1	24	23.1	0.03	0.537	0.310	0.661
L159	LTE B26	QPSK15M	26865	1	37	Right Tilted	Second	1	24	23.1	0.01	0.486	0.262	0.598
L160	LTE B26	QPSK15M	26865	1	37	Left Cheek	Second	1	24	23.1	0.05	0.534	0.307	0.657
L161	LTE B26	QPSK15M	26865	1	37	Left Tilted	Second	1	24	23.1	-0.01	0.506	0.270	0.623
L162	LTE B26	QPSK15M	26865	36	39	Right Cheek	Second	1	23	22.17	-0.02	0.462	0.266	0.559
L163	LTE B26	QPSK15M	26865	36	39	Right Tilted	Second	1	23	22.17	0.04	0.412	0.223	0.499
L164	LTE B26	QPSK15M	26865	36	39	Left Cheek	Second	1	23	22.17	0.1	0.436	0.251	0.528
L165	LTE B26	QPSK15M	26865	36	39	Left Tilted	Second	1	23	22.17	0.06	0.428	0.228	0.518
L166	LTE B26	QPSK15M	26865	1	37	Right Cheek	Second	2	24	23.1	-0.07	**0.555**	**0.321**	**0.683**
L167	LTE B26	QPSK15M	26865	1	37	Right Cheek	Second	3	24	23.1	0.12	0.545	0.316	0.670

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L169	LTE B38	QPSK20M	38000	1	50	Right Cheek	Main	1	24	23.3	0.01	0.023	0.013	0.027
L170	LTE B38	QPSK20M	38000	1	50	Right Tilted	Main	1	24	23.3	0.08	**0.034**	**0.015**	**0.040**
L171	LTE B38	QPSK20M	38000	1	50	Left Cheek	Main	1	24	23.3	0	0.030	0.011	0.035
L172	LTE B38	QPSK20M	38000	1	50	Left Tilted	Main	1	24	23.3	0.09	0.024	0.011	0.028
L173	LTE B38	QPSK20M	38000	50	25	Right Cheek	Main	1	23	22.12	0	0.017	0.008	0.021
L174	LTE B38	QPSK20M	38000	50	25	Right Tilted	Main	1	23	22.12	0.09	0.026	0.011	0.032
L175	LTE B38	QPSK20M	38000	50	25	Left Cheek	Main	1	23	22.12	0	0.020	0.009	0.025
L176	LTE B38	QPSK20M	38000	50	25	Left Tilted	Main	1	23	22.12	0.08	0.018	0.008	0.022
L177	LTE B38	QPSK20M	38000	1	50	Right Tilted	Main	2	24	23.3	-0.13	0.031	0.012	0.036
L178	LTE B38	QPSK20M	38000	1	50	Right Tilted	Main	3	24	23.3	0.01	0.034	0.014	0.039
L180	LTE B38	QPSK20M	38000	1	50	Right Cheek	Second	1	18.5	17.76	0.05	0.423	0.192	0.502
L181	LTE B38	QPSK20M	38000	1	50	Right Tilted	Second	1	18.5	17.76	0.01	0.538	0.221	0.638
L182	LTE B38	QPSK20M	38000	1	50	Left Cheek	Second	1	18.5	17.76	0.06	0.165	0.082	0.196
L183	LTE B38	QPSK20M	38000	1	50	Left Tilted	Second	1	18.5	17.76	-0.12	0.205	0.093	0.243
L184	LTE B38	QPSK20M	37850	50	25	Right Cheek	Second	1	18.5	17.67	0.03	0.423	0.202	0.512
L185	LTE B38	QPSK20M	37850	50	25	Right Tilted	Second	1	18.5	17.67	0.07	**0.548**	**0.223**	**0.663**
L186	LTE B38	QPSK20M	37850	50	25	Left Cheek	Second	1	18.5	17.67	0.01	0.163	0.082	0.197
L187	LTE B38	QPSK20M	37850	50	25	Left Tilted	Second	1	18.5	17.67	0.08	0.244	0.116	0.295
L198	LTE B38	QPSK20M	37850	50	25	Right Tilted	Second	2	18.5	17.67	-0.11	0.510	0.193	0.617
L199	LTE B38	QPSK20M	37850	50	25	Right Tilted	Second	3	18.5	17.67	0.07	0.532	0.212	0.644
L201	LTE B41	QPSK20M	40140	1	50	Right Cheek	Main	1	24	23.36	-0.12	0.043	0.022	0.049
L202	LTE B41	QPSK20M	40140	1	50	Right Tilted	Main	1	24	23.36	0.07	0.033	0.016	0.038
L203	LTE B41	QPSK20M	40140	1	50	Left Cheek	Main	1	24	23.36	0.08	0.021	0.010	0.024
L204	LTE B41	QPSK20M	40140	1	50	Left Tilted	Main	1	24	23.36	0.05	0.033	0.016	0.038
L205	LTE B41	QPSK20M	40140	50	25	Right Cheek	Main	1	23	22.21	0.02	0.033	0.016	0.040
L206	LTE B41	QPSK20M	40140	50	25	Right Tilted	Main	1	23	22.21	0.07	0.024	0.012	0.029
L207	LTE B41	QPSK20M	40140	50	25	Left Cheek	Main	1	23	22.21	0.06	0.015	0.007	0.018
L208	LTE B41	QPSK20M	40140	50	25	Left Tilted	Main	1	23	22.21	0.03	0.025	0.012	0.030
L209	LTE B41	QPSK20M	40140	1	50	Right Cheek	Main	2	24	23.36	-0.01	0.042	0.022	0.049
L210	LTE B41	QPSK20M	40140	1	50	Right Cheek	Main	3	24	23.36	0	**0.043**	**0.022**	**0.050**
L212	LTE B41	QPSK20M	40140	1	50	Right Cheek	Second	1	18.5	17.84	0.03	0.459	0.216	0.534
L213	LTE B41	QPSK20M	40140	1	50	Right Tilted	Second	1	18.5	17.84	-0.01	0.530	0.224	0.617
L214	LTE B41	QPSK20M	40140	1	50	Left Cheek	Second	1	18.5	17.84	0.07	0.153	0.076	0.178
L215	LTE B41	QPSK20M	40140	1	50	Left Tilted	Second	1	18.5	17.84	0.02	0.227	0.110	0.264
L216	LTE B41	QPSK20M	40140	50	50	Right Cheek	Second	1	18.5	17.72	-0.01	0.463	0.214	0.554
L217	LTE B41	QPSK20M	40140	50	50	Right Tilted	Second	1	18.5	17.72	0.08	**0.583**	**0.238**	**0.698**
L218	LTE B41	QPSK20M	40140	50	50	Left Cheek	Second	1	18.5	17.72	0.03	0.155	0.078	0.185
L219	LTE B41	QPSK20M	40140	50	50	Left Tilted	Second	1	18.5	17.72	0.12	0.205	0.102	0.245
L220	LTE B41	QPSK20M	40440	1	50	Right Tilted	Second	1	18.5	17.64	-0.08	0.545	0.224	0.664
L221	LTE B41	QPSK20M	40840	1	50	Right Tilted	Second	1	18.5	17.52	0.03	0.488	0.205	0.612
L222	LTE B41	QPSK20M	41140	1	50	Right Tilted	Second	1	18.5	17.54	0.1	0.456	0.194	0.569
L223	LTE B41	QPSK20M	40440	50	0	Right Tilted	Second	1	18.5	17.53	0.07	0.543	0.221	0.679
L224	LTE B41	QPSK20M	40840	50	25	Right Tilted	Second	1	18.5	17.5	0.04	0.481	0.202	0.606
L225	LTE B41	QPSK20M	41140	50	25	Right Tilted	Second	1	18.5	17.39	-0.03	0.449	0.191	0.580
L226	LTE B41	QPSK20M	40140	100	0	Right Tilted	Second	1	18.5	17.7	0.01	0.559	0.227	0.672
L227	LTE B41	QPSK20M	40140	50	50	Right Tilted	Second	2	18.5	17.72	0.02	0.574	0.231	0.687
L228	LTE B41	QPSK20M	40140	50	50	Right Tilted	Second	3	18.5	17.72	0.05	0.568	0.229	0.680

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L230	LTE B66	QPSK20M	132072	1	50	Right Cheek	Main	1	24	23.15	0.09	0.016	0.010	0.020
L231	LTE B66	QPSK20M	132072	1	50	Right Tilted	Main	1	24	23.15	0.09	0.002	0.001	0.003
L232	LTE B66	QPSK20M	132072	1	50	Left Cheek	Main	1	24	23.15	0.09	0.018	0.010	0.022
L233	LTE B66	QPSK20M	132072	1	50	Left Tilted	Main	1	24	23.15	0.05	0.005	0.002	0.006
L234	LTE B66	QPSK20M	132572	50	0	Right Cheek	Main	1	23	22.07	0.09	0.011	0.007	0.014
L235	LTE B66	QPSK20M	132572	50	0	Right Tilted	Main	1	23	22.07	0.02	0.007	0.004	0.008
L236	LTE B66	QPSK20M	132572	50	0	Left Cheek	Main	1	23	22.07	0.09	**0.026**	**0.015**	**0.032**
L237	LTE B66	QPSK20M	132572	50	0	Left Tilted	Main	1	23	22.07	0.02	0.006	0.004	0.008
L238	LTE B66	QPSK20M	132572	50	0	Left Cheek	Main	2	23	22.07	0.01	0.025	0.014	0.031
L239	LTE B66	QPSK20M	132572	50	0	Left Cheek	Main	3	23	22.07	-0.03	0.025	0.015	0.031
L241	LTE B66	QPSK20M	132572	1	50	Right Cheek	Second	1	17	16.28	-0.05	0.777	0.392	0.917
L242	LTE B66	QPSK20M	132572	1	50	Right Tilted	Second	1	17	16.28	0.08	**0.813**	**0.387**	**0.960**
L243	LTE B66	QPSK20M	132572	1	50	Left Cheek	Second	1	17	16.28	0.03	0.525	0.305	0.620
L244	LTE B66	QPSK20M	132572	1	50	Left Tilted	Second	1	17	16.28	0.02	0.673	0.368	0.794
L245	LTE B66	QPSK20M	132572	50	0	Right Cheek	Second	1	17	16.27	0.01	0.763	0.384	0.903
L246	LTE B66	QPSK20M	132572	50	0	Right Tilted	Second	1	17	16.27	0.04	0.805	0.382	0.952
L247	LTE B66	QPSK20M	132572	50	0	Left Cheek	Second	1	17	16.27	0.03	0.563	0.309	0.666
L248	LTE B66	QPSK20M	132572	50	0	Left Tilted	Second	1	17	16.27	0.07	0.662	0.356	0.783
L249	LTE B66	QPSK20M	132072	1	50	Right Cheek	Second	1	17	16.25	0.11	0.738	0.368	0.877
L250	LTE B66	QPSK20M	132322	1	50	Right Cheek	Second	1	17	16.15	0.09	0.757	0.375	0.921
L249	LTE B66	QPSK20M	132072	1	50	Right Tilted	Second	1	17	16.25	-0.07	0.772	0.389	0.918
L250	LTE B66	QPSK20M	132322	1	50	Right Tilted	Second	1	17	16.15	0.03	0.786	0.393	0.956
L251	LTE B66	QPSK20M	132072	50	50	Right Cheek	Second	1	17	16.15	0.04	0.752	0.374	0.915
L252	LTE B66	QPSK20M	132322	50	0	Right Cheek	Second	1	17	16.16	0	0.761	0.377	0.923
L251	LTE B66	QPSK20M	132072	50	50	Right Tilted	Second	1	17	16.15	-0.12	0.778	0.385	0.946
L252	LTE B66	QPSK20M	132322	50	0	Right Tilted	Second	1	17	16.16	0.08	0.783	0.391	0.950
L253	LTE B66	QPSK20M	132572	100	0	Right Cheek	Second	1	17	16.21	0.07	0.729	0.357	0.874
L253	LTE B66	QPSK20M	132572	100	0	Right Tilted	Second	1	17	16.21	0.05	0.762	0.380	0.914
L254	LTE B66	QPSK20M	132572	1	50	Right Tilted	Second	2	17	16.28	0.04	0.805	0.379	0.950
L255	LTE B66	QPSK20M	132572	1	50	Right Tilted	Second	3	17	16.28	-0.04	0.786	0.363	0.928
L256	LTE B66	QPSK20M	132572	1	50	Right Tilted (Repeated)	Second	1	17	16.28	0.03	0.803	0.397	0.948

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

4. Head SAR test results of 2.4G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W01	802.11b	6	Right Cheek	1	1	-	17.5	17.26	-0.04	0.449	0.236	0.475
W02	802.11b	6	Right Tilted	1	1	-	17.5	17.26	0.01	0.560	0.258	0.592
W03	802.11b	6	Left Cheek	1	1	-	17.5	17.26	0.15	**0.837**	**0.394**	**0.885**
W04	802.11b	6	Left Tilted	1	1	-	17.5	17.26	0.03	0.752	0.333	0.795
W05	802.11b	2	Left Cheek	1	1	-	17.5	17.17	0.05	0.767	0.367	0.828
W06	802.11b	6	Left Cheek	2	1	-	17.5	17.26	-0.11	0.796	0.365	0.841
W07	802.11b	6	Left Cheek	3	1	-	17.5	17.26	0.09	0.783	0.359	0.827
W08	802.11b	6	Left Cheek (Repeated)	1	1	-	17.5	17.26	0.03	0.813	0.376	0.859

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

5. Head SAR test results of 2.4G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W09	802.11b	6	Right Cheek	1	1	-	14.5	14.41	-0.01	0.227	0.115	0.232
W10	802.11b	6	Right Tilted	1	1	-	14.5	14.41	0.02	0.263	0.128	0.269
W11	802.11b	6	Left Cheek	1	1	-	14.5	14.41	0.05	**0.404**	**0.192**	**0.412**
W12	802.11b	6	Left Tilted	1	1	-	14.5	14.41	0.11	0.354	0.154	0.361
W13	802.11b	6	Left Cheek	2	1	-	14.5	14.41	0.03	0.396	0.178	0.404
W14	802.11b	6	Left Cheek	3	1	-	14.5	14.41	0.06	0.354	0.154	0.361

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

6. Head SAR test results of BT

Test No.	Band	Channel	Test Position	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W16	BT DH5	39	Right Cheek	1	1	77%	12.5	10.6	-0.09	0.015	0.009	0.031
W17	BT DH5	39	Right Tilted	1	1	77%	12.5	10.6	0.01	0.020	0.009	0.040
W18	BT DH5	39	Left Cheek	1	1	77%	12.5	10.6	0	**0.032**	**0.013**	**0.064**
W19	BT DH5	39	Left Tilted	1	1	77%	12.5	10.6	-0.03	0.025	0.010	0.050
W20	BT DH5	39	Left Cheek	2	1	77%	12.5	10.6	0.02	0.029	0.013	0.059
W21	BT DH5	39	Left Cheek	3	1	77%	12.5	10.6	0.04	0.028	0.012	0.057

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

7. Head SAR test results of 5G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W23	802.11a	52	Right Cheek	1	6	-	16	15.6	0.09	0.442	0.152	0.485
W24	802.11a	52	Right Tilted	1	6	-	16	15.6	0.05	0.465	0.158	0.510
W25	802.11a	52	Left Cheek	1	6	-	16	15.6	0.03	0.951	0.334	1.043
W26	802.11a	52	Left Tilted	1	6	-	16	15.6	-0.02	0.806	0.275	0.884
W27	802.11a	60	Left Cheek	1	6	-	16	15.6	-0.01	**0.952**	**0.340**	**1.044**
W28	802.11a	60	Left Cheek	2	6	-	16	15.6	0.07	0.946	0.333	1.037
W29	802.11a	60	Left Cheek	3	6	-	16	15.6	0.01	0.871	0.310	0.955
W30	802.11a	60	Left Cheek (Repeated)	1	6	-	16	15.6	0.07	0.940	0.328	1.031
W38	802.11a	132	Right Cheek	1	6	-	16	15.89	0.07	0.450	0.145	0.462
W39	802.11a	132	Right Tilted	1	6	-	16	15.89	-0.02	0.524	0.171	0.537
W40	802.11a	132	Left Cheek	1	6	-	16	15.89	0.01	1.020	0.334	1.046
W41	802.11a	132	Left Tilted	1	6	-	16	15.89	0.04	0.860	0.273	0.882
W42	802.11a	104	Right Cheek	1	6	-	16	15.87	0.02	0.523	0.168	0.539
W43	802.11a	104	Right Tilted	1	6	-	16	15.87	0.13	0.583	0.192	0.601
W45	802.11a	104	Left Cheek	1	6	-	16	15.87	0.08	**1.140**	**0.385**	**1.175**
W45	802.11a	104	Left Tilted	1	6	-	16	15.87	0.08	0.812	0.257	0.837
W46	802.11a	104	Left Cheek	2	6	-	16	15.87	0.01	0.978	0.357	1.008
W47	802.11a	104	Left Cheek	3	6	-	16	15.87	0.03	1.120	0.374	1.154
W48	802.11a	104	Left Cheek (Repeated)	1	6	-	16	15.87	0.09	1.120	0.376	1.154
W56	802.11a	149	Right Cheek	1	6	-	17	16.47	-0.02	0.374	0.119	0.423
W57	802.11a	149	Right Tilted	1	6	-	17	16.47	0.04	0.420	0.132	0.475
W58	802.11a	149	Left Cheek	1	6	-	17	16.47	0.06	0.836	0.263	0.945
W59	802.11a	149	Left Tilted	1	6	-	17	16.47	0.01	0.692	0.212	0.782
W60	802.11a	153	Left Cheek	1	6	-	17	16.43	0.04	**0.931**	**0.289**	**1.062**
W61	802.11a	153	Left Cheek	2	6	-	17	16.43	-0.11	0.875	0.268	0.998
W62	802.11a	153	Left Cheek	3	6	-	17	16.43	0.07	0.908	0.280	1.035
W63	802.11a	153	Left Cheek (Repeated)	1	6	-	17	16.43	0.06	0.906	0.279	1.033

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

8. Head SAR test results of 5G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W31	802.11a	64	Right Cheek	1	6	-	13	12.38	0.05	0.135	0.052	0.156
W32	802.11a	64	Right Tilted	1	6	-	13	12.38	0.09	0.137	0.054	0.158
W33	802.11a	64	Left Cheek	1	6	-	13	12.38	0.04	**0.321**	**0.114**	**0.370**
W34	802.11a	64	Left Tilted	1	6	-	13	12.38	0.08	0.233	0.079	0.269
W35	802.11a	64	Left Cheek	2	6	-	13	12.38	0.03	0.313	0.106	0.361
W36	802.11a	64	Left Cheek	3	6	-	13	12.38	-0.11	0.319	0.109	0.368
W49	802.11a	112	Right Cheek	1	6	-	12.5	12.38	0	0.055	0.021	0.056
W50	802.11a	112	Right Tilted	1	6	-	12.5	12.38	0.01	0.168	0.057	0.173
W51	802.11a	112	Left Cheek	1	6	-	12.5	12.38	0.05	0.381	0.128	0.392
W52	802.11a	112	Left Tilted	1	6	-	12.5	12.38	0.02	0.278	0.097	0.286
W53	802.11a	112	Left Cheek	2	6	-	12.5	12.38	-0.05	0.386	0.125	0.397
W54	802.11a	112	Left Cheek	3	6	-	12.5	12.38	0.03	**0.402**	**0.137**	**0.413**
W61	802.11a	161	Right Cheek	1	6	-	13.5	13.43	0.03	0.123	0.045	0.125
W62	802.11a	161	Right Tilted	1	6	-	13.5	13.43	0.05	0.140	0.050	0.142
W63	802.11a	161	Left Cheek	1	6	-	13.5	13.43	0.01	0.239	0.083	0.243
W64	802.11a	161	Left Tilted	1	6	-	13.5	13.43	0.06	0.214	0.071	0.217
W65	802.11a	161	Left Cheek	2	6	-	13.5	13.43	-0.03	0.231	0.080	0.235
W66	802.11a	161	Left Cheek	3	6	-	13.5	13.43	0.09	**0.287**	**0.091**	**0.292**

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

7.2.2 SAR MEASUREMENT RESULT OF BODY-WORN

1. Body-worn SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G34	GSM 850	GSM	190	Front Face	1.5	Main	1	33.5	32.76	0.02	0.176	0.137	0.209
G35	GSM 850	GSM	190	Rear Face	1.5	Main	1	33.5	32.76	0.01	0.225	0.176	0.267
G36	GSM 850	GSM	190	Rear Face	1.5	Main	2	33.5	32.76	0.07	0.219	0.172	0.260
G37	GSM 850	GSM	190	Rear Face	1.5	Main	3	33.5	32.76	-0.03	**0.237**	**0.182**	**0.281**
G47	GSM 850	GSM	190	Front Face	1.5	Second	1	33.5	32.8	0.05	0.059	0.045	0.070
G48	GSM 850	GSM	190	Rear Face	1.5	Second	1	33.5	32.8	0.02	**0.070**	**0.051**	**0.083**
G49	GSM 850	GSM	190	Rear Face	1.5	Second	2	33.5	32.8	0.12	0.068	0.050	0.080
G50	GSM 850	GSM	190	Rear Face	1.5	Second	3	33.5	32.8	-0.01	0.070	0.051	0.082
G59	GSM 1900	GSM	661	Front Face	1.5	Main	1	31	29.8	0.02	0.076	0.044	0.100
G60	GSM 1900	GSM	661	Rear Face	1.5	Main	1	31	29.8	0.07	**0.238**	**0.138**	**0.314**
G61	GSM 1900	GSM	661	Rear Face	1.5	Main	2	31	29.8	0.05	0.203	0.116	0.268
G62	GSM 1900	GSM	661	Rear Face	1.5	Main	3	31	29.8	0.03	0.227	0.128	0.299
G74	GSM 1900	GSM	661	Front Face	1.5	Second	1	30.5	29.34	0	0.108	0.065	0.141
G75	GSM 1900	GSM	661	Rear Face	1.5	Second	1	30.5	29.34	0.07	0.255	0.147	0.333
G76	GSM 1900	GSM	661	Rear Face	1.5	Second	2	30.5	29.34	0.13	**0.267**	**0.157**	**0.349**
G77	GSM 1900	GSM	661	Rear Face	1.5	Second	3	30.5	29.34	0.02	0.241	0.139	0.315

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

2. Body-worn SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U50	UMTS B2	RMC12.2K	9400	Front Face	1.5	Main	1	23.5	22.82	-0.02	0.135	0.081	0.158
U51	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Main	1	23.5	22.82	0.06	**0.432**	**0.250**	**0.505**
U52	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Main	2	23.5	22.82	0.01	0.420	0.237	0.491
U53	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Main	3	23.5	22.82	0.09	0.427	0.243	0.499
U68	UMTS B2	RMC12.2K	9400	Front Face	1.5	Second	1	22	21.25	0.08	0.106	0.062	0.126
U69	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Second	1	22	21.25	0.03	**0.316**	**0.186**	**0.376**
U70	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Second	2	22	21.25	-0.01	0.307	0.175	0.365
U71	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Second	3	22	21.25	0.07	0.311	0.182	0.370
U82	UMTS B4	RMC12.2K	1413	Front Face	1.5	Main	1	22.5	21.84	0.06	0.103	0.060	0.120
U83	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Main	1	22.5	21.84	0.03	**0.330**	**0.181**	**0.384**
U84	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Main	2	22.5	21.84	0.01	0.319	0.172	0.371
U85	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Main	3	22.5	21.84	-0.02	0.326	0.178	0.380
U100	UMTS B4	RMC12.2K	1413	Front Face	1.5	Second	1	22	21.32	0.06	0.105	0.062	0.123
U101	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Second	1	22	21.32	-0.07	**0.398**	**0.233**	**0.465**
U102	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Second	2	22	21.32	0.01	0.359	0.218	0.420
U103	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Second	3	22	21.32	0.13	0.375	0.229	0.439
U116	UMTS B5	RMC12.2K	4182	Front Face	1.5	Main	1	24	23.23	0.03	0.146	0.110	0.174
U117	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Main	1	24	23.23	-0.08	**0.229**	**0.176**	**0.273**
U118	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Main	2	24	23.23	0.09	0.219	0.162	0.261
U119	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Main	3	24	23.23	0.01	0.222	0.169	0.265
U129	UMTS B5	RMC12.2K	4182	Front Face	1.5	Second	1	24	23.33	-0.02	0.053	0.037	0.062
U130	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Second	1	24	23.33	0.01	0.067	0.049	0.079
U131	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Second	2	24	23.33	0.1	**0.070**	**0.050**	**0.081**
U132	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Second	3	24	23.33	0.05	0.065	0.046	0.075

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

3. Body-worn SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L257	LTE B2	QPSK20M	18900	1	50	Front Face	1.5	Main	1	23.5	22.85	0.08	0.122	0.070	0.142
L258	LTE B2	QPSK20M	18900	1	50	Rear Face	1.5	Main	1	23.5	22.85	0.02	0.408	0.217	0.474
L259	LTE B2	QPSK20M	18900	50	0	Front Face	1.5	Main	1	22.5	22.12	0.03	0.101	0.059	0.110
L260	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Main	1	22.5	22.12	-0.05	0.329	0.186	0.359
L261	LTE B2	QPSK20M	18900	1	50	Rear Face	1.5	Main	2	23.5	22.85	0.02	**0.416**	**0.237**	**0.483**
L262	LTE B2	QPSK20M	18900	1	50	Rear Face	1.5	Main	3	23.5	22.85	0.01	0.402	0.213	0.467
L287	LTE B2	QPSK20M	18700	1	50	Front Face	1.5	Second	1	22.5	21.99	0.04	0.115	0.067	0.129
L288	LTE B2	QPSK20M	18700	1	50	Rear Face	1.5	Second	1	22.5	21.99	-0.02	0.391	0.225	0.440
L289	LTE B2	QPSK20M	18900	50	0	Front Face	1.5	Second	1	22.5	22.07	0.06	0.123	0.071	0.136
L290	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Second	1	22.5	22.07	0.03	**0.422**	**0.249**	**0.466**
L291	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Second	2	22.5	22.07	0.01	0.412	0.231	0.455
L292	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Second	3	22.5	22.07	-0.04	0.415	0.235	0.458
L316	LTE B4	QPSK20M	20050	1	50	Front Face	1.5	Main	1	23.5	22.99	0.09	0.130	0.074	0.146
L317	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Main	1	23.5	22.99	0.03	0.411	0.221	0.462
L318	LTE B4	QPSK20M	20175	50	25	Front Face	1.5	Main	1	22.5	21.94	-0.12	0.108	0.062	0.123
L319	LTE B4	QPSK20M	20175	50	25	Rear Face	1.5	Main	1	22.5	21.94	0.05	0.354	0.191	0.403
L320	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Main	2	23.5	22.99	0.02	**0.417**	**0.226**	**0.469**
L321	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Main	3	23.5	22.99	-0.05	0.409	0.218	0.460
L346	LTE B4	QPSK20M	20050	1	50	Front Face	1.5	Second	1	21.5	20.68	-0.04	0.153	0.094	0.185
L347	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Second	1	21.5	20.68	0.02	0.338	0.198	0.408
L348	LTE B4	QPSK20M	20050	50	25	Front Face	1.5	Second	1	21.5	20.56	0.07	0.147	0.087	0.183
L349	LTE B4	QPSK20M	20050	50	25	Rear Face	1.5	Second	1	21.5	20.56	0.09	0.322	0.191	0.400
L350	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Second	2	21.5	20.68	0.12	0.334	0.198	0.403
L351	LTE B4	QPSK20M	20050	1	50	Rear Face	1.5	Second	3	21.5	20.68	0.1	**0.342**	**0.203**	**0.413**
L369	LTE B5	QPSK10M	20450	1	24	Front Face	1.5	Main	1	24	23.07	0.07	0.154	0.117	0.191
L370	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	Main	1	24	23.07	0.03	0.204	0.159	0.253
L371	LTE B5	QPSK10M	20450	25	25	Front Face	1.5	Main	1	23	22	-0.02	0.119	0.091	0.150
L372	LTE B5	QPSK10M	20450	25	25	Rear Face	1.5	Main	1	23	22	0	0.161	0.124	0.203
L373	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	Main	2	24	23.07	0.01	0.195	0.157	0.242
L374	LTE B5	QPSK10M	20450	1	24	Rear Face	1.5	Main	3	24	23.07	-0.04	**0.209**	**0.161**	**0.259**
L389	LTE B5	QPSK10M	20525	1	24	Front Face	1.5	Second	1	24	23.14	0.05	0.061	0.045	0.074
L390	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	Second	1	24	23.14	-0.02	**0.072**	**0.053**	**0.088**
L391	LTE B5	QPSK10M	20450	25	0	Front Face	1.5	Second	1	23	22.02	0.17	0.042	0.033	0.053
L392	LTE B5	QPSK10M	20450	25	0	Rear Face	1.5	Second	1	23	22.02	0.1	0.065	0.044	0.081
L393	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	Second	2	24	23.14	0.04	0.071	0.051	0.086
L394	LTE B5	QPSK10M	20525	1	24	Rear Face	1.5	Second	3	24	23.14	0.03	0.065	0.049	0.080

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L407	LTE B7	QPKS20M	20850	1	50	Front Face	1.5	Main	1	22	21.4	0.02	0.117	0.061	0.134
L408	LTE B7	QPKS20M	20850	1	50	Rear Face	1.5	Main	1	22	21.4	0.15	0.316	0.152	0.363
L409	LTE B7	QPKS20M	20850	50	25	Front Face	1.5	Main	1	22	21.26	-0.01	0.093	0.048	0.110
L410	LTE B7	QPKS20M	20850	50	25	Rear Face	1.5	Main	1	22	21.26	0.04	**0.319**	**0.156**	**0.378**
L411	LTE B7	QPKS20M	20850	50	25	Rear Face	1.5	Main	2	22	21.26	0.01	0.308	0.145	0.365
L412	LTE B7	QPKS20M	20850	50	25	Rear Face	1.5	Main	3	22	21.26	0.03	0.312	0.148	0.370
L433	LTE B7	QPKS20M	20850	1	50	Front Face	1.5	Second	1	20.5	19.8	0.02	0.074	0.038	0.087
L434	LTE B7	QPKS20M	20850	1	50	Rear Face	1.5	Second	1	20.5	19.8	0.14	**0.346**	**0.170**	**0.407**
L435	LTE B7	QPKS20M	21100	50	50	Front Face	1.5	Second	1	20.5	19.67	0.07	0.084	0.048	0.101
L436	LTE B7	QPKS20M	21100	50	50	Rear Face	1.5	Second	1	20.5	19.67	-0.01	0.298	0.153	0.361
L437	LTE B7	QPKS20M	20850	1	50	Rear Face	1.5	Second	2	20.5	19.8	0.05	0.339	0.166	0.398
L438	LTE B7	QPKS20M	20850	1	50	Rear Face	1.5	Second	3	20.5	19.8	0.02	0.328	0.162	0.385
L459	LTE B12	QPSK10M	23095	1	24	Front Face	1.5	Main	1	24	22.94	-0.01	0.137	0.106	0.175
L460	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Main	1	24	22.94	0.02	0.198	0.152	0.253
L461	LTE B12	QPSK10M	23095	25	0	Front Face	1.5	Main	1	23	21.85	0.07	0.119	0.093	0.155
L462	LTE B12	QPSK10M	23095	25	0	Rear Face	1.5	Main	1	23	21.85	0.04	0.169	0.132	0.220
L463	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Main	2	24	22.94	-0.08	0.201	0.154	0.257
L464	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Main	3	24	22.94	-0.01	**0.205**	**0.159**	**0.262**
L477	LTE B12	QPSK10M	23095	1	24	Front Face	1.5	Second	1	24	22.97	0.06	0.011	0.009	0.014
L478	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Second	1	24	22.97	0.02	**0.017**	**0.013**	**0.021**
L479	LTE B12	QPSK10M	23095	25	12	Front Face	1.5	Second	1	23	21.89	-0.12	0.009	0.007	0.011
L480	LTE B12	QPSK10M	23095	25	12	Rear Face	1.5	Second	1	23	21.89	0.16	0.013	0.010	0.017
L481	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Second	2	24	22.97	0.03	0.015	0.013	0.019
L482	LTE B12	QPSK10M	23095	1	24	Rear Face	1.5	Second	3	24	22.97	0	0.016	0.013	0.020
L495	LTE B26	QPSK15M	26865	1	37	Front Face	1.5	Main	1	24	23.15	0.01	0.149	0.107	0.181
L496	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Main	1	24	23.15	-0.08	**0.227**	**0.176**	**0.276**
L497	LTE B26	QPSK15M	26965	36	39	Front Face	1.5	Main	1	23	22.23	0.11	0.109	0.079	0.130
L498	LTE B26	QPSK15M	26965	36	39	Rear Face	1.5	Main	1	23	22.23	0.02	0.141	0.101	0.168
L499	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Main	2	24	23.15	0.03	0.209	0.168	0.254
L500	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Main	3	24	23.15	-0.12	0.213	0.174	0.259
L515	LTE B26	QPSK15M	26865	1	37	Front Face	1.5	Second	1	24	23.1	0.04	0.061	0.047	0.075
L516	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Second	1	24	23.1	0.06	0.071	0.052	0.087
L517	LTE B26	QPSK15M	26865	36	39	Front Face	1.5	Second	1	23	22.17	-0.01	0.045	0.035	0.054
L518	LTE B26	QPSK15M	26865	36	39	Rear Face	1.5	Second	1	23	22.17	0.05	0.060	0.045	0.072
L519	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Second	2	24	23.1	0.1	**0.073**	**0.054**	**0.090**
L520	LTE B26	QPSK15M	26865	1	37	Rear Face	1.5	Second	3	24	23.1	-0.02	0.072	0.052	0.088

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L533	LTE B38	QPSK20M	38000	1	50	Front Face	1.5	Main	1	24	23.3	-0.01	0.097	0.052	0.114
L534	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Main	1	24	23.3	0.06	0.335	0.167	0.394
L535	LTE B38	QPSK20M	38000	50	25	Front Face	1.5	Main	1	23	22.12	0.01	0.074	0.040	0.090
L536	LTE B38	QPSK20M	38000	50	25	Rear Face	1.5	Main	1	23	22.12	0.12	0.265	0.134	0.325
L537	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Main	2	24	23.3	-0.05	0.327	0.159	0.384
L538	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Main	3	24	23.3	0.04	**0.341**	**0.172**	**0.401**
L561	LTE B38	QPSK20M	38000	1	50	Front Face	1.5	Second	1	24	23.35	-0.03	0.201	0.108	0.233
L562	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Second	1	24	23.35	0.01	**0.397**	**0.189**	**0.461**
L563	LTE B38	QPSK20M	37850	50	25	Front Face	1.5	Second	1	23	22.06	0.05	0.149	0.081	0.185
L564	LTE B38	QPSK20M	37850	50	25	Rear Face	1.5	Second	1	23	22.06	0.07	0.302	0.143	0.375
L565	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Second	2	24	23.35	0.02	0.375	0.177	0.436
L566	LTE B38	QPSK20M	38000	1	50	Rear Face	1.5	Second	3	24	23.35	0.1	0.381	0.182	0.443
L587	LTE B41	QPSK20M	40140	1	50	Front Face	1.5	Main	1	24	23.36	0.07	0.087	0.046	0.101
L588	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Main	1	24	23.36	0.04	**0.307**	**0.156**	**0.356**
L589	LTE B41	QPSK20M	40140	50	25	Front Face	1.5	Main	1	23	22.21	0.1	0.071	0.037	0.085
L590	LTE B41	QPSK20M	40140	50	25	Rear Face	1.5	Main	1	23	22.21	-0.02	0.236	0.121	0.283
L591	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Main	2	24	23.36	0.01	0.289	0.137	0.335
L592	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Main	3	24	23.36	0.09	0.297	0.144	0.344
L620	LTE B41	QPSK20M	40140	1	50	Front Face	1.5	Second	1	23.5	22.84	0.03	0.180	0.097	0.210
L621	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Second	1	23.5	22.84	0.04	0.353	0.171	0.411
L622	LTE B41	QPSK20M	40140	50	25	Front Face	1.5	Second	1	22.5	22.24	-0.05	0.110	0.059	0.117
L623	LTE B41	QPSK20M	40140	50	25	Rear Face	1.5	Second	1	22.5	22.24	0.02	0.292	0.137	0.310
L624	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Second	2	23.5	22.84	0.09	**0.356**	**0.172**	**0.414**
L625	LTE B41	QPSK20M	40140	1	50	Rear Face	1.5	Second	3	23.5	22.84	0.01	0.347	0.164	0.404
L651	LTE B66	QPSK20M	132072	1	50	Front Face	1.5	Main	1	22.5	21.65	0.01	0.112	0.061	0.136
L652	LTE B66	QPSK20M	132072	1	50	Rear Face	1.5	Main	1	22.5	21.65	0.09	0.311	0.174	0.378
L653	LTE B66	QPSK20M	132572	50	0	Front Face	1.5	Main	1	22.5	21.59	-0.02	0.146	0.073	0.180
L654	LTE B66	QPSK20M	132572	50	0	Rear Face	1.5	Main	1	22.5	21.59	0.03	**0.369**	**0.202**	**0.455**
L655	LTE B66	QPSK20M	132572	50	0	Rear Face	1.5	Main	2	22.5	21.59	0.04	0.344	0.197	0.424
L656	LTE B66	QPSK20M	132572	50	0	Rear Face	1.5	Main	3	22.5	21.59	0.06	0.335	0.188	0.413
L680	LTE B66	QPSK20M	132572	1	50	Front Face	1.5	Second	1	21.5	20.55	-0.02	0.097	0.062	0.121
L681	LTE B66	QPSK20M	132572	1	50	Rear Face	1.5	Second	1	21.5	20.55	0.07	0.369	0.216	0.459
L682	LTE B66	QPSK20M	132572	50	25	Front Face	1.5	Second	1	21.5	20.45	0.01	0.099	0.063	0.125
L683	LTE B66	QPSK20M	132572	50	25	Rear Face	1.5	Second	1	21.5	20.45	0.03	**0.371**	**0.218**	**0.472**
L684	LTE B66	QPSK20M	132572	50	25	Rear Face	1.5	Second	2	21.5	20.45	0.09	0.360	0.217	0.458
L685	LTE B66	QPSK20M	132572	50	25	Rear Face	1.5	Second	3	21.5	20.45	-0.04	0.352	0.211	0.448

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

4. Body-worn SAR test results of 2.4G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W71	802.11b	6	Front Face	1.5	1	1	-	20	19.79	0.04	0.147	0.077	0.154
W72	802.11b	6	Rear Face	1.5	1	1	-	20	19.79	-0.01	0.174	0.089	0.183
W73	802.11b	6	Rear Face	1.5	2	1	-	20	19.79	0.07	0.170	0.088	0.178
W74	802.11b	6	Rear Face	1.5	3	1	-	20	19.79	0.09	**0.175**	**0.091**	**0.184**

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

5. Body-worn SAR test results of 2.4G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W84	802.11b	6	Front Face	1.5	1	1	-	17	16.92	0.02	0.082	0.048	0.083
W85	802.11b	6	Rear Face	1.5	1	1	-	17	16.92	0.14	**0.097**	**0.054**	**0.099**
W86	802.11b	6	Rear Face	1.5	2	1	-	17	16.92	0.05	0.092	0.051	0.093
W87	802.11b	6	Rear Face	1.5	3	1	-	17	16.92	0.11	0.092	0..055	0.094

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

6. Body-worn SAR test results of BT

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W97	BT DH5	39	Front Face	1.5	1	1	77%	12.5	10.6	0	0.003	0.001	0.006
W98	BT DH5	39	Rear Face	1.5	1	1	77%	12.5	10.6	0.04	**0.004**	**0.002**	**0.009**
W99	BT DH5	39	Rear Face	1.5	2	1	77%	12.5	10.6	-0.05	0.004	0.002	0.009
W100	BT DH5	39	Rear Face	1.5	3	1	77%	12.5	10.6	0.01	0.004	0.002	0.008

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

7. Body-worn SAR test results of 5G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W116	802.11a	52	Front Face	1.5	1	6	-	20	19.71	0.09	0.286	0.125	0.306
W117	802.11a	52	Rear Face	1.5	1	6	-	20	19.71	0.07	0.421	0.170	0.450
W118	802.11a	52	Rear Face	1.5	2	6	-	20	19.71	0.03	0.433	0.183	0.463
W119	802.11a	52	Rear Face	1.5	3	6	-	20	19.71	-0.04	**0.455**	**0.187**	**0.486**
W140	802.11a	132	Front Face	1.5	1	6	-	18	17.85	0.07	0.251	0.098	0.260
W141	802.11a	132	Rear Face	1.5	1	6	-	18	17.85	0.05	0.648	0.237	0.671
W142	802.11a	136	Rear Face	1.5	1	6	-	18	17.74	0.02	0.617	0.228	0.655
W143	802.11a	132	Rear Face	1.5	2	6	-	18	17.85	-0.03	0.605	0.221	0.626
W144	802.11a	132	Rear Face	1.5	3	6	-	18	17.85	0.02	**0.682**	**0.252**	**0.706**
W164	802.11a	157	Front Face	1.5	1	6	-	16	15.63	0.02	0.089	0.028	0.097
W165	802.11a	157	Rear Face	1.5	1	6	-	16	15.63	0	**0.431**	**0.154**	**0.469**
W166	802.11a	157	Rear Face	1.5	2	6	-	16	15.63	-0.04	0.362	0.133	0.394
W167	802.11a	157	Rear Face	1.5	3	6	-	16	15.63	0.01	0.394	0.151	0.429

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

8. Body-worn SAR test results of 5G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W128	802.11a	60	Front Face	1.5	1	6	-	16.5	16.15	0.04	0.094	0.032	0.102
W129	802.11a	60	Rear Face	1.5	1	6	-	16.5	16.15	0.01	0.165	0.068	0.179
W130	802.11a	60	Rear Face	1.5	2	6	-	16.5	16.15	-0.08	**0.184**	**0.073**	**0.199**
W131	802.11a	60	Rear Face	1.5	3	6	-	16.5	16.15	0.02	0.167	0.068	0.181
W152	802.11a	108	Front Face	1.5	1	6	-	15	14.93	-0.01	0.145	0.045	0.147
W153	802.11a	108	Rear Face	1.5	1	6	-	15	14.93	0.08	0.345	0.117	0.351
W154	802.11a	108	Rear Face	1.5	2	6	-	15	14.93	0	**0.348**	**0.127**	**0.354**
W155	802.11a	108	Rear Face	1.5	3	6	-	15	14.93	0.03	0.335	0.110	0.340
W176	802.11a	161	Front Face	1.5	1	6	-	13.5	13.43	0.06	0.039	0.019	0.039
W177	802.11a	161	Rear Face	1.5	1	6	-	13.5	13.43	0.04	0.158	0.057	0.161
W178	802.11a	161	Rear Face	1.5	2	6	-	13.5	13.43	0.01	0.157	0.056	0.160
W179	802.11a	161	Rear Face	1.5	3	6	-	13.5	13.43	0.08	**0.170**	**0.060**	**0.173**

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

7.2.3 SAR MEASUREMENT RESULT OF HOTSPOT

1. Hotspot SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
G39	GSM 850	GPRS2TX	190	Front Face	1	Main	1	32.5	30.94	0.01	0.201	0.146	0.288
G40	GSM 850	GPRS2TX	190	Rear Face	1	Main	1	32.5	30.94	-0.05	0.334	0.205	0.478
G41	GSM 850	GPRS2TX	190	Left Side	1	Main	1	32.5	30.94	0.09	0.228	0.156	0.327
G42	GSM 850	GPRS2TX	190	Right Side	1	Main	1	32.5	30.94	0	0.148	0.102	0.212
G43	GSM 850	GPRS2TX	190	Bottom Side	1	Main	1	32.5	30.94	0.12	0.216	0.121	0.309
G44	GSM 850	GPRS2TX	190	Rear Face	1	Main	2	32.5	30.94	0.07	0.329	0.198	0.471
G45	GSM 850	GPRS2TX	190	Rear Face	1	Main	3	32.5	30.94	-0.02	**0.354**	**0.216**	**0.507**
G52	GSM 850	GPRS2TX	190	Front Face	1	Second	1	32.5	30.99	0.01	0.072	0.047	0.103
G53	GSM 850	GPRS2TX	190	Rear Face	1	Second	1	32.5	30.99	0.05	0.157	0.096	0.222
G54	GSM 850	GPRS2TX	190	Left Side	1	Second	1	32.5	30.99	-0.07	0.069	0.048	0.098
G55	GSM 850	GPRS2TX	190	Top Side	1	Second	1	32.5	30.99	0.02	0.108	0.062	0.153
G56	GSM 850	GPRS2TX	190	Rear Face	1	Second	2	32.5	30.99	-0.12	0.115	0.075	0.163
G57	GSM 850	GPRS2TX	190	Rear Face	1	Second	3	32.5	30.99	0.03	**0.171**	**0.105**	**0.242**
G64	GSM 1900	GPRS4TX	661	Front Face	1	Main	1	26.5	25.37	0.03	0.151	0.085	0.196
G65	GSM 1900	GPRS4TX	661	Rear Face	1	Main	1	26.5	25.37	-0.01	0.618	0.352	0.802
G66	GSM 1900	GPRS4TX	661	Left Side	1	Main	1	26.5	25.37	0.06	0.056	0.032	0.073
G67	GSM 1900	GPRS4TX	661	Right Side	1	Main	1	26.5	25.37	0.09	0.044	0.024	0.056
G68	GSM 1900	GPRS4TX	661	Bottom Side	1	Main	1	26.5	25.37	-0.06	0.559	0.327	0.725
G69	GSM 1900	GPRS4TX	512	Rear Face	1	Main	1	26.5	25.2	0.02	0.567	0.332	0.765
G70	GSM 1900	GPRS4TX	810	Rear Face	1	Main	1	26.5	25.46	0.07	0.599	0.347	0.761
G71	GSM 1900	GPRS4TX	661	Rear Face	1	Main	2	26.5	25.37	0.11	**0.655**	**0.362**	**0.850**
G72	GSM 1900	GPRS4TX	661	Rear Face	1	Main	3	26.5	25.37	0.09	0.641	0.359	0.831
G79	GSM 1900	GPRS2TX	661	Front Face	1	Second	1	28	26.94	-0.01	0.174	0.098	0.222
G80	GSM 1900	GPRS2TX	661	Rear Face	1	Second	1	28	26.94	0.02	0.531	0.299	0.678
G81	GSM 1900	GPRS2TX	661	Left Side	1	Second	1	28	26.94	0.03	0.050	0.031	0.063
G82	GSM 1900	GPRS2TX	661	Top Side	1	Second	1	28	26.94	-0.04	0.735	0.372	0.938
G83	GSM 1900	GPRS2TX	512	Top Side	1	Second	1	28	26.81	0.06	0.688	0.355	0.905
G84	GSM 1900	GPRS2TX	810	Top Side	1	Second	1	28	27.02	-0.07	0.670	0.340	0.840
G85	GSM 1900	GPRS2TX	661	Top Side	1	Second	2	28	26.94	0.02	0.729	0.361	0.931
G86	GSM 1900	GPRS2TX	661	Top Side	1	Second	3	28	26.94	-0.16	**0.742**	**0.378**	**0.947**

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

2. Hotspot SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U55	UMTS B2	RMC12.2K	9400	Front Face	1	Main	1	23.5	22.82	0.02	0.266	0.155	0.311
U56	UMTS B2	RMC12.2K	9400	Rear Face	1	Main	1	23.5	22.82	0.15	0.800	0.432	0.936
U57	UMTS B2	RMC12.2K	9400	Left Side	1	Main	1	23.5	22.82	0.01	0.064	0.043	0.075
U58	UMTS B2	RMC12.2K	9400	Right Side	1	Main	1	23.5	22.82	-0.06	0.061	0.036	0.071
U59	UMTS B2	RMC12.2K	9400	Bottom Side	1	Main	1	23.5	22.82	0.01	0.803	0.428	0.939
U60	UMTS B2	RMC12.2K	9262	Rear Face	1	Main	1	23.5	22.66	0.03	0.775	0.400	0.940
U61	UMTS B2	RMC12.2K	9538	Rear Face	1	Main	1	23.5	22.94	0.09	0.915	0.478	1.041
U62	UMTS B2	RMC12.2K	9262	Bottom Side	1	Main	1	23.5	22.66	0.05	0.837	0.453	1.016
U63	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	1	23.5	22.94	0	**0.931**	**0.498**	**1.059**
U64	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	2	23.5	22.94	0.14	0.912	0.475	1.038
U65	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	3	23.5	22.94	-0.02	0.925	0.483	1.052
U66	UMTS B2	RMC12.2K	9538	Bottom Side (Repeated)	1	Main	1	23.5	22.94	0.04	0.928	0.488	1.056
U73	UMTS B2	RMC12.2K	9400	Front Face	1	Second	1	22	21.25	0.12	0.193	0.108	0.229
U74	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	1	22	21.25	0	0.639	0.357	0.759
U75	UMTS B2	RMC12.2K	9400	Left Side	1	Second	1	22	21.25	0.01	0.129	0.078	0.153
U76	UMTS B2	RMC12.2K	9400	Top Side	1	Second	1	22	21.25	-0.12	0.744	0.380	0.884
U77	UMTS B2	RMC12.2K	9262	Top Side	1	Second	1	22	21.07	0.02	0.729	0.368	0.903
U78	UMTS B2	RMC12.2K	9538	Top Side	1	Second	1	22	21.34	-0.01	**0.793**	**0.403**	**0.923**
U79	UMTS B2	RMC12.2K	9538	Top Side	1	Second	2	22	21.34	0.03	0.768	0.387	0.894
U80	UMTS B2	RMC12.2K	9538	Top Side	1	Second	3	22	21.34	0.07	0.785	0.396	0.914
U87	UMTS B4	RMC12.2K	1413	Front Face	1	Main	1	22.5	21.84	0.03	0.210	0.113	0.244
U88	UMTS B4	RMC12.2K	1413	Rear Face	1	Main	1	22.5	21.84	-0.04	0.653	0.338	0.760
U89	UMTS B4	RMC12.2K	1413	Left Side	1	Main	1	22.5	21.84	0.01	0.046	0.028	0.054
U90	UMTS B4	RMC12.2K	1413	Right Side	1	Main	1	22.5	21.84	0.02	0.010	0.005	0.011
U91	UMTS B4	RMC12.2K	1413	Bottom Side	1	Main	1	22.5	21.84	0	0.716	0.365	0.834
U94	UMTS B4	RMC12.2K	1312	Bottom Side	1	Main	1	22.5	21.91	0.12	0.707	0.361	0.810
U95	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	1	22.5	21.87	0.02	**0.724**	**0.366**	**0.837**
U96	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	2	22.5	21.87	0.01	0.693	0.355	0.801
U97	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	3	22.5	21.87	0.06	0.714	0.362	0.825
U105	UMTS B4	RMC12.2K	1413	Front Face	1	Second	1	22	21.32	0.17	0.199	0.112	0.233
U106	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	1	22	21.32	0.01	0.715	0.404	0.836
U107	UMTS B4	RMC12.2K	1413	Left Side	1	Second	1	22	21.32	-0.06	0.184	0.115	0.215
U108	UMTS B4	RMC12.2K	1413	Top Side	1	Second	1	22	21.32	0.04	0.764	0.403	0.893
U109	UMTS B4	RMC12.2K	1312	Rear Face	1	Second	1	22	21.27	0.13	0.702	0.389	0.830
U110	UMTS B4	RMC12.2K	1513	Rear Face	1	Second	1	22	21.33	0.02	0.727	0.406	0.848
U111	UMTS B4	RMC12.2K	1312	Top Side	1	Second	1	22	21.27	0.01	0.749	0.397	0.886
U112	UMTS B4	RMC12.2K	1513	Top Side	1	Second	1	22	21.33	0.04	0.784	0.418	0.915
U113	UMTS B4	RMC12.2K	1513	Top Side	1	Second	2	22	21.33	-0.02	0.776	0.413	0.905
U114	UMTS B4	RMC12.2K	1513	Top Side	1	Second	3	22	21.33	0.05	**0.798**	**0.420**	**0.931**

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
U121	UMTS B5	RMC12.2K	4182	Front Face	1	Main	1	24	23.23	-0.02	0.173	0.115	0.207
U122	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	1	24	23.23	0.02	**0.268**	**0.163**	**0.320**
U123	UMTS B5	RMC12.2K	4182	Left Side	1	Main	1	24	23.23	0.01	0.189	0.129	0.226
U124	UMTS B5	RMC12.2K	4182	Right Side	1	Main	1	24	23.23	0.05	0.113	0.077	0.135
U125	UMTS B5	RMC12.2K	4182	Bottom Side	1	Main	1	24	23.23	-0.09	0.175	0.119	0.209
U126	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	2	24	23.23	0.11	0.261	0.159	0.312
U127	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	3	24	23.23	0.03	0.255	0.154	0.304
U134	UMTS B5	RMC12.2K	4182	Front Face	1	Second	1	24	23.33	-0.09	0.087	0.051	0.101
U135	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	1	24	23.33	0.04	**0.136**	**0.082**	**0.159**
U136	UMTS B5	RMC12.2K	4182	Left Side	1	Second	1	24	23.33	-0.01	0.057	0.039	0.066
U137	UMTS B5	RMC12.2K	4182	Top Side	1	Second	1	24	23.33	0.01	0.122	0.065	0.142
U138	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	2	24	23.33	-0.11	0.130	0.078	0.152
U139	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	3	24	23.33	0.03	0.129	0.078	0.151

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

3. Hotspot SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L264	LTE B2	QPSK20M	18900	1	50	Front Face	1	Main	1	23.5	22.85	0.09	0.257	0.151	0.298
L265	LTE B2	QPSK20M	18900	1	50	Rear Face	1	Main	1	23.5	22.85	0.04	0.733	0.421	0.851
L266	LTE B2	QPSK20M	18900	1	50	Left Side	1	Main	1	23.5	22.85	-0.01	0.059	0.036	0.069
L267	LTE B2	QPSK20M	18900	1	50	Right Side	1	Main	1	23.5	22.85	-0.12	0.041	0.020	0.047
L268	LTE B2	QPSK20M	18900	1	50	Bottom Side	1	Main	1	23.5	22.85	0.17	0.887	0.486	1.030
L269	LTE B2	QPSK20M	18900	50	0	Front Face	1	Main	1	22.5	22.12	0.05	0.208	0.122	0.227
L270	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Main	1	22.5	22.12	0.08	0.577	0.331	0.630
L271	LTE B2	QPSK20M	18900	50	0	Left Side	1	Main	1	22.5	22.12	0	0.053	0.032	0.058
L272	LTE B2	QPSK20M	18900	50	0	Right Side	1	Main	1	22.5	22.12	-0.04	0.037	0.017	0.040
L273	LTE B2	QPSK20M	18900	50	0	Bottom Side	1	Main	1	22.5	22.12	0.17	0.736	0.407	0.803
L274	LTE B2	QPSK20M	18700	1	50	Rear Face	1	Main	1	23.5	22.62	0.01	0.723	0.390	0.885
L275	LTE B2	QPSK20M	19100	1	50	Rear Face	1	Main	1	23.5	22.75	-0.02	0.796	0.431	0.946
L278	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	Main	1	23.5	22.62	0.12	0.834	0.463	1.021
L279	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	1	23.5	22.75	0.14	**0.894**	**0.497**	**1.063**
L280	LTE B2	QPSK20M	18700	50	25	Bottom Side	1	Main	1	22.5	21.94	0.04	0.678	0.363	0.771
L281	LTE B2	QPSK20M	19100	50	25	Bottom Side	1	Main	1	22.5	21.93	0.13	0.766	0.423	0.873
L282	LTE B2	QPSK20M	18900	100	0	Rear Face	1	Main	1	22.5	22	0.09	0.637	0.346	0.715
L283	LTE B2	QPSK20M	18900	100	0	Bottom Side	1	Main	1	22.5	22	0.09	0.690	0.371	0.774
L284	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	2	23.5	22.75	0.02	0.875	0.478	1.040
L285	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	3	23.5	22.75	-0.08	0.862	0.465	1.024
L286	LTE B2	QPSK20M	19100	1	50	Bottom Side (Repeated)	1	Main	1	23.5	22.75	0.1	0.869	0.471	1.033
L294	LTE B2	QPSK20M	18700	1	50	Front Face	1	Second	1	22.5	21.99	-0.05	0.189	0.111	0.213
L295	LTE B2	QPSK20M	18700	1	50	Rear Face	1	Second	1	22.5	21.99	0.01	0.715	0.396	0.804
L296	LTE B2	QPSK20M	18700	1	50	Left Side	1	Second	1	22.5	21.99	0.02	0.116	0.074	0.130
L297	LTE B2	QPSK20M	18700	1	50	Top Side	1	Second	1	22.5	21.99	0.04	0.859	0.442	0.966
L298	LTE B2	QPSK20M	18900	50	0	Front Face	1	Second	1	22.5	22.07	0.1	0.219	0.122	0.242
L299	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Second	1	22.5	22.07	0.02	0.784	0.438	0.866
L300	LTE B2	QPSK20M	18900	50	0	Left Side	1	Second	1	22.5	22.07	0.13	0.158	0.096	0.174
L301	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	1	22.5	22.07	-0.03	**0.960**	**0.490**	**1.060**
L302	LTE B2	QPSK20M	18900	1	50	Rear Face	1	Second	1	22.5	21.8	0.08	0.716	0.407	0.841
L303	LTE B2	QPSK20M	19100	1	50	Rear Face	1	Second	1	22.5	21.55	0.01	0.698	0.397	0.869
L304	LTE B2	QPSK20M	18900	1	50	Top Side	1	Second	1	22.5	21.8	-0.11	0.882	0.444	1.036
L305	LTE B2	QPSK20M	19100	1	50	Top Side	1	Second	1	22.5	21.55	0.05	0.845	0.435	1.052
L306	LTE B2	QPSK20M	18700	50	25	Rear Face	1	Second	1	22.5	21.84	0.03	0.709	0.405	0.825
L307	LTE B2	QPSK20M	19100	50	25	Rear Face	1	Second	1	22.5	21.77	0.09	0.700	0.401	0.828
L308	LTE B2	QPSK20M	18700	50	25	Top Side	1	Second	1	22.5	21.84	-0.1	0.908	0.464	1.057
L309	LTE B2	QPSK20M	19100	50	25	Top Side	1	Second	1	22.5	21.77	-0.02	0.893	0.450	1.056
L310	LTE B2	QPSK20M	18900	100	0	Rear Face	1	Second	1	22.5	22.03	0.07	0.740	0.422	0.825
L311	LTE B2	QPSK20M	18900	100	0	Top Side	1	Second	1	22.5	22.03	-0.04	0.947	0.482	1.055
L312	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	2	22.5	22.07	0.01	0.933	0.478	1.030
L313	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	3	22.5	22.07	0.07	0.929	0.470	1.026
L314	LTE B2	QPSK20M	18900	50	0	Top Side (Repeated)	1	Second	1	22.5	22.07	-0.14	0.951	0.488	1.050

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L323	LTE B4	QPSK20M	20050	1	50	Front Face	1	Main	1	23.5	22.99	0.02	0.243	0.135	0.273
L324	LTE B4	QPSK20M	20050	1	50	Rear Face	1	Main	1	23.5	22.99	-0.11	0.714	0.379	0.803
L325	LTE B4	QPSK20M	20050	1	50	Left Side	1	Main	1	23.5	22.99	0.06	0.046	0.029	0.052
L326	LTE B4	QPSK20M	20050	1	50	Right Side	1	Main	1	23.5	22.99	0.04	0.021	0.011	0.024
L327	LTE B4	QPSK20M	20050	1	50	Bottom Side	1	Main	1	23.5	22.99	-0.03	0.822	0.425	0.924
L328	LTE B4	QPSK20M	20175	50	25	Front Face	1	Main	1	22.5	21.94	0.07	0.220	0.115	0.250
L329	LTE B4	QPSK20M	20175	50	25	Rear Face	1	Main	1	22.5	21.94	0.04	0.615	0.323	0.700
L330	LTE B4	QPSK20M	20175	50	25	Left Side	1	Main	1	22.5	21.94	-0.13	0.045	0.028	0.051
L331	LTE B4	QPSK20M	20175	50	25	Right Side	1	Main	1	22.5	21.94	0.08	0.015	0.008	0.017
L332	LTE B4	QPSK20M	20175	50	25	Bottom Side	1	Main	1	22.5	21.94	0.05	0.801	0.405	0.911
L333	LTE B4	QPSK20M	20175	1	50	Rear Face	1	Main	1	23.5	22.94	0.03	0.840	0.437	0.956
L334	LTE B4	QPSK20M	20300	1	50	Rear Face	1	Main	1	23.5	22.97	0.14	0.892	0.450	1.008
L335	LTE B4	QPSK20M	20175	1	50	Bottom Side	1	Main	1	23.5	22.94	0.01	0.899	0.452	1.023
L336	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	1	23.5	22.97	-0.02	**0.938**	**0.469**	**1.060**
L339	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	Main	1	22.5	21.87	-0.12	0.662	0.342	0.765
L340	LTE B4	QPSK20M	20300	50	25	Bottom Side	1	Main	1	22.5	21.84	0	0.739	0.379	0.860
L341	LTE B4	QPSK20M	20300	100	0	Rear Face	1	Main	1	22.5	21.88	0.09	0.693	0.365	0.799
L342	LTE B4	QPSK20M	20300	100	0	Bottom Side	1	Main	1	22.5	21.88	0.04	0.756	0.387	0.872
L343	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	2	23.5	22.97	-0.01	0.919	0.455	1.038
L344	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	3	23.5	22.97	0.07	0.925	0.461	1.045
L345	LTE B4	QPSK20M	20300	1	50	Bottom Side (Repeated)	1	Main	3	23.5	22.97	0.03	0.920	0.458	1.039
L353	LTE B4	QPSK20M	20050	1	50	Front Face	1	Second	1	21.5	20.68	0.02	0.223	0.127	0.269
L354	LTE B4	QPSK20M	20050	1	50	Rear Face	1	Second	1	21.5	20.68	-0.05	0.598	0.343	0.722
L355	LTE B4	QPSK20M	20050	1	50	Left Side	1	Second	1	21.5	20.68	0.04	0.190	0.112	0.229
L356	LTE B4	QPSK20M	20050	1	50	Top Side	1	Second	1	21.5	20.68	-0.08	0.769	0.404	0.929
L357	LTE B4	QPSK20M	20050	50	25	Front Face	1	Second	1	21.5	20.56	0.01	0.224	0.124	0.278
L358	LTE B4	QPSK20M	20050	50	25	Rear Face	1	Second	1	21.5	20.56	0.03	0.605	0.350	0.751
L359	LTE B4	QPSK20M	20050	50	25	Left Side	1	Second	1	21.5	20.56	0.15	0.202	0.115	0.251
L360	LTE B4	QPSK20M	20050	50	25	Top Side	1	Second	1	21.5	20.56	0	0.681	0.359	0.846
L361	LTE B4	QPSK20M	20175	1	99	Top Side	1	Second	1	21.5	20.18	0.02	0.704	0.367	0.954
L362	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	1	21.5	20.61	-0.08	**0.803**	**0.418**	**0.986**
L363	LTE B4	QPSK20M	20175	50	25	Top Side	1	Second	1	21.5	20.52	0.07	0.779	0.413	0.976
L364	LTE B4	QPSK20M	20300	50	25	Top Side	1	Second	1	21.5	20.54	0.06	0.732	0.386	0.913
L365	LTE B4	QPSK20M	20300	100	0	Top Side	1	Second	1	21.5	20.52	0.09	0.728	0.376	0.912
L366	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	2	21.5	20.61	-0.01	0.772	0.391	0.948
L367	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	3	21.5	20.61	0.02	0.765	0.377	0.939
L368	LTE B4	QPSK20M	20300	1	50	Top Side (Repeated)	1	Second	1	21.5	20.61	0.08	0.786	0.404	0.965

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L376	LTE B5	QPSK10M	20450	1	24	Front Face	1	Main	1	24	23.07	0.03	0.169	0.121	0.209
L377	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	1	24	23.07	0.07	0.220	0.136	0.273
L378	LTE B5	QPSK10M	20450	1	24	Left Side	1	Main	1	24	23.07	0.01	0.195	0.133	0.242
L379	LTE B5	QPSK10M	20450	1	24	Right Side	1	Main	1	24	23.07	0.02	0.120	0.083	0.149
L380	LTE B5	QPSK10M	20450	1	24	Bottom Side	1	Main	1	24	23.07	0	0.176	0.123	0.218
L381	LTE B5	QPSK10M	20450	25	25	Front Face	1	Main	1	23	22	-0.09	0.124	0.098	0.156
L382	LTE B5	QPSK10M	20450	25	25	Rear Face	1	Main	1	23	22	0.01	0.178	0.124	0.224
L383	LTE B5	QPSK10M	20450	25	25	Left Side	1	Main	1	23	22	0.12	0.153	0.112	0.193
L384	LTE B5	QPSK10M	20450	25	25	Right Side	1	Main	1	23	22	0.04	0.093	0.064	0.117
L385	LTE B5	QPSK10M	20450	25	25	Bottom Side	1	Main	1	23	22	-0.06	0.144	0.105	0.181
L386	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	2	24	23.07	-0.04	**0.229**	**0.141**	**0.284**
L387	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	3	24	23.07	0.01	0.224	0.138	0.277
L396	LTE B5	QPSK10M	20525	1	24	Front Face	1	Second	1	24	23.14	-0.02	0.084	0.052	0.103
L397	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	1	24	23.14	0.03	0.131	0.082	0.160
L398	LTE B5	QPSK10M	20525	1	24	Left Side	1	Second	1	24	23.14	0.01	0.058	0.040	0.071
L399	LTE B5	QPSK10M	20525	1	24	Top Side	1	Second	1	24	23.14	0.11	0.117	0.065	0.143
L400	LTE B5	QPSK10M	20450	25	0	Front Face	1	Second	1	23	22.02	-0.05	0.054	0.037	0.068
L401	LTE B5	QPSK10M	20450	25	0	Rear Face	1	Second	1	23	22.02	0.03	0.090	0.059	0.112
L402	LTE B5	QPSK10M	20450	25	0	Left Side	1	Second	1	23	22.02	-0.01	0.046	0.032	0.058
L403	LTE B5	QPSK10M	20450	25	0	Top Side	1	Second	1	23	22.02	0.09	0.069	0.038	0.086
L404	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	2	24	23.14	0.14	**0.136**	**0.083**	**0.166**
L405	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	3	24	23.14	-0.06	0.128	0.081	0.156

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L414	LTE B7	QPSK20M	20850	1	50	Front Face	1	Main	1	22	21.4	-0.01	0.185	0.097	0.212
L415	LTE B7	QPSK20M	20850	1	50	Rear Face	1	Main	1	22	21.4	0.04	0.602	0.293	0.691
L416	LTE B7	QPSK20M	20850	1	50	Left Side	1	Main	1	22	21.4	0.07	0.070	0.040	0.080
L417	LTE B7	QPSK20M	20850	1	50	Right Side	1	Main	1	22	21.4	0.02	0.098	0.052	0.113
L418	LTE B7	QPSK20M	20850	1	50	Bottom Side	1	Main	1	22	21.4	-0.05	0.760	0.357	0.873
L419	LTE B7	QPSK20M	20850	50	25	Front Face	1	Main	1	22	21.26	-0.11	0.168	0.086	0.199
L420	LTE B7	QPSK20M	20850	50	25	Rear Face	1	Main	1	22	21.26	0.06	0.577	0.283	0.684
L421	LTE B7	QPSK20M	20850	50	25	Left Side	1	Main	1	22	21.26	0.09	0.072	0.039	0.085
L422	LTE B7	QPSK20M	20850	50	25	Right Side	1	Main	1	22	21.26	0.02	0.094	0.049	0.112
L423	LTE B7	QPSK20M	20850	50	25	Bottom Side	1	Main	1	22	21.26	-0.04	0.635	0.296	0.753
L424	LTE B7	QPSK20M	21100	1	50	Bottom Side	1	Main	1	22	21.3	0	0.792	0.373	0.931
L425	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	1	22	21.25	0.03	**0.952**	**0.435**	**1.131**
L428	LTE B7	QPSK20M	21100	100	0	Bottom Side	1	Main	1	22	21.15	-0.01	0.782	0.368	0.951
L429	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	2	22	21.25	0.02	0.932	0.424	1.108
L430	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	3	22	21.25	0.07	0.908	0.404	1.079
L431	LTE B7	QPSK20M	21350	1	50	Bottom Side (Repeated)	1	Main	1	22	21.25	0.09	0.926	0.432	1.101
L440	LTE B7	QPSK20M	20850	1	50	Front Face	1	Second	1	20.5	19.8	0.04	0.146	0.071	0.172
L441	LTE B7	QPSK20M	20850	1	50	Rear Face	1	Second	1	20.5	19.8	0.06	0.769	0.313	0.903
L442	LTE B7	QPSK20M	20850	1	50	Left Side	1	Second	1	20.5	19.8	-0.05	0.298	0.159	0.350
L443	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	1	20.5	19.8	0.09	**0.813**	**0.344**	**0.955**
L444	LTE B7	QPSK20M	21100	50	50	Front Face	1	Second	1	20.5	19.67	0.02	0.142	0.072	0.172
L445	LTE B7	QPSK20M	21100	50	50	Rear Face	1	Second	1	20.5	19.67	-0.14	0.603	0.287	0.730
L446	LTE B7	QPSK20M	21100	50	50	Left Side	1	Second	1	20.5	19.67	0	0.349	0.189	0.422
L447	LTE B7	QPSK20M	21100	50	50	Top Side	1	Second	1	20.5	19.67	0.12	0.678	0.299	0.821
L448	LTE B7	QPSK20M	21100	1	50	Rear Face	1	Second	1	20.5	19.77	0.09	0.658	0.287	0.778
L449	LTE B7	QPSK20M	21350	1	50	Rear Face	1	Second	1	20.5	19.67	0.07	0.616	0.264	0.746
L450	LTE B7	QPSK20M	21100	1	50	Top Side	1	Second	1	20.5	19.77	0.05	0.690	0.305	0.816
L451	LTE B7	QPSK20M	21350	1	50	Top Side	1	Second	1	20.5	19.67	-0.03	0.642	0.284	0.777
L452	LTE B7	QPSK20M	20850	50	25	Top Side	1	Second	1	20.5	19.6	0.07	0.772	0.314	0.950
L453	LTE B7	QPSK20M	21350	50	25	Top Side	1	Second	1	20.5	19.55	0.02	0.642	0.285	0.799
L454	LTE B7	QPSK20M	21100	100	0	Rear Face	1	Second	1	20.5	19.57	0.03	0.639	0.288	0.792
L455	LTE B7	QPSK20M	21100	100	0	Top Side	1	Second	1	20.5	19.57	-0.01	0.672	0.296	0.832
L456	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	2	20.5	19.8	-0.03	0.792	0.333	0.931
L457	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	3	20.5	19.8	0.05	0.789	0.329	0.927
L458	LTE B7	QPSK20M	20850	1	50	Top Side (Repeated)	1	Second	1	20.5	19.8	0.02	0.808	0.342	0.949

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L465	LTE B12	QPSK10M	23095	1	24	Front Face	1	Main	1	24	22.94	-0.01	0.141	0.111	0.180
L466	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Main	1	24	22.94	-0.04	0.219	0.150	0.280
L467	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	1	24	22.94	-0.02	0.229	0.158	0.292
L468	LTE B12	QPSK10M	23095	1	24	Right Side	1	Main	1	24	22.94	0.03	0.139	0.098	0.177
L469	LTE B12	QPSK10M	23095	1	24	Bottom Side	1	Main	1	24	22.94	0.08	0.073	0.040	0.093
L470	LTE B12	QPSK10M	23095	25	0	Front Face	1	Main	1	23	21.85	0.04	0.124	0.096	0.162
L471	LTE B12	QPSK10M	23095	25	0	Rear Face	1	Main	1	23	21.85	-0.01	0.178	0.128	0.232
L472	LTE B12	QPSK10M	23095	25	0	Left Side	1	Main	1	23	21.85	0.02	0.185	0.130	0.241
L473	LTE B12	QPSK10M	23095	25	0	Right Side	1	Main	1	23	21.85	0.07	0.112	0.079	0.146
L474	LTE B12	QPSK10M	23095	25	0	Bottom Side	1	Main	1	23	21.85	0.1	0.057	0.031	0.074
L475	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	2	24	22.94	-0.02	**0.235**	**0.165**	**0.300**
L476	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	3	24	22.94	0.09	0.222	0.155	0.283
L484	LTE B12	QPSK10M	23095	1	24	Front Face	1	Second	1	24	22.97	0.04	0.013	0.009	0.017
L485	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	1	24	22.97	-0.06	0.025	0.018	0.031
L486	LTE B12	QPSK10M	23095	1	24	Left Side	1	Second	1	24	22.97	0.09	0.016	0.011	0.020
L487	LTE B12	QPSK10M	23095	1	24	Top Side	1	Second	1	24	22.97	0.04	0.013	0.008	0.016
L488	LTE B12	QPSK10M	23095	25	12	Front Face	1	Second	1	23	21.89	0.04	0.010	0.007	0.013
L489	LTE B12	QPSK10M	23095	25	12	Rear Face	1	Second	1	23	21.89	0.09	0.020	0.014	0.025
L490	LTE B12	QPSK10M	23095	25	12	Left Side	1	Second	1	23	21.89	0.03	0.012	0.009	0.016
L491	LTE B12	QPSK10M	23095	25	12	Top Side	1	Second	1	23	21.89	0.06	0.010	0.006	0.013
L492	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	2	24	22.97	0.01	0.024	0.017	0.030
L493	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	3	24	22.97	0.11	**0.025**	**0.018**	**0.032**
L502	LTE B26	QPSK15M	26865	1	37	Front Face	1	Main	1	24	23.15	0.05	0.152	0.143	0.185
L503	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	1	24	23.15	-0.02	**0.249**	**0.194**	**0.303**
L504	LTE B26	QPSK15M	26865	1	37	Left Side	1	Main	1	24	23.15	0.01	0.204	0.168	0.248
L505	LTE B26	QPSK15M	26865	1	37	Right Side	1	Main	1	24	23.15	0.13	0.125	0.105	0.152
L506	LTE B26	QPSK15M	26865	1	37	Bottom Side	1	Main	1	24	23.15	-0.05	0.165	0.112	0.201
L507	LTE B26	QPSK15M	26965	36	39	Front Face	1	Main	1	23	22.23	0.02	0.109	0.101	0.130
L508	LTE B26	QPSK15M	26965	36	39	Rear Face	1	Main	1	23	22.23	0.07	0.230	0.175	0.275
L509	LTE B26	QPSK15M	26965	36	39	Left Side	1	Main	1	23	22.23	-0.1	0.145	0.124	0.173
L510	LTE B26	QPSK15M	26965	36	39	Right Side	1	Main	1	23	22.23	0.09	0.086	0.071	0.102
L511	LTE B26	QPSK15M	26965	36	39	Bottom Side	1	Main	1	23	22.23	0.04	0.146	0.101	0.174
L512	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	2	24	23.15	-0.02	0.221	0.187	0.269
L513	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	3	24	23.15	0.01	0.235	0.191	0.286
L522	LTE B26	QPSK15M	26865	1	37	Front Face	1	Second	1	24	23.1	-0.07	0.074	0.046	0.092
L523	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	1	24	23.1	0.1	**0.133**	**0.081**	**0.164**
L524	LTE B26	QPSK15M	26865	1	37	Left Side	1	Second	1	24	23.1	0.08	0.061	0.041	0.074
L525	LTE B26	QPSK15M	26865	1	37	Top Side	1	Second	1	24	23.1	-0.04	0.089	0.051	0.109
L526	LTE B26	QPSK15M	26865	36	39	Front Face	1	Second	1	23	22.17	0.13	0.062	0.039	0.075
L527	LTE B26	QPSK15M	26865	36	39	Rear Face	1	Second	1	23	22.17	-0.02	0.101	0.063	0.122
L528	LTE B26	QPSK15M	26865	36	39	Left Side	1	Second	1	23	22.17	0.09	0.049	0.033	0.059
L529	LTE B26	QPSK15M	26865	36	39	Top Side	1	Second	1	23	22.17	0.01	0.085	0.048	0.103
L530	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	2	24	23.1	-0.09	0.113	0.076	0.139
L531	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	3	24	23.1	0.03	0.127	0.080	0.156

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L540	LTE B38	QPSK20M	38000	1	50	Front Face	1	Main	1	24	23.3	0.03	0.181	0.092	0.213
L541	LTE B38	QPSK20M	38000	1	50	Rear Face	1	Main	1	24	23.3	0.01	0.738	0.356	0.867
L542	LTE B38	QPSK20M	38000	1	50	Left Side	1	Main	1	24	23.3	-0.1	0.104	0.059	0.122
L543	LTE B38	QPSK20M	38000	1	50	Right Side	1	Main	1	24	23.3	0.04	0.055	0.030	0.065
L544	LTE B38	QPSK20M	38000	1	50	Bottom Side	1	Main	1	24	23.3	0.09	0.750	0.345	0.881
L545	LTE B38	QPSK20M	38000	50	25	Front Face	1	Main	1	23	22.12	-0.12	0.152	0.074	0.186
L546	LTE B38	QPSK20M	38000	50	25	Rear Face	1	Main	1	23	22.12	0.02	0.572	0.271	0.700
L547	LTE B38	QPSK20M	38000	50	25	Left Side	1	Main	1	23	22.12	0.15	0.083	0.047	0.102
L548	LTE B38	QPSK20M	38000	50	25	Right Side	1	Main	1	23	22.12	0.09	0.050	0.026	0.061
L549	LTE B38	QPSK20M	38000	50	25	Bottom Side	1	Main	1	23	22.12	0.02	0.591	0.275	0.724
L550	LTE B38	QPSK20M	37850	1	50	Rear Face	1	Main	1	24	23.28	0.05	0.702	0.341	0.829
L551	LTE B38	QPSK20M	38150	1	50	Rear Face	1	Main	1	24	23.24	0.09	0.768	0.363	0.915
L552	LTE B38	QPSK20M	37850	1	50	Bottom Side	1	Main	1	24	23.28	0.01	0.739	0.344	0.872
L553	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	1	24	23.24	0.06	**0.803**	**0.369**	**0.957**
L554	LTE B38	QPSK20M	37850	100	0	Rear Face	1	Main	1	23	22.08	0.08	0.537	0.251	0.664
L556	LTE B38	QPSK20M	37850	100	0	Bottom Side	1	Main	1	23	22.08	0.14	0.568	0.264	0.702
L557	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	2	24	23.24	0.04	0.789	0.357	0.940
L558	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	3	24	23.24	0.02	0.764	0.353	0.910
L559	LTE B38	QPSK20M	38150	1	50	Bottom Side (Repeated)	1	Main	1	24	23.24	-0.01	0.784	0.361	0.934
L568	LTE B38	QPSK20M	38000	1	50	Front Face	1	Second	1	24	23.35	0.08	0.247	0.124	0.287
L569	LTE B38	QPSK20M	38000	1	50	Rear Face	1	Second	1	24	23.35	0.1	0.801	0.346	0.930
L570	LTE B38	QPSK20M	38000	1	50	Left Side	1	Second	1	24	23.35	0.02	0.479	0.241	0.556
L571	LTE B38	QPSK20M	38000	1	50	Top Side	1	Second	1	24	23.35	0.14	0.813	0.342	0.944
L572	LTE B38	QPSK20M	37850	50	25	Front Face	1	Second	1	23	22.06	-0.07	0.255	0.126	0.317
L573	LTE B38	QPSK20M	37850	50	25	Rear Face	1	Second	1	23	22.06	-0.01	0.599	0.275	0.744
L574	LTE B38	QPSK20M	37850	50	25	Left Side	1	Second	1	23	22.06	0.03	0.396	0.199	0.492
L575	LTE B38	QPSK20M	37850	50	25	Top Side	1	Second	1	23	22.06	0.04	0.687	0.292	0.853
L576	LTE B38	QPSK20M	37850	1	50	Rear Face	1	Second	1	24	23.3	0.05	0.837	0.361	0.983
L577	LTE B38	QPSK20M	38150	1	50	Rear Face	1	Second	1	24	23.27	-0.02	0.772	0.336	0.913
L578	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	1	24	23.3	0.01	0.849	0.352	0.997
L579	LTE B38	QPSK20M	38150	1	50	Top Side	1	Second	1	24	23.27	0.17	0.753	0.318	0.891
L580	LTE B38	QPSK20M	38000	50	25	Top Side	1	Second	1	23	22.03	0.07	0.619	0.262	0.774
L581	LTE B38	QPSK20M	38150	50	25	Top Side	1	Second	1	23	21.97	0.17	0.572	0.244	0.725
L582	LTE B38	QPSK20M	37850	100	0	Rear Face	1	Second	1	23	22.02	0.08	0.629	0.273	0.788
L583	LTE B38	QPSK20M	37850	100	0	Top Side	1	Second	1	23	22.02	0.18	0.670	0.279	0.840
L584	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	2	24	23.3	0.05	0.829	0.348	0.974
L585	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	3	24	23.3	0.06	**0.856**	**0.360**	**1.006**
L586	LTE B38	QPSK20M	37850	1	50	Top Side (Repeated)	1	Second	3	24	23.3	-0.03	0.842	0.351	0.989

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L594	LTE B41	QPSK20M	40140	1	50	Front Face	1	Main	1	24	23.36	-0.01	0.159	0.083	0.184
L595	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Main	1	24	23.36	0.02	0.607	0.281	0.703
L596	LTE B41	QPSK20M	40140	1	50	Left Side	1	Main	1	24	23.36	0.05	0.080	0.046	0.093
L597	LTE B41	QPSK20M	40140	1	50	Right Side	1	Main	1	24	23.36	0.07	0.079	0.043	0.091
L598	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	1	24	23.36	0.11	**0.622**	**0.290**	**0.721**
L599	LTE B41	QPSK20M	40140	50	25	Front Face	1	Main	1	23	22.21	-0.02	0.135	0.070	0.162
L600	LTE B41	QPSK20M	40140	50	25	Rear Face	1	Main	1	23	22.21	0.13	0.526	0.253	0.631
L601	LTE B41	QPSK20M	40140	50	25	Left Side	1	Main	1	23	22.21	-0.16	0.075	0.041	0.090
L602	LTE B41	QPSK20M	40140	50	25	Right Side	1	Main	1	23	22.21	0.07	0.060	0.032	0.072
L603	LTE B41	QPSK20M	40140	50	25	Bottom Side	1	Main	1	23	22.21	0	0.538	0.262	0.645
L604	LTE B41	QPSK20M	40440	1	50	Rear Face	1	Main	1	24	23.2	0.08	0.553	0.276	0.665
L605	LTE B41	QPSK20M	40840	1	50	Rear Face	1	Main	1	24	23.26	0.06	0.582	0.287	0.690
L606	LTE B41	QPSK20M	41140	1	50	Rear Face	1	Main	1	24	23.35	0.14	0.537	0.260	0.624
L607	LTE B41	QPSK20M	40440	50	25	Rear Face	1	Main	1	23	22.1	-0.03	0.489	0.227	0.602
L608	LTE B41	QPSK20M	40840	50	25	Rear Face	1	Main	1	23	22.15	0.14	0.517	0.243	0.629
L609	LTE B41	QPSK20M	41140	50	25	Rear Face	1	Main	1	23	22.19	0.07	0.545	0.258	0.657
L610	LTE B41	QPSK20M	40440	1	50	Bottom Side	1	Main	1	24	23.2	0.09	0.546	0.256	0.656
L611	LTE B41	QPSK20M	40840	1	50	Bottom Side	1	Main	1	24	23.26	0.05	0.602	0.279	0.714
L612	LTE B41	QPSK20M	41140	1	50	Bottom Side	1	Main	1	24	23.35	0.04	0.573	0.261	0.666
L613	LTE B41	QPSK20M	40440	50	25	Bottom Side	1	Main	1	23	22.1	-0.02	0.532	0.254	0.655
L614	LTE B41	QPSK20M	40840	50	25	Bottom Side	1	Main	1	23	22.15	0.03	0.522	0.240	0.635
L615	LTE B41	QPSK20M	41140	50	25	Bottom Side	1	Main	1	23	22.19	0.07	0.572	0.260	0.689
L616	LTE B41	QPSK20M	40140	100	0	Rear Face	1	Main	1	23	22.15	0.03	0.425	0.201	0.517
L617	LTE B41	QPSK20M	40140	100	0	Bottom Side	1	Main	1	23	22.15	-0.1	0.503	0.239	0.612
L618	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	2	24	23.36	0.01	0.609	0.281	0.706
L619	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	3	24	23.36	-0.02	0.618	0.285	0.716
L626	LTE B41	QPSK20M	40140	1	50	Front Face	1	Second	1	23.5	22.84	0.01	0.203	0.099	0.236
L627	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	1	23.5	22.84	-0.04	**0.820**	**0.361**	**0.955**
L628	LTE B41	QPSK20M	40140	1	50	Left Side	1	Second	1	23.5	22.84	0.05	0.361	0.184	0.420
L629	LTE B41	QPSK20M	40140	1	50	Top Side	1	Second	1	23.5	22.84	-0.12	0.745	0.311	0.867
L630	LTE B41	QPSK20M	40140	50	25	Front Face	1	Second	1	22.5	22.24	0.09	0.181	0.093	0.192
L631	LTE B41	QPSK20M	40140	50	25	Rear Face	1	Second	1	22.5	22.24	0	0.655	0.284	0.695
L632	LTE B41	QPSK20M	40140	50	25	Left Side	1	Second	1	22.5	22.24	0.01	0.337	0.170	0.358
L633	LTE B41	QPSK20M	40140	50	25	Top Side	1	Second	1	22.5	22.24	0.07	0.647	0.251	0.687
L634	LTE B41	QPSK20M	40440	1	50	Rear Face	1	Second	1	23.5	22.76	-0.11	0.760	0.344	0.901
L635	LTE B41	QPSK20M	40840	1	50	Rear Face	1	Second	1	23.5	22.54	0.13	0.722	0.330	0.901
L636	LTE B41	QPSK20M	41140	1	50	Rear Face	1	Second	1	23.5	22.65	0.02	0.658	0.303	0.800
L637	LTE B41	QPSK20M	40440	1	50	Top Side	1	Second	1	23.5	22.76	0.05	0.651	0.274	0.772
L638	LTE B41	QPSK20M	40840	1	50	Top Side	1	Second	1	23.5	22.54	0.08	0.532	0.225	0.664
L639	LTE B41	QPSK20M	41140	1	50	Top Side	1	Second	1	23.5	22.65	0.01	0.448	0.191	0.545
L640	LTE B41	QPSK20M	40440	50	50	Rear Face	1	Second	1	22.5	22.02	-0.02	0.600	0.270	0.670
L641	LTE B41	QPSK20M	40840	50	25	Rear Face	1	Second	1	22.5	21.98	0.03	0.565	0.258	0.637
L642	LTE B41	QPSK20M	41140	50	25	Rear Face	1	Second	1	22.5	21.93	0.07	0.512	0.236	0.584
L643	LTE B41	QPSK20M	40440	50	25	Top Side	1	Second	1	22.5	22.02	-0.14	0.552	0.230	0.617
L644	LTE B41	QPSK20M	40840	50	25	Top Side	1	Second	1	22.5	21.98	0.09	0.448	0.187	0.505
L645	LTE B41	QPSK20M	41140	50	25	Top Side	1	Second	1	22.5	21.93	0.07	0.383	0.162	0.437
L646	LTE B41	QPSK20M	40140	100	0	Rear Face	1	Second	1	22.5	22.14	-0.05	0.691	0.296	0.751
L647	LTE B41	QPSK20M	40140	100	0	Top Side	1	Second	1	22.5	22.14	0.03	0.682	0.287	0.741
L648	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	2	23.5	22.84	0.04	0.793	0.350	0.923
L649	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	3	23.5	22.84	0.06	0.805	0.356	0.937
L650	LTE B41	QPSK20M	40140	1	50	Rear Face (Repeated)	1	Second	1	23.5	22.84	-0.03	0.808	0.358	0.941

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
L657	LTE B66	QPSK20M	132072	1	50	Front Face	1	Main	1	22.5	21.65	0.01	0.245	0.132	0.298
L658	LTE B66	QPSK20M	132072	1	50	Rear Face	1	Main	1	22.5	21.65	0	0.697	0.361	0.848
L659	LTE B66	QPSK20M	132072	1	50	Left Side	1	Main	1	22.5	21.65	0.03	0.054	0.032	0.065
L660	LTE B66	QPSK20M	132072	1	50	Right Side	1	Main	1	22.5	21.65	0.09	0.015	0.009	0.018
L661	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	Main	1	22.5	21.65	0.06	0.721	0.377	0.877
L662	LTE B66	QPSK20M	132572	50	0	Front Face	1	Main	1	22.5	21.59	-0.12	0.268	0.145	0.330
L663	LTE B66	QPSK20M	132572	50	0	Rear Face	1	Main	1	22.5	21.59	0.02	0.715	0.368	0.882
L664	LTE B66	QPSK20M	132572	50	0	Left Side	1	Main	1	22.5	21.59	0.01	0.047	0.026	0.058
L665	LTE B66	QPSK20M	132572	50	0	Right Side	1	Main	1	22.5	21.59	0.05	0.012	0.006	0.015
L666	LTE B66	QPSK20M	132572	50	0	Bottom Side	1	Main	1	22.5	21.59	0.01	0.745	0.381	0.919
L667	LTE B66	QPSK20M	132322	1	50	Rear Face	1	Main	1	22.5	21.46	0.04	0.657	0.344	0.835
L668	LTE B66	QPSK20M	132572	1	50	Rear Face	1	Main	1	22.5	21.51	0.08	0.729	0.369	0.916
L669	LTE B66	QPSK20M	132322	1	50	Bottom Side	1	Main	1	22.5	21.46	0.07	0.690	0.357	0.877
L670	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	1	22.5	21.51	0.02	0.735	0.380	0.923
L671	LTE B66	QPSK20M	132072	50	25	Rear Face	1	Main	1	22.5	21.53	0.11	0.668	0.350	0.835
L672	LTE B66	QPSK20M	132322	50	25	Rear Face	1	Main	1	22.5	21.4	-0.13	0.710	0.362	0.915
L673	LTE B66	QPSK20M	132072	50	25	Bottom Side	1	Main	1	22.5	21.53	0.09	0.621	0.333	0.776
L674	LTE B66	QPSK20M	132322	50	25	Bottom Side	1	Main	1	22.5	21.4	0.05	0.716	0.385	0.922
L675	LTE B66	QPSK20M	132072	100	0	Rear Face	1	Main	1	22.5	21.49	0.03	0.685	0.353	0.864
L676	LTE B66	QPSK20M	132072	100	0	Bottom Side	1	Main	1	22.5	21.49	0.04	0.612	0.337	0.772
L677	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	2	22.5	21.51	-0.02	0.722	0.379	0.907
L678	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	3	22.5	21.51	0.02	**0.748**	**0.381**	**0.940**
L679	LTE B66	QPSK20M	132572	1	50	Bottom Side (Repeated)	1	Main	3	22.5	21.51	0.01	0.725	0.374	0.911
L686	LTE B66	QPSK20M	132572	1	50	Front Face	1	Second	1	21.5	20.55	-0.02	0.179	0.102	0.223
L687	LTE B66	QPSK20M	132572	1	50	Rear Face	1	Second	1	21.5	20.55	0.04	0.683	0.388	0.850
L688	LTE B66	QPSK20M	132572	1	50	Left Side	1	Second	1	21.5	20.55	0.01	0.209	0.126	0.260
L689	LTE B66	QPSK20M	132572	1	50	Top Side	1	Second	1	21.5	20.55	-0.09	0.844	0.437	1.050
L690	LTE B66	QPSK20M	132572	50	25	Front Face	1	Second	1	21.5	20.45	0.05	0.194	0.111	0.247
L691	LTE B66	QPSK20M	132572	50	25	Rear Face	1	Second	1	21.5	20.45	0.06	0.688	0.389	0.876
L692	LTE B66	QPSK20M	132572	50	25	Left Side	1	Second	1	21.5	20.45	0.03	0.197	0.117	0.251
L693	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	1	21.5	20.45	-0.07	**0.846**	**0.440**	**1.077**
L694	LTE B66	QPSK20M	132072	1	50	Rear Face	1	Second	1	21.5	20.53	0.01	0.629	0.373	0.786
L695	LTE B66	QPSK20M	132322	1	50	Rear Face	1	Second	1	21.5	20.45	0.09	0.669	0.390	0.852
L696	LTE B66	QPSK20M	132072	1	50	Top Side	1	Second	1	21.5	20.53	0.02	0.767	0.408	0.959
L697	LTE B66	QPSK20M	132322	1	50	Top Side	1	Second	1	21.5	20.45	-0.06	0.795	0.418	1.012
L698	LTE B66	QPSK20M	132072	50	25	Rear Face	1	Second	1	21.5	20.43	-0.08	0.604	0.352	0.773
L699	LTE B66	QPSK20M	132322	50	25	Rear Face	1	Second	1	21.5	20.36	0.02	0.669	0.382	0.870
L700	LTE B66	QPSK20M	132072	50	25	Top Side	1	Second	1	21.5	20.43	0.04	0.785	0.416	1.004
L701	LTE B66	QPSK20M	132322	50	25	Top Side	1	Second	1	21.5	20.36	-0.01	0.807	0.423	1.049
L702	LTE B66	QPSK20M	132572	100	0	Rear Face	1	Second	1	21.5	20.42	0.06	0.663	0.382	0.850
L703	LTE B66	QPSK20M	132572	100	0	Top Side	1	Second	1	21.5	20.42	0.02	0.681	0.340	0.873
L704	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	2	21.5	20.45	-0.06	0.837	0.437	1.066
L705	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	3	21.5	20.45	-0.01	0.814	0.432	1.037
L706	LTE B66	QPSK20M	132572	50	25	Top Side (Repeated)	1	Second	1	21.5	20.45	0.05	0.820	0.428	1.044

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

4. Hotspot SAR test results of 2.4G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W76	802.11b	6	Front Face	1	1	1	-	20	19.79	0.09	0.326	0.165	0.342
W77	802.11b	6	Rear Face	1	1	1	-	20	19.79	0.1	**0.378**	**0.188**	**0.397**
W78	802.11b	6	Right Side	1	1	1	-	20	19.79	-0.05	0.288	0.133	0.302
W79	802.11b	6	Top Side	1	1	1	-	20	19.79	0.06	0.363	0.172	0.381
W80	802.11b	6	Rear Face	1	2	1	-	20	19.79	0.13	0.353	0.174	0.370
W81	802.11b	6	Rear Face	1	3	1	-	20	19.79	-0.08	0.373	0.179	0.391

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

5. Hotspot SAR test results of 2.4G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W89	802.11b	6	Front Face	1	1	1	-	17	16.92	0.03	0.109	0.063	0.111
W90	802.11b	6	Rear Face	1	1	1	-	17	16.92	-0.12	0.135	0.072	0.138
W91	802.11b	6	Right Side	1	1	1	-	17	16.92	0.01	0.097	0.050	0.099
W92	802.11b	6	Top Side	1	1	1	-	17	16.92	-0.12	**0.150**	**0.080**	**0.153**
W93	802.11b	6	Top Side	1	2	1	-	17	16.92	0.06	0.145	0.076	0.148
W94	802.11b	6	Top Side	1	3	1	-	17	16.92	-0.03	0.138	0.073	0.141

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

6. Hotspot SAR test results of 5G WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W102	802.11a	48	Front Face	1	1	6	-	20	19.72	-0.03	0.409	0.159	0.436
W103	802.11a	48	Rear Face	1	1	6	-	20	19.72	0.05	0.598	0.215	0.638
W104	802.11a	48	Right Side	1	1	6	-	20	19.72	0.12	0.512	0.188	0.546
W105	802.11a	48	Top Side	1	1	6	-	20	19.72	0	0.428	0.158	0.457
W106	802.11a	48	Rear Face	1	2	6	-	20	19.72	0.01	0.540	0.199	0.576
W107	802.11a	48	Rear Face	1	3	6	-	20	19.72	0.06	**0.636**	**0.235**	**0.678**
W169	802.11a	157	Front Face	1	1	6	-	16	15.63	0.03	0.175	0.064	0.191
W170	802.11a	157	Rear Face	1	1	6	-	16	15.63	0.08	**0.689**	**0.223**	**0.750**
W171	802.11a	157	Right Side	1	1	6	-	16	15.63	0.09	0.431	0.164	0.469
W172	802.11a	157	Top Side	1	1	6	-	16	15.63	0.04	0.282	0.112	0.307
W173	802.11a	165	Rear Face	1	1	6	-	16	15.61	0.03	0.668	0.205	0.731
W174	802.11a	157	Rear Face	1	2	6	-	16	15.63	0.12	0.530	0.175	0.577
W175	802.11a	157	Rear Face	1	3	6	-	16	15.63	-0.05	0.554	0.186	0.603

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

7. Hotspot SAR test results of 5G WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
W109	802.11a	40	Front Face	1	1	6	-	16.5	16.31	-0.01	0.165	0.070	0.172
W110	802.11a	40	Rear Face	1	1	6	-	16.5	16.31	0.02	0.274	0.106	0.286
W111	802.11a	40	Right Side	1	1	6	-	16.5	16.31	0.06	0.207	0.085	0.216
W112	802.11a	40	Top Side	1	1	6	-	16.5	16.31	-0.05	0.228	0.089	0.238
W113	802.11a	40	Rear Face	1	2	6	-	16.5	16.31	0.18	**0.291**	**0.109**	**0.304**
W114	802.11a	40	Rear Face	1	3	6	-	16.5	16.31	0.03	0.237	0.093	0.248
W181	802.11a	161	Front Face	1	1	6	-	13.5	13.43	-0.04	0.117	0.026	0.119
W182	802.11a	161	Rear Face	1	1	6	-	13.5	13.43	0	**0.342**	**0.105**	**0.348**
W183	802.11a	161	Right Side	1	1	6	-	13.5	13.43	0.06	0.237	0.081	0.241
W184	802.11a	161	Top Side	1	1	6	-	13.5	13.43	0.1	0.197	0.066	0.200
W185	802.11a	161	Rear Face	1	2	6	-	13.5	13.43	0.07	0.355	0.103	0.361
W186	802.11a	161	Rear Face	1	3	6	-	13.5	13.43	-0.04	0.350	0.096	0.356

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

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

7.2.4 SAR MEASUREMENT RESULT OF PRODUCT SPECIFIC 10-G SAR

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

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
G39	GSM 850	GPRS2TX	190	Front Face	1	Main	1	32.5	30.94	0.01	0.201	0.146	0.288	YES
G40	GSM 850	GPRS2TX	190	Rear Face	1	Main	1	32.5	30.94	-0.05	0.334	0.205	0.478	YES
G41	GSM 850	GPRS2TX	190	Left Side	1	Main	1	32.5	30.94	0.09	0.228	0.156	0.327	YES
G42	GSM 850	GPRS2TX	190	Right Side	1	Main	1	32.5	30.94	0	0.148	0.102	0.212	YES
G43	GSM 850	GPRS2TX	190	Bottom Side	1	Main	1	32.5	30.94	0.12	0.216	0.121	0.309	YES
G44	GSM 850	GPRS2TX	190	Rear Face	1	Main	2	32.5	30.94	0.07	0.329	0.198	0.471	YES
G45	GSM 850	GPRS2TX	190	Rear Face	1	Main	3	32.5	30.94	-0.02	**0.354**	**0.216**	**0.507**	YES
G52	GSM 850	GPRS2TX	190	Front Face	1	Second	1	32.5	30.99	0.01	0.072	0.047	0.103	YES
G53	GSM 850	GPRS2TX	190	Rear Face	1	Second	1	32.5	30.99	0.05	0.157	0.096	0.222	YES
G54	GSM 850	GPRS2TX	190	Left Side	1	Second	1	32.5	30.99	-0.07	0.069	0.048	0.098	YES
G55	GSM 850	GPRS2TX	190	Top Side	1	Second	1	32.5	30.99	0.02	0.108	0.062	0.153	YES
G56	GSM 850	GPRS2TX	190	Rear Face	1	Second	2	32.5	30.99	-0.12	0.115	0.075	0.163	YES
G57	GSM 850	GPRS2TX	190	Rear Face	1	Second	3	32.5	30.99	0.03	**0.171**	**0.105**	**0.242**	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
G64	GSM 1900	GPRS4TX	661	Front Face	1	Main	1	26.5	25.37	0.03	0.151	0.085	0.196	YES
G65	GSM 1900	GPRS4TX	661	Rear Face	1	Main	1	26.5	25.37	-0.01	0.618	0.352	0.802	YES
G66	GSM 1900	GPRS4TX	661	Left Side	1	Main	1	26.5	25.37	0.06	0.056	0.032	0.073	YES
G67	GSM 1900	GPRS4TX	661	Right Side	1	Main	1	26.5	25.37	0.09	0.044	0.024	0.056	YES
G68	GSM 1900	GPRS4TX	661	Bottom Side	1	Main	1	26.5	25.37	-0.06	0.559	0.327	0.725	YES
G69	GSM 1900	GPRS4TX	512	Rear Face	1	Main	1	26.5	25.2	0.02	0.567	0.332	0.765	YES
G70	GSM 1900	GPRS4TX	810	Rear Face	1	Main	1	26.5	25.46	0.07	0.599	0.347	0.761	YES
G71	GSM 1900	GPRS4TX	661	Rear Face	1	Main	2	26.5	25.37	0.11	**0.655**	**0.362**	**0.850**	YES
G72	GSM 1900	GPRS4TX	661	Rear Face	1	Main	3	26.5	25.37	0.09	0.641	0.359	0.831	YES
G79	GSM 1900	GPRS2TX	661	Front Face	1	Second	1	28	26.94	-0.01	0.174	0.098	0.222	YES
G80	GSM 1900	GPRS2TX	661	Rear Face	1	Second	1	28	26.94	0.02	0.531	0.299	0.678	YES
G81	GSM 1900	GPRS2TX	661	Left Side	1	Second	1	28	26.94	0.03	0.050	0.031	0.063	YES
G82	GSM 1900	GPRS2TX	661	Top Side	1	Second	1	28	26.94	-0.04	0.735	0.372	0.938	YES
G83	GSM 1900	GPRS2TX	512	Top Side	1	Second	1	28	26.81	0.06	0.688	0.355	0.905	YES
G84	GSM 1900	GPRS2TX	810	Top Side	1	Second	1	28	27.02	-0.07	0.670	0.340	0.840	YES
G85	GSM 1900	GPRS2TX	661	Top Side	1	Second	2	28	26.94	0.02	0.729	0.361	0.931	YES
G86	GSM 1900	GPRS2TX	661	Top Side	1	Second	3	28	26.94	-0.16	**0.742**	**0.378**	**0.947**	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U59	UMTS B2	RMC12.2K	9400	Front Face	1	Main	1	23.5	22.82	0.02	0.266	0.155	0.311	YES
U60	UMTS B2	RMC12.2K	9400	Rear Face	1	Main	1	23.5	22.82	0.15	0.800	0.432	0.936	YES
U61	UMTS B2	RMC12.2K	9400	Left Side	1	Main	1	23.5	22.82	0.01	0.064	0.043	0.075	YES
U62	UMTS B2	RMC12.2K	9400	Right Side	1	Main	1	23.5	22.82	-0.06	0.061	0.036	0.071	YES
U63	UMTS B2	RMC12.2K	9400	Bottom Side	1	Main	1	23.5	22.82	0.01	0.803	0.428	0.939	YES
U64	UMTS B2	RMC12.2K	9262	Rear Face	1	Main	1	23.5	22.66	0.03	0.775	0.400	0.940	YES
U65	UMTS B2	RMC12.2K	9538	Rear Face	1	Main	1	23.5	22.94	0.09	0.915	0.478	1.041	YES
U66	UMTS B2	RMC12.2K	9262	Bottom Side	1	Main	1	23.5	22.66	0.05	0.837	0.453	1.016	YES
U67	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	1	23.5	22.94	0	**0.931**	**0.498**	**1.059**	YES
U68	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	2	23.5	22.94	0.14	0.912	0.475	1.038	YES
U69	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	3	23.5	22.94	-0.02	0.925	0.483	1.052	YES
U70	UMTS B2	RMC12.2K	9538	Bottom Side (Repeated)	1	Main	1	23.5	22.94	0.04	0.928	0.488	1.056	YES
U75	UMTS B2	RMC12.2K	9400	Front Face	1	Second	1	22	21.25	0.12	0.193	0.108	0.229	YES
U76	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	1	22	21.25	0	0.639	0.357	0.759	YES
U77	UMTS B2	RMC12.2K	9400	Left Side	1	Second	1	22	21.25	0.01	0.129	0.078	0.153	YES
U78	UMTS B2	RMC12.2K	9400	Top Side	1	Second	1	22	21.25	-0.12	0.744	0.380	0.884	YES
U79	UMTS B2	RMC12.2K	9262	Top Side	1	Second	1	22	21.07	0.02	0.729	0.368	0.903	YES
U80	UMTS B2	RMC12.2K	9538	Top Side	1	Second	1	22	21.34	-0.01	**0.793**	**0.403**	**0.923**	YES
U81	UMTS B2	RMC12.2K	9538	Top Side	1	Second	2	22	21.34	0.03	0.768	0.387	0.894	YES
U82	UMTS B2	RMC12.2K	9538	Top Side	1	Second	3	22	21.34	0.07	0.785	0.396	0.914	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U87	UMTS B4	RMC12.2K	1413	Front Face	1	Main	1	22.5	21.84	0.03	0.210	0.113	0.244	YES
U88	UMTS B4	RMC12.2K	1413	Rear Face	1	Main	1	22.5	21.84	-0.04	0.653	0.338	0.760	YES
U89	UMTS B4	RMC12.2K	1413	Left Side	1	Main	1	22.5	21.84	0.01	0.046	0.028	0.054	YES
U90	UMTS B4	RMC12.2K	1413	Right Side	1	Main	1	22.5	21.84	0.02	0.010	0.005	0.011	YES
U91	UMTS B4	RMC12.2K	1413	Bottom Side	1	Main	1	22.5	21.84	0	0.716	0.365	0.834	YES
U94	UMTS B4	RMC12.2K	1312	Bottom Side	1	Main	1	22.5	21.91	0.12	0.707	0.361	0.810	YES
U95	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	1	22.5	21.87	0.02	**0.724**	**0.366**	**0.837**	YES
U96	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	2	22.5	21.87	0.01	0.693	0.355	0.801	YES
U97	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	3	22.5	21.87	0.06	0.714	0.362	0.825	YES
U105	UMTS B4	RMC12.2K	1413	Front Face	1	Second	1	22	21.32	0.17	0.199	0.112	0.233	YES
U106	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	1	22	21.32	0.01	0.715	0.404	0.836	YES
U107	UMTS B4	RMC12.2K	1413	Left Side	1	Second	1	22	21.32	-0.06	0.184	0.115	0.215	YES
U108	UMTS B4	RMC12.2K	1413	Top Side	1	Second	1	22	21.32	0.04	0.764	0.403	0.893	YES
U109	UMTS B4	RMC12.2K	1312	Rear Face	1	Second	1	22	21.27	0.13	0.702	0.389	0.830	YES
U110	UMTS B4	RMC12.2K	1513	Rear Face	1	Second	1	22	21.33	0.02	0.727	0.406	0.848	YES
U111	UMTS B4	RMC12.2K	1312	Top Side	1	Second	1	22	21.27	0.01	0.749	0.397	0.886	YES
U112	UMTS B4	RMC12.2K	1513	Top Side	1	Second	1	22	21.33	0.04	0.784	0.418	0.915	YES
U113	UMTS B4	RMC12.2K	1513	Top Side	1	Second	2	22	21.33	-0.02	0.776	0.413	0.905	YES
U114	UMTS B4	RMC12.2K	1513	Top Side	1	Second	3	22	21.33	0.05	**0.798**	**0.420**	**0.931**	YES

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
U121	UMTS B5	RMC12.2K	4182	Front Face	1	Main	1	24	23.23	-0.02	0.173	0.115	0.207	YES
U122	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	1	24	23.23	0.02	**0.268**	**0.163**	**0.320**	YES
U123	UMTS B5	RMC12.2K	4182	Left Side	1	Main	1	24	23.23	0.01	0.189	0.129	0.226	YES
U124	UMTS B5	RMC12.2K	4182	Right Side	1	Main	1	24	23.23	0.05	0.113	0.077	0.135	YES
U125	UMTS B5	RMC12.2K	4182	Bottom Side	1	Main	1	24	23.23	-0.09	0.175	0.119	0.209	YES
U126	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	2	24	23.23	0.11	0.261	0.159	0.312	YES
U127	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	3	24	23.23	0.03	0.255	0.154	0.304	YES
U134	UMTS B5	RMC12.2K	4182	Front Face	1	Second	1	24	23.33	-0.09	0.087	0.051	0.101	YES
U135	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	1	24	23.33	0.04	**0.136**	**0.082**	**0.159**	YES
U136	UMTS B5	RMC12.2K	4182	Left Side	1	Second	1	24	23.33	-0.01	0.057	0.039	0.066	YES
U137	UMTS B5	RMC12.2K	4182	Top Side	1	Second	1	24	23.33	0.01	0.122	0.065	0.142	YES
U138	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	2	24	23.33	-0.11	0.130	0.078	0.152	YES
U139	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	3	24	23.33	0.03	0.129	0.078	0.151	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L264	LTE B2	QPSK20M	18900	1	50	Front Face	1	Main	1	23.5	22.85	0.09	0.257	0.151	0.298	YES
L265	LTE B2	QPSK20M	18900	1	50	Rear Face	1	Main	1	23.5	22.85	0.04	0.733	0.421	0.851	YES
L266	LTE B2	QPSK20M	18900	1	50	Left Side	1	Main	1	23.5	22.85	-0.01	0.059	0.036	0.069	YES
L267	LTE B2	QPSK20M	18900	1	50	Right Side	1	Main	1	23.5	22.85	-0.12	0.041	0.020	0.047	YES
L268	LTE B2	QPSK20M	18900	1	50	Bottom Side	1	Main	1	23.5	22.85	0.17	0.887	0.486	1.030	YES
L269	LTE B2	QPSK20M	18900	50	0	Front Face	1	Main	1	22.5	22.12	0.05	0.208	0.122	0.227	YES
L270	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Main	1	22.5	22.12	0.08	0.577	0.331	0.630	YES
L271	LTE B2	QPSK20M	18900	50	0	Left Side	1	Main	1	22.5	22.12	0	0.053	0.032	0.058	YES
L272	LTE B2	QPSK20M	18900	50	0	Right Side	1	Main	1	22.5	22.12	-0.04	0.037	0.017	0.040	YES
L273	LTE B2	QPSK20M	18900	50	0	Bottom Side	1	Main	1	22.5	22.12	0.17	0.736	0.407	0.803	YES
L274	LTE B2	QPSK20M	18700	1	50	Rear Face	1	Main	1	23.5	22.62	0.01	0.723	0.390	0.885	YES
L275	LTE B2	QPSK20M	19100	1	50	Rear Face	1	Main	1	23.5	22.75	-0.02	0.796	0.431	0.946	YES
L278	LTE B2	QPSK20M	18700	1	50	Bottom Side	1	Main	1	23.5	22.62	0.12	0.834	0.463	1.021	YES
L279	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	1	23.5	22.75	0.14	**0.894**	**0.497**	**1.063**	YES
L280	LTE B2	QPSK20M	18700	50	25	Bottom Side	1	Main	1	22.5	21.94	0.04	0.678	0.363	0.771	YES
L281	LTE B2	QPSK20M	19100	50	25	Bottom Side	1	Main	1	22.5	21.93	0.13	0.766	0.423	0.873	YES
L282	LTE B2	QPSK20M	18900	100	0	Rear Face	1	Main	1	22.5	22	0.09	0.637	0.346	0.715	YES
L283	LTE B2	QPSK20M	18900	100	0	Bottom Side	1	Main	1	22.5	22	0.09	0.690	0.371	0.774	YES
L284	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	2	23.5	22.75	0.02	0.875	0.478	1.040	YES
L285	LTE B2	QPSK20M	19100	1	50	Bottom Side	1	Main	3	23.5	22.75	-0.08	0.862	0.465	1.024	YES
L286	LTE B2	QPSK20M	19100	1	50	Bottom Side (Repeated)	1	Main	1	23.5	22.75	0.1	0.869	0.471	1.033	YES
L294	LTE B2	QPSK20M	18700	1	50	Front Face	1	Second	1	22.5	21.99	-0.05	0.189	0.111	0.213	YES
L295	LTE B2	QPSK20M	18700	1	50	Rear Face	1	Second	1	22.5	21.99	0.01	0.715	0.396	0.804	YES
L296	LTE B2	QPSK20M	18700	1	50	Left Side	1	Second	1	22.5	21.99	0.02	0.116	0.074	0.130	YES
L297	LTE B2	QPSK20M	18700	1	50	Top Side	1	Second	1	22.5	21.99	0.04	0.859	0.442	0.966	YES
L298	LTE B2	QPSK20M	18900	50	0	Front Face	1	Second	1	22.5	22.07	0.1	0.219	0.122	0.242	YES
L299	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Second	1	22.5	22.07	0.02	0.784	0.438	0.866	YES
L300	LTE B2	QPSK20M	18900	50	0	Left Side	1	Second	1	22.5	22.07	0.13	0.158	0.096	0.174	YES
L301	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	1	22.5	22.07	-0.03	**0.960**	**0.490**	**1.060**	YES
L302	LTE B2	QPSK20M	18900	1	50	Rear Face	1	Second	1	22.5	21.8	0.08	0.716	0.407	0.841	YES
L303	LTE B2	QPSK20M	19100	1	50	Rear Face	1	Second	1	22.5	21.55	0.01	0.698	0.397	0.869	YES
L304	LTE B2	QPSK20M	18900	1	50	Top Side	1	Second	1	22.5	21.8	-0.11	0.882	0.444	1.036	YES
L305	LTE B2	QPSK20M	19100	1	50	Top Side	1	Second	1	22.5	21.55	0.05	0.845	0.435	1.052	YES
L306	LTE B2	QPSK20M	18700	50	25	Rear Face	1	Second	1	22.5	21.84	0.03	0.709	0.405	0.825	YES
L307	LTE B2	QPSK20M	19100	50	25	Rear Face	1	Second	1	22.5	21.77	0.09	0.700	0.401	0.828	YES
L308	LTE B2	QPSK20M	18700	50	25	Top Side	1	Second	1	22.5	21.84	-0.1	0.908	0.464	1.057	YES
L309	LTE B2	QPSK20M	19100	50	25	Top Side	1	Second	1	22.5	21.77	-0.02	0.893	0.450	1.056	YES
L310	LTE B2	QPSK20M	18900	100	0	Rear Face	1	Second	1	22.5	22.03	0.07	0.740	0.422	0.825	YES
L311	LTE B2	QPSK20M	18900	100	0	Top Side	1	Second	1	22.5	22.03	-0.04	0.947	0.482	1.055	YES
L312	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	2	22.5	22.07	0.01	0.933	0.478	1.030	YES
L313	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	3	22.5	22.07	0.07	0.929	0.470	1.026	YES
L314	LTE B2	QPSK20M	18900	50	0	Top Side (Repeated)	1	Second	1	22.5	22.07	-0.14	0.951	0.488	1.050	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L323	LTE B4	QPSK20M	20050	1	50	Front Face	1	Main	1	23.5	22.99	0.02	0.243	0.135	0.273	YES
L324	LTE B4	QPSK20M	20050	1	50	Rear Face	1	Main	1	23.5	22.99	-0.11	0.714	0.379	0.803	YES
L325	LTE B4	QPSK20M	20050	1	50	Left Side	1	Main	1	23.5	22.99	0.06	0.046	0.029	0.052	YES
L326	LTE B4	QPSK20M	20050	1	50	Right Side	1	Main	1	23.5	22.99	0.04	0.021	0.011	0.024	YES
L327	LTE B4	QPSK20M	20050	1	50	Bottom Side	1	Main	1	23.5	22.99	-0.03	0.822	0.425	0.924	YES
L328	LTE B4	QPSK20M	20175	50	25	Front Face	1	Main	1	22.5	21.94	0.07	0.220	0.115	0.250	YES
L329	LTE B4	QPSK20M	20175	50	25	Rear Face	1	Main	1	22.5	21.94	0.04	0.615	0.323	0.700	YES
L330	LTE B4	QPSK20M	20175	50	25	Left Side	1	Main	1	22.5	21.94	-0.13	0.045	0.028	0.051	YES
L331	LTE B4	QPSK20M	20175	50	25	Right Side	1	Main	1	22.5	21.94	0.08	0.015	0.008	0.017	YES
L332	LTE B4	QPSK20M	20175	50	25	Bottom Side	1	Main	1	22.5	21.94	0.05	0.801	0.405	0.911	YES
L333	LTE B4	QPSK20M	20175	1	50	Rear Face	1	Main	1	23.5	22.94	0.03	0.840	0.437	0.956	YES
L334	LTE B4	QPSK20M	20300	1	50	Rear Face	1	Main	1	23.5	22.97	0.14	0.892	0.450	1.008	YES
L335	LTE B4	QPSK20M	20175	1	50	Bottom Side	1	Main	1	23.5	22.94	0.01	0.899	0.452	1.023	YES
L336	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	1	23.5	22.97	-0.02	**0.938**	**0.469**	**1.060**	YES
L339	LTE B4	QPSK20M	20050	50	25	Bottom Side	1	Main	1	22.5	21.87	-0.12	0.662	0.342	0.765	YES
L340	LTE B4	QPSK20M	20300	50	25	Bottom Side	1	Main	1	22.5	21.84	0	0.739	0.379	0.860	YES
L341	LTE B4	QPSK20M	20300	100	0	Rear Face	1	Main	1	22.5	21.88	0.09	0.693	0.365	0.799	YES
L342	LTE B4	QPSK20M	20300	100	0	Bottom Side	1	Main	1	22.5	21.88	0.04	0.756	0.387	0.872	YES
L343	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	2	23.5	22.97	-0.01	0.919	0.455	1.038	YES
L344	LTE B4	QPSK20M	20300	1	50	Bottom Side	1	Main	3	23.5	22.97	0.07	0.925	0.461	1.045	YES
L345	LTE B4	QPSK20M	20300	1	50	Bottom Side (Repeated)	1	Main	3	23.5	22.97	0.03	0.920	0.458	1.039	YES
L353	LTE B4	QPSK20M	20050	1	50	Front Face	1	Second	1	21.5	20.68	0.02	0.223	0.127	0.269	YES
L354	LTE B4	QPSK20M	20050	1	50	Rear Face	1	Second	1	21.5	20.68	-0.05	0.598	0.343	0.722	YES
L355	LTE B4	QPSK20M	20050	1	50	Left Side	1	Second	1	21.5	20.68	0.04	0.190	0.112	0.229	YES
L356	LTE B4	QPSK20M	20050	1	50	Top Side	1	Second	1	21.5	20.68	-0.08	0.769	0.404	0.929	YES
L357	LTE B4	QPSK20M	20050	50	25	Front Face	1	Second	1	21.5	20.56	0.01	0.224	0.124	0.278	YES
L358	LTE B4	QPSK20M	20050	50	25	Rear Face	1	Second	1	21.5	20.56	0.03	0.605	0.350	0.751	YES
L359	LTE B4	QPSK20M	20050	50	25	Left Side	1	Second	1	21.5	20.56	0.15	0.202	0.115	0.251	YES
L360	LTE B4	QPSK20M	20050	50	25	Top Side	1	Second	1	21.5	20.56	0	0.681	0.359	0.846	YES
L361	LTE B4	QPSK20M	20175	1	99	Top Side	1	Second	1	21.5	20.18	0.02	0.704	0.367	0.954	YES
L362	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	1	21.5	20.61	-0.08	**0.803**	**0.418**	**0.986**	YES
L363	LTE B4	QPSK20M	20175	50	25	Top Side	1	Second	1	21.5	20.52	0.07	0.779	0.413	0.976	YES
L364	LTE B4	QPSK20M	20300	50	25	Top Side	1	Second	1	21.5	20.54	0.06	0.732	0.386	0.913	YES
L365	LTE B4	QPSK20M	20300	100	0	Top Side	1	Second	1	21.5	20.52	0.09	0.728	0.376	0.912	YES
L366	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	2	21.5	20.61	-0.01	0.772	0.391	0.948	YES
L367	LTE B4	QPSK20M	20300	1	50	Top Side	1	Second	3	21.5	20.61	0.02	0.765	0.377	0.939	YES
L368	LTE B4	QPSK20M	20300	1	50	Top Side (Repeated)	1	Second	1	21.5	20.61	0.08	0.786	0.404	0.965	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L376	LTE B5	QPSK10M	20450	1	24	Front Face	1	Main	1	24	23.07	0.03	0.169	0.121	0.209	YES
L377	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	1	24	23.07	0.07	0.220	0.136	0.273	YES
L378	LTE B5	QPSK10M	20450	1	24	Left Side	1	Main	1	24	23.07	0.01	0.195	0.133	0.242	YES
L379	LTE B5	QPSK10M	20450	1	24	Right Side	1	Main	1	24	23.07	0.02	0.120	0.083	0.149	YES
L380	LTE B5	QPSK10M	20450	1	24	Bottom Side	1	Main	1	24	23.07	0	0.176	0.123	0.218	YES
L381	LTE B5	QPSK10M	20450	25	25	Front Face	1	Main	1	23	22	-0.09	0.124	0.098	0.156	YES
L382	LTE B5	QPSK10M	20450	25	25	Rear Face	1	Main	1	23	22	0.01	0.178	0.124	0.224	YES
L383	LTE B5	QPSK10M	20450	25	25	Left Side	1	Main	1	23	22	0.12	0.153	0.112	0.193	YES
L384	LTE B5	QPSK10M	20450	25	25	Right Side	1	Main	1	23	22	0.04	0.093	0.064	0.117	YES
L385	LTE B5	QPSK10M	20450	25	25	Bottom Side	1	Main	1	23	22	-0.06	0.144	0.105	0.181	YES
L386	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	2	24	23.07	-0.04	**0.229**	**0.141**	**0.284**	YES
L387	LTE B5	QPSK10M	20450	1	24	Rear Face	1	Main	3	24	23.07	0.01	0.224	0.138	0.277	YES
L396	LTE B5	QPSK10M	20525	1	24	Front Face	1	Second	1	24	23.14	-0.02	0.084	0.052	0.103	YES
L397	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	1	24	23.14	0.03	0.131	0.082	0.160	YES
L398	LTE B5	QPSK10M	20525	1	24	Left Side	1	Second	1	24	23.14	0.01	0.058	0.040	0.071	YES
L399	LTE B5	QPSK10M	20525	1	24	Top Side	1	Second	1	24	23.14	0.11	0.117	0.065	0.143	YES
L400	LTE B5	QPSK10M	20450	25	0	Front Face	1	Second	1	23	22.02	-0.05	0.054	0.037	0.068	YES
L401	LTE B5	QPSK10M	20450	25	0	Rear Face	1	Second	1	23	22.02	0.03	0.090	0.059	0.112	YES
L402	LTE B5	QPSK10M	20450	25	0	Left Side	1	Second	1	23	22.02	-0.01	0.046	0.032	0.058	YES
L403	LTE B5	QPSK10M	20450	25	0	Top Side	1	Second	1	23	22.02	0.09	0.069	0.038	0.086	YES
L404	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	2	24	23.14	0.14	**0.136**	**0.083**	**0.166**	YES
L405	LTE B5	QPSK10M	20525	1	24	Rear Face	1	Second	3	24	23.14	-0.06	0.128	0.081	0.156	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L414	LTE B7	QPSK20M	20850	1	50	Front Face	1	Main	1	22	21.4	-0.01	0.185	0.097	0.212	YES
L415	LTE B7	QPSK20M	20850	1	50	Rear Face	1	Main	1	22	21.4	0.04	0.602	0.293	0.691	YES
L416	LTE B7	QPSK20M	20850	1	50	Left Side	1	Main	1	22	21.4	0.07	0.070	0.040	0.080	YES
L417	LTE B7	QPSK20M	20850	1	50	Right Side	1	Main	1	22	21.4	0.02	0.098	0.052	0.113	YES
L418	LTE B7	QPSK20M	20850	1	50	Bottom Side	1	Main	1	22	21.4	-0.05	0.760	0.357	0.873	YES
L419	LTE B7	QPSK20M	20850	50	25	Front Face	1	Main	1	22	21.26	-0.11	0.168	0.086	0.199	YES
L420	LTE B7	QPSK20M	20850	50	25	Rear Face	1	Main	1	22	21.26	0.06	0.577	0.283	0.684	YES
L421	LTE B7	QPSK20M	20850	50	25	Left Side	1	Main	1	22	21.26	0.09	0.072	0.039	0.085	YES
L422	LTE B7	QPSK20M	20850	50	25	Right Side	1	Main	1	22	21.26	0.02	0.094	0.049	0.112	YES
L423	LTE B7	QPSK20M	20850	50	25	Bottom Side	1	Main	1	22	21.26	-0.04	0.635	0.296	0.753	YES
L424	LTE B7	QPSK20M	21100	1	50	Bottom Side	1	Main	1	22	21.3	0	0.792	0.373	0.931	YES
L425	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	1	22	21.25	0.03	**0.952**	**0.435**	**1.131**	YES
L428	LTE B7	QPSK20M	21100	100	0	Bottom Side	1	Main	1	22	21.15	-0.01	0.782	0.368	0.951	YES
L429	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	2	22	21.25	0.02	0.932	0.424	1.108	YES
L430	LTE B7	QPSK20M	21350	1	50	Bottom Side	1	Main	3	22	21.25	0.07	0.908	0.404	1.079	YES
L431	LTE B7	QPSK20M	21350	1	50	Bottom Side (Repeated)	1	Main	1	22	21.25	0.09	0.926	0.432	1.101	YES
L440	LTE B7	QPSK20M	20850	1	50	Front Face	1	Second	1	20.5	19.8	0.04	0.146	0.071	0.172	YES
L441	LTE B7	QPSK20M	20850	1	50	Rear Face	1	Second	1	20.5	19.8	0.06	0.769	0.313	0.903	YES
L442	LTE B7	QPSK20M	20850	1	50	Left Side	1	Second	1	20.5	19.8	-0.05	0.298	0.159	0.350	YES
L443	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	1	20.5	19.8	0.09	**0.813**	**0.344**	**0.955**	YES
L444	LTE B7	QPSK20M	21100	50	50	Front Face	1	Second	1	20.5	19.67	0.02	0.142	0.072	0.172	YES
L445	LTE B7	QPSK20M	21100	50	50	Rear Face	1	Second	1	20.5	19.67	-0.14	0.603	0.287	0.730	YES
L446	LTE B7	QPSK20M	21100	50	50	Left Side	1	Second	1	20.5	19.67	0	0.349	0.189	0.422	YES
L447	LTE B7	QPSK20M	21100	50	50	Top Side	1	Second	1	20.5	19.67	0.12	0.678	0.299	0.821	YES
L448	LTE B7	QPSK20M	21100	1	50	Rear Face	1	Second	1	20.5	19.77	0.09	0.658	0.287	0.778	YES
L449	LTE B7	QPSK20M	21350	1	50	Rear Face	1	Second	1	20.5	19.67	0.07	0.616	0.264	0.746	YES
L450	LTE B7	QPSK20M	21100	1	50	Top Side	1	Second	1	20.5	19.77	0.05	0.690	0.305	0.816	YES
L451	LTE B7	QPSK20M	21350	1	50	Top Side	1	Second	1	20.5	19.67	-0.03	0.642	0.284	0.777	YES
L452	LTE B7	QPSK20M	20850	50	25	Top Side	1	Second	1	20.5	19.6	0.07	0.772	0.314	0.950	YES
L453	LTE B7	QPSK20M	21350	50	25	Top Side	1	Second	1	20.5	19.55	0.02	0.642	0.285	0.799	YES
L454	LTE B7	QPSK20M	21100	100	0	Rear Face	1	Second	1	20.5	19.57	0.03	0.639	0.288	0.792	YES
L455	LTE B7	QPSK20M	21100	100	0	Top Side	1	Second	1	20.5	19.57	-0.01	0.672	0.296	0.832	YES
L456	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	2	20.5	19.8	-0.03	0.792	0.333	0.931	YES
L457	LTE B7	QPSK20M	20850	1	50	Top Side	1	Second	3	20.5	19.8	0.05	0.789	0.329	0.927	YES
L458	LTE B7	QPSK20M	20850	1	50	Top Side (Repeated)	1	Second	1	20.5	19.8	0.02	0.808	0.342	0.949	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L465	LTE B12	QPSK10M	23095	1	24	Front Face	1	Main	1	24	22.94	-0.01	0.141	0.111	0.180	YES
L466	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Main	1	24	22.94	-0.04	0.219	0.150	0.280	YES
L467	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	1	24	22.94	-0.02	0.229	0.158	0.292	YES
L468	LTE B12	QPSK10M	23095	1	24	Right Side	1	Main	1	24	22.94	0.03	0.139	0.098	0.177	YES
L469	LTE B12	QPSK10M	23095	1	24	Bottom Side	1	Main	1	24	22.94	0.08	0.073	0.040	0.093	YES
L470	LTE B12	QPSK10M	23095	25	0	Front Face	1	Main	1	23	21.85	0.04	0.124	0.096	0.162	YES
L471	LTE B12	QPSK10M	23095	25	0	Rear Face	1	Main	1	23	21.85	-0.01	0.178	0.128	0.232	YES
L472	LTE B12	QPSK10M	23095	25	0	Left Side	1	Main	1	23	21.85	0.02	0.185	0.130	0.241	YES
L473	LTE B12	QPSK10M	23095	25	0	Right Side	1	Main	1	23	21.85	0.07	0.112	0.079	0.146	YES
L474	LTE B12	QPSK10M	23095	25	0	Bottom Side	1	Main	1	23	21.85	0.1	0.057	0.031	0.074	YES
L475	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	2	24	22.94	-0.02	**0.235**	**0.165**	**0.300**	YES
L476	LTE B12	QPSK10M	23095	1	24	Left Side	1	Main	3	24	22.94	0.09	0.222	0.155	0.283	YES
L484	LTE B12	QPSK10M	23095	1	24	Front Face	1	Second	1	24	22.97	0.04	0.013	0.009	0.017	YES
L485	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	1	24	22.97	-0.06	0.025	0.018	0.031	YES
L486	LTE B12	QPSK10M	23095	1	24	Left Side	1	Second	1	24	22.97	0.09	0.016	0.011	0.020	YES
L487	LTE B12	QPSK10M	23095	1	24	Top Side	1	Second	1	24	22.97	0.04	0.013	0.008	0.016	YES
L488	LTE B12	QPSK10M	23095	25	12	Front Face	1	Second	1	23	21.89	0.04	0.010	0.007	0.013	YES
L489	LTE B12	QPSK10M	23095	25	12	Rear Face	1	Second	1	23	21.89	0.09	0.020	0.014	0.025	YES
L490	LTE B12	QPSK10M	23095	25	12	Left Side	1	Second	1	23	21.89	0.03	0.012	0.009	0.016	YES
L491	LTE B12	QPSK10M	23095	25	12	Top Side	1	Second	1	23	21.89	0.06	0.010	0.006	0.013	YES
L492	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	2	24	22.97	0.01	0.024	0.017	0.030	YES
L493	LTE B12	QPSK10M	23095	1	24	Rear Face	1	Second	3	24	22.97	0.11	**0.025**	**0.018**	**0.032**	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L502	LTE B26	QPSK15M	26865	1	37	Front Face	1	Main	1	24	23.15	0.05	0.152	0.143	0.185	YES
L503	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	1	24	23.15	-0.02	**0.249**	**0.194**	**0.303**	YES
L504	LTE B26	QPSK15M	26865	1	37	Left Side	1	Main	1	24	23.15	0.01	0.204	0.168	0.248	YES
L505	LTE B26	QPSK15M	26865	1	37	Right Side	1	Main	1	24	23.15	0.13	0.125	0.105	0.152	YES
L506	LTE B26	QPSK15M	26865	1	37	Bottom Side	1	Main	1	24	23.15	-0.05	0.165	0.112	0.201	YES
L507	LTE B26	QPSK15M	26965	36	39	Front Face	1	Main	1	23	22.23	0.02	0.109	0.101	0.130	YES
L508	LTE B26	QPSK15M	26965	36	39	Rear Face	1	Main	1	23	22.23	0.07	0.230	0.175	0.275	YES
L509	LTE B26	QPSK15M	26965	36	39	Left Side	1	Main	1	23	22.23	-0.1	0.145	0.124	0.173	YES
L510	LTE B26	QPSK15M	26965	36	39	Right Side	1	Main	1	23	22.23	0.09	0.086	0.071	0.102	YES
L511	LTE B26	QPSK15M	26965	36	39	Bottom Side	1	Main	1	23	22.23	0.04	0.146	0.101	0.174	YES
L512	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	2	24	23.15	-0.02	0.221	0.187	0.269	YES
L513	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Main	3	24	23.15	0.01	0.235	0.191	0.286	YES
L522	LTE B26	QPSK15M	26865	1	37	Front Face	1	Second	1	24	23.1	-0.07	0.074	0.046	0.092	YES
L523	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	1	24	23.1	0.1	**0.133**	**0.081**	**0.164**	YES
L524	LTE B26	QPSK15M	26865	1	37	Left Side	1	Second	1	24	23.1	0.08	0.061	0.041	0.074	YES
L525	LTE B26	QPSK15M	26865	1	37	Top Side	1	Second	1	24	23.1	-0.04	0.089	0.051	0.109	YES
L526	LTE B26	QPSK15M	26865	36	39	Front Face	1	Second	1	23	22.17	0.13	0.062	0.039	0.075	YES
L527	LTE B26	QPSK15M	26865	36	39	Rear Face	1	Second	1	23	22.17	-0.02	0.101	0.063	0.122	YES
L528	LTE B26	QPSK15M	26865	36	39	Left Side	1	Second	1	23	22.17	0.09	0.049	0.033	0.059	YES
L529	LTE B26	QPSK15M	26865	36	39	Top Side	1	Second	1	23	22.17	0.01	0.085	0.048	0.103	YES
L530	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	2	24	23.1	-0.09	0.113	0.076	0.139	YES
L531	LTE B26	QPSK15M	26865	1	37	Rear Face	1	Second	3	24	23.1	0.03	0.127	0.080	0.156	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L540	LTE B38	QPSK20M	38000	1	50	Front Face	1	Main	1	24	23.3	0.03	0.181	0.092	0.213	YES
L541	LTE B38	QPSK20M	38000	1	50	Rear Face	1	Main	1	24	23.3	0.01	0.738	0.356	0.867	YES
L542	LTE B38	QPSK20M	38000	1	50	Left Side	1	Main	1	24	23.3	-0.1	0.104	0.059	0.122	YES
L543	LTE B38	QPSK20M	38000	1	50	Right Side	1	Main	1	24	23.3	0.04	0.055	0.030	0.065	YES
L544	LTE B38	QPSK20M	38000	1	50	Bottom Side	1	Main	1	24	23.3	0.09	0.750	0.345	0.881	YES
L545	LTE B38	QPSK20M	38000	50	25	Front Face	1	Main	1	23	22.12	-0.12	0.152	0.074	0.186	YES
L546	LTE B38	QPSK20M	38000	50	25	Rear Face	1	Main	1	23	22.12	0.02	0.572	0.271	0.700	YES
L547	LTE B38	QPSK20M	38000	50	25	Left Side	1	Main	1	23	22.12	0.15	0.083	0.047	0.102	YES
L548	LTE B38	QPSK20M	38000	50	25	Right Side	1	Main	1	23	22.12	0.09	0.050	0.026	0.061	YES
L549	LTE B38	QPSK20M	38000	50	25	Bottom Side	1	Main	1	23	22.12	0.02	0.591	0.275	0.724	YES
L550	LTE B38	QPSK20M	37850	1	50	Rear Face	1	Main	1	24	23.28	0.05	0.702	0.341	0.829	YES
L551	LTE B38	QPSK20M	38150	1	50	Rear Face	1	Main	1	24	23.24	0.09	0.768	0.363	0.915	YES
L552	LTE B38	QPSK20M	37850	1	50	Bottom Side	1	Main	1	24	23.28	0.01	0.739	0.344	0.872	YES
L553	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	1	24	23.24	0.06	**0.803**	**0.369**	**0.957**	YES
L554	LTE B38	QPSK20M	37850	100	0	Rear Face	1	Main	1	23	22.08	0.08	0.537	0.251	0.664	YES
L556	LTE B38	QPSK20M	37850	100	0	Bottom Side	1	Main	1	23	22.08	0.14	0.568	0.264	0.702	YES
L557	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	2	24	23.24	0.04	0.789	0.357	0.940	YES
L558	LTE B38	QPSK20M	38150	1	50	Bottom Side	1	Main	3	24	23.24	0.02	0.764	0.353	0.910	YES
L559	LTE B38	QPSK20M	38150	1	50	Bottom Side (Repeated)	1	Main	1	24	23.24	-0.01	0.784	0.361	0.934	YES
L568	LTE B38	QPSK20M	38000	1	50	Front Face	1	Second	1	24	23.35	0.08	0.247	0.124	0.287	YES
L569	LTE B38	QPSK20M	38000	1	50	Rear Face	1	Second	1	24	23.35	0.1	0.801	0.346	0.930	YES
L570	LTE B38	QPSK20M	38000	1	50	Left Side	1	Second	1	24	23.35	0.02	0.479	0.241	0.556	YES
L571	LTE B38	QPSK20M	38000	1	50	Top Side	1	Second	1	24	23.35	0.14	0.813	0.342	0.944	YES
L572	LTE B38	QPSK20M	37850	50	25	Front Face	1	Second	1	23	22.06	-0.07	0.255	0.126	0.317	YES
L573	LTE B38	QPSK20M	37850	50	25	Rear Face	1	Second	1	23	22.06	-0.01	0.599	0.275	0.744	YES
L574	LTE B38	QPSK20M	37850	50	25	Left Side	1	Second	1	23	22.06	0.03	0.396	0.199	0.492	YES
L575	LTE B38	QPSK20M	37850	50	25	Top Side	1	Second	1	23	22.06	0.04	0.687	0.292	0.853	YES
L576	LTE B38	QPSK20M	37850	1	50	Rear Face	1	Second	1	24	23.3	0.05	0.837	0.361	0.983	YES
L577	LTE B38	QPSK20M	38150	1	50	Rear Face	1	Second	1	24	23.27	-0.02	0.772	0.336	0.913	YES
L578	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	1	24	23.3	0.01	0.849	0.352	0.997	YES
L579	LTE B38	QPSK20M	38150	1	50	Top Side	1	Second	1	24	23.27	0.17	0.753	0.318	0.891	YES
L580	LTE B38	QPSK20M	38000	50	25	Top Side	1	Second	1	23	22.03	0.07	0.619	0.262	0.774	YES
L581	LTE B38	QPSK20M	38150	50	25	Top Side	1	Second	1	23	21.97	0.17	0.572	0.244	0.725	YES
L582	LTE B38	QPSK20M	37850	100	0	Rear Face	1	Second	1	23	22.02	0.08	0.629	0.273	0.788	YES
L583	LTE B38	QPSK20M	37850	100	0	Top Side	1	Second	1	23	22.02	0.18	0.670	0.279	0.840	YES
L584	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	2	24	23.3	0.05	0.829	0.348	0.974	YES
L585	LTE B38	QPSK20M	37850	1	50	Top Side	1	Second	3	24	23.3	0.06	**0.856**	**0.360**	**1.006**	YES
L586	LTE B38	QPSK20M	37850	1	50	Top Side (Repeated)	1	Second	3	24	23.3	-0.03	0.842	0.351	0.989	YES

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L594	LTE B41	QPSK20M	40140	1	50	Front Face	1	Main	1	24	23.36	-0.01	0.159	0.083	0.184	YES
L595	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Main	1	24	23.36	0.02	0.607	0.281	0.703	YES
L596	LTE B41	QPSK20M	40140	1	50	Left Side	1	Main	1	24	23.36	0.05	0.080	0.046	0.093	YES
L597	LTE B41	QPSK20M	40140	1	50	Right Side	1	Main	1	24	23.36	0.07	0.079	0.043	0.091	YES
L598	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	1	24	23.36	0.11	**0.622**	**0.290**	**0.721**	YES
L599	LTE B41	QPSK20M	40140	50	25	Front Face	1	Main	1	23	22.21	-0.02	0.135	0.070	0.162	YES
L600	LTE B41	QPSK20M	40140	50	25	Rear Face	1	Main	1	23	22.21	0.13	0.526	0.253	0.631	YES
L601	LTE B41	QPSK20M	40140	50	25	Left Side	1	Main	1	23	22.21	-0.16	0.075	0.041	0.090	YES
L602	LTE B41	QPSK20M	40140	50	25	Right Side	1	Main	1	23	22.21	0.07	0.060	0.032	0.072	YES
L603	LTE B41	QPSK20M	40140	50	25	Bottom Side	1	Main	1	23	22.21	0	0.538	0.262	0.645	YES
L604	LTE B41	QPSK20M	40440	1	50	Rear Face	1	Main	1	24	23.2	0.08	0.553	0.276	0.665	YES
L605	LTE B41	QPSK20M	40840	1	50	Rear Face	1	Main	1	24	23.26	0.06	0.582	0.287	0.690	YES
L606	LTE B41	QPSK20M	41140	1	50	Rear Face	1	Main	1	24	23.35	0.14	0.537	0.260	0.624	YES
L607	LTE B41	QPSK20M	40440	50	25	Rear Face	1	Main	1	23	22.1	-0.03	0.489	0.227	0.602	YES
L608	LTE B41	QPSK20M	40840	50	25	Rear Face	1	Main	1	23	22.15	0.14	0.517	0.243	0.629	YES
L609	LTE B41	QPSK20M	41140	50	25	Rear Face	1	Main	1	23	22.19	0.07	0.545	0.258	0.657	YES
L610	LTE B41	QPSK20M	40440	1	50	Bottom Side	1	Main	1	24	23.2	0.09	0.546	0.256	0.656	YES
L611	LTE B41	QPSK20M	40840	1	50	Bottom Side	1	Main	1	24	23.26	0.05	0.602	0.279	0.714	YES
L612	LTE B41	QPSK20M	41140	1	50	Bottom Side	1	Main	1	24	23.35	0.04	0.573	0.261	0.666	YES
L613	LTE B41	QPSK20M	40440	50	25	Bottom Side	1	Main	1	23	22.1	-0.02	0.532	0.254	0.655	YES
L614	LTE B41	QPSK20M	40840	50	25	Bottom Side	1	Main	1	23	22.15	0.03	0.522	0.240	0.635	YES
L615	LTE B41	QPSK20M	41140	50	25	Bottom Side	1	Main	1	23	22.19	0.07	0.572	0.260	0.689	YES
L616	LTE B41	QPSK20M	40140	100	0	Rear Face	1	Main	1	23	22.15	0.03	0.425	0.201	0.517	YES
L617	LTE B41	QPSK20M	40140	100	0	Bottom Side	1	Main	1	23	22.15	-0.1	0.503	0.239	0.612	YES
L618	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	2	24	23.36	0.01	0.609	0.281	0.706	YES
L619	LTE B41	QPSK20M	40140	1	50	Bottom Side	1	Main	3	24	23.36	-0.02	0.618	0.285	0.716	YES
L626	LTE B41	QPSK20M	40140	1	50	Front Face	1	Second	1	23.5	22.84	0.01	0.203	0.099	0.236	YES
L627	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	1	23.5	22.84	-0.04	**0.820**	**0.361**	**0.955**	YES
L628	LTE B41	QPSK20M	40140	1	50	Left Side	1	Second	1	23.5	22.84	0.05	0.361	0.184	0.420	YES
L629	LTE B41	QPSK20M	40140	1	50	Top Side	1	Second	1	23.5	22.84	-0.12	0.745	0.311	0.867	YES
L630	LTE B41	QPSK20M	40140	50	25	Front Face	1	Second	1	22.5	22.24	0.09	0.181	0.093	0.192	YES
L631	LTE B41	QPSK20M	40140	50	25	Rear Face	1	Second	1	22.5	22.24	0	0.655	0.284	0.695	YES
L632	LTE B41	QPSK20M	40140	50	25	Left Side	1	Second	1	22.5	22.24	0.01	0.337	0.170	0.358	YES
L633	LTE B41	QPSK20M	40140	50	25	Top Side	1	Second	1	22.5	22.24	0.07	0.647	0.251	0.687	YES
L634	LTE B41	QPSK20M	40440	1	50	Rear Face	1	Second	1	23.5	22.76	-0.11	0.760	0.344	0.901	YES
L635	LTE B41	QPSK20M	40840	1	50	Rear Face	1	Second	1	23.5	22.54	0.13	0.722	0.330	0.901	YES
L636	LTE B41	QPSK20M	41140	1	50	Rear Face	1	Second	1	23.5	22.65	0.02	0.658	0.303	0.800	YES
L637	LTE B41	QPSK20M	40440	1	50	Top Side	1	Second	1	23.5	22.76	0.05	0.651	0.274	0.772	YES
L638	LTE B41	QPSK20M	40840	1	50	Top Side	1	Second	1	23.5	22.54	0.08	0.532	0.225	0.664	YES
L639	LTE B41	QPSK20M	41140	1	50	Top Side	1	Second	1	23.5	22.65	0.01	0.448	0.191	0.545	YES
L640	LTE B41	QPSK20M	40440	50	50	Rear Face	1	Second	1	22.5	22.02	-0.02	0.600	0.270	0.670	YES
L641	LTE B41	QPSK20M	40840	50	25	Rear Face	1	Second	1	22.5	21.98	0.03	0.565	0.258	0.637	YES
L642	LTE B41	QPSK20M	41140	50	25	Rear Face	1	Second	1	22.5	21.93	0.07	0.512	0.236	0.584	YES
L643	LTE B41	QPSK20M	40440	50	25	Top Side	1	Second	1	22.5	22.02	-0.14	0.552	0.230	0.617	YES
L644	LTE B41	QPSK20M	40840	50	25	Top Side	1	Second	1	22.5	21.98	0.09	0.448	0.187	0.505	YES
L645	LTE B41	QPSK20M	41140	50	25	Top Side	1	Second	1	22.5	21.93	0.07	0.383	0.162	0.437	YES
L646	LTE B41	QPSK20M	40140	100	0	Rear Face	1	Second	1	22.5	22.14	-0.05	0.691	0.296	0.751	YES
L647	LTE B41	QPSK20M	40140	100	0	Top Side	1	Second	1	22.5	22.14	0.03	0.682	0.287	0.741	YES
L648	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	2	23.5	22.84	0.04	0.793	0.350	0.923	YES
L649	LTE B41	QPSK20M	40140	1	50	Rear Face	1	Second	3	23.5	22.84	0.06	0.805	0.356	0.937	YES
L650	LTE B41	QPSK20M	40140	1	50	Rear Face (Repeated)	1	Second	1	23.5	22.84	-0.03	0.808	0.358	0.941	YES

Test No.	Band	Mode	Channel	RB	off set	Test Position	Separation Distance (cm)	Ant	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
L657	LTE B66	QPSK20M	132072	1	50	Front Face	1	Main	1	22.5	21.65	0.01	0.245	0.132	0.298	YES
L658	LTE B66	QPSK20M	132072	1	50	Rear Face	1	Main	1	22.5	21.65	0	0.697	0.361	0.848	YES
L659	LTE B66	QPSK20M	132072	1	50	Left Side	1	Main	1	22.5	21.65	0.03	0.054	0.032	0.065	YES
L660	LTE B66	QPSK20M	132072	1	50	Right Side	1	Main	1	22.5	21.65	0.09	0.015	0.009	0.018	YES
L661	LTE B66	QPSK20M	132072	1	50	Bottom Side	1	Main	1	22.5	21.65	0.06	0.721	0.377	0.877	YES
L662	LTE B66	QPSK20M	132572	50	0	Front Face	1	Main	1	22.5	21.59	-0.12	0.268	0.145	0.330	YES
L663	LTE B66	QPSK20M	132572	50	0	Rear Face	1	Main	1	22.5	21.59	0.02	0.715	0.368	0.882	YES
L664	LTE B66	QPSK20M	132572	50	0	Left Side	1	Main	1	22.5	21.59	0.01	0.047	0.026	0.058	YES
L665	LTE B66	QPSK20M	132572	50	0	Right Side	1	Main	1	22.5	21.59	0.05	0.012	0.006	0.015	YES
L666	LTE B66	QPSK20M	132572	50	0	Bottom Side	1	Main	1	22.5	21.59	0.01	0.745	0.381	0.919	YES
L667	LTE B66	QPSK20M	132322	1	50	Rear Face	1	Main	1	22.5	21.46	0.04	0.657	0.344	0.835	YES
L668	LTE B66	QPSK20M	132572	1	50	Rear Face	1	Main	1	22.5	21.51	0.08	0.729	0.369	0.916	YES
L669	LTE B66	QPSK20M	132322	1	50	Bottom Side	1	Main	1	22.5	21.46	0.07	0.690	0.357	0.877	YES
L670	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	1	22.5	21.51	0.02	0.735	0.380	0.923	YES
L671	LTE B66	QPSK20M	132072	50	25	Rear Face	1	Main	1	22.5	21.53	0.11	0.668	0.350	0.835	YES
L672	LTE B66	QPSK20M	132322	50	25	Rear Face	1	Main	1	22.5	21.4	-0.13	0.710	0.362	0.915	YES
L673	LTE B66	QPSK20M	132072	50	25	Bottom Side	1	Main	1	22.5	21.53	0.09	0.621	0.333	0.776	YES
L674	LTE B66	QPSK20M	132322	50	25	Bottom Side	1	Main	1	22.5	21.4	0.05	0.716	0.385	0.922	YES
L675	LTE B66	QPSK20M	132072	100	0	Rear Face	1	Main	1	22.5	21.49	0.03	0.685	0.353	0.864	YES
L676	LTE B66	QPSK20M	132072	100	0	Bottom Side	1	Main	1	22.5	21.49	0.04	0.612	0.337	0.772	YES
L677	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	2	22.5	21.51	-0.02	0.722	0.379	0.907	YES
L678	LTE B66	QPSK20M	132572	1	50	Bottom Side	1	Main	3	22.5	21.51	0.02	**0.748**	**0.381**	**0.940**	YES
L679	LTE B66	QPSK20M	132572	1	50	Bottom Side (Repeated)	1	Main	3	22.5	21.51	0.01	0.725	0.374	0.911	YES
L686	LTE B66	QPSK20M	132572	1	50	Front Face	1	Second	1	21.5	20.55	-0.02	0.179	0.102	0.223	YES
L687	LTE B66	QPSK20M	132572	1	50	Rear Face	1	Second	1	21.5	20.55	0.04	0.683	0.388	0.850	YES
L688	LTE B66	QPSK20M	132572	1	50	Left Side	1	Second	1	21.5	20.55	0.01	0.209	0.126	0.260	YES
L689	LTE B66	QPSK20M	132572	1	50	Top Side	1	Second	1	21.5	20.55	-0.09	0.844	0.437	1.050	YES
L690	LTE B66	QPSK20M	132572	50	25	Front Face	1	Second	1	21.5	20.45	0.05	0.194	0.111	0.247	YES
L691	LTE B66	QPSK20M	132572	50	25	Rear Face	1	Second	1	21.5	20.45	0.06	0.688	0.389	0.876	YES
L692	LTE B66	QPSK20M	132572	50	25	Left Side	1	Second	1	21.5	20.45	0.03	0.197	0.117	0.251	YES
L693	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	1	21.5	20.45	-0.07	**0.846**	**0.440**	**1.077**	YES
L694	LTE B66	QPSK20M	132072	1	50	Rear Face	1	Second	1	21.5	20.53	0.01	0.629	0.373	0.786	YES
L695	LTE B66	QPSK20M	132322	1	50	Rear Face	1	Second	1	21.5	20.45	0.09	0.669	0.390	0.852	YES
L696	LTE B66	QPSK20M	132072	1	50	Top Side	1	Second	1	21.5	20.53	0.02	0.767	0.408	0.959	YES
L697	LTE B66	QPSK20M	132322	1	50	Top Side	1	Second	1	21.5	20.45	-0.06	0.795	0.418	1.012	YES
L698	LTE B66	QPSK20M	132072	50	25	Rear Face	1	Second	1	21.5	20.43	-0.08	0.604	0.352	0.773	YES
L699	LTE B66	QPSK20M	132322	50	25	Rear Face	1	Second	1	21.5	20.36	0.02	0.669	0.382	0.870	YES
L700	LTE B66	QPSK20M	132072	50	25	Top Side	1	Second	1	21.5	20.43	0.04	0.785	0.416	1.004	YES
L701	LTE B66	QPSK20M	132322	50	25	Top Side	1	Second	1	21.5	20.36	-0.01	0.807	0.423	1.049	YES
L702	LTE B66	QPSK20M	132572	100	0	Rear Face	1	Second	1	21.5	20.42	0.06	0.663	0.382	0.850	YES
L703	LTE B66	QPSK20M	132572	100	0	Top Side	1	Second	1	21.5	20.42	0.02	0.681	0.340	0.873	YES
L704	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	2	21.5	20.45	-0.06	0.837	0.437	1.066	YES
L705	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	3	21.5	20.45	-0.01	0.814	0.432	1.037	YES
L706	LTE B66	QPSK20M	132572	50	25	Top Side (Repeated)	1	Second	1	21.5	20.45	0.05	0.820	0.428	1.044	YES

WiFi only

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
W76	802.11b	6	Front Face	1	1	1	20	19.79	0.09	0.326	0.165	0.342	YES
W77	802.11b	6	Rear Face	1	1	1	20	19.79	0.1	**0.378**	**0.188**	**0.397**	YES
W78	802.11b	6	Right Side	1	1	1	20	19.79	-0.05	0.288	0.133	0.302	YES
W79	802.11b	6	Top Side	1	1	1	20	19.79	0.06	0.363	0.172	0.381	YES
W80	802.11b	6	Rear Face	1	2	1	20	19.79	0.13	0.353	0.174	0.370	YES
W81	802.11b	6	Rear Face	1	3	1	20	19.79	-0.08	0.373	0.179	0.391	YES
W102	802.11a	48	Front Face	1	1	6	20	19.72	-0.03	0.409	0.159	0.436	YES
W103	802.11a	48	Rear Face	1	1	6	20	19.72	0.05	0.598	0.215	0.638	YES
W104	802.11a	48	Right Side	1	1	6	20	19.72	0.12	0.512	0.188	0.546	YES
W105	802.11a	48	Top Side	1	1	6	20	19.72	0	0.428	0.158	0.457	YES
W106	802.11a	48	Rear Face	1	2	6	20	19.72	0.01	0.540	0.199	0.576	YES
W107	802.11a	48	Rear Face	1	3	6	20	19.72	0.06	**0.636**	**0.235**	**0.678**	YES
W169	802.11a	157	Front Face	1	1	6	16	15.63	0.03	0.175	0.064	0.191	YES
W170	802.11a	157	Rear Face	1	1	6	16	15.63	0.08	**0.689**	**0.223**	**0.750**	YES
W171	802.11a	157	Right Side	1	1	6	16	15.63	0.09	0.431	0.164	0.469	YES
W172	802.11a	157	Top Side	1	1	6	16	15.63	0.04	0.282	0.112	0.307	YES
W173	802.11a	165	Rear Face	1	1	6	16	15.61	0.03	0.668	0.205	0.731	YES
W174	802.11a	157	Rear Face	1	2	6	16	15.63	0.12	0.530	0.175	0.577	YES
W175	802.11a	157	Rear Face	1	3	6	16	15.63	-0.05	0.554	0.186	0.603	YES

WiFi+2G&3G&4G

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR	product specific 10-g SAR Exclusion
W89	802.11b	6	Front Face	1	1	1	17	16.92	0.03	0.109	0.063	0.111	YES
W90	802.11b	6	Rear Face	1	1	1	17	16.92	-0.12	0.135	0.072	0.138	YES
W91	802.11b	6	Right Side	1	1	1	17	16.92	0.01	0.097	0.050	0.099	YES
W92	802.11b	6	Top Side	1	1	1	17	16.92	-0.12	**0.150**	**0.080**	**0.153**	YES
W93	802.11b	6	Top Side	1	2	1	17	16.92	0.06	0.145	0.076	0.148	YES
W94	802.11b	6	Top Side	1	3	1	17	16.92	-0.03	0.138	0.073	0.141	YES
W109	802.11a	40	Front Face	1	1	6	16.5	16.31	-0.01	0.165	0.070	0.172	YES
W110	802.11a	40	Rear Face	1	1	6	16.5	16.31	0.02	0.274	0.106	0.286	YES
W111	802.11a	40	Right Side	1	1	6	16.5	16.31	0.06	0.207	0.085	0.216	YES
W112	802.11a	40	Top Side	1	1	6	16.5	16.31	-0.05	0.228	0.089	0.238	YES
W113	802.11a	40	Rear Face	1	2	6	16.5	16.31	0.18	**0.291**	**0.109**	**0.304**	YES
W114	802.11a	40	Rear Face	1	3	6	16.5	16.31	0.03	0.237	0.093	0.248	YES
W181	802.11a	161	Front Face	1	1	6	13.5	13.43	-0.04	0.117	0.026	0.119	YES
W182	802.11a	161	Rear Face	1	1	6	13.5	13.43	0	**0.342**	**0.105**	**0.348**	YES
W183	802.11a	161	Right Side	1	1	6	13.5	13.43	0.06	0.237	0.081	0.241	YES
W184	802.11a	161	Top Side	1	1	6	13.5	13.43	0.1	0.197	0.066	0.200	YES
W185	802.11a	161	Rear Face	1	2	6	13.5	13.43	0.07	0.355	0.103	0.361	YES
W186	802.11a	161	Rear Face	1	3	6	13.5	13.43	-0.04	0.350	0.096	0.356	YES

Product specific 10-g SAR test results of WIFI (WiFi only)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR
W121	802.11a	52	Front Face	0	1	6	-	20	19.71	0.02	2.950	0.912	0.975
W122	802.11a	52	Rear Face	0	1	6	-	20	19.71	-0.04	**6.630**	**1.890**	**2.021**
W123	802.11a	52	Right Side	0	1	6	-	20	19.71	0.01	4.040	1.190	1.272
W124	802.11a	52	Top Side	0	1	6	-	20	19.71	0.03	2.560	0.813	0.869
W125	802.11a	60	Rear Face	0	1	6	-	20	19.55	0.03	5.130	1.430	1.586
W126	802.11a	52	Rear Face	0	2	6	-	20	19.71	-0.05	6.510	1.820	1.946
W127	802.11a	52	Rear Face	0	3	6	-	20	19.71	0.09	6.370	1.720	1.839
W145	802.11a	132	Front Face	0	1	6	-	18	17.85	-0.01	2.520	0.751	0.777
W146	802.11a	132	Rear Face	0	1	6	-	18	17.85	0.06	**7.980**	**1.600**	**1.656**
W147	802.11a	132	Right Side	0	1	6	-	18	17.85	0.08	4.020	1.050	1.087
W148	802.11a	132	Top Side	0	1	6	-	18	17.85	0.01	2.540	0.762	0.789
W149	802.11a	136	Rear Face	0	1	6	-	18	17.74	0.04	6.880	1.350	1.433
W150	802.11a	132	Rear Face	0	2	6	-	18	17.85	-0.1	7.130	1.540	1.594
W151	802.11a	132	Rear Face	0	3	6	-	18	17.85	0.05	7.100	1.420	1.470

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

Product specific 10-g SAR test results of WIFI (WiFi+2G&3G&4G)

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Duty Cycle	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 10g SAR
W133	802.11a	60	Front Face	0	1	6	-	16.5	16.15	0.04	1.490	0.428	0.464
W134	802.11a	60	Rear Face	0	1	6	-	16.5	16.15	0	**1.920**	**0.505**	**0.547**
W135	802.11a	60	Right Side	0	1	6	-	16.5	16.15	-0.03	1.520	0.413	0.448
W136	802.11a	60	Top Side	0	1	6	-	16.5	16.15	0.07	1.110	0.333	0.361
W138	802.11a	60	Rear Face	0	2	6	-	16.5	16.13	-0.07	1.780	0.473	0.515
W139	802.11a	60	Rear Face	0	3	6	-	16.5	16.13	0.01	1.820	0.484	0.527
W157	802.11a	108	Front Face	0	1	6	-	15	14.93	0.09	1.150	0.277	0.282
W158	802.11a	108	Rear Face	0	1	6	-	15	14.93	0.06	**3.820**	**0.719**	**0.731**
W159	802.11a	108	Right Side	0	1	6	-	15	14.93	0.02	1.290	0.325	0.330
W160	802.11a	108	Top Side	0	1	6	-	15	14.93	-0.14	1.170	0.271	0.275
W162	802.11a	108	Rear Face	0	2	6	-	15	14.93	0.07	3.080	0.641	0.651
W163	802.11a	108	Rear Face	0	3	6	-	15	14.93	0.02	3.110	0.618	0.628

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

7.3 MULTIPLE TRANSMITTER EVALUATION

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

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

7.3.1 STAND-ALONE SAR TEST EXCLUSION

Per FCC KDB 447498 D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance,mm)][√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for product specific 10-g SAR, where:

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Standalone SAR test exclusion for BT

Mode	Position	P_{max} (dBm)*	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	SAR test exclusion
BT	Body-worn	12.5	17.78	15	2.48	1.87	3.0	Yes
BT	product specific 10-g SAR	12.5	17.78	5	2.48	5.6	7.5	Yes

Note: * - maximum possible output power declared by manufacturer

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm, where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

According to KDB 447498 D01, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standslone SAR was estimated according to following formula to result in substantially conservative SAR values of ≤ 0.4W/kg to determine simultaneous transmission SAR test exclusion.

$$\text{Estimated SAR} = \frac{\text{Max. Tune up Power}_{(mW)}}{\text{Min. Test Separation Distance}_{(mm)}} \times \frac{\sqrt{f_{(GHz)}}}{7.5}$$

Estimated SAR calculation

Mode	Position		P_{max} (dBm)*	P_{max} (mW)	Distance (mm)	f (GHz)	X	Estimated SAR (W/kg)*
BT	Body-worn		12.5	17.78	15	2.48	7.5	0.249
BT	product specific 10-g SAR	Front Face/ Rear Face/ Right Side/ Top Side	12.5	17.78	5	2.48	18.75	0.299
		Left Side/ Bottom Side	12.5	17.78	>50mm	2.48	18.75	0.400

Note: * - maximum possible output power declared by manufacturer

7.3.2 SIMULTANEOUS TRANSMISSION CONDITIONS

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

The Simultaneous Transmission Possibilities of this device are as below:

NO.	Simultaneous Tx Combination	Head	Body-worn	Hotspot (10mm)	Product specific 10-g (0mm)
1	GSM/UMTS/LTE(Main Ant) + 2.4G WIFI	Yes	Yes	Yes	Yes
2	GSM/UMTS/LTE(Main Ant) + 5G WIFI	Yes	Yes	Yes	Yes
3	GSM/UMTS/LTE(Main Ant) + BT	Yes	Yes	No	Yes
4	GSM/UMTS/LTE(Second Ant) + 2.4G WIFI	Yes	Yes	Yes	Yes
5	GSM/UMTS/LTE(Second Ant) + 5G WIFI	Yes	Yes	Yes	Yes
6	GSM/UMTS/LTE(Second Ant) + BT	Yes	Yes	No	Yes

Note:
1) 2G&3G&4G share the same Tx antenna and can't transmit simultaneously.
2) WiFi and Bluetooth share the same Tx antenna and can't transmit simultaneously.
3) Main Ant and Second Ant can't transmit simultaneously.

7.3.3 SAR SUMMATION SCENARIO

1. About BT/WIFI and GSM/UMTS/LTE main antenna

Position	Head				Body-worn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	0.198	0.120	0.241	0.152	0.209	0.281	0.288	0.507	0.327	0.212	/	0.309
GSM 1900	0.014	0.006	0.019	0.006	0.100	0.314	0.196	0.850	0.073	0.056	/	0.725
UMTS B2	0.025	0.017	0.037	0.014	0.158	0.505	0.311	1.041	0.075	0.071	/	1.059
UMTS B4	0.017	0.006	0.032	0.006	0.120	0.384	0.244	0.760	0.054	0.011	/	0.837
UMTS B5	0.174	0.110	0.199	0.124	0.174	0.273	0.207	0.320	0.226	0.135	/	0.209
LTE B2	0.022	0.019	0.041	0.021	0.142	0.483	0.298	0.946	0.069	0.047	/	1.063
LTE B4	0.006	0.003	0.022	0.006	0.146	0.469	0.273	1.008	0.052	0.024	/	1.060
LTE B5	0.150	0.103	0.183	0.122	0.191	0.259	0.209	0.284	0.242	0.149	/	0.218
LTE B7	0.100	0.095	0.064	0.078	0.134	0.378	0.212	0.691	0.085	0.113	/	1.131
LTE B12	0.103	0.084	0.139	0.094	0.175	0.262	0.180	0.280	0.300	0.177	/	0.093
LTE B26	0.171	0.109	0.206	0.123	0.181	0.276	0.185	0.303	0.248	0.152	/	0.201
LTE B38	0.027	0.040	0.035	0.028	0.114	0.401	0.213	0.915	0.122	0.065	/	0.957
LTE B41	0.050	0.038	0.024	0.038	0.101	0.356	0.184	0.703	0.093	0.091	/	0.721
LTE B66	0.020	0.008	0.032	0.008	0.180	0.455	0.330	0.916	0.065	0.018	/	0.940
WiFi 2.4G	0.232	0.269	0.412	0.361	0.083	0.099	0.111	0.138	/	0.099	0.153	/
WiFi 5.2G	/	/	/	/	/	/	0.172	0.304	/	0.216	0.238	/
WiFi 5.3G	0.156	0.158	0.370	0.269	0.102	0.199	/	/	/	/	/	/
WiFi 5.6G	0.056	0.173	0.413	0.286	0.147	0.354	/	/	/	/	/	/
WiFi 5.8G	0.125	0.142	0.292	0.217	0.039	0.173	0.119	0.348	/	0.241	0.200	/
BT	0.031	0.040	0.064	0.050	0.249	0.249	/	/	/	/	/	/
Max. SAR Summation	0.430	0.389	0.654	0.513	0.458	0.859	0.502	1.389	0.327	0.453	0.238	1.131
Hot Spot Separation	-	-	-	-	-	-	-	-	-	-	-	-

Note: MAX. $\sum SAR_{1g}$ =1.389 W/Kg <1.6W/Kg, so the SAR to peak location separation ratio should not be considered.

2. About BT/WIFI and GSM/UMTS/LTE second antenna

Position	Head				Body-worn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	0.552	0.441	0.449	0.435	0.070	0.083	0.103	0.242	0.098	/	0.153	/
GSM 1900	0.838	0.975	0.642	0.743	0.141	0.349	0.222	0.678	0.063	/	0.947	/
UMTS B2	0.794	0.966	0.652	0.770	0.126	0.376	0.229	0.759	0.153	/	0.923	/
UMTS B4	0.885	0.969	0.660	0.818	0.123	0.465	0.233	0.848	0.215	/	0.931	/
UMTS B5	0.670	0.551	0.576	0.531	0.062	0.081	0.101	0.159	0.066	/	0.142	/
LTE B2	0.897	1.030	0.672	0.863	0.136	0.466	0.242	0.869	0.174	/	1.060	/
LTE B4	0.983	1.086	0.706	0.905	0.185	0.413	0.278	0.751	0.251	/	0.986	/
LTE B5	0.563	0.463	0.477	0.413	0.074	0.088	0.103	0.166	0.071	/	0.143	/
LTE B7	0.666	0.925	0.256	0.356	0.101	0.407	0.172	0.903	0.422	/	0.955	/
LTE B12	0.093	0.083	0.055	0.047	0.014	0.021	0.017	0.032	0.020	/	0.016	/
LTE B26	0.683	0.598	0.657	0.623	0.075	0.090	0.092	0.164	0.074	/	0.109	/
LTE B38	0.512	0.663	0.197	0.295	0.233	0.461	0.317	0.983	0.556	/	1.006	/
LTE B41	0.554	0.698	0.185	0.264	0.210	0.414	0.236	0.955	0.420	/	0.867	/
LTE B66	0.923	0.960	0.666	0.794	0.125	0.472	0.247	0.876	0.260	/	1.077	/
WiFi 2.4G	0.232	0.269	0.412	0.361	0.083	0.099	0.111	0.138	/	0.099	0.153	/
WiFi 5.2G	/	/	/	/	/	/	0.172	0.304	/	0.216	0.238	/
WiFi 5.3G	0.156	0.158	0.370	0.269	0.102	0.199	/	/	/	/	/	/
WiFi 5.6G	0.056	0.173	0.413	0.286	0.147	0.354	/	/	/	/	/	/
WiFi 5.8G	0.125	0.142	0.292	0.217	0.039	0.173	0.119	0.348	/	0.241	0.200	/
BT	0.031	0.040	0.064	0.050	0.249	0.249	/	/	/	/	/	/
Max. SAR Summation	1.215	1.355	1.119	1.266	0.482	0.826	0.489	1.331	0.556	0.241	1.315	0.000
Hot Spot Separation	-	-	-	-	-	-	-	-	-	-	-	-

Note: MAX. $\sum SAR_{1g}$ =1.355W/Kg <1.6W/Kg, so the SAR to peak location separation ratio should not be considered.

3. About product specific 10g SAR

Position	Specific 10g SAR					
	Front Face (0cm)	Rear Face (0cm)	Left Side (0cm)	Right Side (0cm)	Top Side (0cm)	Bottom Side (0cm)
GSM 850	/	/	/	/	/	/
GSM 1900	/	/	/	/	/	/
UMTS B2	/	/	/	/	/	/
UMTS B4	/	/	/	/	/	/
UMTS B5	/	/	/	/	/	/
LTE B2	/	/	/	/	/	/
LTE B4	/	/	/	/	/	/
LTE B5	/	/	/	/	/	/
LTE B7	/	/	/	/	/	/
LTE B12	/	/	/	/	/	/
LTE B26	/	/	/	/	/	/
LTE B38	/	/	/	/	/	/
LTE B41	/	/	/	/	/	/
LTE B66	/	/	/	/	/	/
WiFi 2.4G	/	/	/	/	/	/
WiFi 5.2G	/	/	/	/	/	/
WiFi 5.3G	0.464	0.547	/	0.448	0.361	/
WiFi 5.6G	0.282	0.731	/	0.330	0.275	/
WiFi 5.8G	/	/	/	/	/	/
BT	0.299	0.299	0.400	0.299	0.299	0.400
Max. SAR Summation	0.464	0.731	0.400	0.448	0.361	0.400
Hot Spot Separation	-	-	-	-	-	-

Note: The Simultaneous SAR of product Specific 10-g SAR is 0.731W/Kg which less than 4.0W/Kg, so the Simultaneous SAR is not required to calculate.

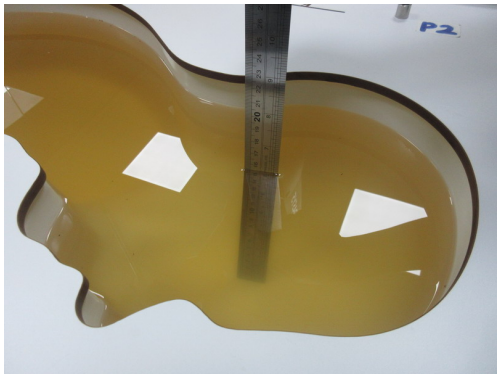
APPENDIX

1. TEST LAYOUT

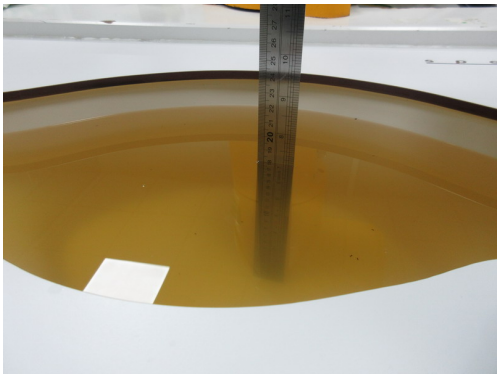
Specific Absorption Rate Test Layout

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

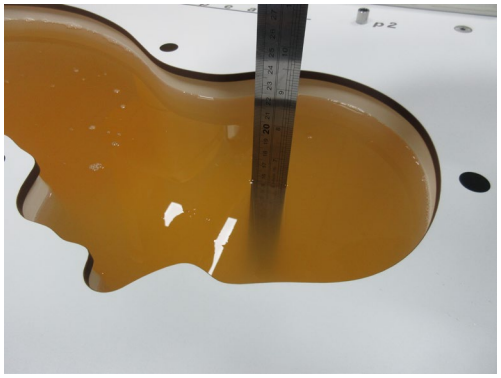
HSL750_Head_15.5cm



HSL750_Body_18.1cm



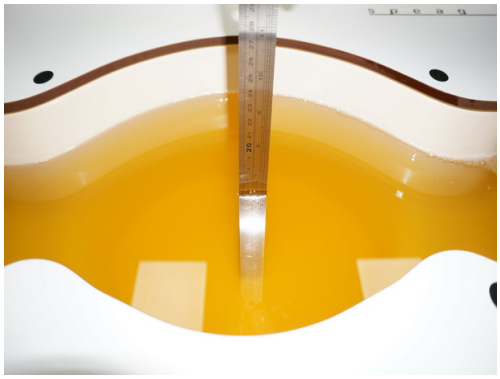
HSL810-920_Head_15.6cm



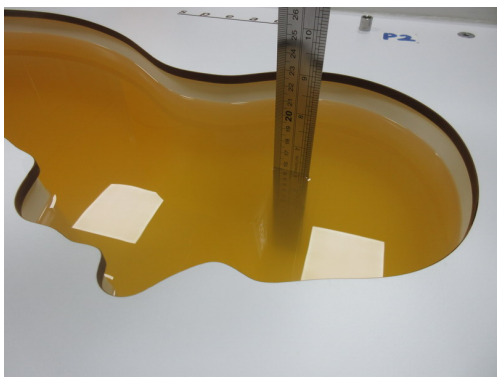
HSL810-920_Body_18.8cm

HSL1700-1900_Head_15.5cm

HSL1700-1900_Body_16.2cm



HSL1900-2300_Head_15.5cm



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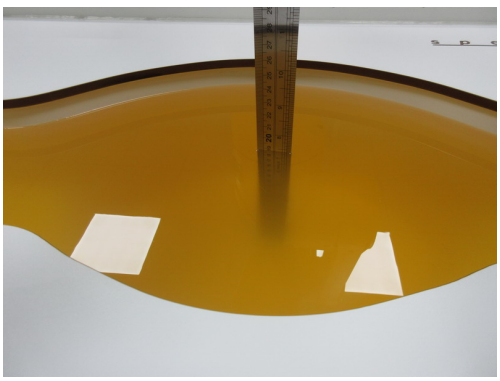

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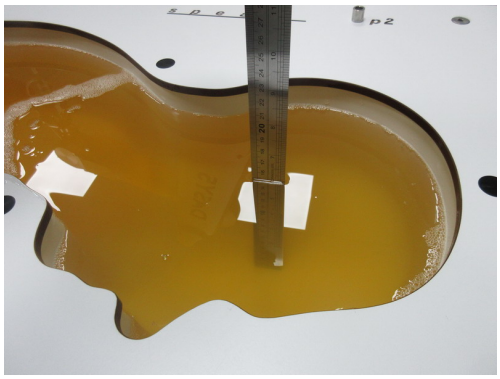

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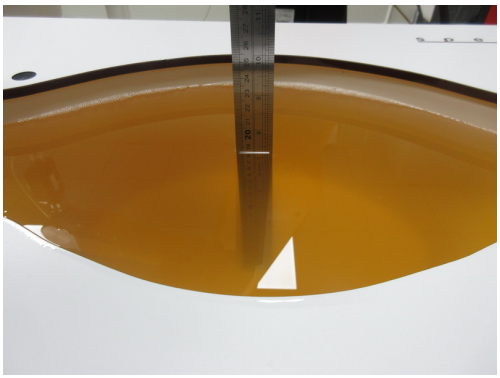

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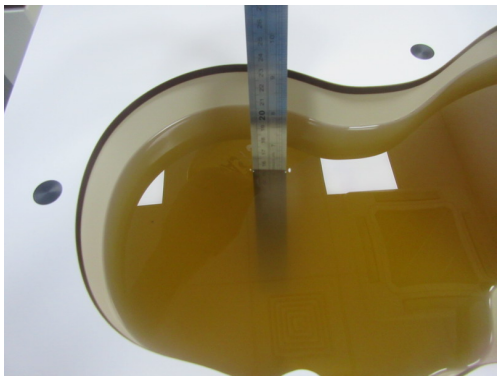

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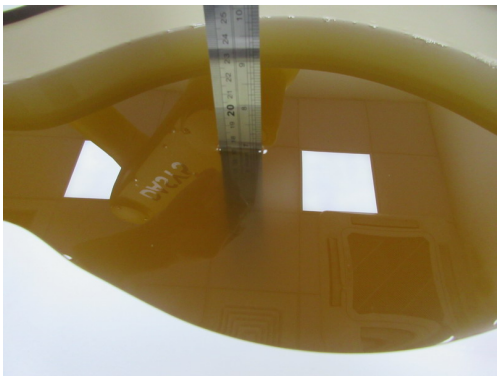

Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-1-2003C217_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-1-2003C217_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-1-2003C217_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-1-2003C217_Appendix D.)

Appendix E. Antenna location

(Pls See BTL-FCC SAR-1-2003C217_Appendix E.)

End of Test Report