FCC SAR Test Report

FCC ID: QISMAR-LX3AM

Project No.	:	1904C018
Equipment	:	Smart Phone
Model Name	:	MAR-LX3Am
Applicant	:	Huawei Technologies Co., Ltd.
Address	:	Administration Building, Headquarters of HuaweiTechnologies Co., Ltd., Bantian, Longgang District, Shenzhen,518129, China

Date of Receipt	:	Apr. 04, 2019
Date of Test	:	Apr. 10, 2019 ~ May 14, 2019
Issued Date	:	May 20, 2019
Tested by	:	BTL Inc.

PREPARED BY	:	Rot. Liang (Rot Liang)
APPROVED BY	:	Herbert Liu (Herbort Liu)

BTL INC.

No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, China.
TEL: +86-769-8318-3000 FAX: +86-769-8319-6000

Certificate #5123.02

Declaration

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

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

The report must not be used by the client to claim product certification, approval, or endorsement by NIST, A2LA, or any agency of the U.S. Government.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** 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. 25, 2019
R01	1. Updated the software version. 2. Updated the data of UMTS B5 and LTE B4.	May 15, 2019
R02	Updated the FCC ID.	May 20, 2019

1. GENERAL SUMMARY

Equipment	Smart Phone
Brand Name	HUAWEI
Model Name	MAR-LX3Am
Manufacturer	Huawei Technologies Co., Ltd.
Address	Administration Building, Headquarters of HuaweiTechnologies Co., Ltd., Bantian, Longgang District, Shenzhen,518129, China
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 **KDB616217 D04** SAR for laptop and tablets v01r02

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCC SAR-1-1904C018) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

2. RF EMISSIONS MEASUREMENT

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **SAR room** at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.523792

2.2 MEASUREMENT UNCERTAINTY

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

3. GENERAL INFORMATION

3.1 STATEMENT OF COMPLIANCE

Mode	Highest Head Reported SAR-1g (W/kg)	Highest Body-worn Reported SAR-1g (W/kg)	Highest Hotspot Reported SAR-1g (W/kg)
GSM850	0.81	0.30	0.57
GSM1900	0.38	0.26	0.51
UMTS B2	0.90	0.32	0.77
UMTS B4	0.65	0.30	0.54
UMTS B5	0.75	0.35	0.66
LTE B2	0.75	0.30	0.75
LTE B4	0.88	0.38	0.74
LTE B5	0.65	0.35	0.64
LTE B7	0.65	0.35	0.64
LTE B12	0.59	0.20	0.56
LTE B66	0.91	0.29	0.57
2.4G WLAN	0.60	0.37	0.67
Bluetooth	0.29	0.12	0.28
Note: The highest reported SAR for head, body-worn, hotspot and simultaneous transmission exposure conditions are 0.91W/kg, 0.38W/kg, 0.77W/kg and 0.98W/kg respectively.			

Note:

1) * For body-worn operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions the handset a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.
2) 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.
3) According to TCB workshop October, 2014 RF Exposure Procedures Update (Overlapping LTE Bands): SAR for LTE B17 (Frequency range: 704-716 MHz) is covered by LTE B12 (Frequency range: 699-716MHz) due to similar frequency range, same maximum tune up limit and same maximum channel bandwidth. Therefore, SAR test for LTE B17 is not required.
4) The maximum SAR of product specific 10-g <1.2W/kg, so product specific 10-g is not required to test.

3.2 GENERAL DESCRIPTION OF EUT

Equipment	Smart Phone		
Model Name	MAR-LX3Am		
Test Sample	Sample 1	Engineering Sample No.: D190403533	
	Sample 2	Engineering Sample No.: D190403534	
	Sample 3	Engineering Sample No.: D190403537	
	Sample 4	Engineering Sample No.: D190403536	
IMEI Code	Sample 1	IMEI 1/2	865004040000776/865004040001691
	Sample 2	IMEI 1/2	865004040000479/865004040001394
	Sample 3	IMEI 1/2	865004040000511/865004040001436
	Sample 4	IMEI 1/2	865004040000289/865004040001204
S/N	Sample 1	JFJDU19326000078	
	Sample 2	JFJDU19326000048	
	Sample 3	JFJDU19326000052	
	Sample 4	JFJDU19326000029	
HW Version	HL4MARM		
SW Version	9.0.1.156(SP1C900E141R1P6)		
Modulation	GSM(GMSK/8PSK), UMTS(QPSK), 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 B17	704-716	734-746
	LTE B66	1710-1780	2110-2200
	Bluetooth	2400-2483.5	
	2.4GWIFI	2400-2483.5	
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 UE Category	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(UMTS B2/4/5)		
	3, tested with power control “all Max” (LTE B2/4/5/7/12/17/66)		

<table>
<tr><td rowspan="15">SAR Test Channels *
(low-mid-high)</td><td colspan="4">128-190-251 (GSM850)</td></tr>
<tr><td colspan="4">512-661-810 (GSM1900)</td></tr>
<tr><td colspan="4">9262-9400-9538 (UMTS B2)</td></tr>
<tr><td colspan="4">1312-1413-1513 (UMTS B4)</td></tr>
<tr><td colspan="4">4132-4182-4233 (UMTS B5)</td></tr>
<tr><td colspan="4">18700-18900-19100 (LTE B2 BW=20MHz)</td></tr>
<tr><td colspan="4">20050-20175-20300 (LTE B4 BW=20MHz)</td></tr>
<tr><td colspan="4">20450-20525-20600 (LTE B5 BW=10MHz)</td></tr>
<tr><td colspan="4">20850-21100-21350 (LTE B7 BW=20MHz)</td></tr>
<tr><td colspan="4">23060-23095-23130 (LTE B12 BW=10MHz)</td></tr>
<tr><td colspan="4">23780-23790-23800 (LTE B17 BW=10MHz)</td></tr>
<tr><td colspan="4">132072-132322-132572 (LTE B66 BW=20MHz)</td></tr>
<tr><td colspan="4">0-39-78 (BT)</td></tr>
<tr><td colspan="4">0-19-39 (BLE)</td></tr>
<tr><td colspan="4">1-2-5-6-7-8-9-10-11 (2.4G WIFI 802.11b/g/n HT20)</td></tr>
<tr><td colspan="4">3-4-5-6-7-8-9 (2.4G WIFI 802.11n HT40)</td></tr>
<tr><td rowspan="16">Antenna Gain</td><td>Band</td><td>Main Antenna (dBi)</td><td>Second Antenna (dBi)</td><td>Wifi Antenna (dBi)</td></tr>
<tr><td>GSM850</td><td>-7.2</td><td>-3.6</td><td>/</td></tr>
<tr><td>GSM1900</td><td>-1.8</td><td>-3.7</td><td>/</td></tr>
<tr><td>UMTS B2</td><td>-1.8</td><td>-3.7</td><td>/</td></tr>
<tr><td>UMTS B4</td><td>-1.0</td><td>-4.6</td><td>/</td></tr>
<tr><td>UMTS B5</td><td>-7.2</td><td>-3.6</td><td>/</td></tr>
<tr><td>LTE B2</td><td>-1.8</td><td>-3.7</td><td>/</td></tr>
<tr><td>LTE B4</td><td>-1.0</td><td>-4.6</td><td>/</td></tr>
<tr><td>LTE B5</td><td>-7.2</td><td>-3.6</td><td>/</td></tr>
<tr><td>LTE B7</td><td>0.5</td><td>0.2</td><td>/</td></tr>
<tr><td>LTE B12</td><td>-8.7</td><td>-4.8</td><td>/</td></tr>
<tr><td>LTE B17</td><td>-8.7</td><td>-4.8</td><td>/</td></tr>
<tr><td>LTE B66</td><td>-1.0</td><td>-4.6</td><td>/</td></tr>
<tr><td>Bluetooth</td><td>/</td><td>/</td><td>-2.4</td></tr>
<tr><td>2.4G WIFI</td><td>/</td><td>/</td><td>-2.4</td></tr>
</table>

Other Information			
Battery	Model	HB356687ECW	
	Rated capacity	3240mAh	
	Nominal Voltage	+3.82V	
	Charging Voltage	+4.40V	
	1# Huawei Technologies Co., Ltd. (Manufacturer: Desay)		
	2# Huawei Technologies Co., Ltd. (Manufacturer: Sunwoda)		
	3# Huawei Technologies Co., Ltd. (Manufacturer: SCUD)		
Earphone	Model	Factory	
	MEND1532B528A02	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	
	1293-3283-3.5mm-322	Boluo County Quancheng Electronic Co., Ltd.	
	EPAB542-2WH05-DH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	
	MEND1532B528B00	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	
	1293-3283-3.5mm-336	Boluo County Quancheng Electronic Co., Ltd.	
	EPAB542-2WH06-DH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	

Note: * The others channels please refer Section 8.2.

3.3 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 standards.	

3.4 MAIN TEST INSTRUMENTS

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	Data Acquisition Electronics	Speag	DAE4	1390	May 11, 2018	1 Year
2	Data Acquisition Electronics	Speag	DAE3	536	Oct. 15, 2018	1 Year
3	E-field Probe	Speag	EX3DV4	7396	May 29, 2018	1 Year
4	E-field Probe	Speag	ES3DV3	3121	Feb. 25, 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	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1469	N/A	N/A
12	Twin Sam Phantom	Speag	Twin Sam Phantom V5.0	1784	N/A	N/A
13	8960 Series 10 Wireless Com Test set	Agilent	E5515E	MY52112163	Aug. 11, 2018	1 Year
14	Radio Communication Analver	Anritsu	MT8820C	6201525877	Aug. 11, 2018	1 Year
15	CMW500-Wideband Radio Communication Tester	R&S	CMW500	152372	Mar. 10, 2019	1 Year
16	CMW500-Wideband Radio Communication Tester	R&S	CMW500	153883	Mar. 10, 2019	1 Year
17	Bluetooth Test Set	Anritsu	Mt8852B-042	1132009	Aug. 11, 2018	1 Year
18	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	Feb. 25, 2019	1 Year
19	DC Source	Iteck	OT6154	M00157	Oct. 12, 2018	1 Year
20	ENA Network Analyzer	Agilent	E5071C	MY46102965	Mar. 10, 2019	1 Year
21	MXG Analog Signal Generator	Agilent	N5181A	MY49060710	Aug. 11, 2018	1 Year
22	Signal Generator	Agilent	E4438C	MY4907131	Mar. 10, 2019	1 Year
23	P-series power meter	Agilent	N1911A	MY45100473	Aug. 11, 2018	1 Year
24	Wideband power sensor	Agilent	N1921A	MY51100041	Aug. 11, 2018	1 Year
25	Peak Power Analyzer	Keysight	8990B	MY51000506	Nov. 26, 2018	1 Year
26	Wideband Power Sensor	Keysight	N1923A	MY58310004	Nov. 26, 2018	1 Year
27	Dielectric Assessment Kit	Speag	DAK-3.5	1226	N/A	N/A
28	Dual directional coupler	Woken	TS-PCC0M-05	107090019	Mar. 10, 2019	1 Year
29	Coupler	Woken	0110A05601O-10	COM5BNW1A2	Mar. 10, 2019	1 Year
30	Digital Themometer	LKM	DTM3000	3519	Jul. 19, 2018	1 Year
31	Thermohygrometer	Parkoo	JR609	N/A	Aug. 23, 2018	1 Year

Note:
1: Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
2: “N/A” denotes no model name, serial No. or calibration specified.
3:
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.

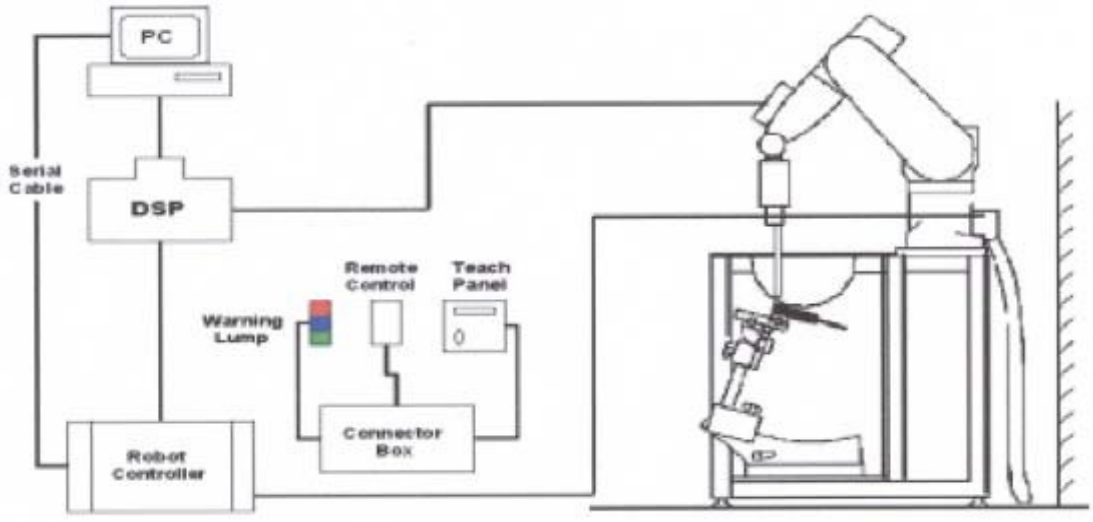
4. SAR MEASUREMENTS SYSTEM CONFIGURATION

4.1 SAR MEASUREMENT SET-UP

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

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

4.1.1 TEST SETUP LAYOUT



4.2 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.

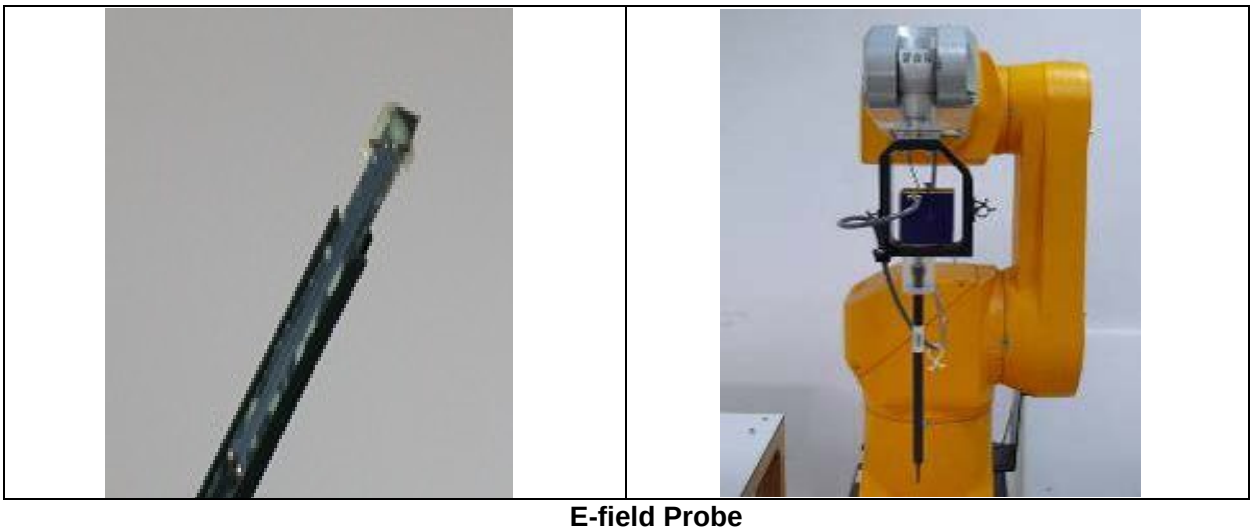
4.2.1 PROBE SPECIFICATION

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

4.2.2 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).

4.2.3 OTHER TEST EQUIPMENT

4.2.3.1 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, ELI4and SAM v6.0Phantoms.
Material: POM, Acrylic glass, Foam

4.2.3.2 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

4.2.4 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 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

4.2.5 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 is 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.

4.2.6 DATA STORAGE AND EVALUATION

4.2.6.1 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/cm^2], [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.

4.2.7 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

5. SYSTEM VERIFICATION PROCEDURE

5.1 TISSUE VERIFICATION

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric 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	-

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
Body 750	0.2	-	0.2	0.8	48.8	-	50.0	-
Body 835	0.2	-	0.2	0.9	48.5	-	50.2	-
Body 1750	-	31.0	-	0.2	-	-	68.8	-
Body 1900	-	29.5	-	0.3	-	-	70.2	-
Body 2450	-	31.4	-	0.1	-	-	68.5	-
Body 2600	-	31.8	-	0.1	-	-	68.1	-

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	22.1	0.897	41.797	0.89	41.9	0.79	-0.25	Apr. 18, 2019
Head	835	22.6	0.904	42.928	0.90	41.5	0.44	3.44	Apr. 13, 2019
Head	835	22.5	0.887	42.413	0.90	41.5	-1.44	2.20	Apr. 14, 2019
Head	835	22.1	0.891	43.373	0.90	41.5	-1.00	4.51	Apr. 15, 2019
Head	1750	22.3	1.405	41.336	1.37	40.1	2.55	3.08	Apr. 21, 2019
Head	1750	22.4	1.359	41.538	1.37	40.1	-0.80	3.59	Apr. 22, 2019
Head	1750	22.2	1.400	39.468	1.37	40.1	2.19	-1.58	May 14, 2019
Head	1900	22.3	1.365	38.428	1.40	40.0	-2.50	-3.93	Apr. 10, 2019
Head	2450	22.6	1.879	38.687	1.80	39.2	4.39	-1.31	Apr. 23, 2019
Head	2600	22.5	2.017	37.680	1.96	39.0	2.91	-3.38	Apr. 22, 2019
Body	750	22.6	0.977	54.197	0.96	55.5	1.77	-2.35	Apr. 18, 2019
Body	750	22.3	0.957	55.553	0.96	55.5	-0.31	0.10	Apr. 19, 2019
Body	835	22.2	0.955	55.070	0.97	55.2	-1.55	-0.24	Apr. 16, 2019
Body	835	22.4	0.977	55.621	0.97	55.2	0.72	0.76	Apr. 17, 2019
Body	835	22.3	0.973	54.214	0.97	55.2	0.31	-1.79	Apr. 18, 2019
Body	835	22.5	0.956	55.090	0.97	55.2	-1.44	-0.20	May 13, 2019
Body	1750	22.1	1.526	52.210	1.49	53.4	2.42	-2.23	Apr. 19, 2019
Body	1750	22.3	1.437	53.825	1.49	53.4	-3.56	0.80	Apr. 20, 2019
Body	1750	22.4	1.449	52.291	1.49	53.4	-2.75	-2.08	Apr. 21, 2019
Body	1900	22.5	1.496	53.218	1.52	53.3	-1.58	-0.15	Apr. 11, 2019
Body	1900	22.2	1.551	52.006	1.52	53.3	2.04	-2.43	Apr. 12, 2019
Body	1900	22.4	1.544	52.584	1.52	53.3	1.58	-1.34	Apr. 13, 2019
Body	2450	22.1	1.985	51.431	1.95	52.7	1.79	-2.41	Apr. 22, 2019
Body	2600	22.1	2.192	52.097	2.16	52.5	1.48	-0.77	Apr. 22, 2019

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.

5.2 SYSTEM CHECK

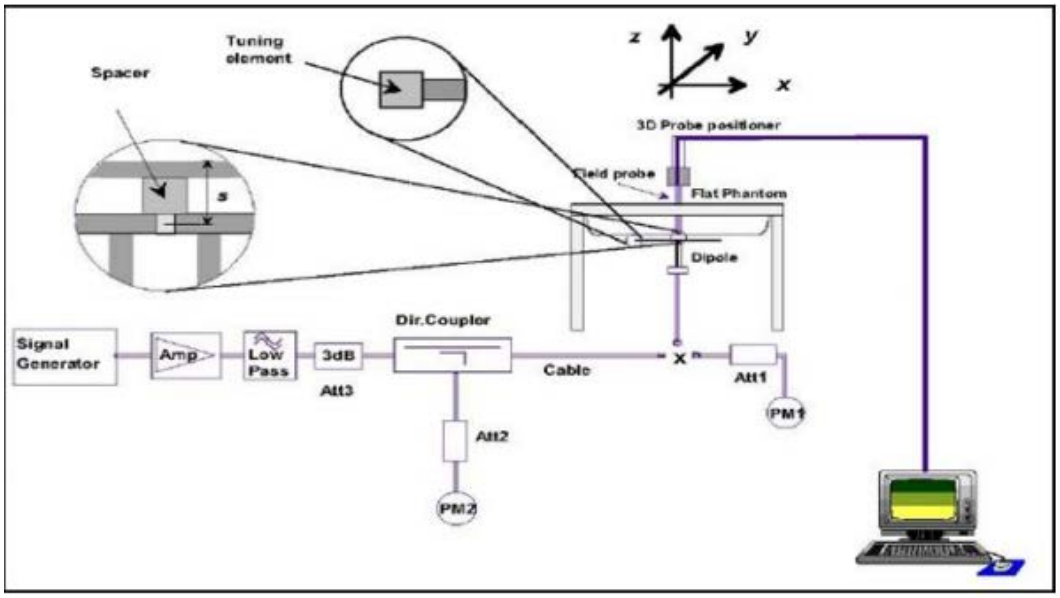
The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE Std 1528 (described above). The following table shows system check results for all frequency bands 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. 18, 2019	750	8.47	2.10	8.40	-0.83	1095
Head	Apr. 13, 2019	835	9.23	2.31	9.24	0.11	4d160
Head	Apr. 14, 2019	835	9.23	2.42	9.68	4.88	4d160
Head	Apr. 15, 2019	835	9.23	2.29	9.16	-0.76	4d160
Head	Apr. 21, 2019	1750	37.00	9.23	36.92	-0.22	1101
Head	Apr. 22, 2019	1750	37.00	8.93	35.72	-3.46	1101
Head	May 14, 2019	1750	37.00	9.20	36.80	-0.54	1101
Head	Apr. 10, 2019	1900	39.50	9.90	39.60	0.25	5d179
Head	Apr. 23, 2019	2450	52.10	13.24	52.96	1.65	919
Head	Apr. 22, 2019	2600	56.10	13.40	53.60	-4.46	1067
Body	Apr. 18, 2019	750	8.51	2.12	8.48	-0.35	1095
Body	Apr. 19, 2019	750	8.51	2.07	8.28	-2.70	1095
Body	Apr. 16, 2019	835	9.53	2.48	9.92	4.09	4d160
Body	Apr. 17, 2019	835	9.53	2.50	10.00	4.93	4d160
Body	Apr. 18, 2019	835	9.53	2.43	9.72	1.99	4d160
Body	May 13, 2019	835	9.53	2.48	9.92	4.09	4d160
Body	Apr. 19, 2019	1750	37.40	8.90	35.60	-4.81	1101
Body	Apr. 20, 2019	1750	37.40	9.01	36.04	-3.64	1101
Body	Apr. 21, 2019	1750	37.40	8.93	35.72	-4.49	1101
Body	Apr. 11, 2019	1900	39.80	10.00	40.00	0.50	5d179
Body	Apr. 12, 2019	1900	39.80	10.40	41.60	4.52	5d179
Body	Apr. 13, 2019	1900	39.80	10.21	40.84	2.61	5d179
Body	Apr. 22, 2019	2450	50.80	13.20	52.80	3.94	919
Body	Apr. 22, 2019	2600	55.20	14.00	56.00	1.45	1067

5.3 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 Plexiglas's 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 250 mW(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 %).



6. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

6.1 SAR MEASUREMENT VARIABILITY

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04, 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 8.2.

7. OPERATIONAL CONDITIONS DURING TEST

7.1 TEST CONFIGURATION

7.1.1 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

7.1.2 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 andβ_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 theβ_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_{ed} (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.

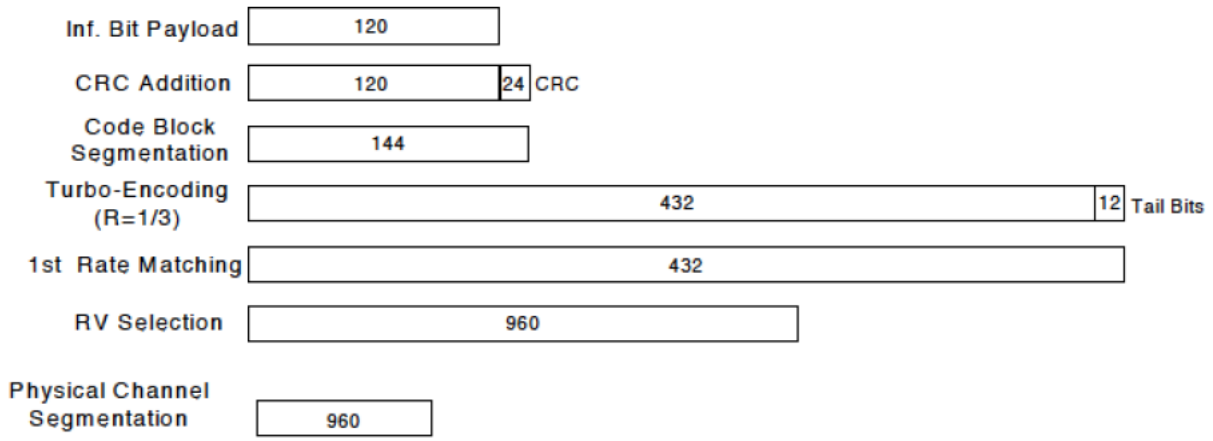


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 only applies to HSDPA 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.

7.1.3 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 Signaling 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.

7.1.4 LTE CARRIER AGGREGATION POWER

LTE Rel.10 Carrier Aggregation

As the KDB 941225 D05A, when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than 1/4dB higher than the maximum output power measured when downlink carrier aggregation is inactive, the CA test is not required.

Contiguous intra-band CA

Appendix : E-UTRA CA configuration / Bandwidth combination set					
E-UTRA CA configuration	**Uplink CA configurations**	**Component carriers in order of increasing carrier frequency**		**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
		CC1 Channel bandwidths for carrier [MHz]	**CC2 Channel bandwidths for carrier [MHz]**		
CA_7C	**NA**	**15**	**15**	**40**	**0**
		20	**20**		
		10	**20**	**40**	**1**
		15	**15, 20**		
		20	**10, 15, 20**		
		15	**10,15**	**40**	**2**
		20	**15,20**		
CA_66C	**NA**	**5**	**20**	**40**	**0**
		10	**15,20**		
		15	**10,15,20**		
		20	**5,10,15,20**		
CA_12B	**NA**	**5**	**5,10**	**15**	**0**
CA_7A-7A	**NA**	**5**	**15**	**40**	**0**
		10	**10,15**		
		15	**15,20**		
		20	**20**		
		5,10,15,20	**5,10,15,20**		**1**
		5,10,15,20	**5,10**		**2**
		5,10,15,20	**10,15,20**		**3**
CA_4A-7A	**CA_4A-7A**	**5,10**	**5,10,15,20**	**30**	**0**
		5,10,15,20	**5,10,15,20**	**40**	**1**

Appendix : E-UTRA CA configuration / Bandwidth combination set					
E-UTRA CA configuration	Uplink CA configurations	Component carriers in order of increasing carrier frequency		Maximum aggregated bandwidth [MHz]	Bandwidth combination set
		CC1 Channel bandwidths for carrier [MHz]	CC2 Channel bandwidths for carrier [MHz]		
CA_5A-7A	CA_5A-7A	1.4,3,5	10,15,20	30	0
		3,5	10,15,20	30	1
CA_2A-5A	NA	5,10,15,20	5,10	30	0
		5,10	5,10	20	1
CA_4A-5A	CA_4A-5A	5,10	5,10	20	0
		5,10,15,20	5,10	30	1
CA_7A-12A	NA	5,10,15,20	5,10	30	0
CA_2A-12A	CA_2A-12A	5,10,15,20	5,10	30	0
		5,10,15,20	3,5,10	30	1
		5,10	5,10	20	2
CA_4A-12A	CA_4A-12A	1.4,3,5,10	5,10	20	0
		1.4,3,5,10,15,20	5,10	30	1
		5,10,15,20	5,10,15	30	2
		5,10	5,10	20	3
		5,10,15,20	5,10	30	4
		5,10,15	5	20	5
NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table 5.6A-1 (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes. NOTE 2: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal. NOTE 3: Uplink CA configurations are the configurations supported by the present release of specifications.					

Note:
1) For the inter-band CA combinations, all the listed bands above can be used as PCC or SCC.
2) The channel spacing and aggregated channel bandwidth for CA are identical to the associated specification in 3GPP TS 36.101 V13.2.0.
3) The reference test frequencies for CA refers to3GPP TS 36.508 V13.1.0

Test frequencies for CA_7C

Range	CC-Combo / N_{RB_agg} [RB]	CC1 Note1					CC2 Note1				
		BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]	BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]
Low	50+100	50	20805	2505.5	2805	2625.5	100	20949	2519.9	2949	2639.9
		100	20850	2510	2850	2630	50	20994	2524.4	2994	2644.4
	75+50	75	20825	2507.5	2825	2627.5	50	20945	2519.5	2945	2639.5
	75+75	75	20825	2507.5	2825	2627.5	75	20975	2522.5	2975	2642.5
	75+100	75	20828	2507.8	2828	2627.8	100	20999	2524.9	2999	2644.9
		100	20850	2510	2850	2630	75	21021	2527.1	3021	2647.1
	100+100	100	20850	2510	2850	2630	100	21048	2529.8	3048	2649.8
Mid	50+100	50	21006	2525.6	3006	2645.6	100	21150	2540	3150	2660
		100	21051	2530.1	3051	2650.1	50	21195	2544.5	3195	2664.5
	75+50	75	21051	2530.1	3051	2650.1	50	21171	2542.1	3171	2662.1
	75+75	75	21025	2527.5	3025	2647.5	75	21175	2542.5	3175	2662.5
	75+100	75	21003	2525.3	3003	2645.3	100	21174	2542.4	3174	2662.4
		100	21026	2527.6	3026	2647.6	75	21197	2544.7	3197	2664.7
	100+100	100	21001	2525.1	3001	2645.1	100	21199	2544.9	3199	2664.9
High	50+100	50	21206	2545.6	3206	2665.6	100	21350	2560	3350	2680
		100	21251	2550.1	3251	2670.1	50	21395	2564.5	3395	2684.5
	75+50	75	21277	2552.7	3277	2672.7	50	21397	2564.7	3397	2684.7
	75+75	75	21225	2547.5	3225	2667.5	75	21375	2562.5	3375	2682.5
	75+100	75	21179	2542.9	3179	2662.9	100	21350	2560	3350	2680
		100	21201	2545.1	3201	2665.1	75	21372	2562.2	3372	2682.2
	100+100	100	21152	2540.2	3152	2660.2	100	21350	2560	3350	2680
Note 1: Carriers in increasing frequency order.											

Test frequencies for CA_66C

Range	CC-Combo / N_{RB_agg} [RB]	CC1 Note1					CC2 Note1				
		BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]	BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]
Low	50+75	50	132025	1715.3	66489	2115.3	75	132145	1727.3	66609	2127.3
		75	132047	1717.5	66511	2117.5	50	132167	1729.5	66631	2129.5
	50+100	50	132027	1715.5	66491	2115.5	100	132171	1729.9	66635	2129.9
		100	132072	1720	66536	2120	50	132216	1734.4	66680	2134.4
	75+75	75	132047	1717.5	66511	2117.5	75	132197	1732.5	66661	2132.5
	75+100	75	132050	1717.8	66514	2117.8	100	132221	1734.9	66685	2134.9
		100	132072	1720	66536	2120	75	132243	1737.1	66707	2137.1
	100+25	100	132072	1720	66536	2120	25	132189	1731.7	66653	2131.7
		25	132005	1713.3	66469	2113.3	100	132122	1725.0	66586	2125.0
	100+100	100	132072	1720	66536	2120	100	132270	1739.8	66734	2139.8
Mid	50+75	50	132351	1747.9	66815	2147.9	75	132471	1759.9	66935	2159.9
		75	132373	1750.1	66837	2150.1	50	132493	1762.1	66957	2162.1
	50+100	50	132328	1745.6	66792	2145.6	100	132472	1760	66936	2160
		100	132373	1750.1	66837	2150.1	50	132517	1764.5	66981	2164.5
	75+75	75	132347	1747.5	66811	2147.5	75	132497	1762.5	66961	2162.5
	75+100	75	132325	1745.3	66789	2145.3	100	132496	1762.4	66960	2162.4
		100	132348	1747.6	66812	2147.6	75	132519	1764.7	66983	2164.7
	100+25	100	132397	1752.5	66861	2152.5	25	132514	1764.2	66978	2164.2
		25	132330	1745.8	66794	2145.8	100	132447	1757.5	66911	2157.5
	100+100	100	132323	1745.1	66787	2145.1	100	132521	1764.9	66985	2164.9
High[2]	50+75	50	132622	1775	67086	2175	75	NA	NA	67206	2187
		75	132597	1772.5	67061	2172.5	50	NA	NA	67181	2184.5
	50+100	50	132622	1775	67086	2175	100	NA	NA	67230	2189.4
		100	132572	1770	67036	2170	50	NA	NA	67180	2184.4
	75+75	75	132597	1772.5	67061	2172.5	75	NA	NA	67211	2187.5
	75+100	75	132597	1772.5	67061	2172.5	100	NA	NA	67232	2189.6
		100	132572	1770	67036	2170	75	NA	NA	67207	2187.1
	100+25	100	132572	1770	67036	2170	25	NA	NA	67153	2181.7
		25	132647	1777.5	67111	2177.5	100	NA	NA	67228	2189.2
	100+100	100	132572	1770	67036	2170	100	NA	NA	67234	2189.8
	50+75	50	132477	1760.5	66941	2160.5	75	132597	1772.5	67061	2172.5
		75	132499	1762.7	66963	2162.7	50	132619	1774.7	67083	2174.7
High[3]	50+75	50	132477	1760.5	66941	2160.5	75	132597	1772.5	67061	2172.5
		75	132499	1762.7	66963	2162.7	50	132619	1774.7	67083	2174.7
	50+100	50	132428	1755.6	66892	2155.6	100	132572	1770	67036	2170
		100	132473	1760.1	66937	2160.1	50	132617	1774.5	67081	2174.5
	75+75	75	132447	1757.5	66911	2157.5	75	132597	1772.5	67061	2172.5
	75+100	75	132401	1752.9	66885	2152.9	100	132572	1770	67036	2170
		100	132423	1755.1	66887	2155.1	75	132594	1772.2	67058	2172.2
	100+25	100	132522	1765	66986	2165	25	132639	1776.7	67103	2176.7
		25	132455	1758.3	66919	2158.3	100	132572	1770.0	67036	2170.0
	100+100	100	132374	1750.2	66838	2150.2	100	132572	1770	67036	2170

Note 1: Carriers in increasing frequency order.
Note 2: Applicable for intra-band contiguous CA without UL CA.
Note 3: Applicable for intra-band contiguous CA with UL CA.

Test frequencies for CA_12B

Range	CC-Combo / N_{RB_agg} [RB]	CC1 Note1					CC2 Note1				
		BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]	BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]
Low	25+25	25	23035	701.5	5035	731.5	25	23083	706.3	5083	736.3
	25+50	25	23038	701.8	5038	731.8	50	23110	709	5110	739
Mid	25+25	25	23071	705.1	5071	735.1	25	23119	709.9	5119	739.9
	25+50	25	23048	702.8	5048	732.8	50	23120	710	5120	740
High	25+25	25	23107	708.7	5107	738.7	25	23155	713.5	5155	743.5
	25+50	25	23058	703.8	5058	733.8	50	23130	711	5130	741
Note 1: Carriers in increasing frequency order.											

Test frequencies for CA_7A-7A

Test Frequency ID	CC-Combo / N_{RB_agg} [RB]	CC1 Note1					Wgap [MHz]	CC2 Note1				
		BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]		BW [RB]	N_{UL}	f_{UL} [MHz]	N_{DL}	f_{DL} [MHz]
Max WGap	25+25	25	20775	2502.5	2775	2622.5	60	25	21425	2567.5	3425	2687.5
	25+50	25	20775	2502.5	2775	2622.5	55	50	21400	2565	3400	2685
		50	20800	2505	2800	2625	55	25	21425	2567.5	3425	2687.5
	25+75	25	20775	2502.5	2775	2622.5	50	75	21375	2562.5	3375	2682.5
		75	20825	2507.5	2825	2627.5	50	25	21425	2567.5	3425	2687.5
	50+50	50	20800	2505	2800	2625	50	50	21400	2565	3400	2685
	25+100	25	20775	2502.5	2775	2622.5	45	100	21350	2560	3350	2680
		100	20850	2510	2850	2630	45	25	21425	2567.5	3425	2687.5
	50+75	50	20800	2505	2800	2625	45	75	21375	2562.5	3375	2682.5
		75	20825	2507.5	2825	2627.5	45	50	21400	2565	3400	2685
	50+100	50	20800	2505	2800	2625	40	100	21350	2560	3350	2680
		100	20850	2510	2850	2630	40	50	21400	2565	3400	2685
	75+75	75	20825	2507.5	2825	2627.5	40	75	21375	2562.5	3375	2682.5
	75+100	75	20825	2507.5	2825	2627.5	35	100	21350	2560	3350	2680
		100	20850	2510	2850	2630	35	75	21375	2562.5	3375	2682.5
	100+100	100	20850	2510	2850	2630	30	100	21350	2560	3350	2680
Refsens[2]	75+100	75	21025	2527.5	3025	2647.5	15	100	21350	2560	3350	2680
	100+100	100	21000	2525	3000	2645	15	100	21350	2560	3350	2680
	25+100	25	20975	2522.5	2975	2642.5	25	100	21350	2560	3350	2680
	25+50	25	21025	2527.5	3025	2647.5	30	50	21400	2565	3400	2685
	50+100	50	21000	2525	3000	2645	20	100	21350	2560	3350	2680
		100	21100	2535	3100	2655	15	50	21400	2565	3400	2685
Note 1: Carriers in increasing frequency order. Note 2: Test point derived with regard to REFSENS requirements.												

Test frequencies for E-UTRA PCell and SCell for CA Inter-band operation and E-UTRA PCell and PSCell for DC Inter-band operation (two bands)

CA_4A-7A

E-UTRA CA Configuration	Width of Operating bands [MHz+MHz]	CC Combination / NRB_agg	Test Frequency	CC NRB	NUL	Frequency of Uplink [MHz]	NDL	Frequency of Downlink [MHz]
CA_4A-7A, DC_4A-7A	45+70	50+50	f1	CC 50	20175	1732.5	2175	2132.5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	21100	2535	3100	2655
			f6	CC 50	21400	2565	3400	2685
CA_5A-7A, DC_5A-7A	25+70	50 + 50	f1	CC 50	20450	829	2450	874
			f2	CC 50	20600	844	2600	889
			f5	CC 50	21100	2535	3100	2655
			f6	CC 50	21400	2565	3400	2685
CA_2A-5A	60+25	50 + 50	f1	CC 50	18900	1880	900	1960
			f2	CC 50	19150	1905	1150	1985
			f5	CC 50	20450	829	2450	874
			f6	CC 50	20600	844	2600	889
CA_4A-5A	45+25	50 + 50	f1	CC 50	20175	1732.5	2175	2132.5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	20450	829	2450	874
			f6	CC 50	20600	844	2600	889
CA_7A-12A	70+17	50+50	f1	CC 50	21100	2535	3100	2655
			f2	CC 50	[21400]	[2565]	[3400]	[2685]
			f5	CC 50	23130	711	5130	741
			f6	N/A	N/A	N/A	N/A	N/A
CA_2A-12A	60 + 17	50 + 50	f1	CC 50	18900	1880	900	1960
			f2	CC 50	19150	1905	1150	1985
			f5	CC 50	23060	704	5050	734
			f6	N/A	N/A	N/A	N/A	N/A
CA_4A-12A, DC_4A-12A	45+17	50+50	f1	CC 50	20175	1732.5	2175	2132.5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	23130	711	5130	741
			f6	N/A	N/A	N/A	N/A	N/A

1) Carrier Aggregation power test results (Main ANT_Receiver on)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	23.4	22.31	22.36
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	23.4	22.17	22.32
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	23.4	22.35	22.43
CA_66C	Low	20M+20M	LTE B66	20	QPSK	1/0	**132072**	1720	66536	2120	LTE B66	20	**66734**	2139.8	24	23.08	23.16
	Mid	20M+20M	LTE B66	20	QPSK	1/0	**132323**	1745.1	66786	2145.1	LTE B66	20	**66985**	2164.9	24	23.11	23.23
	High	20M+20M	LTE B66	20	QPSK	1/0	**132572**	1770	67036	2170	LTE B66	20	**67234**	2189.8	24	23.15	23.17
	High	20M+20M	LTE B66	20	QPSK	1/0	**132374**	1750.2	66838	2150.2	LTE B66	20	**67036**	2170	24	23.12	23.19
CA_12B	Low	5M+10M	LTE B12	5	QPSK	1/0	**23038**	701.8	5038	731.8	LTE B12	10	**5110**	739	24.5	23.35	23.41
	Mid	5M+10M	LTE B12	5	QPSK	1/0	**23048**	702.8	5048	732.8	LTE B12	10	**5120**	740	24.5	23.38	23.44
	High	5M+10M	LTE B12	5	QPSK	1/0	**23058**	703.8	5058	733.8	LTE B12	10	**5130**	741	24.5	23.28	23.45

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	23.4	22.32	22.36

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_4A-7A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	7	20	QPSK	3100	2655	23.9	23.09	23.19
CA_5A-7A	5	10	QPSK	1/0	**20450**	829	2450	874	7	20	QPSK	3100	2655	24.5	23.71	23.79
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	23.8	22.88	22.94
CA_4A-5A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	5	10	QPSK	2450	874	23.9	23.16	23.19
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	23.4	22.21	22.34
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	23.8	22.78	22.94
CA_4A-12A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	12	20	QPSK	5130	741	23.9	23.05	23.19

2) Carrier Aggregation power test results (Main ANT_Receiver off)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	22.4	21.22	21.31
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	22.4	21.29	21.37
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	22.4	21.38	21.45

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	22.4	21.24	21.31

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	22.8	21.83	21.89
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	22.4	21.45	21.48
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	22.8	21.81	21.89

3) Carrier Aggregation power test results (Second ANT_Receiver off)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	21.4	20.42	20.48
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	21.4	20.37	20.42
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	21.4	20.43	20.51
CA_66C	Low	20M+20M	LTE B66	20	QPSK	1/0	**132072**	1720	66536	2120	LTE B66	20	**66734**	2139.8	24	23.03	23.08
	Mid	20M+20M	LTE B66	20	QPSK	1/0	**132323**	1745.1	66786	2145.1	LTE B66	20	**66985**	2164.9	24	23.01	23.09
	High	20M+20M	LTE B66	20	QPSK	1/0	**132572**	1770	67036	2170	LTE B66	20	**67234**	2189.8	24	23.15	23.17
	High	20M+20M	LTE B66	20	QPSK	1/0	**132374**	1750.2	66838	2150.2	LTE B66	20	**67036**	2170	24	23.05	23.11
CA_12B	Low	5M+10M	LTE B12	5	QPSK	1/0	**23038**	701.8	5038	731.8	LTE B12	10	**5110**	739	24.5	23.18	23.30
	Mid	5M+10M	LTE B12	5	QPSK	1/0	**23048**	702.8	5048	732.8	LTE B12	10	**5120**	740	24.5	23.17	23.33
	High	5M+10M	LTE B12	5	QPSK	1/0	**23058**	703.8	5058	733.8	LTE B12	10	**5130**	741	24.5	23.22	23.25

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	21.4	20.43	20.48

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_4A-7A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	7	20	QPSK	3100	2655	23.9	22.91	23.01
CA_5A-7A	5	10	QPSK	1/0	**20450**	829	2450	874	7	20	QPSK	3100	2655	24.5	23.36	23.44
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	24	23.02	23.06
CA_4A-5A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	5	10	QPSK	2450	874	23.9	22.93	23.01
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	21.4	20.44	20.52
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	24.5	23.31	23.44
CA_4A-12A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	12	20	QPSK	5130	741	23.9	22.88	23.01

4) Carrier Aggregation power test results (Second ANT_Receiver on)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	17.3	16.28	16.41
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	17.3	16.31	16.38
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	17.3	16.18	16.33
CA_66C	Low	20M+20M	LTE B66	20	QPSK	1/0	**132072**	1720	66536	2120	LTE B66	20	**66734**	2139.8	20.5	19.57	19.59
	Mid	20M+20M	LTE B66	20	QPSK	1/0	**132323**	1745.1	66786	2145.1	LTE B66	20	**66985**	2164.9	20.5	19.45	19.62
	High	20M+20M	LTE B66	20	QPSK	1/0	**132572**	1770	67036	2170	LTE B66	20	**67234**	2189.8	20.5	19.51	19.68
	High	20M+20M	LTE B66	20	QPSK	1/0	**132374**	1750.2	66838	2150.2	LTE B66	20	**67036**	2170	20.5	19.49	19.65
CA_12B	Low	5M+10M	LTE B12	5	QPSK	1/0	**23038**	701.8	5038	731.8	LTE B12	10	**5110**	739	23.5	22.31	22.39
	Mid	5M+10M	LTE B12	5	QPSK	1/0	**23048**	702.8	5048	732.8	LTE B12	10	**5120**	740	23.5	22.37	22.43
	High	5M+10M	LTE B12	5	QPSK	1/0	**23058**	703.8	5058	733.8	LTE B12	10	**5130**	741	23.5	22.18	22.37

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	17.3	16.33	16.41

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_4A-7A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	7	20	QPSK	3100	2655	20.4	19.03	19.12
CA_5A-7A	5	10	QPSK	1/0	**20450**	829	2450	874	7	20	QPSK	3100	2655	22.7	21.74	21.82
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	19.7	18.92	18.99
CA_4A-5A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	5	10	QPSK	2450	874	20.4	19.06	19.12
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	17.3	16.29	16.37
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	19.7	18.86	18.99
CA_4A-12A	4	20	QPSK	1/0	**20175**	1732.5	2175	2132.5	12	20	QPSK	5130	741	20.4	19.08	19.12

5) Carrier Aggregation power test results (Second ANT_Receiver off+ WiFi on)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	20.9	19.78	19.93
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	20.9	19.81	19.87
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	20.9	19.66	19.76

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	20.9	19.85	19.93

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	23.5	22.41	22.47
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	20.9	19.69	19.76
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	23.5	22.42	22.47

6) Carrier Aggregation power test results (Second ANT_Receiver on+ WiFi on)

E-UTRA CA configuration		CC-Combo	PCC								SCC				Tune-up For TX Power With DL CA	Power	
			Band	Band width [MHZ]	Modulation	RB Size/ Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Band width [MHZ]	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7C	Low	20M+20M	LTE B7	20	QPSK	1/0	**20850**	2510	2850	2630	LTE B7	20	**3048**	2649.8	16.8	15.66	15.69
	Mid	20M+20M	LTE B7	20	QPSK	1/0	**21001**	2525.1	3001	2645.1	LTE B7	20	**3199**	2664.9	16.8	15.53	15.63
	High	20M+20M	LTE B7	20	QPSK	1/0	**21152**	2540.2	3152	2660.2	LTE B7	20	**3350**	2680	16.8	15.51	15.55

E-UTRA CA configuration	PCC									SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	NRB	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	NRB	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_7A-7A	LTE B7	20M	QPSK	100	1/0	**20850**	2510	2850	2630	LTE B7	20	100	**3350**	2680	16.8	15.64	15.69

E-UTRA CA configuration	PCC 1								SCC					Tune-up For TX Power With DL CA	Power	
	Band	Bandwidth [MHZ]	Modulation	RB Size/Offset	Channel (UL)	Frequency [MHZ]	Channel (DL)	Frequency [MHZ]	Band	Bandwidth [MHZ]	Modulation	Channel (DL)	Frequency [MHZ]		TX Power With DL CA	TX Power Single Carrier
CA_2A-5A	2	20	QPSK	1/0	**18900**	1880	900	1960	5	10	QPSK	2450	874	19.2	18.24	18.31
CA_7A-12A	7	20	QPSK	1/0	**21100**	2535	3100	2655	12	20	QPSK	5130	741	16.8	15.53	15.59
CA_2A-12A	2	20	QPSK	1/0	**18900**	1880	900	1960	12	20	QPSK	5060	734	19.2	18.17	18.31

7.1.5 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	802.11n HT40
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.

7.1.4.1 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.

7.2 GENERAL DESCRIPTION OF TEST PROCEDURES

Connection to the EUT is established via air interface with Agilent 8960 & R&S CMW500 & Anritsu MT8820C, and the EUT is set to maximum output power by Agilent 8960 & R&S CMW500 & Anritsu MT8820C. 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.

7.3 RECEIVER DETECTION MECHANISM

7.3.1 GENERAL DESCRIPTION OF RECEIVER DETECTION MECHANISM

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 and WiFi antennas accordingly.

Table: Summery of Receiver detection mechanism

Antenna	Receiver on (head scenario)	Receiver off (Body/other scenario)
2G&3G&4G second ant	Power Level A1	Power Level B1
2G&3G&4G main ant	Power Level A2	Power Level B2
WiFi Ant	Power Level A3	Power Level B3

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

7.3.2 SUMMARY SAR TEST PLAN

Main Antenna Power Reduction													
	Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B17	LTE B66
full power level	full power	32.7	31	24	24	25	23.8	23.9	24.5	23.4	24.5	24.5	24
reduction level	Receiver on	32.7	31	24	24	25	23.8	23.9	24.5	23.4	24.5	24.5	24
	Receiver on+wifi/BT	32.7	31	24	24	25	23.8	23.9	24.5	23.4	24.5	24.5	24
	Receiver off	32.7	31	23.5	23.5	24.5	22.8	23.9	24.5	22.4	24.5	24.5	24
	Receiver off+wifi/BT	32.7	31	23.5	23.5	24.5	22.8	23.9	24.5	22.4	24.5	24.5	24

Second Antenna Power Reduction													
	Power scenario	GSM 850	GSM 1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B5	LTE B7	LTE B12	LTE B17	LTE B66
full power level	full power	33.2	25	23.8	24	25	24	23.9	24.5	21.4	24.5	24.5	24
reduction level	Receiver on	32.2	25	19.4	20	22.5	19.7	20.4	22.7	17.3	23.5	23.5	20.5
	Receiver on+wifi/BT	32.2	25	18.9	20	22.5	19.2	20.4	22.7	16.8	23.5	23.5	20.5
	Receiver off	33.2	25	23.8	24	25	24	23.9	24.5	21.4	24.5	24.5	24
	Receiver off+wifi/BT	33.2	25	23.3	24	25	23.5	23.9	24.5	20.9	24.5	24.5	24

Wifi Antenna Power Reduction												
	Power scenario	2.4G (CH1)			2.4G (CH3)	2.4G (CH2-CH5)			2.4G (CH6-CH8)			2.4G (CH4-CH8)
		802.11 b	802.11 g	802.11 n20	802.11 n40	802.11 b	802.11 g	802.11 n20	802.11 b	802.11 g	802.11 n20	802.11 n40
full power level	full power	20.1	15	14	12	20.1	16	15	19.1	15	14	12
reduction level	Receiver on	12.1	12	12	12	12.1	12	12	19.1	12	11	9
	Receiver off	20.1	15	14	12	20.1	16	15	19.1	15	14	12

Wifi Antenna Power Reduction								
	Power scenario	2.4G (CH9-CH10)			2.4G (CH9)	2.4G (CH11)		
		802.11 b	802.11 g	802.11 n20	802.11 n40	802.11 b	802.11 g	802.11 n20
full power level	full power	19.6	15.5	14.5	12.2	19.6	14.5	13.5
reduction level	Receiver on	11.6	11.5	11.5	11.5	11.6	11.5	11.5
	Receiver off	19.6	15.5	14.5	12.2	19.6	14.5	13.5

Based on the power reduction triggered by specific use conditions information above.

For Head SAR test,
1) Standalone Head SAR of 2G&3G&4G second ant is evaluated at power level A1(Receiver on);
2) Standalone Head SAR of 2G&3G&4G Main ant is evaluated at power level A2(Receiver on);
3) Standalone Head SAR of Wifi ant is evaluated at power level A3(Receiver on);
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 SAR test,
1) Standalone Body SAR of 2G&3G&4G second ant is evaluated at power level B1(Receiver off);
2) Standalone Body SAR of 2G&3G&4G Main ant is evaluated at power level B2(Receiver off);
3) Standalone Body SAR of Wifi ant is evaluated at power level B3(Receiver off);
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 SAR with headset is tested at the body SAR worst case without headset connected at the same power level.

7.4 DYNAMIC ANTENNA SWITCHING TEST CONSIDERATIONS

In this attachment, the following list is used to prepare an inquiry seeking SAR test guidance for dynamic antenna switching. A summary SAR test plan is provided at the end of the inquiry to help expedite the process.

7.4.1 IMPLEMENTATION DETAILS OF DYNAMIC SWITCHING

ANS: We have a series of mobile phone devices including MAR-LX3Am. The band differences between this mobile phone are as below:

Model	MAR-LX3Am		
FCC ID	QISMAR-LX3AM		
SIM Card	double		
Bands	Main Ant.	Second Ant.	WiFi Ant.
	GSM850/1900 WCDMA B2/B4/B5 LTE-FDD B2/B4/B5/B7/B12/ B17/B28/B66	GSM850/1900 WCDMA B2/B4/B5 LTE-FDD B2/B4/B5/B7/B12/ B17/B28/B66	Bluetooth WIFI 2.4G

The device supports the dynamic antenna switching function to optimize transmission efficiency for wide range frequency operations. It has two 2G/3G/4G Tx antennas (Main Antenna and Secondary Antenna). It can transmit from either Main Antenna (Ant1) or Secondary Antenna(Ant 2).

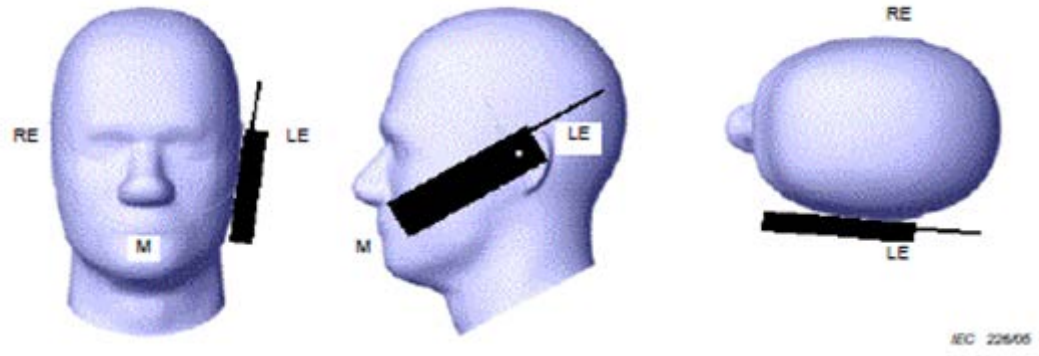
7.4.2 SUMMARY TEST PLAN FOR DYNAMIC ANTENNA SWITCHING

Summary test plan: For Dynamic antenna switching SAR test, we will set the Main Antenna / Secondary Antenna to the MAX transmit power level respectively and test the SAR respectively in all applicable RF exposure conditions. Some AT commands or test scripts are supplied to fix the DPDT operation state and choose the antenna, so that only one TX antenna (the Main Antenna or Secondary Antenna) is chosen at a time. All independent antennas and modems will be completely covered by the appropriate SAR measurements and all simultaneous transmission possibilities will be fully considered.

7.5 TEST POSITION

7.5.1 HEAD TEST CONFIGURATION

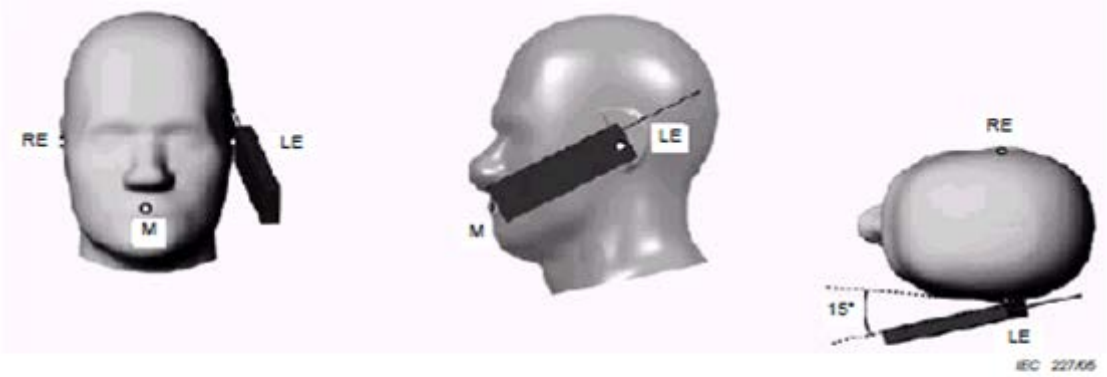
Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.



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

Figure 1-1 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.



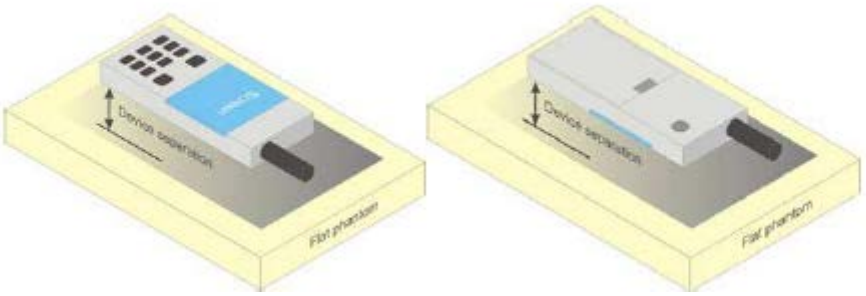
Key	
M	Mouth reference point
LE	Left ear reference point (ERP)
RE	Right ear reference point (ERP)

Figure 1-2 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.

7.5.2 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. The distance between the device and the phantom was kept 15mm.



7.5.3 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.

Sides For Hotspot SAR Testing

Ant	Mode	Front Side	Rear Side	Left Side	Right Side	Top Side	Bottom Side
Ant 1 (Main)	GSM850/1900	YES	YES	YES	YES	NO	YES
	UMTS B2/4/5	YES	YES	YES	YES	NO	YES
	LTE B2/4/5/7/12/17/66	YES	YES	YES	YES	NO	YES
Ant 2 (Second)	GSM850/1900	YES	YES	YES	YES	YES	NO
	UMTS B2/4/5	YES	YES	YES	YES	YES	NO
	LTE B2/4/5/7/12/17/66	YES	YES	YES	YES	YES	NO
Ant 3	2.4GWiFi/BT	YES	YES	NO	YES	YES	NO

Note:
1) Per KDB 941225 D06, particular DUT edges were not required to be evaluated for Hotspot SAR if the antenna-to-edge distance is greater than 25mm.
2) The location of the antenna inside EUT, please refer to Appendix E.

7.5.4 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.

8. TEST RESULT

8.1 CONDUCTED POWER RESULTS

8.1.1 CONDUCTED POWER MEASUREMENTS OF GSM

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)		32.70	**31.33**	**31.49**	**31.55**	23.51	**22.14**	**22.30**	**22.36**
GPRS/EDGE (GMSK)	1 Tx Slot	32.70	31.40	31.54	31.69	23.51	22.21	22.35	22.50
	2 Tx Slot	29.70	**27.98**	**28.06**	**28.13**	23.57	**21.85**	**21.93**	**22.00**
	3 Tx Slot	27.90	25.92	26.05	26.16	23.48	21.50	21.63	21.74
	4 Tx Slot	26.40	24.49	24.62	24.63	23.22	21.31	21.44	21.45
EDGE (8PSK)	1 Tx Slot	26.80	25.42	25.52	25.64	17.61	16.23	16.33	16.45
	2 Tx Slot	23.80	22.47	22.66	22.72	17.67	16.34	16.53	16.59
	3 Tx Slot	22.00	20.66	20.62	20.71	17.58	16.24	16.20	16.29
	4 Tx Slot	20.80	19.39	19.45	19.51	17.62	16.21	16.27	16.33
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	**30.27**	**30.15**	**30.04**	21.81	**21.08**	**20.96**	**20.85**
GPRS/EDGE (GMSK)	1 Tx Slot	31.00	30.18	30.09	30.00	21.81	20.99	20.90	20.81
	2 Tx Slot	28.00	**26.74**	**26.82**	**26.94**	21.87	**20.61**	**20.69**	**20.81**
	3 Tx Slot	26.20	24.96	24.94	25.07	21.78	20.54	20.52	20.65
	4 Tx Slot	25.00	23.73	23.69	23.83	21.82	20.55	20.51	20.65
EDGE (8PSK)	1 Tx Slot	26.80	25.17	25.25	25.49	17.61	15.98	16.06	16.30
	2 Tx Slot	23.80	22.03	22.10	22.29	17.67	15.90	15.97	16.16
	3 Tx Slot	22.00	20.27	20.37	20.42	17.58	15.85	15.95	16.00
	4 Tx Slot	20.80	19.10	19.27	19.45	17.62	15.92	16.09	16.27

Second Antenna Receiver on:

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)		32.20	**30.93**	**31.06**	**31.09**	23.01	**21.74**	**21.87**	**21.90**
GPRS/EDGE (GMSK)	**1 Tx Slot**	32.20	30.97	31.11	31.14	23.01	21.78	21.92	21.95
	2 Tx Slot	29.20	27.89	28.03	28.06	23.07	21.76	21.90	21.93
	3 Tx Slot	27.40	25.84	25.97	25.99	22.98	21.42	21.55	21.57
	4 Tx Slot	26.20	24.38	24.44	24.61	23.02	21.20	21.26	21.43
EDGE (8PSK)	**1 Tx Slot**	26.30	24.81	24.83	24.77	17.11	15.62	15.64	15.58
	2 Tx Slot	23.30	22.07	22.15	22.28	17.17	15.94	16.02	16.15
	3 Tx Slot	21.50	19.95	19.81	20.07	17.08	15.53	15.39	15.65
	4 Tx Slot	20.30	18.46	18.53	18.65	17.12	15.28	15.35	15.47

Second Antenna Receiver off:

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)		33.20	**31.83**	**32.01**	**32.05**	24.01	**22.64**	**22.82**	**22.86**
GPRS/EDGE (GMSK)	1 Tx Slot	33.20	31.92	32.05	32.08	24.01	22.73	22.86	22.89
	2 Tx Slot	30.20	**28.81**	**28.93**	**28.96**	24.07	**22.68**	**22.80**	**22.83**
	3 Tx Slot	28.40	26.75	26.86	26.88	23.98	22.33	22.44	22.46
	4 Tx Slot	27.20	25.24	25.38	25.42	24.02	22.06	22.20	22.24
EDGE (8PSK)	1 Tx Slot	27.30	25.67	25.61	25.65	18.11	16.48	16.42	16.46
	2 Tx Slot	24.30	22.94	22.77	22.83	18.17	16.81	16.64	16.70
	3 Tx Slot	22.50	21.05	21.12	21.35	18.08	16.63	16.70	16.93
	4 Tx Slot	21.30	19.74	19.68	19.65	18.12	16.56	16.50	16.47
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)		25.00	**23.37**	**23.39**	**23.42**	15.81	**14.18**	**14.20**	**14.23**
GPRS/EDGE (GMSK)	1 Tx Slot	25.00	23.45	23.47	23.52	15.81	14.26	14.28	14.33
	2 Tx Slot	22.00	**20.48**	**20.45**	**20.43**	15.87	**14.35**	**14.32**	**14.30**
	3 Tx Slot	20.20	18.71	18.82	18.83	15.78	14.29	14.40	14.41
	4 Tx Slot	19.00	17.48	17.59	17.63	15.82	14.30	14.41	14.45
EDGE (8PSK)	1 Tx Slot	20.80	19.04	19.12	19.06	11.61	9.85	9.93	9.87
	2 Tx Slot	17.80	16.07	16.11	16.28	11.67	9.94	9.98	10.15
	3 Tx Slot	16.00	14.34	14.47	14.52	11.58	9.92	10.05	10.10
	4 Tx Slot	14.80	13.32	13.14	13.21	11.62	10.14	9.96	10.03

Note:
1) The conducted power of GSM 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 channel results are marks in bold.

8.1.2 CONDUCTED POWER MEASUREMENTS OF UMTS

Main Antenna Receiver on:

Band	UMTS B2 Average Conducted Power(dBm)				UMTS B4 Average Conducted Power(dBm)				UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	9262	9400	9538	Max. Tune-up	1312	1413	1513	Max. Tune-up	4132	4182	4233
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6
AMR Voice	24.00	22.47	22.37	22.45	24.00	22.34	22.38	22.37	25.00	23.83	23.78	23.84
RMC 12.2K	24.00	**22.47**	**22.37**	**22.45**	24.00	**22.34**	**22.38**	**22.37**	25.00	**23.83**	**23.78**	**23.84**
RMC 64K	24.00	22.45	22.34	22.43	24.00	22.31	22.34	22.26	25.00	23.88	23.86	23.78
RMC 144K	24.00	22.32	22.42	22.38	24.00	22.29	22.33	22.35	25.00	23.78	23.86	23.87
RMC 384K	24.00	22.43	22.38	22.26	24.00	22.44	22.41	22.38	25.00	24.04	24.08	23.97
HSDPA Subtest-1	23.50	21.89	21.84	21.93	23.50	21.85	21.79	21.90	24.50	23.42	23.31	23.38
HSDPA Subtest-2	22.70	21.26	21.23	21.38	22.70	21.36	21.43	21.45	23.70	22.99	22.91	22.88
HSDPA Subtest-3	22.20	20.81	20.73	20.87	22.20	20.76	20.87	20.91	23.20	22.41	22.37	22.40
HSDPA Subtest-4	22.20	20.79	20.81	20.83	22.20	20.89	20.95	20.88	23.20	22.35	22.41	22.50
HSUPA Subtest-1	23.00	20.66	20.78	20.52	22.80	20.88	21.28	20.96	24.30	22.57	22.43	22.52
HSUPA Subtest-2	21.80	19.48	19.55	19.59	22.00	19.74	19.71	19.67	23.00	21.51	21.49	21.54
HSUPA Subtest-3	22.80	21.29	21.21	21.06	22.80	21.11	21.10	21.08	24.00	22.34	22.52	22.33
HSUPA Subtest-4	22.00	19.81	20.62	20.09	21.90	19.82	19.74	19.88	23.00	21.88	21.92	21.90
HSUPA Subtest-5	23.80	22.52	22.40	22.54	23.80	22.32	22.44	22.45	24.80	23.61	23.49	23.44
DC-HSDPA Subtest-1	23.50	21.89	21.84	21.93	23.50	21.85	21.79	21.90	24.50	23.42	23.31	23.38
DC-HSDPA Subtest-2	22.70	21.26	21.23	21.38	22.70	21.36	21.43	21.45	23.70	22.99	22.91	22.88
DC-HSDPA Subtest-3	22.20	20.81	20.73	20.87	22.20	20.76	20.87	20.91	23.20	22.41	22.37	22.40
DC-HSDPA Subtest-4	22.20	20.79	20.81	20.83	22.20	20.89	20.95	20.88	23.20	22.35	22.41	22.50

Main Antenna Receiver off:

Band	UMTS B2 Average Conducted Power(dBm)				UMTS B4 Average Conducted Power(dBm)				UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	9262	9400	9538	Max. Tune-up	1312	1413	1513	Max. Tune-up	4132	4182	4233
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6
AMR Voice	23.50	22.76	22.75	22.88	23.50	22.76	22.65	22.78	24.50	23.25	23.28	23.23
RMC 12.2K	23.50	**22.76**	**22.75**	**22.88**	23.50	**22.76**	**22.65**	**22.78**	24.50	**23.25**	**23.28**	**23.23**
RMC 64K	23.50	22.75	22.71	22.86	23.50	22.75	22.66	22.74	24.50	23.21	23.27	23.24
RMC 144K	23.50	22.76	22.74	22.89	23.50	22.75	22.62	22.73	24.50	23.23	23.24	23.21
RMC 384K	23.50	22.75	22.72	22.90	23.50	22.73	22.65	22.77	24.50	23.22	23.26	23.23
HSDPA Subtest-1	23.00	22.10	22.12	22.25	23.00	22.15	22.13	22.23	24.00	22.95	22.90	22.92
HSDPA Subtest-2	22.20	21.58	21.67	21.80	22.20	21.09	21.18	21.29	23.20	22.34	22.32	22.33
HSDPA Subtest-3	21.70	20.99	21.03	21.17	21.70	20.58	20.73	20.83	22.70	21.82	21.79	21.81
HSDPA Subtest-4	21.70	21.01	21.05	21.22	21.70	20.73	20.72	20.85	22.70	21.81	21.77	21.80
HSUPA Subtest-1	22.50	21.03	20.87	20.74	22.30	20.75	20.83	20.57	23.80	21.95	21.94	21.87
HSUPA Subtest-2	21.30	20.10	20.11	19.84	21.50	19.93	19.98	19.85	22.50	20.73	20.76	20.82
HSUPA Subtest-3	22.30	20.92	20.85	20.51	22.30	20.61	20.97	20.58	23.50	21.88	21.66	21.82
HSUPA Subtest-4	21.50	20.42	20.45	20.39	21.40	20.34	20.37	19.67	22.50	21.31	21.28	21.36
HSUPA Subtest-5	23.30	22.53	22.54	22.62	23.30	22.45	22.43	22.54	24.30	23.05	22.97	23.07
DC-HSDPA Subtest-1	23.00	22.10	22.12	22.25	23.00	22.15	22.13	22.23	24.00	22.95	22.90	22.92
DC-HSDPA Subtest-2	22.20	21.58	21.67	21.80	22.20	21.09	21.18	21.29	23.20	22.34	22.32	22.33
DC-HSDPA Subtest-3	21.70	20.99	21.03	21.17	21.70	20.58	20.73	20.83	22.70	21.82	21.79	21.81
DC-HSDPA Subtest-4	21.70	21.01	21.05	21.22	21.70	20.73	20.72	20.85	22.70	21.81	21.77	21.80

Second Antenna Receiver on:

Band	UMTS B2 Average Conducted Power(dBm)				UMTS B4 Average Conducted Power(dBm)				UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	9262	9400	9538	Max. Tune-up	1312	1413	1513	Max. Tune-up	4132	4182	4233
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6
AMR Voice	19.40	18.37	18.28	18.45	20.00	19.14	19.11	19.22	22.50	21.38	21.31	21.26
RMC 12.2K	19.40	**18.37**	**18.28**	**18.45**	20.00	**19.14**	**19.11**	**19.22**	22.50	**21.38**	**21.31**	**21.26**
RMC 64K	19.40	18.32	18.31	18.43	20.00	19.04	19.06	19.20	22.50	21.36	21.28	21.31
RMC 144K	19.40	18.35	18.29	18.41	20.00	19.08	19.07	19.23	22.50	21.41	21.32	21.25
RMC 384K	19.40	18.29	18.26	18.39	20.00	19.06	19.08	19.25	22.50	21.42	21.33	21.24
HSDPA Subtest-1	18.90	17.85	17.83	17.89	19.50	18.57	18.55	18.73	22.00	21.21	21.23	21.18
HSDPA Subtest-2	18.10	17.03	16.95	17.12	18.70	17.78	17.77	17.95	21.20	20.42	20.40	20.36
HSDPA Subtest-3	17.60	16.49	16.44	16.63	18.20	17.23	17.29	17.46	20.70	19.91	19.94	19.89
HSDPA Subtest-4	17.60	16.52	16.46	16.58	18.20	17.19	17.29	17.47	20.70	19.85	19.88	19.92
HSUPA Subtest-1	18.20	16.31	16.19	16.26	18.90	17.43	17.27	17.29	21.50	20.28	20.11	19.91
HSUPA Subtest-2	17.30	15.47	15.39	15.51	17.80	16.20	15.90	15.89	20.50	19.02	19.66	18.85
HSUPA Subtest-3	18.00	15.84	16.32	16.10	18.90	17.24	17.35	17.39	21.50	20.04	19.93	20.54
HSUPA Subtest-4	17.00	16.03	15.06	15.92	18.00	16.68	16.61	16.37	20.50	19.38	19.29	19.38
HSUPA Subtest-5	19.20	18.00	17.90	17.99	19.80	18.71	18.72	18.93	22.30	21.17	21.16	21.18
DC-HSDPA Subtest-1	18.90	17.85	17.83	17.89	19.50	18.57	18.55	18.73	22.00	21.21	21.23	21.18
DC-HSDPA Subtest-2	18.10	17.03	16.95	17.12	18.70	17.78	17.77	17.95	21.20	20.42	20.40	20.36
DC-HSDPA Subtest-3	17.60	16.49	16.44	16.63	18.20	17.23	17.29	17.46	20.70	19.91	19.94	19.89
DC-HSDPA Subtest-4	17.60	16.52	16.46	16.58	18.20	17.19	17.29	17.47	20.70	19.85	19.88	19.92

Second Antenna Receiver off:

Band	UMTS B2 Average Conducted Power(dBm)				UMTS B4 Average Conducted Power(dBm)				UMTS B5 Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up	9262	9400	9538	Max. Tune-up	1312	1413	1513	Max. Tune-up	4132	4182	4233
Frequency(MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6
AMR Voice	23.80	22.76	22.72	22.93	24.00	23.05	23.12	23.19	25.00	23.75	23.88	23.79
RMC 12.2K	23.80	**22.76**	**22.72**	**22.93**	24.00	**23.05**	**23.12**	**23.19**	25.00	**23.75**	**23.88**	**23.79**
RMC 64K	23.80	22.69	22.74	22.85	24.00	23.07	23.09	23.23	25.00	23.73	23.85	23.76
RMC 144K	23.80	22.78	22.77	22.91	24.00	23.09	23.12	23.28	25.00	23.86	23.87	23.75
RMC 384K	23.80	22.81	22.78	22.89	24.00	23.14	23.11	23.18	25.00	23.72	23.68	23.59
HSDPA Subtest-1	23.30	22.21	22.18	22.41	23.50	22.58	22.59	22.75	24.50	23.18	23.42	23.21
HSDPA Subtest-2	22.50	21.38	21.40	21.59	22.70	21.75	21.84	21.97	23.70	22.93	22.83	22.84
HSDPA Subtest-3	22.00	20.89	20.95	21.08	22.20	21.27	21.28	21.48	23.20	22.42	22.39	22.38
HSDPA Subtest-4	22.00	20.85	20.84	21.12	22.20	21.26	21.35	21.49	23.20	22.41	22.38	22.37
HSUPA Subtest-1	22.60	21.05	20.92	20.77	22.90	21.19	21.17	21.00	24.00	22.51	22.35	22.10
HSUPA Subtest-2	21.70	19.99	19.98	20.01	21.80	20.51	20.42	20.12	23.00	22.12	21.97	21.76
HSUPA Subtest-3	22.40	21.05	20.87	20.64	22.90	21.06	21.10	20.99	24.00	22.54	22.40	22.12
HSUPA Subtest-4	21.40	20.51	20.44	20.25	22.00	20.61	20.89	20.08	23.00	21.84	21.69	21.74
HSUPA Subtest-5	23.60	22.56	22.54	22.69	23.80	22.91	22.86	23.07	24.80	23.65	23.63	23.61
DC-HSDPA Subtest-1	23.30	22.21	22.18	22.41	23.50	22.58	22.59	22.75	24.50	23.18	23.42	23.21
DC-HSDPA Subtest-2	22.50	21.38	21.40	21.59	22.70	21.75	21.84	21.97	23.70	22.93	22.83	22.84
DC-HSDPA Subtest-3	22.00	20.89	20.95	21.08	22.20	21.27	21.28	21.48	23.20	22.42	22.39	22.38
DC-HSDPA Subtest-4	22.00	20.85	20.84	21.12	22.20	21.26	21.35	21.49	23.20	22.41	22.38	22.37

Second Antenna Receiver on and WIFI 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	18.90	18.15	18.10	18.14
RMC 12.2K	18.90	18.15	18.10	18.14
RMC 64K	18.90	18.17	18.08	18.11
RMC 144K	18.90	18.16	18.11	18.15
RMC 384K	18.90	18.17	18.11	18.10
HSDPA Subtest-1	18.40	17.63	17.60	17.67
HSDPA Subtest-2	17.60	16.91	16.77	16.84
HSDPA Subtest-3	17.10	16.40	16.31	16.32
HSDPA Subtest-4	17.10	16.43	16.28	16.36
HSUPA Subtest-1	17.70	16.22	16.61	16.33
HSUPA Subtest-2	16.80	15.59	15.39	15.47
HSUPA Subtest-3	17.50	16.50	16.46	16.16
HSUPA Subtest-4	16.50	15.87	15.94	15.78
HSUPA Subtest-5	18.70	18.04	17.86	17.99
DC-HSDPA Subtest-1	18.40	17.63	17.60	17.67
DC-HSDPA Subtest-2	17.60	16.91	16.77	16.84
DC-HSDPA Subtest-3	17.10	16.40	16.31	16.32
DC-HSDPA Subtest-4	17.10	16.43	16.28	16.36

Second Antenna Receiver off and WIFI 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	23.30	22.16	22.06	22.11
RMC 12.2K	23.30	22.16	22.06	22.11
RMC 64K	23.30	22.60	22.59	22.69
RMC 144K	23.30	22.52	22.51	22.64
RMC 384K	23.30	22.60	22.53	22.72
HSDPA Subtest-1	22.80	21.77	21.70	21.74
HSDPA Subtest-2	22.00	21.13	21.03	21.14
HSDPA Subtest-3	21.50	20.54	20.45	20.62
HSDPA Subtest-4	21.50	20.58	20.47	20.60
HSUPA Subtest-1	22.10	21.04	20.77	20.56
HSUPA Subtest-2	21.20	19.86	19.82	19.54
HSUPA Subtest-3	21.90	20.84	20.66	20.37
HSUPA Subtest-4	20.90	20.31	19.36	19.52
HSUPA Subtest-5	23.10	22.34	22.24	22.38
DC-HSDPA Subtest-1	22.80	21.77	21.70	21.74
DC-HSDPA Subtest-2	22.00	21.13	21.03	21.14
DC-HSDPA Subtest-3	21.50	20.54	20.45	20.62
DC-HSDPA Subtest-4	21.50	20.58	20.47	20.60

Note:
1) The conducted power of UMTS 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 channel results are marks in bold.

8.1.3 CONDUCTED POWER MEASUREMENTS OF LTE

1. Conducted power measurements 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	23.80	22.84	22.75	22.67	QPSK	1/0	23.80	22.79	22.57	22.48
	1/2	23.80	22.23	22.57	22.42		1/7	23.80	22.55	22.05	22.32
	1/5	23.80	22.64	22.75	22.39		1/14	23.80	22.57	22.70	22.38
	3/0	23.80	22.62	22.60	22.61		8/0	22.80	21.43	21.46	21.31
	3/1	23.80	22.22	22.34	22.19		8/3	22.80	21.47	21.45	21.33
	3/3	23.80	22.25	22.45	22.20		8/7	22.80	21.43	21.45	21.19
	6/0	22.80	21.42	21.43	21.44		15/0	22.80	21.42	21.48	21.38
16QAM	1/0	23.00	21.81	21.92	21.71	16QAM	1/0	23.00	21.78	21.75	21.63
	1/2	23.00	21.77	21.66	21.17		1/7	23.00	21.50	21.27	21.58
	1/5	23.00	21.79	21.90	21.48		1/14	23.00	21.68	21.90	21.69
	3/0	23.00	21.67	21.67	21.52		8/0	22.00	20.56	20.50	20.50
	3/1	23.00	21.48	21.45	21.33		8/3	22.00	20.60	20.53	20.25
	3/3	23.00	21.35	21.77	21.25		8/7	22.00	20.57	20.50	20.37
	6/0	22.00	20.55	20.57	20.38		15/0	22.00	20.53	20.50	20.35
64QAM	1/0	22.00	20.53	20.48	20.36	64QAM	1/0	22.00	20.47	20.43	20.38
	1/2	22.00	20.45	20.44	20.27		1/7	22.00	20.44	20.41	20.38
	1/5	22.00	20.37	20.34	20.29		1/14	22.00	20.51	20.37	20.45
	3/0	22.00	20.36	20.51	20.37		8/0	21.00	19.59	19.62	19.49
	3/1	22.00	20.28	20.47	20.33		8/3	21.00	19.52	19.56	19.59
	3/3	22.00	20.43	20.41	20.36		8/7	21.00	19.47	19.63	19.37
	6/0	21.00	19.58	19.52	19.48		15/0	21.00	19.44	19.52	19.41

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	23.80	22.62	22.81	22.70	QPSK	1/0	23.80	22.72	22.69	22.69
	1/12	23.80	22.63	22.79	22.78		1/24	23.80	22.42	22.16	22.38
	1/24	23.80	22.57	22.78	22.35		1/49	23.80	22.58	22.73	22.56
	12/0	22.80	21.38	21.69	21.60		25/0	22.80	21.46	21.62	21.50
	12/6	22.80	21.41	21.63	21.40		25/12	22.80	21.46	21.54	21.43
	12/13	22.80	21.39	21.64	21.43		25/25	22.80	21.47	21.48	21.32
	25/0	22.80	21.31	21.64	21.38		50/0	22.80	21.45	21.48	21.48
16QAM	1/0	23.00	21.85	21.88	21.90	16QAM	1/0	23.00	21.63	21.71	21.74
	1/12	23.00	21.83	21.82	21.89		1/24	23.00	21.34	21.18	21.31
	1/24	23.00	21.68	21.80	21.81		1/49	23.00	21.75	21.74	21.68
	12/0	22.00	20.51	20.63	20.40		25/0	22.00	20.51	20.65	20.31
	12/6	22.00	20.38	20.49	20.40		25/12	22.00	20.54	20.61	20.30
	12/13	22.00	20.48	20.59	20.25		25/25	22.00	20.52	20.57	20.30
	25/0	22.00	20.40	20.60	20.45		50/0	22.00	20.50	20.58	20.37
64QAM	1/0	22.00	20.37	20.52	20.41	64QAM	1/0	22.00	20.48	20.53	20.36
	1/12	22.00	20.33	20.48	20.39		1/24	22.00	20.51	20.44	20.42
	1/24	22.00	20.43	20.45	20.37		1/49	22.00	20.61	20.47	20.49
	12/0	21.00	19.58	19.53	19.66		25/0	21.00	19.53	19.51	19.43
	12/6	21.00	19.59	19.61	19.55		25/12	21.00	19.39	19.48	19.46
	12/13	21.00	19.49	19.54	19.59		25/25	21.00	19.44	19.41	19.40
	25/0	21.00	19.64	19.61	19.52		50/0	21.00	19.65	19.58	19.45

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	23.80	22.73	22.68	22.83	QPSK	1/0	23.80	**22.84**	**22.94**	**22.85**
	1/37	23.80	22.66	22.35	22.68		1/50	23.80	22.36	22.57	22.38
	1/74	23.80	22.61	22.60	22.51		1/99	23.80	22.78	22.81	22.62
	36/0	22.80	21.55	21.50	21.57		50/0	22.80	21.63	**21.65**	21.57
	36/19	22.80	21.56	21.60	21.54		50/25	22.80	21.47	21.63	21.57
	36/39	22.80	21.51	21.52	21.51		50/50	22.80	21.47	21.61	21.34
	75/0	22.80	21.59	21.62	21.49		100/0	22.80	21.46	21.62	21.53
16QAM	1/0	23.00	21.88	21.71	21.93	16QAM	1/0	23.00	21.95	21.88	22.00
	1/37	23.00	21.81	21.69	21.85		1/50	23.00	21.47	21.39	21.55
	1/74	23.00	21.74	21.63	21.60		1/99	23.00	21.98	21.88	21.83
	36/0	22.00	20.47	21.63	20.51		50/0	22.00	20.53	20.58	20.55
	36/19	22.00	20.54	20.58	20.41		50/25	22.00	20.39	20.59	20.56
	36/39	22.00	20.42	20.55	20.47		50/50	22.00	20.39	20.57	20.31
	75/0	22.00	20.58	20.57	20.45		100/0	22.00	20.48	20.62	20.54
64QAM	1/0	22.00	20.53	20.51	20.42	64QAM	1/0	22.00	20.44	20.58	20.49
	1/37	22.00	20.49	20.44	20.39		1/50	22.00	20.49	20.51	20.48
	1/74	22.00	20.44	20.48	20.46		1/99	22.00	20.55	20.53	20.47
	36/0	21.00	19.66	19.63	19.67		50/0	21.00	19.61	19.65	19.72
	36/19	21.00	19.62	19.58	19.68		50/25	21.00	19.64	19.66	19.58
	36/39	21.00	19.65	19.52	19.63		50/50	21.00	19.59	19.63	19.57
	75/0	21.00	19.59	19.55	19.61		100/0	21.00	19.55	19.53	19.49

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	22.80	21.69	21.77	21.58	QPSK	1/0	22.80	21.73	21.67	21.78
	1/2	22.80	21.48	21.83	21.41		1/7	22.80	21.21	21.06	21.31
	1/5	22.80	21.67	21.78	21.55		1/14	22.80	21.77	21.67	21.36
	3/0	22.80	21.70	21.75	21.45		8/0	22.80	21.60	21.45	21.40
	3/1	22.80	21.57	21.38	21.26		8/3	22.80	21.54	21.53	21.42
	3/3	22.80	21.39	21.68	21.33		8/7	22.80	21.56	21.51	21.32
	6/0	22.80	21.52	21.54	21.24		15/0	22.80	21.53	21.59	21.39
16QAM	1/0	22.80	21.72	21.93	21.80	16QAM	1/0	22.80	21.77	21.74	21.83
	1/2	22.80	21.33	21.77	21.84		1/7	22.80	21.38	21.59	21.28
	1/5	22.80	21.64	21.92	21.51		1/14	22.80	21.76	21.85	21.46
	3/0	22.80	21.58	21.74	21.51		8/0	21.80	20.55	20.58	20.39
	3/1	22.80	21.55	21.56	21.35		8/3	21.80	20.57	20.49	20.28
	3/3	22.80	21.50	21.47	21.27		8/7	21.80	20.50	20.67	20.46
	6/0	21.80	20.69	20.53	20.32		15/0	21.80	20.59	20.57	20.33
64QAM	1/0	21.80	20.44	20.44	20.38	64QAM	1/0	21.80	20.43	20.47	20.32
	1/2	21.80	20.41	20.42	20.26		1/7	21.80	20.46	20.49	20.32
	1/5	21.80	20.36	20.32	20.22		1/14	21.80	20.59	20.33	20.45
	3/0	21.80	20.38	20.48	20.36		8/0	20.80	19.51	19.68	19.41
	3/1	21.80	20.24	20.46	20.34		8/3	20.80	19.58	19.54	19.51
	3/3	21.80	20.44	20.38	20.38		8/7	20.80	19.43	19.67	19.33
	6/0	20.80	19.54	19.56	19.44		15/0	20.80	19.46	19.58	19.49

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	22.80	21.68	21.75	21.62	QPSK	1/0	22.80	21.57	21.68	21.58
	1/12	22.80	21.68	21.73	21.52		1/24	22.80	21.23	21.38	21.35
	1/24	22.80	21.67	21.71	21.38		1/49	22.80	21.54	21.61	21.50
	12/0	22.80	21.57	21.71	21.59		25/0	22.80	21.43	21.61	21.52
	12/6	22.80	21.58	21.55	21.38		25/12	22.80	21.44	21.53	21.36
	12/13	22.80	21.58	21.59	21.51		25/25	22.80	21.44	21.47	21.32
	25/0	22.80	21.55	21.56	21.36		50/0	22.80	21.47	21.55	21.40
16QAM	1/0	22.80	21.87	21.65	21.57	16QAM	1/0	22.80	21.80	21.47	21.68
	1/12	22.80	21.88	21.69	21.58		1/24	22.80	21.31	21.20	21.47
	1/24	22.80	21.91	21.56	21.22		1/49	22.80	21.61	21.58	21.36
	12/0	21.80	20.62	20.71	20.50		25/0	21.80	20.52	20.65	20.40
	12/6	21.80	20.58	20.55	20.39		25/12	21.80	20.52	20.53	20.39
	12/13	21.80	20.58	20.55	20.52		25/25	21.80	20.63	20.50	20.36
	25/0	21.80	20.54	20.57	20.50		50/0	21.80	20.58	20.51	20.41
64QAM	1/0	21.80	20.39	20.54	20.37	64QAM	1/0	21.80	20.46	20.58	20.36
	1/12	21.80	20.31	20.46	20.33		1/24	21.80	20.46	20.44	20.42
	1/24	21.80	20.41	20.45	20.39		1/49	21.80	20.56	20.42	20.44
	12/0	20.80	19.56	19.51	19.62		25/0	20.80	19.58	19.56	19.48
	12/6	20.80	19.63	19.67	19.55		25/12	20.80	19.44	19.58	19.46
	12/13	20.80	19.53	19.58	19.63		25/25	20.80	19.44	19.46	19.44
	25/0	20.80	19.68	19.67	19.54		50/0	20.80	19.64	19.58	19.42

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	22.80	21.55	21.70	21.65	QPSK	1/0	22.80	21.87	**21.89**	21.76
	1/37	22.80	21.67	21.63	21.52		1/50	22.80	21.23	21.62	21.39
	1/74	22.80	21.61	21.53	21.46		1/99	22.80	21.80	21.76	21.68
	36/0	22.80	21.50	21.43	21.55		50/0	22.80	**21.58**	**21.64**	**21.63**
	36/19	22.80	21.45	21.56	21.44		50/25	22.80	21.51	21.54	21.62
	36/39	22.80	21.40	21.50	21.50		50/50	22.80	21.52	21.61	21.35
	75/0	22.80	21.51	21.59	21.55		100/0	22.80	21.52	21.56	21.64
16QAM	1/0	22.80	21.68	21.71	21.92	16QAM	1/0	22.80	21.81	21.73	21.96
	1/37	22.80	21.71	21.73	21.86		1/50	22.80	21.26	21.18	21.16
	1/74	22.80	21.58	21.61	21.64		1/99	22.80	21.78	21.72	21.75
	36/0	21.80	20.50	21.71	20.51		50/0	21.80	20.46	20.62	20.54
	36/19	21.80	20.57	20.51	20.43		50/25	21.80	20.42	20.63	20.54
	36/39	21.80	20.48	20.49	20.46		50/50	21.80	20.62	20.63	20.39
	75/0	21.80	20.60	20.59	20.43		100/0	21.80	20.62	20.65	20.55
64QAM	1/0	21.80	20.55	20.45	20.39	64QAM	1/0	21.80	20.46	20.52	20.41
	1/37	21.80	20.45	20.48	20.35		1/50	21.80	20.41	20.49	20.46
	1/74	21.80	20.48	20.46	20.47		1/99	21.80	20.55	20.57	20.43
	36/0	20.80	19.67	19.65	19.65		50/0	20.80	19.69	19.65	19.78
	36/19	20.80	19.69	19.61	19.69		50/25	20.80	19.66	19.64	19.52
	36/39	20.80	19.65	19.54	19.65		50/50	20.80	19.51	19.67	19.53
	75/0	20.80	19.65	19.55	19.65		100/0	20.80	19.55	19.57	19.41

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	19.70	18.72	18.61	18.39	QPSK	1/0	19.70	18.69	18.77	18.61
	1/2	19.70	18.43	18.44	18.19		1/7	19.70	17.89	18.07	18.36
	1/5	19.70	18.61	18.58	18.36		1/14	19.70	18.64	18.61	18.44
	3/0	19.70	18.69	18.57	18.26		8/0	19.70	18.59	18.60	18.59
	3/1	19.70	18.47	18.42	18.03		8/3	19.70	18.57	18.62	18.51
	3/3	19.70	18.29	18.38	17.95		8/7	19.70	18.50	18.61	18.43
	6/0	19.70	18.58	18.58	18.20		15/0	19.70	18.66	18.62	18.44
16QAM	1/0	19.70	18.82	18.81	18.51	16QAM	1/0	19.70	18.80	18.77	18.72
	1/2	19.70	18.54	18.73	18.68		1/7	19.70	18.19	18.60	18.24
	1/5	19.70	18.66	18.81	18.55		1/14	19.70	18.69	18.74	18.62
	3/0	19.70	18.63	18.69	18.31		8/0	19.70	18.57	18.55	18.28
	3/1	19.70	18.35	18.57	18.16		8/3	19.70	18.54	18.53	18.26
	3/3	19.70	18.21	18.67	18.26		8/7	19.70	18.58	18.56	18.26
	6/0	19.70	18.56	18.44	18.17		15/0	19.70	18.59	18.55	18.40
64QAM	1/0	19.70	18.50	18.47	18.11	64QAM	1/0	19.70	18.57	18.59	18.45
	1/2	19.70	18.42	18.38	18.17		1/7	19.70	18.56	18.51	18.43
	1/5	19.70	18.35	18.34	18.22		1/14	19.70	18.48	18.47	18.39
	3/0	19.70	18.39	18.22	18.25		8/0	19.70	18.64	18.63	18.58
	3/1	19.70	18.29	18.34	18.28		8/3	19.70	18.55	18.44	18.48
	3/3	19.70	18.01	18.09	18.33		8/7	19.70	18.46	18.56	18.59
	6/0	19.70	18.45	18.32	18.55		15/0	19.70	18.45	18.48	18.39

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	19.70	18.83	18.68	18.64	QPSK	1/0	19.70	18.68	18.55	18.58
	1/12	19.70	18.71	18.73	18.59		1/24	19.70	18.40	18.15	18.15
	1/24	19.70	18.61	18.65	18.50		1/49	19.70	18.50	18.59	18.35
	12/0	19.70	18.70	18.74	18.57		25/0	19.70	18.60	18.71	18.53
	12/6	19.70	18.62	18.72	18.38		25/12	19.70	18.53	18.62	18.44
	12/13	19.70	18.65	18.71	18.50		25/25	19.70	18.57	18.62	18.49
	25/0	19.70	18.60	18.65	18.53		50/0	19.70	18.59	18.68	18.44
16QAM	1/0	19.70	18.81	18.98	18.85	16QAM	1/0	19.70	18.65	18.69	18.71
	1/12	19.70	18.81	18.97	18.82		1/24	19.70	18.30	18.44	18.44
	1/24	19.70	18.71	18.89	18.69		1/49	19.70	18.69	18.65	18.67
	12/0	19.70	18.60	18.65	18.45		25/0	19.70	18.56	18.55	18.36
	12/6	19.70	18.51	18.53	18.28		25/12	19.70	18.56	18.46	18.25
	12/13	19.70	18.52	18.54	18.27		25/25	19.70	18.54	18.40	18.38
	25/0	19.70	18.50	18.54	18.45		50/0	19.70	18.50	18.42	18.32
64QAM	1/0	19.70	18.43	18.54	18.24	64QAM	1/0	19.70	18.55	18.45	18.27
	1/12	19.70	18.45	18.51	18.44		1/24	19.70	18.32	18.48	18.19
	1/24	19.70	18.52	18.51	18.33		1/49	19.70	18.12	18.35	18.33
	12/0	19.70	18.56	18.57	18.60		25/0	19.70	18.47	18.55	18.51
	12/6	19.70	18.47	18.55	18.59		25/12	19.70	18.43	18.32	18.39
	12/13	19.70	18.48	18.46	18.54		25/25	19.70	18.34	18.36	18.22
	25/0	19.70	18.46	18.48	18.32		50/0	19.70	18.35	18.39	18.24

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	19.70	18.71	18.75	18.56	QPSK	1/0	19.70	**18.95**	**18.99**	**18.76**
	1/37	19.70	18.78	18.84	18.58		1/50	19.70	18.48	18.68	18.35
	1/74	19.70	18.60	18.58	18.37		1/99	19.70	18.77	18.85	18.57
	36/0	19.70	18.77	18.58	18.65		50/0	19.70	18.73	**18.78**	18.58
	36/19	19.70	18.65	18.70	18.61		50/25	19.70	18.71	18.77	18.59
	36/39	19.70	18.73	18.54	18.44		50/50	19.70	18.63	18.68	18.50
	75/0	19.70	18.78	18.75	18.55		100/0	19.70	18.72	18.70	18.53
16QAM	1/0	19.70	18.84	18.86	18.71	16QAM	1/0	19.70	19.04	19.11	18.82
	1/37	19.70	18.92	18.88	18.67		1/50	19.70	18.54	18.37	18.44
	1/74	19.70	18.67	18.74	18.45		1/99	19.70	18.88	19.01	18.66
	36/0	19.70	18.59	18.74	18.45		50/0	19.70	18.46	18.53	18.35
	36/19	19.70	18.49	18.60	18.38		50/25	19.70	18.50	18.49	18.35
	36/39	19.70	18.52	18.45	18.29		50/50	19.70	18.37	18.50	18.27
	75/0	19.70	18.50	18.54	18.35		100/0	19.70	18.48	18.50	18.29
64QAM	1/0	19.70	18.45	18.22	18.23	64QAM	1/0	19.70	18.36	18.43	18.26
	1/37	19.70	18.37	18.45	18.21		1/50	19.70	18.32	18.41	18.34
	1/74	19.70	18.27	18.34	18.12		1/99	19.70	18.38	18.29	18.24
	36/0	19.70	18.36	18.49	18.39		50/0	19.70	18.48	18.46	18.54
	36/19	19.70	18.35	18.24	18.14		50/25	19.70	18.49	18.45	18.42
	36/39	19.70	18.26	18.23	18.24		50/50	19.70	18.38	18.34	18.27
	75/0	19.70	18.21	18.12	18.19		100/0	19.70	18.27	18.16	18.12

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	24.00	23.05	22.95	22.54	QPSK	1/0	24.00	23.07	22.79	22.73
	1/2	24.00	23.07	22.73	22.23		1/7	24.00	22.30	22.69	22.60
	1/5	24.00	23.00	22.78	22.43		1/14	24.00	22.83	22.80	22.40
	3/0	24.00	22.82	22.76	22.30		8/0	23.00	21.91	21.75	21.61
	3/1	24.00	22.78	22.80	22.37		8/3	23.00	21.80	21.69	21.58
	3/3	24.00	22.49	22.70	22.28		8/7	23.00	21.87	21.72	21.45
	6/0	23.00	21.70	21.74	21.39		15/0	23.00	21.98	21.79	21.58
16QAM	1/0	23.20	22.04	22.07	21.50	16QAM	1/0	23.20	22.00	22.03	22.07
	1/2	23.20	21.80	22.28	21.58		1/7	23.20	21.73	21.61	21.20
	1/5	23.20	21.93	22.07	21.45		1/14	23.20	21.96	22.13	21.63
	3/0	23.20	21.80	21.68	21.50		8/0	22.20	21.03	20.71	20.54
	3/1	23.20	21.57	21.63	21.41		8/3	22.20	20.81	20.80	20.58
	3/3	23.20	21.46	21.67	21.44		8/7	22.20	20.86	20.67	20.54
	6/0	22.20	20.68	20.52	20.24		15/0	22.20	20.95	20.79	20.53
64QAM	1/0	22.20	20.62	20.57	20.31	64QAM	1/0	22.20	20.79	20.83	20.65
	1/2	22.20	20.55	20.48	20.27		1/7	22.20	20.82	20.77	20.71
	1/5	22.20	20.45	20.44	20.32		1/14	22.20	20.66	20.69	20.63
	3/0	22.20	20.49	20.52	20.35		8/0	21.20	19.88	19.91	19.76
	3/1	22.20	20.39	20.44	20.38		8/3	21.20	19.75	19.68	19.66
	3/3	22.20	20.21	20.39	20.43		8/7	21.20	19.72	19.82	19.83
	6/0	21.20	19.55	19.62	19.65		15/0	21.20	19.65	19.66	19.63

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	22.92	22.83	22.54	QPSK	1/0	24.00	22.98	22.77	22.75
	1/12	24.00	22.98	22.77	22.49		1/24	24.00	22.64	22.41	22.23
	1/24	24.00	22.91	22.69	22.33		1/49	24.00	22.75	22.79	22.32
	12/0	23.00	21.88	21.88	21.60		25/0	23.00	21.92	21.82	21.61
	12/6	23.00	21.82	21.79	21.40		25/12	23.00	21.90	21.67	21.48
	12/13	23.00	21.71	21.80	21.36		25/25	23.00	21.84	21.63	21.42
	25/0	23.00	21.82	21.83	21.61		50/0	23.00	21.89	21.75	21.58
16QAM	1/0	23.20	21.96	22.12	21.83	16QAM	1/0	23.20	22.01	21.88	22.02
	1/12	23.20	21.94	22.10	21.86		1/24	23.20	21.54	21.55	21.57
	1/24	23.20	21.89	21.99	21.68		1/49	23.20	21.93	21.85	21.77
	12/0	22.20	20.85	20.91	20.65		25/0	22.20	20.78	20.78	20.39
	12/6	22.20	20.77	20.77	20.44		25/12	22.20	20.76	20.73	20.40
	12/13	22.20	20.79	20.85	20.42		25/25	22.20	20.74	20.68	20.44
	25/0	22.20	20.73	20.82	20.48		50/0	22.20	20.78	20.72	20.45
64QAM	1/0	22.20	20.68	20.79	20.53	64QAM	1/0	22.20	20.75	20.65	20.49
	1/12	22.20	20.65	20.77	20.59		1/24	22.20	20.64	20.66	20.43
	1/24	22.20	20.72	20.68	20.61		1/49	22.20	20.44	20.55	20.61
	12/0	21.20	19.82	19.79	19.85		25/0	21.20	19.69	19.75	19.77
	12/6	21.20	19.69	19.75	19.83		25/12	21.20	19.71	19.64	19.63
	12/13	21.20	19.66	19.72	19.78		25/25	21.20	19.58	19.62	19.54
	25/0	21.20	19.72	19.66	19.64		50/0	21.20	19.55	19.63	19.48

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	23.03	22.61	22.70	QPSK	1/0	24.00	**22.97**	**23.06**	**22.99**
	1/37	24.00	22.88	22.71	22.50		1/50	24.00	22.42	22.08	22.36
	1/74	24.00	22.71	22.60	22.25		1/99	24.00	22.97	22.83	22.79
	36/0	23.00	21.74	22.60	21.77		50/0	23.00	21.86	**21.88**	21.84
	36/19	23.00	21.75	21.82	21.61		50/25	23.00	21.70	21.77	21.54
	36/39	23.00	21.76	21.61	21.47		50/50	23.00	21.76	21.78	21.44
	75/0	23.00	21.69	21.79	21.57		100/0	23.00	21.73	21.77	21.58
16QAM	1/0	23.20	22.01	21.94	22.01	16QAM	1/0	23.20	22.25	21.99	22.01
	1/37	23.20	22.01	22.01	21.84		1/50	23.20	21.72	21.28	21.56
	1/74	23.20	21.84	21.85	21.59		1/99	23.20	22.08	22.03	21.79
	36/0	22.20	20.77	21.85	20.60		50/0	22.20	20.89	20.69	20.71
	36/19	22.20	20.69	20.80	20.51		50/25	22.20	20.69	20.78	20.66
	36/39	22.20	20.71	20.60	20.38		50/50	22.20	20.66	20.75	20.49
	75/0	22.20	20.68	20.73	20.54		100/0	22.20	20.67	20.76	20.59
64QAM	1/0	22.20	20.65	20.54	20.51	64QAM	1/0	22.20	20.62	20.71	20.52
	1/37	22.20	20.59	20.65	20.47		1/50	22.20	20.64	20.66	20.60
	1/74	22.20	20.49	20.58	20.44		1/99	22.20	20.56	20.53	20.47
	36/0	21.20	19.62	19.73	19.63		50/0	21.20	19.66	19.72	19.78
	36/19	21.20	19.55	19.48	19.38		50/25	21.20	19.73	19.65	19.72
	36/39	21.20	19.52	19.51	19.48		50/50	21.20	19.58	19.55	19.54
	75/0	21.20	19.47	19.44	19.43		100/0	21.20	19.49	19.42	19.44

Second Antenna Receiver on and WIFI 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	19.20	18.68	18.31	17.96	QPSK	1/0	19.20	18.83	18.24	18.15
	1/2	19.20	17.86	18.20	17.77		1/7	19.20	17.20	17.99	17.48
	1/5	19.20	18.14	18.17	17.94		1/14	19.20	18.13	18.16	17.83
	3/0	19.20	18.18	18.12	17.78		8/0	19.20	17.99	18.04	17.75
	3/1	19.20	17.96	17.96	17.58		8/3	19.20	18.09	18.11	17.82
	3/3	19.20	17.91	18.09	17.37		8/7	19.20	18.13	18.12	17.88
	6/0	19.20	18.21	18.11	17.79		15/0	19.20	18.10	18.19	17.98
16QAM	1/0	19.20	18.42	18.30	18.27	16QAM	1/0	19.20	18.47	18.40	18.24
	1/2	19.20	18.13	17.98	18.08		1/7	19.20	17.88	17.97	17.67
	1/5	19.20	18.33	18.38	18.15		1/14	19.20	18.31	18.35	18.01
	3/0	19.20	18.29	18.14	18.02		8/0	19.20	18.10	18.06	18.07
	3/1	19.20	17.83	18.20	18.00		8/3	19.20	18.09	18.03	17.80
	3/3	19.20	18.26	18.18	17.72		8/7	19.20	18.15	18.14	17.92
	6/0	19.20	18.17	17.95	17.88		15/0	19.20	18.15	18.14	18.00
64QAM	1/0	19.20	17.91	17.93	17.68	64QAM	1/0	19.20	17.95	17.85	17.79
	1/2	19.20	17.95	17.97	17.88		1/7	19.20	17.74	17.96	17.63
	1/5	19.20	17.94	17.97	17.81		1/14	19.20	17.54	17.75	17.71
	3/0	19.20	18.02	18.09	18.04		8/0	19.20	17.99	17.95	17.97
	3/1	19.20	17.95	17.95	18.03		8/3	19.20	17.81	17.74	17.83
	3/3	19.20	17.96	17.96	17.98		8/7	19.20	17.78	17.82	17.64
	6/0	19.20	17.92	17.96	17.80		15/0	19.20	17.75	17.83	17.68

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	19.20	18.23	18.21	18.02	QPSK	1/0	19.20	18.45	18.07	18.13
	1/12	19.20	18.18	18.18	17.95		1/24	19.20	17.88	17.68	17.84
	1/24	19.20	18.07	18.16	17.93		1/49	19.20	18.12	18.06	17.89
	12/0	19.20	18.15	18.21	18.03		25/0	19.20	18.20	18.10	17.95
	12/6	19.20	18.10	18.12	17.83		25/12	19.20	18.23	18.09	18.02
	12/13	19.20	18.07	18.13	17.97		25/25	19.20	18.18	18.05	17.88
	25/0	19.20	18.11	18.14	17.98		50/0	19.20	18.23	18.05	18.01
16QAM	1/0	19.20	18.63	18.51	18.51	16QAM	1/0	19.20	18.49	18.26	18.12
	1/12	19.20	18.52	18.51	18.47		1/24	19.20	18.12	17.78	17.91
	1/24	19.20	18.47	18.51	18.28		1/49	19.20	18.38	18.24	17.97
	12/0	19.20	18.18	18.22	18.09		25/0	19.20	18.02	18.13	17.91
	12/6	19.20	18.12	18.15	17.88		25/12	19.20	18.02	18.07	18.02
	12/13	19.20	18.11	18.14	17.98		25/25	19.20	18.08	18.01	17.88
	25/0	19.20	18.01	18.12	17.98		50/0	19.20	18.15	17.98	17.95
64QAM	1/0	19.20	17.85	17.64	17.68	64QAM	1/0	19.20	18.09	18.03	17.85
	1/12	19.20	17.89	17.85	17.67		1/24	19.20	18.02	17.97	17.81
	1/24	19.20	17.79	17.89	17.64		1/49	19.20	17.96	17.99	17.83
	12/0	19.20	17.92	17.93	17.83		25/0	19.20	18.08	18.01	18.06
	12/6	19.20	17.95	17.92	17.58		25/12	19.20	17.95	17.88	17.96
	12/13	19.20	17.72	17.83	17.69		25/25	19.20	17.92	18.02	18.03
	25/0	19.20	17.67	17.64	17.64		50/0	19.20	17.85	17.96	17.83

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	19.20	18.41	18.07	18.04	QPSK	1/0	19.20	18.33	18.31	18.18
	1/37	19.20	18.25	18.27	17.95		1/50	19.20	17.82	18.11	17.88
	1/74	19.20	18.05	18.10	17.85		1/99	19.20	18.23	18.26	18.08
	36/0	19.20	18.22	18.10	18.04		50/0	19.20	18.21	18.17	18.05
	36/19	19.20	18.10	18.21	17.94		50/25	19.20	18.07	18.16	17.96
	36/39	19.20	18.05	18.09	17.87		50/50	19.20	18.11	18.14	17.99
	75/0	19.20	18.16	18.16	18.00		100/0	19.20	18.18	18.17	18.02
16QAM	1/0	19.20	18.46	18.37	18.24	16QAM	1/0	19.20	18.69	18.50	18.54
	1/37	19.20	18.39	18.48	18.21		1/50	19.20	18.30	18.07	18.10
	1/74	19.20	18.24	18.21	18.05		1/99	19.20	18.59	18.47	18.42
	36/0	19.20	18.12	18.21	18.09		50/0	19.20	18.19	18.15	18.03
	36/19	19.20	18.09	18.10	17.93		50/25	19.20	18.02	18.13	18.07
	36/39	19.20	18.13	17.99	17.85		50/50	19.20	18.07	18.10	18.01
	75/0	19.20	18.10	18.14	17.97		100/0	19.20	18.13	18.13	17.99
64QAM	1/0	19.20	17.95	17.99	17.67	64QAM	1/0	19.20	17.92	17.87	17.72
	1/37	19.20	17.84	17.86	17.69		1/50	19.20	17.77	17.87	17.98
	1/74	19.20	17.75	17.78	17.64		1/99	19.20	17.86	17.74	17.68
	36/0	19.20	17.83	17.64	17.75		50/0	19.20	17.92	17.92	17.85
	36/19	19.20	17.73	17.78	17.76		50/25	19.20	17.95	17.85	17.84
	36/39	19.20	17.47	17.53	17.71		50/50	19.20	17.86	17.88	17.79
	75/0	19.20	17.65	17.74	17.93		100/0	19.20	17.79	17.62	17.64

Second Antenna Receiver off and WIFI 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	23.50	22.43	22.40	22.07	QPSK	1/0	23.50	23.01	22.26	22.26
	1/2	23.50	22.08	22.24	21.92		1/7	23.50	22.60	22.16	21.76
	1/5	23.50	22.42	22.37	22.03		1/14	23.50	22.30	22.17	22.11
	3/0	23.50	22.48	22.35	21.90		8/0	23.00	21.79	21.65	21.54
	3/1	23.50	22.30	22.14	21.80		8/3	23.00	21.99	21.77	21.42
	3/3	23.50	22.23	22.21	21.68		8/7	23.00	21.87	21.77	21.55
	6/0	23.00	21.72	21.71	21.26		15/0	23.00	21.83	21.80	21.63
16QAM	1/0	23.00	22.11	22.05	21.77	16QAM	1/0	23.00	22.07	22.00	21.95
	1/2	23.00	22.13	21.78	21.57		1/7	23.00	21.26	21.75	21.58
	1/5	23.00	22.07	22.11	21.63		1/14	23.00	22.03	22.12	21.74
	3/0	23.00	21.87	21.80	21.50		8/0	22.00	20.80	20.83	20.37
	3/1	23.00	21.76	21.75	21.27		8/3	22.00	20.95	20.78	20.39
	3/3	23.00	21.66	21.83	21.43		8/7	22.00	20.98	20.82	20.40
	6/0	22.00	20.86	20.58	20.49		15/0	22.00	20.78	20.83	20.40
64QAM	1/0	22.00	20.68	20.61	20.36	64QAM	1/0	22.00	20.79	20.87	20.69
	1/2	22.00	20.54	20.55	20.37		1/7	22.00	20.78	20.73	20.69
	1/5	22.00	20.45	20.45	20.36		1/14	22.00	20.64	20.69	20.60
	3/0	22.00	20.55	20.54	20.36		8/0	21.00	19.82	19.89	19.74
	3/1	22.00	20.46	20.45	20.46		8/3	21.00	19.75	19.62	19.64
	3/3	22.00	20.27	20.46	20.45		8/7	21.00	19.78	19.88	19.87
	6/0	21.00	19.64	19.63	19.73		15/0	21.00	19.65	19.64	19.67

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	22.92	22.25	22.08	QPSK	1/0	23.50	22.50	22.23	22.58
	1/12	23.50	22.92	22.20	22.13		1/24	23.50	22.07	22.41	22.29
	1/24	23.50	22.83	22.15	21.96		1/49	23.50	22.35	22.78	22.34
	12/0	23.00	21.79	21.90	21.56		25/0	23.00	21.79	21.86	21.63
	12/6	23.00	21.76	21.72	21.47		25/12	23.00	21.82	21.76	21.53
	12/13	23.00	21.69	21.76	21.44		25/25	23.00	21.73	21.71	21.46
	25/0	23.00	21.71	21.78	21.61		50/0	23.00	21.75	21.84	21.63
16QAM	1/0	23.00	22.16	22.21	21.85	16QAM	1/0	23.00	22.16	22.08	21.76
	1/12	23.00	22.22	22.15	21.88		1/24	23.00	21.60	21.60	21.42
	1/24	23.00	22.06	22.12	21.67		1/49	23.00	22.07	22.06	21.63
	12/0	22.00	20.80	20.85	20.67		25/0	22.00	20.77	20.91	20.58
	12/6	22.00	20.74	20.71	20.49		25/12	22.00	20.80	20.74	20.47
	12/13	22.00	20.74	20.76	20.47		25/25	22.00	20.77	20.68	20.42
	25/0	22.00	20.74	20.75	20.57		50/0	22.00	20.86	20.77	20.46
64QAM	1/0	22.00	20.69	20.71	20.57	64QAM	1/0	22.00	20.75	20.69	20.41
	1/12	22.00	20.65	20.73	20.51		1/24	22.00	20.66	20.64	20.47
	1/24	22.00	20.68	20.62	20.58		1/49	22.00	20.46	20.55	20.59
	12/0	21.00	19.88	19.81	19.95		25/0	21.00	19.61	19.75	19.73
	12/6	21.00	19.71	19.85	19.87		25/12	21.00	19.69	19.66	19.67
	12/13	21.00	19.74	19.78	19.82		25/25	21.00	19.52	19.68	19.56
	25/0	21.00	19.78	19.74	19.66		50/0	21.00	19.55	19.67	19.42

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	22.48	22.27	22.24	QPSK	1/0	23.50	22.53	22.47	22.50
	1/37	23.50	22.35	22.32	22.10		1/50	23.50	21.95	21.79	22.01
	1/74	23.50	22.25	22.13	21.85		1/99	23.50	22.50	22.51	22.07
	36/0	23.00	21.84	22.13	21.67		50/0	23.00	21.99	21.90	21.72
	36/19	23.00	21.78	21.79	21.63		50/25	23.00	21.74	21.85	21.71
	36/39	23.00	21.85	21.69	21.51		50/50	23.00	21.79	21.79	21.50
	75/0	23.00	21.74	21.81	21.66		100/0	23.00	21.78	21.83	21.73
16QAM	1/0	23.00	22.19	21.98	21.94	16QAM	1/0	23.00	22.28	22.04	22.22
	1/37	23.00	22.09	22.03	21.65		1/50	23.00	21.83	21.25	21.83
	1/74	23.00	21.98	21.90	21.51		1/99	23.00	22.10	22.02	21.90
	36/0	22.00	20.79	21.90	20.61		50/0	22.00	20.90	20.72	20.65
	36/19	22.00	20.73	20.85	20.58		50/25	22.00	20.71	20.82	20.65
	36/39	22.00	20.85	20.66	20.41		50/50	22.00	20.83	20.79	20.52
	75/0	22.00	20.71	20.82	20.54		100/0	22.00	20.75	20.81	20.65
64QAM	1/0	22.00	20.63	20.59	20.44	64QAM	1/0	22.00	20.58	20.69	20.48
	1/37	22.00	20.51	20.65	20.43		1/50	22.00	20.66	20.64	20.74
	1/74	22.00	20.41	20.52	20.46		1/99	22.00	20.54	20.47	20.53
	36/0	21.00	19.38	19.77	19.61		50/0	21.00	19.64	19.78	19.72
	36/19	21.00	19.55	19.52	19.62		50/25	21.00	19.77	19.65	19.78
	36/39	21.00	19.48	19.49	19.42		50/50	21.00	19.52	19.55	19.56
	75/0	21.00	19.43	19.46	19.47		100/0	21.00	19.41	19.48	19.46

Note: The tested channel results are marks in bold.

2. Conducted power measurements of LTE B4

Main Antenna:

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	23.90	23.11	22.95	22.88	QPSK	1/0	23.90	23.06	23.03	22.86
	1/2	23.90	22.73	22.65	22.77		1/7	23.90	22.58	22.15	22.42
	1/5	23.90	22.99	22.79	22.86		1/14	23.90	22.94	22.85	22.69
	3/0	23.90	22.79	22.87	22.80		8/0	22.90	21.83	21.92	21.71
	3/1	23.90	22.66	22.92	22.74		8/3	22.90	21.99	21.80	21.80
	3/3	23.90	22.66	22.79	22.59		8/7	22.90	21.91	21.88	21.76
	6/0	22.90	21.74	21.93	21.80		15/0	22.90	21.82	21.97	21.86
16QAM	1/0	23.10	21.75	22.17	21.88	16QAM	1/0	23.10	22.03	22.11	22.04
	1/2	23.10	21.69	22.06	21.79		1/7	23.10	21.48	21.80	21.25
	1/5	23.10	21.79	22.33	21.83		1/14	23.10	22.04	21.93	21.95
	3/0	23.10	21.99	21.90	21.72		8/0	22.10	21.00	20.96	20.74
	3/1	23.10	21.77	21.76	21.73		8/3	22.10	20.87	21.00	20.83
	3/3	23.10	21.73	21.83	21.75		8/7	22.10	20.98	20.93	20.75
	6/0	22.10	20.82	20.70	20.76		15/0	22.10	20.78	20.89	20.65
64QAM	1/0	22.10	20.79	20.77	20.71	64QAM	1/0	22.10	20.59	20.68	20.72
	1/2	22.10	20.68	20.74	20.78		1/7	22.10	20.57	20.61	20.64
	1/5	22.10	20.64	20.71	20.73		1/14	22.10	20.62	20.54	20.58
	3/0	22.10	20.60	20.74	20.67		8/0	21.10	19.72	19.77	19.75
	3/1	22.10	20.58	20.69	20.62		8/3	21.10	19.69	19.64	19.66
	3/3	22.10	20.71	20.63	20.58		8/7	21.10	19.58	19.61	19.54
	6/0	21.10	19.88	19.74	19.72		15/0	21.10	19.52	19.55	19.53

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	23.90	23.01	22.96	22.75	QPSK	1/0	23.90	22.82	22.88	22.76
	1/12	23.90	22.84	23.04	22.83		1/24	23.90	22.54	22.51	22.61
	1/24	23.90	22.80	22.92	22.70		1/49	23.90	22.87	22.84	22.71
	12/0	22.90	21.88	21.86	21.85		25/0	22.90	21.84	21.85	21.87
	12/6	22.90	21.78	22.05	21.79		25/12	22.90	21.79	21.82	21.75
	12/13	22.90	21.95	22.03	21.73		25/25	22.90	21.86	21.77	21.73
	25/0	22.90	21.90	22.02	21.77		50/0	22.90	21.78	21.80	21.85
16QAM	1/0	23.10	21.96	22.21	22.07	16QAM	1/0	23.10	22.01	21.99	21.92
	1/12	23.10	22.06	22.19	22.18		1/24	23.10	21.72	21.70	21.39
	1/24	23.10	21.95	22.11	22.14		1/49	23.10	21.88	21.94	21.75
	12/0	22.10	20.85	20.84	20.94		25/0	22.10	20.93	20.96	20.85
	12/6	22.10	20.76	20.79	20.84		25/12	22.10	20.88	20.83	20.74
	12/13	22.10	20.93	20.71	20.78		25/25	22.10	20.75	20.79	20.68
	25/0	22.10	20.88	20.81	20.70		50/0	22.10	20.83	20.86	20.69
64QAM	1/0	22.10	20.77	20.82	20.75	64QAM	1/0	22.10	20.79	20.83	20.71
	1/12	22.10	20.74	20.76	20.68		1/24	22.10	20.75	20.82	20.74
	1/24	22.10	20.65	20.72	20.71		1/49	22.10	20.83	20.78	20.71
	12/0	21.10	19.84	19.83	19.78		25/0	21.10	19.85	19.72	19.73
	12/6	21.10	19.79	19.81	19.72		25/12	21.10	19.82	19.75	19.78
	12/13	21.10	19.73	19.75	19.76		25/25	21.10	19.83	19.68	19.74
	25/0	21.10	19.68	19.66	19.59		50/0	21.10	19.77	19.73	19.65

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	23.90	22.77	22.95	22.73	QPSK	1/0	23.90	**23.08**	**23.19**	**23.06**
	1/37	23.90	22.91	22.95	22.95		1/50	23.90	22.79	21.98	22.82
	1/74	23.90	22.70	22.89	22.60		1/99	23.90	23.05	23.17	23.03
	36/0	22.90	21.86	22.89	21.79		50/0	22.90	22.04	**22.08**	22.06
	36/19	22.90	21.79	21.79	21.81		50/25	22.90	21.99	22.00	21.96
	36/39	22.90	21.78	21.96	21.78		50/50	22.90	21.98	21.99	21.96
	75/0	22.90	21.82	21.82	21.75		100/0	22.90	22.04	22.03	21.99
16QAM	1/0	23.10	22.14	22.19	22.01	16QAM	1/0	23.10	22.54	22.45	22.25
	1/37	23.10	22.15	22.25	22.03		1/50	23.10	22.11	21.17	21.86
	1/74	23.10	22.08	22.07	21.88		1/99	23.10	22.55	22.53	22.29
	36/0	22.10	20.79	22.07	20.78		50/0	22.10	20.99	21.05	21.00
	36/19	22.10	20.74	20.93	20.76		50/25	22.10	20.93	20.95	20.95
	36/39	22.10	20.74	20.85	20.72		50/50	22.10	20.97	20.97	21.04
	75/0	22.10	20.75	20.89	20.71		100/0	22.10	20.98	21.01	20.96
64QAM	1/0	22.10	20.72	20.83	20.74	64QAM	1/0	22.10	20.92	20.95	20.91
	1/37	22.10	20.77	20.78	20.73		1/50	22.10	20.88	20.87	20.83
	1/74	22.10	20.81	20.71	20.67		1/99	22.10	20.85	20.83	20.92
	36/0	21.10	19.85	19.88	19.91		50/0	21.10	19.91	19.85	19.84
	36/19	21.10	19.82	19.79	19.83		50/25	21.10	19.82	19.88	19.78
	36/39	21.10	19.86	19.76	19.82		50/50	21.10	19.83	19.80	19.75
	75/0	21.10	19.73	19.74	19.68		100/0	21.10	19.76	19.69	19.77

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	20.40	19.18	19.34	19.37	QPSK	1/0	20.40	19.14	19.35	19.30
	1/2	20.40	19.24	19.28	19.51		1/7	20.40	18.77	18.98	19.04
	1/5	20.40	19.25	19.37	19.34		1/14	20.40	19.20	19.30	19.28
	3/0	20.40	19.26	18.97	19.24		8/0	20.40	19.12	19.20	19.30
	3/1	20.40	19.07	19.26	19.18		8/3	20.40	19.16	19.21	19.31
	3/3	20.40	19.45	18.84	19.11		8/7	20.40	19.06	19.19	19.22
	6/0	20.40	19.19	19.24	19.21		15/0	20.40	19.18	19.24	19.32
16QAM	1/0	20.40	19.20	19.51	19.31	16QAM	1/0	20.40	19.40	19.40	19.52
	1/2	20.40	19.39	19.22	19.48		1/7	20.40	18.69	18.81	19.13
	1/5	20.40	19.31	19.53	19.41		1/14	20.40	19.28	19.40	19.42
	3/0	20.40	19.21	19.27	19.23		8/0	20.40	19.24	19.19	19.37
	3/1	20.40	18.85	19.17	18.99		8/3	20.40	19.26	19.30	19.39
	3/3	20.40	19.37	19.48	19.27		8/7	20.40	19.05	19.28	19.23
	6/0	20.40	19.21	19.23	19.23		15/0	20.40	19.23	19.42	19.35
64QAM	1/0	20.40	19.12	19.28	19.31	64QAM	1/0	20.40	19.15	19.38	19.27
	1/2	20.40	19.20	19.24	19.45		1/7	20.40	18.80	19.03	19.09
	1/5	20.40	19.21	19.31	19.26		1/14	20.40	19.20	19.32	19.22
	3/0	20.40	19.24	18.93	19.18		8/0	20.40	19.12	19.22	19.24
	3/1	20.40	19.07	19.24	19.14		8/3	20.40	19.19	19.26	19.28
	3/3	20.40	19.43	19.02	19.07		8/7	20.40	19.09	19.22	19.19
	6/0	20.40	19.17	19.22	19.19		15/0	20.40	19.21	19.27	19.34

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	20.40	19.28	19.24	19.24	QPSK	1/0	20.40	19.24	19.35	19.22
	1/12	20.40	19.15	19.36	19.35		1/24	20.40	19.05	19.07	19.05
	1/24	20.40	19.21	19.30	19.34		1/49	20.40	19.17	19.37	19.20
	12/0	20.40	19.28	19.37	19.38		25/0	20.40	19.16	19.36	19.39
	12/6	20.40	19.14	19.38	19.38		25/12	20.40	19.17	19.36	19.34
	12/13	20.40	19.25	19.32	19.29		25/25	20.40	19.14	19.36	19.31
	25/0	20.40	19.14	19.32	19.24		50/0	20.40	19.17	19.35	19.29
16QAM	1/0	20.40	19.54	19.64	19.61	16QAM	1/0	20.40	19.57	19.41	19.27
	1/12	20.40	19.65	19.68	19.67		1/24	20.40	19.31	19.14	19.09
	1/24	20.40	19.58	19.64	19.67		1/49	20.40	19.55	19.54	19.25
	12/0	20.40	19.27	19.41	19.44		25/0	20.40	19.24	19.18	19.33
	12/6	20.40	19.14	19.18	19.38		25/12	20.40	19.09	19.19	19.28
	12/13	20.40	19.16	19.18	19.31		25/25	20.40	19.20	19.23	19.29
	25/0	20.40	19.11	19.42	19.38		50/0	20.40	19.08	19.21	19.31
64QAM	1/0	20.40	19.19	19.17	19.19	64QAM	1/0	20.40	19.21	19.32	19.18
	1/12	20.40	19.06	19.29	19.30		1/24	20.40	19.02	19.04	19.01
	1/24	20.40	19.12	19.25	19.31		1/49	20.40	19.14	19.34	19.16
	12/0	20.40	19.23	19.34	19.35		25/0	20.40	19.17	19.35	19.33
	12/6	20.40	19.09	19.35	19.35		25/12	20.40	19.15	19.34	19.30
	12/13	20.40	19.20	19.29	19.26		25/25	20.40	19.12	19.32	19.25
	25/0	20.40	19.11	19.31	19.21		50/0	20.40	19.15	19.31	19.23

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	20.40	19.22	19.16	19.18	QPSK	1/0	20.40	19.11	19.12	19.27
	1/37	20.40	19.16	19.42	19.34		1/50	20.40	19.01	19.26	19.09
	1/74	20.40	19.10	19.28	19.13		1/99	20.40	**19.51**	**19.68**	**19.58**
	36/0	20.40	19.13	19.28	19.26		50/0	20.40	19.17	19.30	19.42
	36/19	20.40	19.26	19.41	19.30		50/25	20.40	19.15	19.34	19.22
	36/39	20.40	19.13	19.36	19.33		50/50	20.40	19.16	**19.44**	19.30
	75/0	20.40	19.20	19.36	19.34		100/0	20.40	19.17	**19.41**	19.27
16QAM	1/0	20.40	19.51	19.41	19.35	16QAM	1/0	20.40	19.46	19.52	19.57
	1/37	20.40	19.58	19.66	19.55		1/50	20.40	18.96	19.23	19.32
	1/74	20.40	19.49	19.59	19.26		1/99	20.40	19.46	19.50	19.51
	36/0	20.40	19.19	19.59	19.25		50/0	20.40	19.23	19.34	19.22
	36/19	20.40	19.14	19.35	19.38		50/25	20.40	19.09	19.34	19.14
	36/39	20.40	19.21	19.37	19.34		50/50	20.40	19.23	19.28	19.33
	75/0	20.40	19.08	19.32	19.29		100/0	20.40	19.23	19.34	19.26
64QAM	1/0	20.40	19.16	19.08	19.06	64QAM	1/0	20.40	19.11	19.12	19.23
	1/37	20.40	19.10	19.34	19.22		1/50	20.40	19.01	19.24	19.03
	1/74	20.40	19.02	19.20	19.05		1/99	20.40	19.38	19.46	19.37
	36/0	20.40	19.11	19.26	19.24		50/0	20.40	19.15	19.26	19.36
	36/19	20.40	19.22	19.37	19.28		50/25	20.40	19.11	19.32	19.18
	36/39	20.40	19.07	19.30	19.25		50/50	20.40	19.12	19.42	19.26
	75/0	20.40	19.14	19.32	19.28		100/0	20.40	19.13	19.37	19.21

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	23.90	22.75	22.97	22.86	QPSK	1/0	23.90	22.76	22.88	22.97
	1/2	23.90	22.55	22.77	22.72		1/7	23.90	21.93	22.61	22.32
	1/5	23.90	22.75	22.78	22.81		1/14	23.90	22.68	22.80	22.80
	3/0	23.90	22.66	22.71	22.76		8/0	22.90	21.73	21.78	21.89
	3/1	23.90	22.47	22.43	22.74		8/3	22.90	21.77	21.73	21.85
	3/3	23.90	22.52	22.55	22.52		8/7	22.90	21.52	21.92	21.86
	6/0	22.90	21.65	21.76	21.74		15/0	22.90	21.74	21.94	21.88
16QAM	1/0	23.10	21.84	21.91	21.93	16QAM	1/0	23.10	22.10	22.24	22.14
	1/2	23.10	21.74	21.56	21.75		1/7	23.10	21.13	21.96	21.63
	1/5	23.10	21.75	21.78	22.01		1/14	23.10	21.93	22.17	22.15
	3/0	23.10	21.66	21.71	21.83		8/0	22.10	20.71	20.72	20.80
	3/1	23.10	21.67	21.74	21.59		8/3	22.10	20.67	20.78	20.80
	3/3	23.10	21.62	21.67	21.68		8/7	22.10	20.69	20.64	20.78
	6/0	22.10	20.72	20.61	20.73		15/0	22.10	20.68	20.68	20.76
64QAM	1/0	22.10	20.68	20.57	20.59	64QAM	1/0	22.10	20.61	20.55	20.54
	1/2	22.10	20.64	20.55	20.62		1/7	22.10	20.63	20.62	20.69
	1/5	22.10	20.52	20.48	20.58		1/14	22.10	20.57	20.50	20.63
	3/0	22.10	20.56	20.47	20.52		8/0	21.10	19.72	19.77	19.75
	3/1	22.10	20.62	20.63	20.47		8/3	21.10	19.64	19.62	19.57
	3/3	22.10	20.45	20.59	20.51		8/7	21.10	19.55	19.49	19.58
	6/0	21.10	19.68	19.71	19.75		15/0	21.10	19.44	19.48	19.51

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	23.90	22.62	22.81	22.98	QPSK	1/0	23.90	22.69	22.80	22.81
	1/12	23.90	22.68	22.78	22.89		1/24	23.90	22.50	22.74	22.52
	1/24	23.90	22.58	22.75	22.83		1/49	23.90	22.83	22.81	22.80
	12/0	22.90	21.74	21.84	22.05		25/0	22.90	21.68	21.87	21.97
	12/6	22.90	21.70	21.85	22.00		25/12	22.90	21.70	21.88	21.88
	12/13	22.90	21.75	21.88	21.96		25/25	22.90	21.71	21.97	21.88
	25/0	22.90	21.64	21.84	21.92		50/0	22.90	21.69	21.90	21.85
16QAM	1/0	23.10	21.75	22.10	22.19	16QAM	1/0	23.10	21.91	22.12	22.01
	1/12	23.10	21.86	22.06	22.10		1/24	23.10	21.87	21.70	21.63
	1/24	23.10	21.74	22.01	22.09		1/49	23.10	21.88	22.12	21.96
	12/0	22.10	20.75	20.89	20.97		25/0	22.10	20.66	20.92	20.89
	12/6	22.10	20.73	20.88	20.87		25/12	22.10	20.83	20.96	20.83
	12/13	22.10	20.66	20.92	20.94		25/25	22.10	20.75	20.96	20.88
	25/0	22.10	20.60	20.89	20.84		50/0	22.10	20.77	20.91	20.77
64QAM	1/0	22.10	20.61	20.88	20.82	64QAM	1/0	22.10	20.72	20.83	20.78
	1/12	22.10	20.58	20.75	20.74		1/24	22.10	20.65	20.75	20.73
	1/24	22.10	20.73	20.65	20.62		1/49	22.10	20.64	20.79	20.69
	12/0	21.10	19.89	19.85	19.83		25/0	21.10	19.85	19.84	19.88
	12/6	21.10	19.78	19.81	19.85		25/12	21.10	19.79	19.82	19.86
	12/13	21.10	19.72	19.74	19.79		25/25	21.10	19.74	19.75	19.81
	25/0	21.10	19.68	19.76	19.65		50/0	21.10	19.83	19.72	19.71

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	23.90	22.71	22.78	22.75	QPSK	1/0	23.90	22.92	23.01	23.09
	1/37	23.90	22.78	23.05	22.88		1/50	23.90	22.72	22.16	22.62
	1/74	23.90	22.74	22.95	22.75		1/99	23.90	**23.17**	**23.14**	**23.14**
	36/0	22.90	21.68	22.53	21.87		50/0	22.90	21.77	21.97	22.01
	36/19	22.90	21.80	21.83	21.90		50/25	22.90	21.87	22.06	21.88
	36/39	22.90	21.77	21.94	21.94		50/50	22.90	**22.08**	22.04	22.07
	75/0	22.90	21.77	21.85	21.87		100/0	22.90	21.95	22.07	21.91
16QAM	1/0	23.10	21.85	22.02	22.11	16QAM	1/0	23.10	22.04	22.14	22.31
	1/37	23.10	21.85	22.09	22.11		1/50	23.10	21.81	21.26	22.04
	1/74	23.10	21.77	21.97	22.08		1/99	23.10	22.20	22.36	22.52
	36/0	22.10	20.64	21.97	20.81		50/0	22.10	20.78	21.00	21.06
	36/19	22.10	20.63	20.89	20.88		50/25	22.10	20.71	21.03	20.85
	36/39	22.10	20.72	20.90	20.80		50/50	22.10	20.87	20.89	20.90
	75/0	22.10	20.63	20.90	20.74		100/0	22.10	20.75	20.85	20.87
64QAM	1/0	22.10	20.56	20.82	20.77	64QAM	1/0	22.10	20.73	20.81	20.84
	1/37	22.10	20.68	20.74	20.71		1/50	22.10	20.69	20.75	20.77
	1/74	22.10	20.62	20.78	20.65		1/99	22.10	20.81	20.72	20.68
	36/0	21.10	19.84	19.83	19.77		50/0	21.10	19.88	19.82	19.75
	36/19	21.10	19.89	19.75	19.82		50/25	21.10	19.79	19.77	19.68
	36/39	21.10	19.75	19.82	19.72		50/50	21.10	19.69	19.74	19.81
	75/0	21.10	19.81	19.68	19.69		100/0	21.10	19.59	19.66	19.62

Note: The tested channel results are marks in bold.

3. Conducted power measurements 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	24.50	23.63	23.64	23.56	QPSK	1/0	24.50	23.54	23.79	23.60
	1/2	24.50	23.32	23.46	23.42		1/7	24.50	22.88	23.02	23.18
	1/5	24.50	23.70	23.67	23.65		1/14	24.50	23.66	23.67	23.49
	3/0	24.50	23.59	23.51	23.51		8/0	23.50	22.57	22.62	22.49
	3/1	24.50	23.24	23.14	23.28		8/3	23.50	22.60	22.60	22.53
	3/3	24.50	23.39	23.47	23.06		8/7	23.50	22.61	22.56	22.45
	6/0	23.50	22.49	22.60	22.48		15/0	23.50	22.67	22.70	22.46
16QAM	1/0	23.70	22.79	23.01	22.77	16QAM	1/0	23.70	22.78	22.89	22.74
	1/2	23.70	22.57	22.78	22.52		1/7	23.70	22.02	22.28	22.07
	1/5	23.70	22.73	23.03	22.61		1/14	23.70	22.85	22.82	22.58
	3/0	23.70	22.55	22.59	22.60		8/0	22.70	21.53	21.57	21.46
	3/1	23.70	22.51	22.37	22.59		8/3	22.70	21.69	21.57	21.45
	3/3	23.70	22.49	22.55	22.22		8/7	22.70	21.49	21.46	21.59
	6/0	22.70	21.60	21.67	21.58		15/0	22.70	21.64	21.50	21.59
64QAM	1/0	22.70	21.55	21.63	21.59	64QAM	1/0	22.70	21.62	21.48	21.53
	1/2	22.70	21.51	21.58	21.56		1/7	22.70	21.51	21.46	21.57
	1/5	22.70	21.62	21.61	21.55		1/14	22.70	21.55	21.56	21.44
	3/0	22.70	21.64	21.58	21.49		8/0	21.70	20.81	20.74	20.77
	3/1	22.70	21.56	21.52	21.44		8/3	21.70	20.75	20.72	20.69
	3/3	22.70	21.49	21.51	21.47		8/7	21.70	20.71	20.65	20.66
	6/0	21.70	20.69	20.71	20.68		15/0	21.70	20.64	20.55	20.63

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	24.50	23.65	23.62	23.62	QPSK	1/0	24.50	**23.79**	**23.84**	**23.81**
	1/12	24.50	23.79	23.66	23.61		1/24	24.50	23.32	23.57	23.44
	1/24	24.50	23.77	23.79	23.44		1/49	24.50	23.71	23.68	23.58
	12/0	23.50	22.68	22.72	22.72		25/0	23.50	22.73	**22.78**	22.76
	12/6	23.50	22.63	22.69	22.63		25/12	23.50	22.65	22.88	22.72
	12/13	23.50	22.60	22.64	22.66		25/25	23.50	22.72	22.68	22.75
	25/0	23.50	22.78	22.79	22.69		50/0	23.50	22.65	22.70	22.73
16QAM	1/0	23.70	23.07	22.98	23.04	16QAM	1/0	23.70	22.95	23.03	22.63
	1/12	23.70	23.10	23.01	23.05		1/24	23.70	22.60	22.83	22.40
	1/24	23.70	23.07	23.12	22.92		1/49	23.70	22.92	23.12	22.54
	12/0	22.70	21.82	21.67	21.70		25/0	22.70	21.72	21.68	21.58
	12/6	22.70	21.77	21.73	21.70		25/12	22.70	21.72	21.81	21.71
	12/13	22.70	21.73	21.73	21.48		25/25	22.70	21.63	21.66	21.69
	25/0	22.70	21.55	21.71	21.67		50/0	22.70	21.62	21.61	21.55
64QAM	1/0	22.70	21.53	21.67	21.64	64QAM	1/0	22.70	21.56	21.54	21.51
	1/12	22.70	21.48	21.63	21.61		1/24	22.70	21.48	21.39	21.49
	1/24	22.70	21.59	21.54	21.53		1/49	22.70	21.52	21.38	21.47
	12/0	21.70	20.62	20.54	20.59		25/0	21.70	20.63	20.65	20.66
	12/6	21.70	20.81	20.74	20.72		25/12	21.70	20.59	20.63	20.71
	12/13	21.70	20.62	20.66	20.58		25/25	21.70	20.72	20.65	20.56
	25/0	21.70	20.47	20.49	20.54		50/0	21.70	20.68	20.51	20.59

Second Antenna Receiver on:

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	22.70	21.82	21.76	21.77	QPSK	1/0	22.70	21.83	21.82	21.79
	1/2	22.70	21.42	21.68	21.53		1/7	22.70	20.93	21.45	21.15
	1/5	22.70	21.76	21.88	21.80		1/14	22.70	21.77	21.86	21.77
	3/0	22.70	21.66	21.75	21.66		8/0	22.70	21.76	21.66	21.56
	3/1	22.70	21.55	21.59	21.50		8/3	22.70	21.66	21.65	21.58
	3/3	22.70	21.25	21.67	21.54		8/7	22.70	21.71	21.82	21.58
	6/0	22.70	21.53	21.71	21.57		15/0	22.70	21.77	21.78	21.61
16QAM	1/0	22.70	21.71	21.85	21.77	16QAM	1/0	22.70	21.85	21.90	21.81
	1/2	22.70	21.39	21.86	21.70		1/7	22.70	21.28	21.45	21.07
	1/5	22.70	21.62	21.81	21.89		1/14	22.70	21.78	21.96	21.72
	3/0	22.70	21.55	21.70	21.65		8/0	22.50	21.42	21.28	21.37
	3/1	22.70	21.39	21.58	21.44		8/3	22.50	21.35	21.36	21.47
	3/3	22.70	21.51	21.60	21.47		8/7	22.50	21.40	21.30	21.26
	6/0	22.50	21.38	21.31	21.36		15/0	22.50	21.39	21.36	21.29
64QAM	1/0	22.50	21.36	21.43	21.25	64QAM	1/0	22.50	21.31	21.35	21.23
	1/2	22.50	21.33	21.34	21.24		1/7	22.50	21.37	21.34	21.26
	1/5	22.50	21.28	21.33	21.36		1/14	22.50	21.23	21.29	21.15
	3/0	22.50	21.24	21.22	21.28		8/0	21.50	20.22	20.43	20.47
	3/1	22.50	21.14	21.24	21.22		8/3	21.50	20.35	20.46	20.49
	3/3	22.50	21.16	21.38	21.33		8/7	21.50	20.34	20.37	20.39
	6/0	21.50	20.38	20.41	20.36		15/0	21.50	20.23	20.27	20.25

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	22.70	21.74	21.71	21.76	QPSK	1/0	22.70	**21.82**	**21.97**	**21.85**
	1/12	22.70	21.72	21.87	21.76		1/24	22.70	21.67	21.60	21.27
	1/24	22.70	21.73	21.81	21.69		1/49	22.70	21.80	21.93	21.78
	12/0	22.70	21.79	21.75	21.77		25/0	22.70	21.75	**21.89**	21.75
	12/6	22.70	21.70	21.88	21.62		25/12	22.70	21.71	21.81	21.73
	12/13	22.70	21.70	21.70	21.65		25/25	22.70	21.78	21.79	21.75
	25/0	22.70	21.78	21.70	21.62		50/0	22.70	21.73	21.69	21.73
16QAM	1/0	22.70	21.81	21.97	21.81	16QAM	1/0	22.70	21.75	21.86	21.77
	1/12	22.70	21.81	21.99	21.89		1/24	22.70	21.66	21.49	21.41
	1/24	22.70	21.78	21.93	21.81		1/49	22.70	21.85	21.88	21.72
	12/0	22.50	21.47	21.55	21.48		25/0	22.50	21.43	21.35	21.38
	12/6	22.50	21.45	21.33	21.30		25/12	22.50	21.41	21.43	21.30
	12/13	22.50	21.39	21.29	21.33		25/25	22.50	21.43	21.45	21.35
	25/0	22.50	21.41	21.49	21.39		50/0	22.50	21.24	21.33	21.34
64QAM	1/0	22.50	21.29	21.41	21.32	64QAM	1/0	22.50	21.49	21.36	21.22
	1/12	22.50	21.22	21.35	21.37		1/24	22.50	21.24	21.26	21.27
	1/24	22.50	21.33	21.48	21.38		1/49	22.50	21.34	21.14	21.18
	12/0	21.50	20.46	20.41	20.49		25/0	21.50	20.23	20.54	20.44
	12/6	21.50	20.49	20.47	20.43		25/12	21.50	20.46	20.42	20.49
	12/13	21.50	20.35	20.33	20.58		25/25	21.50	20.31	20.43	20.35
	25/0	21.50	20.38	20.37	20.34		50/0	21.50	20.36	20.34	20.34

Second Antenna Receiver off:

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	24.50	23.65	23.67	23.59	QPSK	1/0	24.50	23.57	23.54	23.58
	1/2	24.50	23.26	23.25	23.48		1/7	24.50	22.85	23.27	23.40
	1/5	24.50	23.53	23.50	23.62		1/14	24.50	23.46	23.46	23.63
	3/0	24.50	23.46	23.51	23.46		8/0	23.50	22.34	22.35	22.26
	3/1	24.50	23.32	23.40	23.30		8/3	23.50	22.31	22.30	22.31
	3/3	24.50	23.42	23.41	23.50		8/7	23.50	22.39	22.42	22.37
	6/0	23.50	22.36	22.29	22.27		15/0	23.50	22.39	22.43	22.32
16QAM	1/0	23.70	22.56	22.73	22.48	16QAM	1/0	23.70	22.64	22.90	22.72
	1/2	23.70	22.25	22.23	22.29		1/7	23.70	21.80	22.56	22.25
	1/5	23.70	22.61	22.82	22.67		1/14	23.70	22.64	22.80	22.75
	3/0	23.70	22.41	22.42	22.22		8/0	22.70	21.33	21.45	21.20
	3/1	23.70	22.44	22.36	22.33		8/3	22.70	21.31	21.33	21.12
	3/3	23.70	22.36	22.45	22.07		8/7	22.70	21.30	21.39	21.23
	6/0	22.70	21.45	21.35	21.31		15/0	22.70	21.48	21.49	21.33
64QAM	1/0	22.70	21.42	21.48	21.25	64QAM	1/0	22.70	21.43	21.45	21.29
	1/2	22.70	21.38	21.43	21.33		1/7	22.70	21.41	21.42	21.28
	1/5	22.70	21.33	21.35	21.37		1/14	22.70	21.29	21.27	21.25
	3/0	22.70	21.28	21.29	21.26		8/0	21.70	20.36	20.49	20.51
	3/1	22.70	21.23	21.33	21.29		8/3	21.70	20.45	20.48	20.47
	3/3	22.70	21.18	21.41	21.35		8/7	21.70	20.42	20.41	20.37
	6/0	21.70	20.41	20.45	20.42		15/0	21.70	20.29	20.31	20.35

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	24.50	23.51	23.49	23.52	QPSK	1/0	24.50	23.44	23.60	23.55
	1/12	24.50	23.60	23.69	23.64		1/24	24.50	23.34	23.36	23.41
	1/24	24.50	23.57	23.51	23.51		1/49	24.50	**23.53**	**23.71**	**23.58**
	12/0	23.50	22.56	22.57	22.49		25/0	23.50	22.48	22.59	22.59
	12/6	23.50	22.51	22.42	22.29		25/12	23.50	22.60	22.60	22.50
	12/13	23.50	22.41	22.49	22.46		25/25	23.50	22.59	**22.66**	22.55
	25/0	23.50	22.48	22.52	22.45		50/0	23.50	22.53	22.46	22.44
16QAM	1/0	23.70	22.63	22.75	22.73	16QAM	1/0	23.70	22.65	22.80	22.63
	1/12	23.70	22.81	22.80	22.80		1/24	23.70	22.14	22.32	22.44
	1/24	23.70	22.72	22.80	22.75		1/49	23.70	22.74	22.67	22.51
	12/0	22.70	21.55	21.48	21.49		25/0	22.70	21.39	21.47	21.39
	12/6	22.70	21.51	21.56	21.36		25/12	22.70	21.36	21.57	21.48
	12/13	22.70	21.41	21.53	21.50		25/25	22.70	21.37	21.42	21.40
	25/0	22.70	21.36	21.54	21.40		50/0	22.70	21.30	21.43	21.34
64QAM	1/0	22.70	21.31	21.49	21.35	64QAM	1/0	22.70	21.47	21.38	21.36
	1/12	22.70	21.28	21.42	21.33		1/24	22.70	21.32	21.28	21.31
	1/24	22.70	21.37	21.52	21.42		1/49	22.70	21.42	21.22	21.24
	12/0	21.70	20.54	20.59	20.51		25/0	21.70	20.59	20.62	20.52
	12/6	21.70	20.51	20.53	20.47		25/12	21.70	20.48	20.56	20.47
	12/13	21.70	20.41	20.37	20.42		25/25	21.70	20.43	20.49	20.45
	25/0	21.70	20.42	20.33	20.36		50/0	21.70	20.38	20.42	20.42

Note: The tested channel results are marks in bold.

4. Conducted power measurements of LTE B7

Main Antenna:

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	23.40	22.18	22.12	22.21	QPSK	1/0	23.40	22.27	22.12	22.09
	1/12	23.40	22.30	22.12	22.20		1/24	23.40	22.06	21.86	21.92
	1/24	23.40	22.15	22.13	22.11		1/49	23.40	22.26	22.25	22.06
	12/0	22.40	20.96	20.98	21.09		25/0	22.40	21.15	20.92	21.07
	12/6	22.40	20.91	20.94	21.03		25/12	22.40	21.02	20.88	21.02
	12/13	22.40	21.01	20.90	20.96		25/25	22.40	20.95	20.89	21.04
	25/0	22.40	20.99	20.94	21.03		50/0	22.40	20.92	20.85	21.06
16QAM	1/0	22.40	21.27	21.41	21.32	16QAM	1/0	22.40	21.41	20.93	21.09
	1/12	22.40	21.37	21.41	21.33		1/24	22.40	20.97	20.53	20.82
	1/24	22.40	21.31	21.23	21.31		1/49	22.40	21.25	21.00	21.06
	12/0	21.40	20.26	20.15	20.24		25/0	21.40	20.11	20.04	20.19
	12/6	21.40	20.18	20.02	20.17		25/12	21.40	20.13	20.17	20.22
	12/13	21.40	20.24	20.25	20.16		25/25	21.40	20.22	20.02	20.21
	25/0	21.40	20.22	20.06	20.15		50/0	21.40	20.06	19.99	20.15
64QAM	1/0	21.40	20.16	20.11	20.13	64QAM	1/0	21.40	20.19	20.11	20.13
	1/12	21.40	20.21	20.08	20.09		1/24	21.40	20.15	20.02	20.11
	1/24	21.40	20.17	20.18	20.11		1/49	21.40	20.08	20.06	19.95
	12/0	20.40	19.36	19.30	19.27		25/0	20.40	19.22	19.38	19.05
	12/6	20.40	19.28	19.33	19.21		25/12	20.40	19.32	19.33	19.02
	12/13	20.40	19.35	19.39	19.36		25/25	20.40	19.21	19.18	19.08
	25/0	20.40	19.22	19.15	19.19		50/0	20.40	19.16	19.15	19.11

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	23.40	22.24	22.05	22.17	QPSK	1/0	23.40	22.36	22.43	**22.50**
	1/37	23.40	22.35	22.26	22.24		1/50	23.40	21.93	21.96	22.06
	1/74	23.40	22.06	22.16	22.04		1/99	23.40	22.28	22.36	22.26
	36/0	22.40	20.96	20.89	21.06		50/0	22.40	**21.36**	**21.29**	**21.40**
	36/19	22.40	21.11	21.00	20.92		50/25	22.40	21.34	21.23	21.35
	36/39	22.40	20.99	20.94	21.07		50/50	22.40	21.32	21.25	21.35
	75/0	22.40	21.03	20.93	21.07		100/0	22.40	21.37	21.33	21.38
16QAM	1/0	22.40	21.34	21.04	21.10	16QAM	1/0	22.40	21.43	21.16	21.44
	1/37	22.40	21.36	21.04	21.21		1/50	22.40	21.04	20.87	21.27
	1/74	22.40	21.23	21.09	21.08		1/99	22.40	21.24	21.29	21.54
	36/0	21.40	20.12	20.05	20.18		50/0	21.40	20.23	20.14	20.32
	36/19	21.40	20.09	20.20	20.22		50/25	21.40	20.13	20.23	20.29
	36/39	21.40	20.18	20.05	20.18		50/50	21.40	20.22	20.23	20.28
	75/0	21.40	19.99	20.04	20.16		100/0	21.40	20.28	20.25	20.27
64QAM	1/0	21.40	20.11	20.05	20.12	64QAM	1/0	21.40	20.15	20.17	20.14
	1/37	21.40	20.13	20.08	20.07		1/50	21.40	20.21	20.22	20.24
	1/74	21.40	20.08	20.10	20.06		1/99	21.40	20.27	20.19	20.25
	36/0	20.40	19.21	19.17	19.13		50/0	20.40	19.36	19.42	19.43
	36/19	20.40	19.09	19.12	19.11		50/25	20.40	19.38	19.39	19.35
	36/39	20.40	19.08	19.14	19.07		50/50	20.40	19.41	19.33	19.28
	75/0	20.40	19.15	19.11	19.02		100/0	20.40	19.29	19.25	19.26

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	17.30	16.26	16.18	16.15	QPSK	1/0	17.30	16.24	16.17	16.26
	1/12	17.30	16.25	16.16	16.01		1/24	17.30	15.89	15.91	15.76
	1/24	17.30	16.14	16.00	16.03		1/49	17.30	16.15	16.29	16.13
	12/0	17.30	16.11	16.07	16.05		25/0	17.30	16.24	16.16	16.10
	12/6	17.30	16.08	16.03	16.17		25/12	17.30	16.25	16.03	16.02
	12/13	17.30	16.17	16.01	16.10		25/25	17.30	16.11	16.06	15.96
	25/0	17.30	16.14	16.04	16.13		50/0	17.30	16.24	16.02	16.01
16QAM	1/0	17.30	16.34	16.35	16.32	16QAM	1/0	17.30	16.31	16.35	16.16
	1/12	17.30	16.29	16.33	16.36		1/24	17.30	15.99	16.09	15.67
	1/24	17.30	16.20	16.40	16.34		1/49	17.30	16.38	16.36	16.10
	12/0	17.30	16.12	16.04	16.01		25/0	17.30	16.14	16.09	16.06
	12/6	17.30	16.09	16.00	16.04		25/12	17.30	16.03	15.97	15.98
	12/13	17.30	16.13	16.00	16.00		25/25	17.30	16.16	16.01	15.99
	25/0	17.30	16.08	16.03	15.98		50/0	17.30	16.02	15.97	15.93
64QAM	1/0	17.30	16.11	16.15	16.05	64QAM	1/0	17.30	16.09	16.07	16.03
	1/12	17.30	16.08	16.02	15.96		1/24	17.30	15.96	16.02	16.13
	1/24	17.30	16.14	16.13	15.95		1/49	17.30	16.07	16.17	16.09
	12/0	17.30	16.05	16.02	16.04		25/0	17.30	16.10	15.99	16.04
	12/6	17.30	16.09	16.13	15.94		25/12	17.30	15.93	15.89	16.02
	12/13	17.30	16.07	16.12	16.08		25/25	17.30	16.07	16.01	15.98
	25/0	17.30	16.01	16.17	16.03		50/0	17.30	16.11	15.95	15.97

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	17.30	16.20	16.20	16.13	QPSK	1/0	17.30	**16.41**	16.37	16.24
	1/37	17.30	16.27	16.22	16.11		1/50	17.30	15.99	16.10	16.10
	1/74	17.30	16.09	16.08	16.03		1/99	17.30	16.22	16.29	16.21
	36/0	17.30	16.24	16.16	16.12		50/0	17.30	**16.23**	**16.22**	**16.19**
	36/19	17.30	16.17	16.03	16.04		50/25	17.30	16.13	16.08	16.08
	36/39	17.30	16.14	16.10	16.01		50/50	17.30	16.16	16.09	16.10
	75/0	17.30	16.11	16.00	16.02		100/0	17.30	16.13	16.14	16.09
16QAM	1/0	17.30	16.30	16.40	16.32	16QAM	1/0	17.30	16.31	16.32	16.29
	1/37	17.30	16.38	16.39	16.27		1/50	17.30	16.12	16.20	15.94
	1/74	17.30	16.22	16.34	16.27		1/99	17.30	16.29	16.28	16.13
	36/0	17.30	16.11	16.10	16.08		50/0	17.30	16.10	16.18	16.14
	36/19	17.30	16.19	15.99	16.00		50/25	17.30	16.19	16.01	16.05
	36/39	17.30	16.15	16.02	15.96		50/50	17.30	16.05	16.05	16.02
	75/0	17.30	16.03	15.94	15.97		100/0	17.30	16.12	16.05	16.07
64QAM	1/0	17.30	16.11	16.02	15.96	64QAM	1/0	17.30	16.07	16.01	16.03
	1/37	17.30	16.09	15.94	16.03		1/50	17.30	15.99	15.93	16.02
	1/74	17.30	16.05	15.98	16.01		1/99	17.30	16.07	15.98	16.06
	36/0	17.30	16.12	16.08	16.13		50/0	17.30	15.89	15.85	15.91
	36/19	17.30	16.16	16.00	15.94		50/25	17.30	15.93	15.87	15.96
	36/39	17.30	15.92	15.89	15.96		50/50	17.30	16.03	15.94	16.11
	75/0	17.30	16.03	16.08	16.07		100/0	17.30	15.88	16.01	16.04

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	21.40	20.46	20.45	20.39	QPSK	1/0	21.40	20.36	20.26	20.31
	1/12	21.40	20.59	20.43	20.39		1/24	21.40	20.18	20.00	20.03
	1/24	21.40	20.52	20.43	20.29		1/49	21.40	20.41	20.31	20.25
	12/0	21.40	20.35	20.23	20.24		25/0	21.40	20.29	20.28	20.14
	12/6	21.40	20.25	20.18	20.18		25/12	21.40	20.32	20.19	20.15
	12/13	21.40	20.34	20.21	20.18		25/25	21.40	20.35	20.29	20.16
	25/0	21.40	20.35	20.13	20.12		50/0	21.40	20.28	20.26	20.14
16QAM	1/0	21.40	20.50	20.57	20.50	16QAM	1/0	21.40	20.34	20.54	20.43
	1/12	21.40	20.57	20.63	20.47		1/24	21.40	20.17	20.22	20.02
	1/24	21.40	20.58	20.58	20.50		1/49	21.40	20.30	20.41	20.23
	12/0	21.40	20.27	20.29	20.34		25/0	21.40	20.27	20.11	20.21
	12/6	21.40	20.31	20.21	20.30		25/12	21.40	20.34	20.18	20.26
	12/13	21.40	20.28	20.17	20.29		25/25	21.40	20.38	20.11	20.17
	25/0	21.40	20.28	20.21	20.20		50/0	21.40	20.34	20.18	20.22
64QAM	1/0	21.40	20.35	20.28	20.27	64QAM	1/0	21.40	20.28	20.21	20.17
	1/12	21.40	20.39	20.25	20.33		1/24	21.40	20.31	20.26	20.22
	1/24	21.40	20.27	20.23	20.31		1/49	21.40	20.19	20.28	20.31
	12/0	20.40	19.43	19.55	19.51		25/0	20.40	19.37	19.41	19.43
	12/6	20.40	19.41	19.52	19.44		25/12	20.40	19.35	19.36	19.31
	12/13	20.40	19.32	19.38	19.36		25/25	20.40	19.42	19.28	19.36
	25/0	20.40	19.28	19.34	19.37		50/0	20.40	19.25	19.27	19.32

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	21.40	20.41	20.34	20.34	QPSK	1/0	21.40	20.48	20.52	**20.54**
	1/37	21.40	20.59	20.54	20.33		1/50	21.40	20.10	20.10	20.25
	1/74	21.40	20.43	20.44	20.18		1/99	21.40	20.42	20.50	20.33
	36/0	21.40	20.32	20.26	20.29		50/0	21.40	20.30	**20.28**	**20.35**
	36/19	21.40	20.29	20.20	20.18		50/25	21.40	**20.31**	20.13	20.17
	36/39	21.40	20.25	20.25	20.19		50/50	21.40	20.20	20.19	20.19
	75/0	21.40	20.35	20.15	20.17		100/0	21.40	20.26	20.14	20.20
16QAM	1/0	21.40	20.47	20.43	20.46	16QAM	1/0	21.40	20.64	20.40	20.47
	1/37	21.40	20.60	20.49	20.43		1/50	21.40	20.18	20.19	20.40
	1/74	21.40	20.40	20.42	20.26		1/99	21.40	20.60	20.38	20.48
	36/0	21.40	20.22	20.19	20.21		50/0	21.40	20.17	20.17	20.14
	36/19	21.40	20.18	20.15	20.07		50/25	21.40	20.11	20.12	20.07
	36/39	21.40	20.17	20.17	20.18		50/50	21.40	20.16	20.16	20.20
	75/0	21.40	20.24	20.09	20.16		100/0	21.40	20.18	20.06	20.10
64QAM	1/0	21.40	20.29	20.15	20.11	64QAM	1/0	21.40	20.24	20.14	20.17
	1/37	21.40	20.33	20.24	20.21		1/50	21.40	20.27	20.17	20.11
	1/74	21.40	20.27	20.14	20.18		1/99	21.40	20.31	20.12	20.21
	36/0	20.40	19.42	19.43	19.38		50/0	20.40	19.42	19.44	19.35
	36/19	20.40	19.35	19.31	19.27		50/25	20.40	19.38	19.36	19.32
	36/39	20.40	19.29	19.35	19.26		50/50	20.40	19.31	19.28	19.39
	75/0	20.40	19.22	19.25	19.24		100/0	20.40	19.40	19.27	19.33

Second Antenna Receiver on and WIFI 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	16.80	15.81	15.76	15.75	QPSK	1/0	16.80	15.62	15.69	15.69
	1/12	16.80	15.85	15.76	15.69		1/24	16.80	15.57	15.22	15.27
	1/24	16.80	15.69	15.61	15.64		1/49	16.80	15.60	15.71	15.56
	12/0	16.80	15.72	15.77	15.72		25/0	16.80	15.78	15.75	15.66
	12/6	16.80	15.71	15.67	15.80		25/12	16.80	15.69	15.75	15.60
	12/13	16.80	15.75	15.68	15.69		25/25	16.80	15.69	15.65	15.66
	25/0	16.80	15.70	15.65	15.73		50/0	16.80	15.74	15.72	15.60
16QAM	1/0	16.80	16.01	16.03	16.00	16QAM	1/0	16.80	16.43	16.00	15.78
	1/12	16.80	15.99	15.98	16.09		1/24	16.80	15.57	15.69	15.51
	1/24	16.80	15.94	15.87	15.95		1/49	16.80	15.84	15.89	15.71
	12/0	16.80	15.80	15.62	15.71		25/0	16.80	15.76	15.68	15.70
	12/6	16.80	15.70	15.58	15.62		25/12	16.80	15.68	15.62	15.64
	12/13	16.80	15.76	15.58	15.70		25/25	16.80	15.67	15.58	15.66
	25/0	16.80	15.64	15.66	15.67		50/0	16.80	15.75	15.56	15.56
64QAM	1/0	16.80	15.67	15.65	15.55	64QAM	1/0	16.80	15.67	15.57	15.51
	1/12	16.80	15.56	15.54	15.42		1/24	16.80	15.42	15.54	15.61
	1/24	16.80	15.68	15.61	15.45		1/49	16.80	15.59	15.64	15.63
	12/0	16.80	15.55	15.54	15.58		25/0	16.80	15.67	15.53	15.58
	12/6	16.80	15.63	15.61	15.48		25/12	16.80	15.45	15.43	15.54
	12/13	16.80	15.59	15.64	15.56		25/25	16.80	15.59	15.57	15.56
	25/0	16.80	15.57	15.69	15.51		50/0	16.80	15.67	15.45	15.49

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	16.80	15.62	15.80	15.65	QPSK	1/0	16.80	15.69	15.59	15.59
	1/37	16.80	15.72	15.80	15.75		1/50	16.80	15.17	15.35	15.31
	1/74	16.80	15.55	15.72	15.50		1/99	16.80	15.69	15.62	15.56
	36/0	16.80	15.86	15.83	15.71		50/0	16.80	15.81	15.65	15.73
	36/19	16.80	15.70	15.73	15.60		50/25	16.80	15.62	15.61	15.67
	36/39	16.80	15.67	15.66	15.72		50/50	16.80	15.69	15.58	15.58
	75/0	16.80	15.68	15.73	15.51		100/0	16.80	15.70	15.69	15.60
16QAM	1/0	16.80	15.99	15.95	16.00	16QAM	1/0	16.80	16.17	16.12	15.94
	1/37	16.80	15.94	15.97	16.10		1/50	16.80	15.64	15.60	15.68
	1/74	16.80	15.76	15.84	15.97		1/99	16.80	15.92	15.86	15.89
	36/0	16.80	15.79	15.75	15.74		50/0	16.80	15.66	15.80	15.62
	36/19	16.80	15.67	15.58	15.61		50/25	16.80	15.66	15.65	15.53
	36/39	16.80	15.68	15.64	15.72		50/50	16.80	15.62	15.68	15.45
	75/0	16.80	15.62	15.57	15.62		100/0	16.80	15.65	15.63	15.60
64QAM	1/0	16.80	15.67	15.54	15.48	64QAM	1/0	16.80	15.59	15.57	15.51
	1/37	16.80	15.63	15.48	15.51		1/50	16.80	15.53	15.41	15.54
	1/74	16.80	15.55	15.56	15.57		1/99	16.80	15.59	15.56	15.52
	36/0	16.80	15.64	15.56	15.61		50/0	16.80	15.43	15.35	15.47
	36/19	16.80	15.62	15.52	15.48		50/25	16.80	15.41	15.39	15.42
	36/39	16.80	15.44	15.43	15.42		50/50	16.80	15.51	15.48	15.67
	75/0	16.80	15.51	15.56	15.59		100/0	16.80	15.46	15.57	15.58

Second Antenna Receiver off and WIFI 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	20.90	19.97	19.73	19.84	QPSK	1/0	20.90	19.75	19.71	19.83
	1/12	20.90	20.02	19.78	19.88		1/24	20.90	19.61	19.43	19.23
	1/24	20.90	19.96	19.74	19.85		1/49	20.90	19.82	19.79	19.80
	12/0	20.90	19.88	19.79	19.92		25/0	20.90	19.84	19.78	19.72
	12/6	20.90	19.82	19.71	19.81		25/12	20.90	19.94	19.85	19.75
	12/13	20.90	19.99	19.84	19.73		25/25	20.90	19.89	19.84	19.75
	25/0	20.90	20.00	19.82	19.72		50/0	20.90	19.95	19.85	19.73
16QAM	1/0	20.90	20.66	20.04	20.18	16QAM	1/0	20.90	20.31	20.10	20.01
	1/12	20.90	20.27	20.18	20.08		1/24	20.90	19.57	19.90	19.68
	1/24	20.90	20.16	20.16	20.03		1/49	20.90	20.06	20.10	19.88
	12/0	20.90	19.94	19.75	19.81		25/0	20.90	19.81	19.71	19.65
	12/6	20.90	19.97	19.64	19.74		25/12	20.90	19.86	19.66	19.67
	12/13	20.90	19.84	19.70	19.79		25/25	20.90	19.82	19.69	19.77
	25/0	20.90	19.84	19.67	19.80		50/0	20.90	19.87	19.69	19.79
64QAM	1/0	20.90	19.75	19.71	19.73	64QAM	1/0	20.90	19.77	19.54	19.56
	1/12	20.90	19.73	19.74	19.78		1/24	20.90	19.72	19.58	19.61
	1/24	20.90	19.68	19.77	19.64		1/49	20.90	19.62	19.64	19.57
	12/0	20.40	18.98	19.17	19.08		25/0	20.40	19.05	19.11	19.03
	12/6	20.40	19.08	19.11	19.12		25/12	20.40	18.98	18.94	18.95
	12/13	20.40	19.05	19.13	19.01		25/25	20.40	18.87	18.84	18.92
	25/0	20.40	19.16	19.06	19.07		50/0	20.40	19.03	19.11	19.05

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	20.90	19.81	19.77	19.73	QPSK	1/0	20.90	19.93	19.76	19.73
	1/37	20.90	19.89	19.84	19.70		1/50	20.90	19.52	19.67	19.50
	1/74	20.90	19.74	19.80	19.70		1/99	20.90	19.84	19.86	19.82
	36/0	20.90	19.82	19.72	19.85		50/0	20.90	19.93	19.78	19.88
	36/19	20.90	19.93	19.84	19.75		50/25	20.90	19.76	19.85	19.72
	36/39	20.90	19.92	19.85	19.72		50/50	20.90	19.97	19.87	19.73
	75/0	20.90	19.93	19.83	19.81		100/0	20.90	19.81	19.89	19.79
16QAM	1/0	20.90	20.09	19.97	20.11	16QAM	1/0	20.90	20.08	19.94	20.01
	1/37	20.90	20.22	20.17	20.08		1/50	20.90	19.84	19.71	19.69
	1/74	20.90	20.06	20.06	19.96		1/99	20.90	20.01	20.08	19.92
	36/0	20.90	19.77	19.71	19.81		50/0	20.90	19.77	19.77	19.76
	36/19	20.90	19.75	19.72	19.71		50/25	20.90	19.66	19.68	19.69
	36/39	20.90	19.71	19.68	19.73		50/50	20.90	19.70	19.69	19.70
	75/0	20.90	19.81	19.73	19.65		100/0	20.90	19.74	19.74	19.66
64QAM	1/0	20.90	19.77	19.75	19.67	64QAM	1/0	20.90	19.69	19.72	19.67
	1/37	20.90	19.83	19.68	19.72		1/50	20.90	19.77	19.75	19.64
	1/74	20.90	19.66	19.73	19.59		1/99	20.90	19.62	19.81	19.72
	36/0	20.40	19.12	19.08	19.03		50/0	20.40	19.13	19.06	19.02
	36/19	20.40	19.15	19.12	19.04		50/25	20.40	19.04	18.94	18.99
	36/39	20.40	19.08	19.02	19.06		50/50	20.40	19.11	19.02	19.03
	75/0	20.40	19.01	19.15	18.97		100/0	20.40	18.96	19.16	19.07

Note: The tested channel results are marks in bold.

5. Conducted power measurements 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	24.50	23.51	23.48	23.46	QPSK	1/0	24.50	23.45	23.49	23.32
	1/2	24.50	23.14	23.38	23.22		1/7	24.50	22.59	23.05	23.16
	1/5	24.50	23.38	23.36	23.39		1/14	24.50	23.41	23.37	23.32
	3/0	24.50	23.40	23.28	23.25		8/0	23.50	22.48	22.35	22.34
	3/1	24.50	22.98	23.09	23.21		8/3	23.50	22.40	22.39	22.35
	3/3	24.50	23.24	23.36	23.03		8/7	23.50	22.31	22.47	22.30
	6/0	23.50	22.41	22.41	22.27		15/0	23.50	22.40	22.46	22.48
16QAM	1/0	23.70	22.67	22.76	22.59	16QAM	1/0	23.70	22.72	22.68	22.66
	1/2	23.70	22.34	22.30	22.44		1/7	23.70	22.16	22.09	22.05
	1/5	23.70	22.57	22.69	22.64		1/14	23.70	22.66	22.57	22.67
	3/0	23.70	22.56	22.37	22.53		8/0	22.70	21.36	21.25	21.55
	3/1	23.70	22.46	22.45	22.39		8/3	22.70	21.41	21.31	21.47
	3/3	23.70	22.46	22.21	22.39		8/7	22.70	21.34	21.33	21.29
	6/0	22.70	21.41	21.28	21.34		15/0	22.70	21.36	21.43	21.37
64QAM	1/0	22.70	21.37	21.22	21.31	64QAM	1/0	22.70	21.39	21.28	21.34
	1/2	22.70	21.33	21.25	21.29		1/7	22.70	21.25	21.22	21.29
	1/5	22.70	21.26	21.22	21.33		1/14	22.70	21.18	21.23	21.25
	3/0	22.70	21.19	21.34	21.24		8/0	21.70	20.51	20.41	21.38
	3/1	22.70	21.29	21.35	21.31		8/3	21.70	20.39	20.36	20.42
	3/3	22.70	21.33	21.26	21.24		8/7	21.70	20.37	20.33	20.28
	6/0	21.70	20.45	20.38	20.33		15/0	21.70	20.31	20.28	20.25

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	24.50	23.42	23.48	23.26	QPSK	1/0	24.50	**23.56**	**23.53**	**23.50**
	1/12	24.50	23.51	23.47	23.34		1/24	24.50	23.32	23.25	23.22
	1/24	24.50	23.48	23.31	23.33		1/49	24.50	23.51	23.50	23.48
	12/0	23.50	22.49	22.50	22.47		25/0	23.50	**22.72**	22.69	22.64
	12/6	23.50	22.54	22.44	22.38		25/12	23.50	22.65	22.65	22.61
	12/13	23.50	22.47	22.44	22.27		25/25	23.50	22.63	22.61	22.66
	25/0	23.50	22.53	22.48	22.42		50/0	23.50	22.66	22.65	22.63
16QAM	1/0	23.70	22.70	22.98	22.62	16QAM	1/0	23.70	22.89	22.67	22.70
	1/12	23.70	22.73	23.04	22.67		1/24	23.70	22.53	22.22	22.57
	1/24	23.70	22.70	22.94	22.67		1/49	23.70	22.88	22.71	22.77
	12/0	22.70	21.58	21.48	21.44		25/0	22.70	21.72	21.54	21.50
	12/6	22.70	21.51	21.33	21.35		25/12	22.70	21.68	21.67	21.58
	12/13	22.70	21.37	21.32	21.37		25/25	22.70	21.64	21.61	21.63
	25/0	22.70	21.46	21.46	21.48		50/0	22.70	21.62	21.49	21.61
64QAM	1/0	22.70	21.41	21.42	21.38	64QAM	1/0	22.70	21.55	21.56	21.48
	1/12	22.70	21.37	21.39	21.43		1/24	22.70	21.61	21.55	21.47
	1/24	22.70	21.35	21.45	21.44		1/49	22.70	21.53	21.60	21.50
	12/0	21.70	20.51	20.45	20.48		25/0	21.70	20.65	20.55	20.62
	12/6	21.70	20.38	20.46	20.39		25/12	21.70	20.63	20.57	20.58
	12/13	21.70	20.37	20.46	20.29		25/25	21.70	20.49	20.51	20.46
	25/0	21.70	20.31	20.22	20.28		50/0	21.70	20.51	20.53	20.48

Second Antenna Receiver on:

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	23.50	22.39	22.25	22.42	QPSK	1/0	23.50	22.33	22.40	22.46
	1/2	23.50	21.94	22.22	22.12		1/7	23.50	22.01	22.16	21.84
	1/5	23.50	22.31	22.29	22.34		1/14	23.50	22.46	22.41	22.41
	3/0	23.50	22.12	22.02	22.15		8/0	23.50	21.91	22.07	22.20
	3/1	23.50	22.10	21.99	22.07		8/3	23.50	22.02	22.00	22.16
	3/3	23.50	22.00	22.05	21.79		8/7	23.50	22.19	22.15	22.13
	6/0	23.50	21.96	22.07	22.09		15/0	23.50	22.20	22.10	22.10
16QAM	1/0	23.50	22.34	22.45	22.46	16QAM	1/0	23.50	22.38	22.41	22.51
	1/2	23.50	22.00	22.10	22.36		1/7	23.50	21.82	21.82	21.72
	1/5	23.50	22.38	22.35	22.33		1/14	23.50	22.46	22.37	22.51
	3/0	23.50	22.39	22.16	22.14		8/0	22.50	21.24	21.20	21.20
	3/1	23.50	22.11	22.16	22.13		8/3	22.50	21.24	21.27	21.32
	3/3	23.50	22.16	22.14	22.02		8/7	22.50	21.31	21.23	21.17
	6/0	22.50	21.28	21.22	21.40		15/0	22.50	21.36	21.31	21.27
64QAM	1/0	22.50	21.14	21.17	21.02	64QAM	1/0	22.50	21.16	21.17	21.16
	1/2	22.50	21.08	21.09	21.06		1/7	22.50	21.14	21.04	21.25
	1/5	22.50	21.18	21.37	21.02		1/14	22.50	21.17	21.18	21.06
	3/0	22.50	21.17	20.99	21.02		8/0	21.50	20.12	20.14	20.02
	3/1	22.50	21.16	21.16	21.02		8/3	21.50	20.12	20.09	20.03
	3/3	22.50	21.03	20.97	21.25		8/7	21.50	20.14	20.08	20.16
	6/0	21.50	20.25	20.14	20.16		15/0	21.50	20.09	20.02	20.02

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	23.50	22.41	22.42	22.33	QPSK	1/0	23.50	22.29	22.21	22.24
	1/12	23.50	22.54	22.44	22.44		1/24	23.50	22.08	22.17	21.96
	1/24	23.50	22.46	22.42	22.34		1/49	23.50	**22.51**	**22.38**	**22.31**
	12/0	23.50	22.33	22.23	22.12		25/0	23.50	**22.24**	**22.21**	**22.23**
	12/6	23.50	22.15	22.14	22.24		25/12	23.50	22.18	22.19	22.20
	12/13	23.50	22.27	22.24	22.19		25/25	23.50	22.05	22.16	22.19
	25/0	23.50	22.29	22.18	22.24		50/0	23.50	22.20	22.18	**22.22**
16QAM	1/0	23.50	22.44	22.44	22.38	16QAM	1/0	23.50	22.40	22.39	22.22
	1/12	23.50	22.54	22.46	22.42		1/24	23.50	22.15	22.18	22.13
	1/24	23.50	22.49	22.46	22.39		1/49	23.50	22.39	22.47	22.28
	12/0	22.50	21.42	21.30	21.35		25/0	22.50	21.32	21.30	21.10
	12/6	22.50	21.26	21.27	21.41		25/12	22.50	21.31	21.29	21.30
	12/13	22.50	21.40	21.26	21.30		25/25	22.50	21.23	21.27	21.33
	25/0	22.50	21.28	21.34	21.35		50/0	22.50	21.25	21.28	21.30
64QAM	1/0	22.50	21.19	21.25	21.26	64QAM	1/0	22.50	21.22	21.13	21.28
	1/12	22.50	21.14	21.18	21.19		1/24	22.50	21.16	21.24	21.12
	1/24	22.50	21.17	21.12	21.16		1/49	22.50	21.28	21.26	21.22
	12/0	21.50	20.35	20.31	20.27		25/0	21.50	20.38	20.43	20.37
	12/6	21.50	20.24	20.19	20.23		25/12	21.50	20.26	20.42	20.32
	12/13	21.50	20.19	20.33	20.15		25/25	21.50	20.28	20.32	20.22
	25/0	21.50	20.16	20.23	20.18		50/0	21.50	20.13	20.18	20.26

Second Antenna Receiver off:

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	24.50	23.45	23.32	23.40	QPSK	1/0	24.50	23.35	23.26	23.39
	1/2	24.50	22.92	23.16	23.02		1/7	24.50	22.64	23.11	23.05
	1/5	24.50	23.44	23.46	23.35		1/14	24.50	23.38	23.26	23.24
	3/0	24.50	23.22	23.18	23.22		8/0	23.50	22.36	22.25	22.12
	3/1	24.50	23.07	23.16	23.13		8/3	23.50	22.12	22.25	22.23
	3/3	24.50	23.06	23.38	23.13		8/7	23.50	22.22	22.29	22.28
	6/0	23.50	22.04	22.18	22.21		15/0	23.50	22.32	22.27	22.18
16QAM	1/0	23.70	22.45	22.54	22.30	16QAM	1/0	23.70	22.51	22.54	22.51
	1/2	23.70	22.14	22.26	22.19		1/7	23.70	22.12	22.31	21.96
	1/5	23.70	22.36	22.58	22.25		1/14	23.70	22.58	22.67	22.45
	3/0	23.70	22.27	22.38	22.17		8/0	22.70	21.12	21.00	21.25
	3/1	23.70	22.07	22.33	22.03		8/3	22.70	21.16	21.09	21.26
	3/3	23.70	22.16	22.37	22.21		8/7	22.70	21.08	21.11	21.20
	6/0	22.70	21.21	21.21	21.06		15/0	22.70	21.25	21.12	21.31
64QAM	1/0	22.70	21.18	21.15	21.09	64QAM	1/0	22.70	21.17	21.15	21.22
	1/2	22.70	21.11	21.05	21.12		1/7	22.70	21.23	21.08	21.25
	1/5	22.70	21.16	21.08	21.14		1/14	22.70	21.15	21.16	21.07
	3/0	22.70	21.06	21.04	21.07		8/0	21.70	20.24	20.18	20.14
	3/1	22.70	21.17	21.22	21.09		8/3	21.70	20.19	20.13	20.07
	3/3	22.70	21.13	21.04	21.25		8/7	21.70	20.18	20.11	20.20
	6/0	21.70	20.25	20.23	20.20		15/0	21.70	20.05	20.09	20.14

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	24.50	23.31	23.29	23.19	QPSK	1/0	24.50	**23.47**	**23.39**	**23.35**
	1/12	24.50	23.44	23.32	23.30		1/24	24.50	23.12	23.09	23.02
	1/24	24.50	23.35	23.36	23.24		1/49	24.50	23.28	23.38	23.28
	12/0	23.50	22.39	22.34	22.28		25/0	23.50	**22.35**	22.32	22.21
	12/6	23.50	22.33	22.27	22.33		25/12	23.50	22.34	22.33	22.32
	12/13	23.50	22.24	22.34	22.24		25/25	23.50	22.19	22.31	22.34
	25/0	23.50	22.35	22.28	22.30		50/0	23.50	22.31	22.31	22.33
16QAM	1/0	23.70	22.49	22.41	22.47	16QAM	1/0	23.70	22.52	22.48	22.31
	1/12	23.70	22.62	22.46	22.59		1/24	23.70	22.18	22.22	22.22
	1/24	23.70	22.52	22.50	22.57		1/49	23.70	22.39	22.57	22.44
	12/0	22.70	21.35	21.28	21.33		25/0	22.70	21.24	21.20	21.11
	12/6	22.70	21.36	21.26	21.25		25/12	22.70	21.27	21.18	21.27
	12/13	22.70	21.34	21.28	21.30		25/25	22.70	21.18	21.19	21.22
	25/0	22.70	21.23	21.31	21.34		50/0	22.70	21.23	21.12	21.26
64QAM	1/0	22.70	21.19	21.25	21.26	64QAM	1/0	22.70	21.16	21.15	21.19
	1/12	22.70	21.14	21.18	21.19		1/24	22.70	21.08	21.12	21.10
	1/24	22.70	21.07	21.12	21.16		1/49	22.70	21.19	21.23	21.16
	12/0	21.70	20.35	20.31	20.27		25/0	21.70	20.29	20.38	20.35
	12/6	21.70	20.24	20.19	20.23		25/12	21.70	20.23	20.36	20.31
	12/13	21.70	20.19	20.33	20.15		25/25	21.70	20.19	20.26	20.21
	25/0	21.70	20.16	20.23	20.18		50/0	21.70	20.15	20.09	20.18

Note: The tested channel results are marks in bold.

6. Conducted power measurements of LTE B17

Main Antenna:

LTE B17/BW=5M		Average Conducted Power(dBm)				LTE B17/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)		
			23755/ 706.5	23790/ 710	23825/ 713.5				23780/ 709	23790/ 710	23800/ 711
QPSK	1/0	24.50	23.45	23.28	23.31	QPSK	1/0	24.50	23.46	23.39	23.38
	1/12	24.50	23.42	23.43	23.31		1/24	24.50	23.22	23.13	23.16
	1/24	24.50	23.38	23.32	23.40		1/49	24.50	23.39	23.33	23.35
	12/0	23.50	22.51	22.40	22.46		25/0	23.50	22.40	22.47	22.34
	12/6	23.50	22.43	22.41	22.45		25/12	23.50	22.33	22.46	22.49
	12/13	23.50	22.40	22.38	22.29		25/25	23.50	22.34	22.49	22.38
	25/0	23.50	22.40	22.43	22.30		50/0	23.50	22.32	22.48	22.47
16QAM	1/0	23.70	22.77	22.61	22.55	16QAM	1/0	23.70	22.66	22.65	22.64
	1/12	23.70	22.71	22.76	22.70		1/24	23.70	22.51	22.16	22.43
	1/24	23.70	22.60	22.75	22.72		1/49	23.70	22.61	22.72	22.71
	12/0	22.70	21.57	21.48	21.32		25/0	22.70	21.37	21.33	21.48
	12/6	22.70	21.51	21.33	21.27		25/12	22.70	21.33	21.53	21.43
	12/13	22.70	21.47	21.32	21.38		25/25	22.70	21.42	21.52	21.38
	25/0	22.70	21.42	21.46	21.40		50/0	22.70	21.36	21.45	21.42
64QAM	1/0	22.70	21.43	21.52	21.38	64QAM	1/0	22.70	21.33	21.41	21.36
	1/12	22.70	21.36	21.39	21.45		1/24	22.70	21.28	21.39	21.32
	1/24	22.70	21.33	21.37	21.41		1/49	22.70	21.18	21.23	21.28
	12/0	21.70	20.55	20.62	20.38		25/0	21.70	20.33	20.41	20.29
	12/6	21.70	20.49	20.59	20.36		25/12	21.70	20.36	20.35	20.26
	12/13	21.70	20.45	20.53	20.33		25/25	21.70	20.19	20.27	20.36
	25/0	21.70	20.51	20.47	20.42		50/0	21.70	20.29	20.22	20.31

Second Antenna Receiver on:

LTE B17/BW=5M		Average Conducted Power(dBm)				LTE B17/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)		
			23755/ 706.5	23790/ 710	23825/ 713.5				23780/ 709	23790/ 710	23800/ 711
QPSK	1/0	23.50	22.43	22.24	22.27	QPSK	1/0	23.50	22.31	22.40	22.48
	1/12	23.50	22.38	22.45	22.39		1/24	23.50	22.22	22.22	22.09
	1/24	23.50	22.36	22.42	22.34		1/49	23.50	22.44	22.40	22.40
	12/0	23.50	22.33	22.28	22.28		25/0	23.50	22.31	22.26	22.27
	12/6	23.50	22.18	22.28	22.13		25/12	23.50	22.30	22.30	22.31
	12/13	23.50	22.19	22.21	22.16		25/25	23.50	22.35	22.35	22.33
	25/0	23.50	22.26	22.28	22.24		50/0	23.50	22.29	22.28	22.34
16QAM	1/0	23.50	22.49	22.52	22.51	16QAM	1/0	23.50	22.48	22.36	22.40
	1/12	23.50	22.41	22.49	22.64		1/24	23.50	21.97	22.19	22.24
	1/24	23.50	22.42	22.55	22.57		1/49	23.50	22.43	22.44	22.45
	12/0	22.50	21.32	21.35	21.35		25/0	22.50	21.33	21.29	21.29
	12/6	22.50	21.20	21.32	21.16		25/12	22.50	21.33	21.18	21.28
	12/13	22.50	21.29	21.23	21.19		25/25	22.50	21.27	21.19	21.31
	25/0	22.50	21.24	21.28	21.31		50/0	22.50	21.27	21.22	21.30
64QAM	1/0	22.50	21.25	21.35	21.23	64QAM	1/0	22.50	21.18	21.18	21.18
	1/12	22.50	21.21	21.27	21.25		1/24	22.50	21.06	21.14	21.15
	1/24	22.50	21.15	21.28	21.24		1/49	22.50	21.15	21.25	21.12
	12/0	21.50	20.45	20.45	20.35		25/0	21.50	20.25	20.36	20.35
	12/6	21.50	20.26	20.25	20.35		25/12	21.50	20.25	20.32	20.35
	12/13	21.50	20.25	20.45	20.25		25/25	21.50	20.15	20.27	20.25
	25/0	21.50	20.24	20.35	20.27		50/0	21.50	20.15	20.05	20.11

Second Antenna Receiver off:

LTE B17/BW=5M		Average Conducted Power(dBm)				LTE B17/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)		
			23755/ 706.5	23790/ 710	23825/ 713.5				23780/ 709	23790/ 710	23800/ 711
QPSK	1/0	24.50	23.37	23.19	23.22	QPSK	1/0	24.50	23.38	23.33	23.36
	1/12	24.50	23.28	23.35	23.29		1/24	24.50	23.13	23.10	22.89
	1/24	24.50	23.34	23.33	23.33		1/49	24.50	23.18	23.20	23.27
	12/0	23.50	22.38	22.33	22.31		25/0	23.50	22.37	22.27	22.34
	12/6	23.50	22.32	22.36	22.34		25/12	23.50	22.26	22.33	22.24
	12/13	23.50	22.25	22.25	22.20		25/25	23.50	22.33	22.38	22.33
	25/0	23.50	22.34	22.36	22.30		50/0	23.50	22.36	22.33	22.34
16QAM	1/0	23.70	22.61	22.69	22.44	16QAM	1/0	23.70	22.66	22.64	22.57
	1/12	23.70	22.53	22.66	22.49		1/24	23.70	22.28	22.20	22.33
	1/24	23.70	22.51	22.68	22.54		1/49	23.70	22.56	22.61	22.50
	12/0	22.70	21.34	21.36	21.37		25/0	22.70	21.25	21.32	21.13
	12/6	22.70	21.23	21.32	21.23		25/12	22.70	21.22	21.28	21.28
	12/13	22.70	21.22	21.23	21.24		25/25	22.70	21.30	21.34	21.33
	25/0	22.70	21.29	21.30	21.29		50/0	22.70	21.14	21.28	21.32
64QAM	1/0	22.70	21.15	21.25	21.23	64QAM	1/0	22.70	21.18	21.15	21.15
	1/12	22.70	21.17	21.19	21.15		1/24	22.70	21.04	21.16	21.15
	1/24	22.70	21.05	21.16	21.18		1/49	22.70	21.15	21.25	21.18
	12/0	21.70	20.35	20.35	20.25		25/0	21.70	20.25	20.39	20.35
	12/6	21.70	20.22	20.15	20.25		25/12	21.70	20.25	20.38	20.35
	12/13	21.70	20.15	20.35	20.15		25/25	21.70	20.15	20.23	20.25
	25/0	21.70	20.18	20.25	20.19		50/0	21.70	20.15	20.05	20.19

Note: The tested channel results are marks in bold.

7. Conducted power measurements of LTE B66

Main Antenna:

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	23.07	22.96	22.95	QPSK	1/0	24.00	23.17	22.90	22.78
	1/2	24.00	22.67	22.99	22.85		1/7	24.00	22.76	22.26	22.63
	1/5	24.00	23.14	23.01	23.15		1/14	24.00	23.05	22.86	22.92
	3/0	24.00	22.99	22.83	22.86		8/0	23.00	21.89	21.91	21.85
	3/1	24.00	22.95	22.84	22.88		8/3	23.00	21.92	21.98	22.01
	3/3	24.00	22.97	22.89	22.97		8/7	23.00	22.15	22.01	22.02
	6/0	23.00	22.05	21.88	21.74		15/0	23.00	22.16	21.99	21.98
16QAM	1/0	23.20	22.31	22.22	22.15	16QAM	1/0	23.20	22.36	22.11	22.45
	1/2	23.20	22.09	22.29	21.98		1/7	23.20	21.58	21.69	21.52
	1/5	23.20	22.32	22.26	22.25		1/14	23.20	22.29	22.19	22.31
	3/0	23.20	22.15	21.86	22.07		8/0	22.20	20.97	20.89	20.83
	3/1	23.20	21.89	21.85	21.77		8/3	22.20	21.03	20.99	20.81
	3/3	23.20	21.93	21.81	21.82		8/7	22.20	21.06	20.82	20.90
	6/0	22.20	21.02	20.95	20.92		15/0	22.20	20.96	21.01	21.06
64QAM	1/0	22.20	21.13	21.02	20.98	64QAM	1/0	22.20	20.94	20.97	21.03
	1/2	22.20	21.05	20.97	20.91		1/7	22.20	20.92	20.95	20.99
	1/5	22.20	20.99	21.00	21.03		1/14	22.20	21.03	20.91	21.02
	3/0	22.20	20.97	21.02	20.95		8/0	21.20	20.23	20.21	20.15
	3/1	22.20	21.08	21.11	21.13		8/3	21.20	20.11	20.08	20.06
	3/3	22.20	20.96	21.04	21.03		8/7	21.20	20.07	20.09	20.14
	6/0	21.20	20.12	20.16	20.22		15/0	21.20	20.02	20.05	20.13

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	23.08	22.97	22.92	QPSK	1/0	24.00	22.96	23.07	22.93
	1/12	24.00	22.42	22.62	22.26		1/24	24.00	22.69	22.67	22.69
	1/24	24.00	22.97	23.07	22.93		1/49	24.00	22.91	23.01	22.92
	12/0	23.00	22.19	22.05	21.92		25/0	23.00	21.95	22.06	21.90
	12/6	23.00	21.95	21.87	21.88		25/12	23.00	21.88	22.07	21.86
	12/13	23.00	22.08	21.92	22.04		25/25	23.00	22.05	21.88	21.83
	25/0	23.00	22.07	22.01	21.86		50/0	23.00	21.87	22.04	21.86
16QAM	1/0	23.20	22.46	22.22	22.15	16QAM	1/0	23.20	22.23	22.14	22.31
	1/12	23.20	21.87	21.66	21.89		1/24	23.20	21.94	21.98	21.96
	1/24	23.20	22.39	22.22	22.16		1/49	23.20	22.27	22.06	22.29
	12/0	22.20	20.99	21.09	21.03		25/0	22.20	20.90	20.88	20.96
	12/6	22.20	20.97	20.92	20.94		25/12	22.20	20.84	20.87	21.00
	12/13	22.20	21.08	20.97	20.88		25/25	22.20	20.97	20.88	20.83
	25/0	22.20	21.09	21.05	20.82		50/0	22.20	20.85	21.02	20.84
64QAM	1/0	22.20	21.03	21.01	20.93	64QAM	1/0	22.20	20.92	20.93	20.85
	1/12	22.20	20.98	20.92	20.87		1/24	22.20	20.98	20.96	20.89
	1/24	22.20	21.05	20.99	21.03		1/49	22.20	21.01	20.91	20.93
	12/0	21.20	20.25	20.31	20.18		25/0	21.20	20.26	20.31	20.18
	12/6	21.20	20.16	20.23	20.19		25/12	21.20	20.11	20.15	20.07
	12/13	21.20	20.22	20.24	20.13		25/25	21.20	20.13	20.19	20.15
	25/0	21.20	20.09	20.12	20.04		50/0	21.20	20.06	20.05	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	24.00	23.01	23.02	22.88	QPSK	1/0	24.00	**23.18**	**23.23**	**23.17**
	1/37	24.00	22.44	22.62	22.44		1/50	24.00	22.59	22.85	22.55
	1/74	24.00	22.83	22.88	22.88		1/99	24.00	23.16	23.13	23.06
	36/0	23.00	21.93	22.02	21.86		50/0	23.00	21.93	**22.09**	21.87
	36/19	23.00	21.96	21.89	21.83		50/25	23.00	22.03	22.03	21.88
	36/39	23.00	22.06	22.08	21.88		50/50	23.00	22.08	21.92	21.85
	75/0	23.00	22.01	21.89	21.84		100/0	23.00	21.92	21.99	21.87
16QAM	1/0	23.20	22.29	22.07	21.96	16QAM	1/0	23.20	22.58	22.36	22.18
	1/37	23.20	21.48	21.78	21.42		1/50	23.20	22.08	21.83	21.89
	1/74	23.20	22.17	22.22	21.94		1/99	23.20	22.53	22.36	22.18
	36/0	22.20	20.91	20.88	20.97		50/0	22.20	20.92	21.04	20.82
	36/19	22.20	20.98	20.90	20.88		50/25	22.20	20.87	20.88	20.93
	36/39	22.20	20.92	20.89	20.87		50/50	22.20	20.98	20.87	20.82
	75/0	22.20	21.01	20.86	20.83		100/0	22.20	21.05	20.84	20.78
64QAM	1/0	22.20	20.94	20.92	20.91	64QAM	1/0	22.20	21.01	20.93	20.88
	1/37	22.20	20.84	20.89	20.86		1/50	22.20	20.95	20.97	20.93
	1/74	22.20	20.98	20.93	20.97		1/99	22.20	21.06	20.91	20.98
	36/0	21.20	20.29	20.18	20.32		50/0	21.20	20.22	20.17	20.19
	36/19	21.20	20.17	20.22	20.26		50/25	21.20	20.23	20.15	20.16
	36/39	21.20	20.19	20.07	20.14		50/50	21.20	20.26	20.18	20.14
	75/0	21.20	20.15	20.13	20.19		100/0	21.20	20.19	20.20	20.13

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	20.50	19.41	19.65	19.79	QPSK	1/0	20.50	19.37	19.48	19.72
	1/2	20.50	19.45	19.69	19.83		1/7	20.50	18.66	18.77	19.01
	1/5	20.50	19.51	19.75	19.89		1/14	20.50	19.29	19.40	19.64
	3/0	20.50	19.47	19.71	19.85		8/0	20.50	19.31	19.42	19.66
	3/1	20.50	19.19	19.43	19.57		8/3	20.50	19.25	19.36	19.60
	3/3	20.50	19.28	19.52	19.66		8/7	20.50	19.27	19.38	19.62
	6/0	20.50	19.49	19.73	19.87		15/0	20.50	19.35	19.46	19.70
16QAM	1/0	20.50	19.52	19.92	19.86	16QAM	1/0	20.50	19.82	19.87	19.85
	1/2	20.50	19.43	19.83	19.77		1/7	20.50	19.17	19.22	19.20
	1/5	20.50	19.50	19.90	19.84		1/14	20.50	19.69	19.74	19.72
	3/0	20.50	19.36	19.76	19.70		8/0	20.50	19.39	19.44	19.42
	3/1	20.50	19.08	19.48	19.42		8/3	20.50	19.27	19.32	19.30
	3/3	20.50	19.34	19.74	19.68		8/7	20.50	19.29	19.34	19.32
	6/0	20.50	19.51	19.91	19.85		15/0	20.50	19.28	19.33	19.31
64QAM	1/0	20.50	19.44	19.84	19.82	64QAM	1/0	20.50	19.70	19.89	19.75
	1/2	20.50	19.31	19.71	19.79		1/7	20.50	19.19	19.23	19.14
	1/5	20.50	19.45	19.83	19.78		1/14	20.50	19.63	19.68	19.64
	3/0	20.50	19.32	19.72	19.69		8/0	20.50	19.31	19.36	19.34
	3/1	20.50	19.06	19.46	19.34		8/3	20.50	19.29	19.24	19.21
	3/3	20.50	19.28	19.68	19.66		8/7	20.50	19.23	19.28	19.24
	6/0	20.50	19.47	19.87	19.75		15/0	20.50	19.16	19.21	19.20

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	20.50	19.47	19.51	19.55	QPSK	1/0	20.50	19.45	19.58	19.56
	1/12	20.50	18.69	18.73	18.77		1/24	20.50	19.19	19.32	19.30
	1/24	20.50	19.26	19.30	19.34		1/49	20.50	19.28	19.41	19.39
	12/0	20.50	19.37	19.41	19.45		25/0	20.50	19.34	19.47	19.45
	12/6	20.50	19.38	19.42	19.46		25/12	20.50	19.35	19.48	19.46
	12/13	20.50	19.35	19.39	19.43		25/25	20.50	19.38	19.51	19.49
	25/0	20.50	19.29	19.33	19.37		50/0	20.50	19.33	19.46	19.44
16QAM	1/0	20.50	19.85	19.82	20.03	16QAM	1/0	20.50	19.44	19.64	19.61
	1/12	20.50	19.02	19.04	19.20		1/24	20.50	19.43	19.63	19.60
	1/24	20.50	19.75	19.77	19.93		1/49	20.50	19.49	19.69	19.66
	12/0	20.50	19.43	19.45	19.61		25/0	20.50	19.36	19.56	19.53
	12/6	20.50	19.35	19.37	19.53		25/12	20.50	19.39	19.59	19.56
	12/13	20.50	19.32	19.34	19.50		25/25	20.50	19.41	19.61	19.58
	25/0	20.50	19.25	19.27	19.43		50/0	20.50	19.34	19.54	19.51
64QAM	1/0	20.50	19.75	19.74	19.91	64QAM	1/0	20.50	19.38	19.58	19.50
	1/12	20.50	18.94	18.92	19.14		1/24	20.50	19.31	19.57	19.52
	1/24	20.50	19.75	19.79	19.81		1/49	20.50	19.43	19.63	19.62
	12/0	20.50	19.31	19.35	19.57		25/0	20.50	19.32	19.52	19.41
	12/6	20.50	19.25	19.38	19.41		25/12	20.50	19.33	19.53	19.52
	12/13	20.50	19.24	19.28	19.45		25/25	20.50	19.17	19.57	19.56
	25/0	20.50	19.25	19.29	19.31		50/0	20.50	19.28	19.48	19.47

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	20.50	19.44	19.46	19.49	QPSK	1/0	20.50	19.59	19.62	19.72
	1/37	20.50	18.68	18.70	18.73		1/50	20.50	19.11	19.27	19.24
	1/74	20.50	19.28	19.30	19.33		1/99	20.50	**19.64**	**19.66**	**19.82**
	36/0	20.50	19.32	19.34	19.37		50/0	20.50	19.33	19.49	19.65
	36/19	20.50	19.37	19.39	19.42		50/25	20.50	19.44	19.57	**19.73**
	36/39	20.50	19.42	19.44	19.47		50/50	20.50	19.46	19.47	19.62
	75/0	20.50	19.35	19.37	19.40		100/0	20.50	19.35	19.53	19.64
16QAM	1/0	20.50	19.63	19.67	19.88	16QAM	1/0	20.50	19.82	19.93	19.76
	1/37	20.50	19.11	19.15	19.36		1/50	20.50	19.49	19.61	19.62
	1/74	20.50	19.59	19.63	19.84		1/99	20.50	19.86	20.08	19.79
	36/0	20.50	19.32	19.36	19.57		50/0	20.50	19.26	19.52	19.55
	36/19	20.50	19.40	19.44	19.65		50/25	20.50	19.31	19.51	19.57
	36/39	20.50	19.42	19.46	19.67		50/50	20.50	19.32	19.53	19.61
	75/0	20.50	19.38	19.42	19.63		100/0	20.50	19.35	19.49	19.45
64QAM	1/0	20.50	19.51	19.69	19.86	64QAM	1/0	20.50	19.74	19.81	19.72
	1/37	20.50	19.07	19.05	19.32		1/50	20.50	19.43	19.70	19.54
	1/74	20.50	19.53	19.51	19.78		1/99	20.50	19.82	20.06	19.73
	36/0	20.50	19.24	19.32	19.59		50/0	20.50	19.22	19.44	19.35
	36/19	20.50	19.18	19.38	19.55		50/25	20.50	19.27	19.47	19.29
	36/39	20.50	19.34	19.42	19.69		50/50	20.50	19.24	19.41	19.57
	75/0	20.50	19.36	19.34	19.51		100/0	20.50	19.25	19.43	19.35

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	24.00	22.93	22.96	22.92	QPSK	1/0	24.00	22.98	22.94	23.01
	1/2	24.00	22.86	22.95	22.77		1/7	24.00	22.21	22.26	22.56
	1/5	24.00	22.82	23.01	22.71		1/14	24.00	22.81	22.85	22.59
	3/0	24.00	22.85	22.77	22.81		8/0	23.00	21.82	21.92	22.08
	3/1	24.00	22.67	22.98	22.76		8/3	23.00	21.89	21.91	21.99
	3/3	24.00	22.79	22.90	22.75		8/7	23.00	21.88	21.95	21.86
	6/0	23.00	21.77	21.88	21.82		15/0	23.00	21.91	21.96	21.98
16QAM	1/0	23.20	22.09	22.32	21.91	16QAM	1/0	23.20	22.04	22.28	22.29
	1/2	23.20	21.83	22.16	21.84		1/7	23.20	21.27	21.73	21.78
	1/5	23.20	22.10	22.33	21.85		1/14	23.20	21.97	22.26	21.94
	3/0	23.20	21.78	21.97	21.96		8/0	22.20	20.75	20.96	21.13
	3/1	23.20	21.86	21.88	21.94		8/3	22.20	20.79	21.01	21.09
	3/3	23.20	21.81	21.99	21.91		8/7	22.20	20.85	20.83	20.99
	6/0	22.20	20.66	20.93	21.09		15/0	22.20	20.74	20.93	21.13
64QAM	1/0	22.20	21.24	21.22	21.06	64QAM	1/0	22.20	21.14	21.38	21.34
	1/2	22.20	20.98	21.26	20.94		1/7	22.20	20.42	20.88	20.98
	1/5	22.20	21.26	21.48	20.96		1/14	22.20	21.02	21.36	21.04
	3/0	22.20	20.98	21.02	21.06		8/0	21.20	19.92	20.16	20.28
	3/1	22.20	20.96	21.08	21.04		8/3	21.20	19.94	20.13	20.22
	3/3	22.20	20.96	21.04	21.06		8/7	21.20	19.97	19.96	20.10
	6/0	21.20	19.86	20.08	20.24		15/0	21.20	19.84	20.08	20.24

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	22.77	22.97	23.15	QPSK	1/0	24.00	22.91	22.84	23.09
	1/12	24.00	22.42	22.18	22.68		1/24	24.00	22.68	22.92	23.05
	1/24	24.00	22.78	22.99	22.55		1/49	24.00	22.69	22.86	22.83
	12/0	23.00	21.81	22.07	22.24		25/0	23.00	21.71	21.86	22.00
	12/6	23.00	21.90	21.91	22.17		25/12	23.00	21.87	22.05	22.16
	12/13	23.00	21.92	22.10	22.04		25/25	23.00	21.88	22.07	22.14
	25/0	23.00	21.85	22.00	22.12		50/0	23.00	21.92	21.98	22.08
16QAM	1/0	23.20	22.07	22.25	22.39	16QAM	1/0	23.20	21.83	22.21	22.16
	1/12	23.20	22.12	22.04	21.92		1/24	23.20	21.77	21.92	21.98
	1/24	23.20	22.13	22.06	22.12		1/49	23.20	21.82	22.08	22.03
	12/0	22.20	20.74	21.05	21.24		25/0	22.20	20.73	20.83	21.01
	12/6	22.20	20.83	20.96	21.04		25/12	22.20	20.78	20.92	21.12
	12/13	22.20	20.87	20.93	21.15		25/25	22.20	20.86	20.93	20.97
	25/0	22.20	20.71	20.97	21.17		50/0	22.20	20.82	20.99	21.10
64QAM	1/0	22.20	21.12	21.36	21.44	64QAM	1/0	22.20	20.98	21.21	21.26
	1/12	22.20	21.32	21.14	21.02		1/24	22.20	20.82	21.02	21.08
	1/24	22.20	21.28	21.16	21.22		1/49	22.20	20.92	21.18	21.18
	12/0	21.20	19.94	20.21	20.34		25/0	21.20	19.88	19.80	20.19
	12/6	21.20	19.98	20.16	20.14		25/12	21.20	19.98	20.02	20.22
	12/13	21.20	20.02	20.08	20.24		25/25	21.20	20.06	19.86	20.02
	25/0	21.20	19.86	20.12	20.36		50/0	21.20	19.92	20.04	20.16

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	22.73	22.90	23.03	QPSK	1/0	24.00	**23.08**	**23.09**	**23.17**
	1/37	24.00	22.34	22.72	22.66		1/50	24.00	22.54	22.71	22.82
	1/74	24.00	22.85	23.00	22.78		1/99	24.00	22.96	23.08	22.97
	36/0	23.00	21.82	21.89	22.11		50/0	23.00	21.89	21.95	21.96
	36/19	23.00	21.89	22.01	22.16		50/25	23.00	21.95	22.03	**22.05**
	36/39	23.00	21.90	22.00	22.19		50/50	23.00	22.02	21.97	22.04
	75/0	23.00	21.87	22.01	22.13		100/0	23.00	21.95	21.92	22.15
16QAM	1/0	23.20	21.98	22.04	21.89	16QAM	1/0	23.20	22.31	22.42	22.21
	1/37	23.20	21.34	21.69	21.38		1/50	23.20	21.99	22.12	22.04
	1/74	23.20	21.99	22.02	21.97		1/99	23.20	22.38	22.41	22.29
	36/0	22.20	20.68	20.87	21.13		50/0	22.20	20.88	20.95	20.98
	36/19	22.20	20.79	20.91	20.99		50/25	22.20	20.79	21.06	21.09
	36/39	22.20	20.89	20.92	21.21		50/50	22.20	20.78	20.99	21.10
	75/0	22.20	20.76	20.83	20.92		100/0	22.20	20.89	20.93	20.96
64QAM	1/0	22.20	21.18	21.14	21.04	64QAM	1/0	22.20	21.46	21.52	21.36
	1/37	22.20	20.40	20.84	20.58		1/50	22.20	21.14	21.22	21.14
	1/74	22.20	21.04	21.12	21.02		1/99	22.20	21.48	21.56	21.34
	36/0	21.20	19.88	20.02	20.28		50/0	21.20	20.08	20.11	20.18
	36/19	21.20	19.94	20.06	20.14		50/25	21.20	19.94	20.26	20.24
	36/39	21.20	20.04	20.02	20.36		50/50	21.20	19.98	20.14	20.25
	75/0	21.20	19.96	19.98	20.02		100/0	21.20	20.04	20.02	20.16

Note: The tested channel results are marks in bold.

8.1.4 CONDUCTED POWER MEASUREMENTS OF WIFI

1. Conducted power measurements of 2.4G WiFi Receiver on:

Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	12.10	**11.84**
	2	2417		12.10	11.77
	5	2432		12.10	11.72
	6	2437		11.10	**10.70**
	7	2442		11.10	10.58
	8	2447		11.10	10.55
	9	2452		11.60	11.15
	10	2457		11.60	11.21
	11	2462		11.60	**11.25**
802.11g	1	2412	6	12.00	Not Required
	2	2417		12.00	Not Required
	5	2432		12.00	Not Required
	6	2437		11.00	Not Required
	7	2442		11.00	Not Required
	8	2447		11.00	Not Required
	9	2452		11.50	Not Required
	10	2457		11.50	Not Required
	11	2462		11.50	Not Required
802.11n HT20	1	2412	HT0	12.00	Not Required
	2	2417		12.00	Not Required
	5	2432		12.00	Not Required
	6	2437		11.00	Not Required
	7	2442		11.00	Not Required
	8	2447		11.00	Not Required
	9	2452		11.50	Not Required
	10	2457		11.50	Not Required
	11	2462		11.50	Not Required
802.11n HT40	3	2422	HT0	12.00	Not Required
	4	2427		11.00	Not Required
	5	2432		11.00	Not Required
	6	2437		11.00	Not Required
	7	2442		11.00	Not Required
	8	2447		11.00	Not Required
	9	2452		11.50	Not Required

2. Conducted power measurements of 2.4G WiFi Receiver off:

Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Max. Tune up	Average Power(dBm)
802.11b	1	2412	1	20.10	**19.06**
	2	2417		20.10	19.01
	5	2432		20.10	18.23
	6	2437		19.10	**18.13**
	7	2442		19.10	18.22
	8	2447		19.10	18.12
	9	2452		19.60	18.69
	10	2457		19.60	18.71
	11	2462		19.60	**18.76**
802.11g	1	2412	6	15.00	Not Required
	2	2417		16.00	Not Required
	5	2432		16.00	Not Required
	6	2437		15.00	Not Required
	7	2442		15.00	Not Required
	8	2447		15.00	Not Required
	9	2452		15.50	Not Required
	10	2457		15.50	Not Required
	11	2462		14.50	Not Required
802.11n HT20	1	2412	HT0	14.00	Not Required
	2	2417		15.00	Not Required
	5	2432		15.00	Not Required
	6	2437		14.00	Not Required
	7	2442		14.00	Not Required
	8	2447		14.00	Not Required
	9	2452		14.50	Not Required
	10	2457		14.50	Not Required
	11	2462		13.50	Not Required
802.11n HT40	3	2422	HT0	12.00	Not Required
	4	2427		12.00	Not Required
	5	2432		12.00	Not Required
	6	2437		12.00	Not Required
	7	2442		12.00	Not Required
	8	2447		12.00	Not Required
	9	2452		12.20	Not Required

Note:
1) The Average conducted power of WiFi 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) As different maximum tune-up output power is specified across the different channels range. So the additional conducted power measurement for the adjacent channel of each power level stage is also performed in this report to ensure compliance.
4) The tested channel results are marks in bold.

8.1.5 CONDUCTED POWER MEASUREMENTS OF BT

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402	CH39 2441	CH78 2480
DH5	12.40	**10.87**	**11.17**	**10.66**
2DH5	10.40	9.00	9.44	8.57
3DH5	10.40	8.98	9.41	8.55

BT	Average Conducted Power(dBm)			
	Max. Tune up	CH0 2402	CH19 2441	CH39 2480
BLE(1M)	9.40	4.21	4.85	4.64

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

8.2 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 7.1.4 for more information.

8.2.1 SAR MEASUREMENT RESULT OF HEAD

1. Head SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T01	GSM 850	GSM	190	Right Cheek	Main	1	1	32.7	31.49	-0.04	0.039	0.030	0.051
T02	GSM 850	GSM	190	Right Tilted	Main	1	1	32.7	31.49	0.12	0.015	0.011	0.019
T03	GSM 850	GSM	190	Left Cheek	Main	1	1	32.7	31.49	0.07	0.026	0.018	0.035
T04	GSM 850	GSM	190	Left Tilted	Main	1	1	32.7	31.49	0.17	0.019	0.014	0.025
T05	GSM 850	GSM	128	Right Cheek	Main	1	1	32.7	31.33	0.09	0.042	0.032	0.058
T06	GSM 850	GSM	251	Right Cheek	Main	1	1	32.7	31.55	0.19	0.024	0.018	0.031
T07	GSM 850	GSM	128	Right Cheek	Main	2	1	32.7	31.33	0.01	0.047	0.036	0.064
T08	GSM 850	GSM	128	Right Cheek	Main	2	2	32.7	31.33	0.08	0.050	0.038	0.068
T09	GSM 850	GSM	128	Right Cheek	Main	2	3	32.7	31.33	0.06	**0.050**	**0.038**	**0.069**
T10	GSM 850	GSM	190	Right Cheek	Second	1	1	32.2	31.06	0.05	0.530	0.350	0.689
T11	GSM 850	GSM	190	Right Tilted	Second	1	1	32.2	31.06	0	0.444	0.233	0.577
T12	GSM 850	GSM	190	Left Cheek	Second	1	1	32.2	31.06	0.08	0.518	0.296	0.673
T13	GSM 850	GSM	190	Left Tilted	Second	1	1	32.2	31.06	0.01	0.401	0.191	0.521
T14	GSM 850	GSM	128	Right Cheek	Second	1	1	32.2	30.93	0.11	0.584	0.377	0.782
T15	GSM 850	GSM	251	Right Cheek	Second	1	1	32.2	31.09	0.02	0.415	0.271	0.536
T16	GSM 850	GSM	128	Right Cheek	Second	2	1	32.2	31.09	0.03	0.618	0.394	0.798
T17	GSM 850	GSM	128	Right Cheek	Second	2	2	32.2	31.09	-0.07	0.582	0.373	0.751
T18	GSM 850	GSM	128	Right Cheek	Second	2	3	32.2	31.09	0.08	**0.627**	**0.391**	**0.810**
T19	GSM 1900	GSM	661	Right Cheek	Main	1	1	31	30.15	0.07	0.080	0.050	0.097
T20	GSM 1900	GSM	661	Right Tilted	Main	1	1	31	30.15	0.19	0.056	0.032	0.068
T21	GSM 1900	GSM	661	Left Cheek	Main	1	1	31	30.15	0.11	0.155	0.094	0.189
T22	GSM 1900	GSM	661	Left Tilted	Main	1	1	31	30.15	0.17	0.058	0.034	0.071
T23	GSM 1900	GSM	512	Left Cheek	Main	1	1	31	30.27	-0.09	0.149	0.089	0.176
T24	GSM 1900	GSM	810	Left Cheek	Main	1	1	31	30.04	0.15	0.157	0.094	0.196
T25	GSM 1900	GSM	810	Left Cheek	Main	2	1	31	30.04	-0.05	0.157	0.092	0.196
T26	GSM 1900	GSM	810	Left Cheek	Main	1	2	31	30.04	0.11	0.174	0.104	0.217
T27	GSM 1900	GSM	810	Left Cheek	Main	1	3	31	30.04	0.04	**0.194**	**0.116**	**0.242**
T28	GSM 1900	GSM	661	Right Cheek	Second	1	1	25	23.39	0.04	0.186	0.107	0.269
T29	GSM 1900	GSM	661	Right Tilted	Second	1	1	25	23.39	0.04	0.124	0.068	0.180
T30	GSM 1900	GSM	661	Left Cheek	Second	1	1	25	23.39	0.03	0.087	0.051	0.126
T31	GSM 1900	GSM	661	Left Tilted	Second	1	1	25	23.39	0.03	0.075	0.041	0.109
T32	GSM 1900	GSM	512	Right Cheek	Second	1	1	25	23.37	0.03	0.155	0.089	0.226
T33	GSM 1900	GSM	810	Right Cheek	Second	1	1	25	23.42	0.02	0.240	0.137	0.345
T34	GSM 1900	GSM	810	Right Cheek	Second	2	1	25	23.42	0.02	**0.267**	**0.152**	**0.384**
T35	GSM 1900	GSM	810	Right Cheek	Second	2	2	25	23.42	0.08	0.215	0.124	0.309
T36	GSM 1900	GSM	810	Right Cheek	Second	2	3	25	23.42	0.03	0.192	0.109	0.276

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

2. Head SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T37	UMTS B2	RMC12.2K	9400	Right Cheek	Main	1	1	24	22.37	0.01	0.154	0.096	0.224
T38	UMTS B2	RMC12.2K	9400	Right Tilted	Main	1	1	24	22.37	0.17	0.114	0.065	0.166
T39	UMTS B2	RMC12.2K	9400	Left Cheek	Main	1	1	24	22.37	0.03	0.253	0.153	0.368
T40	UMTS B2	RMC12.2K	9400	Left Tilted	Main	1	1	24	22.37	0.03	0.110	0.064	0.160
T41	UMTS B2	RMC12.2K	9262	Left Cheek	Main	1	1	24	22.47	0.06	0.239	0.146	0.340
T42	UMTS B2	RMC12.2K	9538	Left Cheek	Main	1	1	24	22.45	0.05	0.276	0.166	0.394
T43	UMTS B2	RMC12.2K	9538	Left Cheek	Main	2	1	24	22.45	0.14	0.290	0.173	0.414
T44	UMTS B2	RMC12.2K	9538	Left Cheek	Main	2	2	24	22.45	0.08	0.256	0.154	0.366
T45	UMTS B2	RMC12.2K	9538	Left Cheek	Main	2	3	24	22.45	0.04	**0.320**	**0.192**	**0.457**
T46	UMTS B2	RMC12.2K	9400	Right Cheek	Second	1	1	19.4	18.28	0.18	0.652	0.376	0.844
T47	UMTS B2	RMC12.2K	9400	Right Tilted	Second	1	1	19.4	18.28	0.1	0.440	0.246	0.569
T48	UMTS B2	RMC12.2K	9400	Left Cheek	Second	1	1	19.4	18.28	0.02	0.302	0.178	0.391
T49	UMTS B2	RMC12.2K	9400	Left Tilted	Second	1	1	19.4	18.28	0.08	0.228	0.129	0.295
T50	UMTS B2	RMC12.2K	9262	Right Cheek	Second	1	1	19.4	18.37	0.01	0.627	0.362	0.795
T51	UMTS B2	RMC12.2K	9538	Right Cheek	Second	1	1	19.4	18.45	0.18	**0.725**	**0.417**	**0.902**
T52	UMTS B2	RMC12.2K	9538	Right Cheek	Second	2	1	19.4	18.45	-0.03	0.684	0.399	0.851
T53	UMTS B2	RMC12.2K	9538	Right Cheek	Second	2	2	19.4	18.45	-0.03	0.589	0.348	0.733
T54	UMTS B2	RMC12.2K	9538	Right Cheek	Second	2	3	19.4	18.45	-0.05	0.547	0.310	0.681
T55	UMTS B4	RMC12.2K	1413	Right Cheek	Main	1	1	24	22.38	-0.13	0.165	0.103	0.240
T56	UMTS B4	RMC12.2K	1413	Right Tilted	Main	1	1	24	22.38	0.02	0.096	0.058	0.139
T57	UMTS B4	RMC12.2K	1413	Left Cheek	Main	1	1	24	22.38	0.18	0.231	0.148	0.335
T58	UMTS B4	RMC12.2K	1413	Left Tilted	Main	1	1	24	22.38	0.08	0.105	0.066	0.152
T59	UMTS B4	RMC12.2K	1312	Left Cheek	Main	1	1	24	22.34	0.02	0.244	0.157	0.358
T60	UMTS B4	RMC12.2K	1513	Left Cheek	Main	1	1	24	22.37	0.07	**0.248**	**0.157**	**0.361**
T61	UMTS B4	RMC12.2K	1513	Left Cheek	Main	2	1	24	22.37	0.14	0.234	0.149	0.341
T62	UMTS B4	RMC12.2K	1513	Left Cheek	Main	1	2	24	22.37	0.09	0.229	0.144	0.333
T63	UMTS B4	RMC12.2K	1513	Left Cheek	Main	1	3	24	22.37	-0.01	0.237	0.151	0.345
T64	UMTS B4	RMC12.2K	1413	Right Cheek	Second	1	1	20	19.11	0.1	0.499	0.303	0.612
T65	UMTS B4	RMC12.2K	1413	Right Tilted	Second	1	1	20	19.11	0.02	0.379	0.217	0.465
T66	UMTS B4	RMC12.2K	1413	Left Cheek	Second	1	1	20	19.11	-0.13	0.196	0.121	0.241
T67	UMTS B4	RMC12.2K	1413	Left Tilted	Second	1	1	20	19.11	0.05	0.307	0.173	0.377
T68	UMTS B4	RMC12.2K	1312	Right Cheek	Second	1	1	20	19.14	0.05	0.454	0.275	0.553
T69	UMTS B4	RMC12.2K	1513	Right Cheek	Second	1	1	20	19.22	0.02	**0.546**	**0.330**	**0.653**
T70	UMTS B4	RMC12.2K	1513	Right Cheek	Second	2	1	20	19.22	-0.01	0.531	0.322	0.635
T71	UMTS B4	RMC12.2K	1513	Right Cheek	Second	1	2	20	19.22	0	0.463	0.286	0.554
T72	UMTS B4	RMC12.2K	1513	Right Cheek	Second	1	3	20	19.22	0.07	0.512	0.312	0.613

Test No.	Band	Mode	Channel	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T73	UMTS B5	RMC12.2K	4182	Right Cheek	Main	1	1	25	23.78	0.04	0.061	0.047	0.080
T74	UMTS B5	RMC12.2K	4182	Right Tilted	Main	1	1	25	23.78	0.04	0.027	0.018	0.035
T75	UMTS B5	RMC12.2K	4182	Left Cheek	Main	1	1	25	23.78	0.05	0.050	0.033	0.066
T76	UMTS B5	RMC12.2K	4182	Left Tilted	Main	1	1	25	23.78	0.08	0.037	0.027	0.050
T77	UMTS B5	RMC12.2K	4132	Right Cheek	Main	1	1	25	23.83	0.06	0.068	0.052	0.088
T78	UMTS B5	RMC12.2K	4233	Right Cheek	Main	1	1	25	23.84	0.09	0.056	0.043	0.073
T79	UMTS B5	RMC12.2K	4132	Right Cheek	Main	2	1	25	23.83	0.1	0.078	0.060	0.102
T80	UMTS B5	RMC12.2K	4132	Right Cheek	Main	2	2	25	23.83	0.03	**0.080**	**0.061**	**0.105**
T81	UMTS B5	RMC12.2K	4132	Right Cheek	Main	2	3	25	23.83	-0.14	0.077	0.060	0.101
T82	UMTS B5	RMC12.2K	4182	Right Cheek	Second	1	1	22.5	21.31	0.01	**0.569**	**0.352**	**0.748**
T83	UMTS B5	RMC12.2K	4182	Right Tilted	Second	1	1	22.5	21.31	0.06	0.392	0.212	0.516
T84	UMTS B5	RMC12.2K	4182	Left Cheek	Second	1	1	22.5	21.31	0.01	0.388	0.202	0.510
T85	UMTS B5	RMC12.2K	4182	Left Tilted	Second	1	1	22.5	21.31	0.09	0.336	0.163	0.442
T86	UMTS B5	RMC12.2K	4132	Right Cheek	Second	1	1	22.5	21.38	0.03	0.432	0.281	0.559
T87	UMTS B5	RMC12.2K	4233	Right Cheek	Second	1	1	22.5	21.26	0.02	0.446	0.294	0.593
T88	UMTS B5	RMC12.2K	4182	Right Cheek	Second	2	1	22.5	21.31	-0.02	0.432	0.281	0.568
T89	UMTS B5	RMC12.2K	4182	Right Cheek	Second	1	2	22.5	21.31	-0.04	0.441	0.290	0.580
T90	UMTS B5	RMC12.2K	4182	Right Cheek	Second	1	3	22.5	21.31	0.03	0.396	0.259	0.521

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

3. Head SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T91	LTE B2	QPSK20M	18900	1	0	Right Cheek	Main	1	1	23.8	22.94	0.03	0.127	0.081	0.155
T92	LTE B2	QPSK20M	18900	1	0	Right Tilted	Main	1	1	23.8	22.94	0.07	0.111	0.064	0.135
T93	LTE B2	QPSK20M	18900	1	0	Left Cheek	Main	1	1	23.8	22.94	0.03	0.240	0.148	0.293
T94	LTE B2	QPSK20M	18900	1	0	Left Tilted	Main	1	1	23.8	22.94	0.05	0.107	0.062	0.131
T95	LTE B2	QPSK20M	18900	50	0	Right Cheek	Main	1	1	22.8	21.65	0.07	0.098	0.062	0.128
T96	LTE B2	QPSK20M	18900	50	0	Right Tilted	Main	1	1	22.8	21.65	0.02	0.073	0.041	0.095
T97	LTE B2	QPSK20M	18900	50	0	Left Cheek	Main	1	1	22.8	21.65	0.02	0.200	0.121	0.261
T98	LTE B2	QPSK20M	18900	50	0	Left Tilted	Main	1	1	22.8	21.65	0.05	0.071	0.040	0.092
T99	LTE B2	QPSK20M	18700	1	0	Left Cheek	Main	1	1	23.8	22.84	0.09	0.174	0.108	0.217
T100	LTE B2	QPSK20M	19100	1	0	Left Cheek	Main	1	1	23.8	22.85	0.09	0.204	0.124	0.254
T101	LTE B2	QPSK20M	18900	1	0	Left Cheek	Main	2	1	23.8	22.94	0.07	0.255	0.156	0.311
T102	LTE B2	QPSK20M	18900	1	0	Left Cheek	Main	2	2	23.8	22.94	0.09	**0.279**	**0.173**	**0.340**
T103	LTE B2	QPSK20M	18900	1	0	Left Cheek	Main	2	3	23.8	22.94	0.02	0.223	0.138	0.272
T104	LTE B2	QPSK20M	18900	1	0	Right Cheek	Second	1	1	19.7	18.99	0.03	0.520	0.302	0.612
T105	LTE B2	QPSK20M	18900	1	0	Right Tilted	Second	1	1	19.7	18.99	0.04	0.305	0.167	0.359
T106	LTE B2	QPSK20M	18900	1	0	Left Cheek	Second	1	1	19.7	18.99	-0.05	0.188	0.112	0.221
T107	LTE B2	QPSK20M	18900	1	0	Left Tilted	Second	1	1	19.7	18.99	0.03	0.154	0.086	0.181
T108	LTE B2	QPSK20M	18900	50	0	Right Cheek	Second	1	1	19.7	18.78	0.19	0.517	0.300	0.640
T109	LTE B2	QPSK20M	18900	50	0	Right Tilted	Second	1	1	19.7	18.78	0.05	0.306	0.167	0.379
T110	LTE B2	QPSK20M	18900	50	0	Left Cheek	Second	1	1	19.7	18.78	0.05	0.182	0.109	0.225
T111	LTE B2	QPSK20M	18900	50	0	Left Tilted	Second	1	1	19.7	18.78	0.07	0.149	0.084	0.184
T112	LTE B2	QPSK20M	18700	1	0	Right Cheek	Second	1	1	19.7	18.95	0.09	0.495	0.288	0.589
T113	LTE B2	QPSK20M	19100	1	0	Right Cheek	Second	1	1	19.7	18.76	0.05	0.505	0.292	0.627
T114	LTE B2	QPSK20M	18900	1	0	Right Cheek	Second	2	1	19.7	18.99	0.18	0.489	0.286	0.576
T115	LTE B2	QPSK20M	18900	1	0	Right Cheek	Second	1	2	19.7	18.99	0.08	**0.640**	**0.382**	**0.753**
T116	LTE B2	QPSK20M	18900	1	0	Right Cheek	Second	1	3	19.7	18.99	-0.08	0.612	0.359	0.720

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T117	LTE B4	QPSK20M	20175	1	0	Right Cheek	Main	1	1	23.9	23.19	-0.07	0.182	0.115	0.214
T118	LTE B4	QPSK20M	20175	1	0	Right Tilted	Main	1	1	23.9	23.19	-0.01	0.101	0.060	0.119
T119	LTE B4	QPSK20M	20175	1	0	Left Cheek	Main	1	1	23.9	23.19	0.1	0.236	0.149	0.278
T120	LTE B4	QPSK20M	20175	1	0	Left Tilted	Main	1	1	23.9	23.19	0.08	0.101	0.064	0.119
T121	LTE B4	QPSK20M	20175	50	0	Right Cheek	Main	1	1	22.9	22.08	0.03	0.151	0.098	0.183
T122	LTE B4	QPSK20M	20175	50	0	Right Tilted	Main	1	1	22.9	22.08	0.05	0.083	0.050	0.100
T123	LTE B4	QPSK20M	20175	50	0	Left Cheek	Main	1	1	22.9	22.08	0.06	0.191	0.121	0.231
T124	LTE B4	QPSK20M	20175	50	0	Left Tilted	Main	1	1	22.9	22.08	0.11	0.082	0.052	0.099
T125	LTE B4	QPSK20M	20050	1	0	Left Cheek	Main	1	1	23.9	23.08	0.17	0.253	0.160	0.305
T126	LTE B4	QPSK20M	20300	1	0	Left Cheek	Main	1	1	23.9	23.06	0.13	**0.269**	**0.168**	**0.326**
T127	LTE B4	QPSK20M	20300	1	0	Left Cheek	Main	2	1	23.9	23.06	0.04	0.244	0.155	0.296
T128	LTE B4	QPSK20M	20300	1	0	Left Cheek	Main	1	2	23.9	23.06	0.03	0.258	0.160	0.313
T129	LTE B4	QPSK20M	20300	1	0	Left Cheek	Main	1	3	23.9	23.06	-0.1	0.230	0.147	0.279
T130	LTE B4	QPSK20M	20175	1	99	Right Cheek	Second	1	1	20.4	19.68	-0.09	0.682	0.421	0.805
T131	LTE B4	QPSK20M	20175	1	99	Right Tilted	Second	1	1	20.4	19.68	0.04	0.379	0.231	0.447
T132	LTE B4	QPSK20M	20175	1	99	Left Cheek	Second	1	1	20.4	19.68	-0.01	0.320	0.196	0.378
T133	LTE B4	QPSK20M	20175	1	99	Left Tilted	Second	1	1	20.4	19.68	-0.08	0.298	0.172	0.352
T134	LTE B4	QPSK20M	20175	50	50	Right Cheek	Second	1	1	20.4	19.44	-0.09	0.621	0.384	0.775
T135	LTE B4	QPSK20M	20175	50	50	Right Tilted	Second	1	1	20.4	19.44	0.01	0.351	0.214	0.438
T136	LTE B4	QPSK20M	20175	50	50	Left Cheek	Second	1	1	20.4	19.44	-0.03	0.417	0.254	0.520
T137	LTE B4	QPSK20M	20175	50	50	Left Tilted	Second	1	1	20.4	19.44	-0.07	0.286	0.165	0.357
T138	LTE B4	QPSK20M	20050	1	99	Right Cheek	Second	1	1	20.4	19.51	0.13	0.573	0.351	0.703
T139	LTE B4	QPSK20M	20300	1	99	Right Cheek	Second	1	1	20.4	19.58	-0.15	0.605	0.370	0.731
T140	LTE B4	QPSK20M	20175	1	99	Right Cheek	Second	2	1	20.4	19.68	0	0.700	0.433	0.826
T141	LTE B4	QPSK20M	20175	1	99	Right Cheek	Second	2	2	20.4	19.68	-0.06	0.724	0.452	0.855
T142	LTE B4	QPSK20M	20175	1	99	Right Cheek	Second	2	3	20.4	19.68	-0.1	**0.741**	**0.454**	**0.875**
T750	LTE B4	QPSK20M	20175	100	0	Right Cheek	Second	2	3	20.4	19.41	0.03	0.595	0.371	0.747

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T143	LTE B5	QPSK10M	20525	1	0	Right Cheek	Main	1	1	24.5	23.84	0.04	0.061	0.047	0.071
T144	LTE B5	QPSK10M	20525	1	0	Right Tilted	Main	1	1	24.5	23.84	0.03	0.020	0.015	0.023
T145	LTE B5	QPSK10M	20525	1	0	Left Cheek	Main	1	1	24.5	23.84	-0.03	**0.062**	**0.041**	**0.072**
T146	LTE B5	QPSK10M	20525	1	0	Left Tilted	Main	1	1	24.5	23.84	0.05	0.021	0.015	0.025
T147	LTE B5	QPSK10M	20525	25	0	Right Cheek	Main	1	1	23.5	22.78	0.03	0.047	0.037	0.056
T148	LTE B5	QPSK10M	20525	25	0	Right Tilted	Main	1	1	23.5	22.78	0.07	0.020	0.014	0.024
T149	LTE B5	QPSK10M	20525	25	0	Left Cheek	Main	1	1	23.5	22.78	0.1	0.040	0.027	0.047
T150	LTE B5	QPSK10M	20525	25	0	Left Tilted	Main	1	1	23.5	22.78	0.02	0.026	0.018	0.030
T151	LTE B5	QPSK10M	20450	1	0	Left Cheek	Main	1	1	24.5	23.79	0.09	0.054	0.036	0.064
T152	LTE B5	QPSK10M	20600	1	0	Left Cheek	Main	1	1	24.5	23.81	0.03	0.055	0.037	0.064
T153	LTE B5	QPSK10M	20525	1	0	Left Cheek	Main	2	1	24.5	23.84	0.07	0.042	0.028	0.049
T154	LTE B5	QPSK10M	20525	1	0	Left Cheek	Main	1	2	24.5	23.84	-0.12	0.043	0.032	0.051
T155	LTE B5	QPSK10M	20525	1	0	Left Cheek	Main	1	3	24.5	23.84	-0.07	0.044	0.029	0.051
T156	LTE B5	QPSK10M	20525	1	0	Right Cheek	Second	1	1	22.7	21.97	0.09	0.466	0.307	0.551
T157	LTE B5	QPSK10M	20525	1	0	Right Tilted	Second	1	1	22.7	21.97	0.09	0.385	0.209	0.455
T158	LTE B5	QPSK10M	20525	1	0	Left Cheek	Second	1	1	22.7	21.97	0.01	0.392	0.202	0.464
T159	LTE B5	QPSK10M	20525	1	0	Left Tilted	Second	1	1	22.7	21.97	0.06	0.378	0.181	0.447
T160	LTE B5	QPSK10M	20525	25	0	Right Cheek	Second	1	1	22.7	21.89	0.01	0.456	0.300	0.550
T161	LTE B5	QPSK10M	20525	25	0	Right Tilted	Second	1	1	22.7	21.89	0.07	0.377	0.205	0.455
T162	LTE B5	QPSK10M	20525	25	0	Left Cheek	Second	1	1	22.7	21.89	0.03	0.388	0.199	0.468
T163	LTE B5	QPSK10M	20525	25	0	Left Tilted	Second	1	1	22.7	21.89	0.06	0.352	0.169	0.425
T164	LTE B5	QPSK10M	20450	1	0	Right Cheek	Second	1	1	22.7	21.82	0	0.431	0.279	0.527
T165	LTE B5	QPSK10M	20600	1	0	Right Cheek	Second	1	1	22.7	21.85	0.04	0.430	0.282	0.523
T166	LTE B5	QPSK10M	20525	1	0	Right Cheek	Second	2	1	22.7	21.97	0.08	0.535	0.337	0.633
T167	LTE B5	QPSK10M	20525	1	0	Right Cheek	Second	2	2	22.7	21.97	0.02	**0.547**	**0.328**	**0.647**
T168	LTE B5	QPSK10M	20525	1	0	Right Cheek	Second	2	3	22.7	21.97	0.08	0.514	0.307	0.608

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T169	LTE B7	QPSK20M	21350	1	0	Right Cheek	Main	1	1	23.4	22.50	0.03	0.141	0.072	0.174
T170	LTE B7	QPSK20M	21350	1	0	Right Tilted	Main	1	1	23.4	22.50	0.04	0.117	0.056	0.144
T171	LTE B7	QPSK20M	21350	1	0	Left Cheek	Main	1	1	23.4	22.50	0.15	0.294	0.148	0.362
T172	LTE B7	QPSK20M	21350	1	0	Left Tilted	Main	1	1	23.4	22.50	0.03	0.115	0.056	0.142
T173	LTE B7	QPSK20M	21350	50	0	Right Cheek	Main	1	1	22.4	21.40	0.04	0.161	0.079	0.203
T174	LTE B7	QPSK20M	21350	50	0	Right Tilted	Main	1	1	22.4	21.40	0.06	0.125	0.060	0.157
T175	LTE B7	QPSK20M	21350	50	0	Left Cheek	Main	1	1	22.4	21.40	0.12	**0.313**	**0.157**	**0.394**
T176	LTE B7	QPSK20M	21350	50	0	Left Tilted	Main	1	1	22.4	21.40	0.06	0.128	0.062	0.161
T177	LTE B7	QPSK20M	20850	50	0	Left Cheek	Main	1	1	22.4	21.36	0.07	0.231	0.118	0.294
T178	LTE B7	QPSK20M	21100	50	0	Left Cheek	Main	1	1	22.4	21.29	0.03	0.284	0.145	0.367
T179	LTE B7	QPSK20M	21350	50	0	Left Cheek	Main	2	1	22.4	21.40	0.04	0.310	0.155	0.390
T180	LTE B7	QPSK20M	21350	50	0	Left Cheek	Main	1	2	22.4	21.40	0.05	0.300	0.150	0.378
T181	LTE B7	QPSK20M	21350	50	0	Left Cheek	Main	1	3	22.4	21.40	0.02	0.210	0.106	0.264
T182	LTE B7	QPSK20M	20850	1	0	Right Cheek	Second	1	1	17.3	16.41	0.09	0.395	0.185	0.485
T183	LTE B7	QPSK20M	20850	1	0	Right Tilted	Second	1	1	17.3	16.41	0.06	0.306	0.139	0.376
T184	LTE B7	QPSK20M	20850	1	0	Left Cheek	Second	1	1	17.3	16.41	0.06	0.169	0.085	0.208
T185	LTE B7	QPSK20M	20850	1	0	Left Tilted	Second	1	1	17.3	16.41	0.02	0.112	0.055	0.138
T186	LTE B7	QPSK20M	20850	50	0	Right Cheek	Second	1	1	17.3	16.23	0.01	0.420	0.196	0.538
T187	LTE B7	QPSK20M	20850	50	0	Right Tilted	Second	1	1	17.3	16.23	0.02	0.322	0.146	0.412
T188	LTE B7	QPSK20M	20850	50	0	Left Cheek	Second	1	1	17.3	16.23	0.02	0.171	0.085	0.219
T189	LTE B7	QPSK20M	20850	50	0	Left Tilted	Second	1	1	17.3	16.23	0.09	0.121	0.058	0.155
T190	LTE B7	QPSK20M	21100	50	0	Right Cheek	Second	1	1	17.3	16.22	0.08	0.458	0.215	0.587
T191	LTE B7	QPSK20M	21350	50	0	Right Cheek	Second	1	1	17.3	16.19	0.04	0.453	0.212	0.585
T192	LTE B7	QPSK20M	21100	50	0	Right Cheek	Second	2	1	17.3	16.22	0.18	0.353	0.174	0.453
T193	LTE B7	QPSK20M	21100	50	0	Right Cheek	Second	2	2	17.3	16.22	0.03	0.346	0.163	0.444
T194	LTE B7	QPSK20M	21100	50	0	Right Cheek	Second	2	3	17.3	16.22	0.03	**0.458**	**0.223**	**0.587**

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T195	LTE B12	QPSK10M	23060	1	0	Right Cheek	Main	1	1	24.5	23.56	-0.01	0.040	0.032	0.050
T196	LTE B12	QPSK10M	23060	1	0	Right Tilted	Main	1	1	24.5	23.56	0.05	0.018	0.015	0.023
T197	LTE B12	QPSK10M	23060	1	0	Left Cheek	Main	1	1	24.5	23.56	0.04	0.037	0.026	0.046
T198	LTE B12	QPSK10M	23060	1	0	Left Tilted	Main	1	1	24.5	23.56	0.16	0.020	0.016	0.024
T199	LTE B12	QPSK10M	23060	25	0	Right Cheek	Main	1	1	23.5	22.72	0.05	0.035	0.028	0.042
T200	LTE B12	QPSK10M	23060	25	0	Right Tilted	Main	1	1	23.5	22.72	0.09	0.016	0.013	0.019
T201	LTE B12	QPSK10M	23060	25	0	Left Cheek	Main	1	1	23.5	22.72	0.05	0.033	0.023	0.039
T202	LTE B12	QPSK10M	23060	25	0	Left Tilted	Main	1	1	23.5	22.72	0.06	0.018	0.015	0.021
T203	LTE B12	QPSK10M	23095	1	0	Right Cheek	Main	1	1	24.5	23.53	0.03	0.046	0.036	0.057
T204	LTE B12	QPSK10M	23130	1	0	Right Cheek	Main	1	1	24.5	23.50	0.01	0.053	0.042	0.067
T205	LTE B12	QPSK10M	23130	1	0	Right Cheek	Main	2	1	24.5	23.50	0.19	**0.054**	**0.042**	**0.068**
T206	LTE B12	QPSK10M	23130	1	0	Right Cheek	Main	2	2	24.5	23.50	0.13	0.050	0.039	0.063
T207	LTE B12	QPSK10M	23130	1	0	Right Cheek	Main	2	3	24.5	23.50	0.12	0.051	0.040	0.064
T208	LTE B12	QPSK10M	23060	1	49	Right Cheek	Second	1	1	23.5	22.51	-0.05	0.589	0.336	0.740
T209	LTE B12	QPSK10M	23060	1	49	Right Tilted	Second	1	1	23.5	22.51	0.02	0.540	0.283	0.679
T210	LTE B12	QPSK10M	23060	1	49	Left Cheek	Second	1	1	23.5	22.51	0.08	0.541	0.272	0.680
T211	LTE B12	QPSK10M	23060	1	49	Left Tilted	Second	1	1	23.5	22.51	0.02	0.415	0.204	0.522
T212	LTE B12	QPSK10M	23060	25	0	Right Cheek	Second	1	1	23.5	22.24	-0.01	0.597	0.336	0.798
T213	LTE B12	QPSK10M	23060	25	0	Right Tilted	Second	1	1	23.5	22.24	0.1	0.539	0.281	0.720
T214	LTE B12	QPSK10M	23060	25	0	Left Cheek	Second	1	1	23.5	22.24	0.02	0.520	0.260	0.695
T215	LTE B12	QPSK10M	23060	25	0	Left Tilted	Second	1	1	23.5	22.24	0.01	0.400	0.196	0.534
T216	LTE B12	QPSK10M	23095	25	0	Right Cheek	Second	1	1	23.5	22.21	-0.18	0.645	0.366	0.868
T217	LTE B12	QPSK10M	23130	25	0	Right Cheek	Second	1	1	23.5	22.23	-0.01	**0.676**	**0.385**	**0.906**
T218	LTE B12	QPSK10M	23130	25	0	Right Cheek	Second	2	1	23.5	22.23	0	0.596	0.349	0.799
T219	LTE B12	QPSK10M	23130	25	0	Right Cheek	Second	1	2	23.5	22.23	0.08	0.579	0.340	0.776
T220	LTE B12	QPSK10M	23130	25	0	Right Cheek	Second	1	3	23.5	22.23	0.03	0.587	0.333	0.787
T713	LTE B12	QPSK10M	23130	50	0	Right Cheek	Second	1	1	23.5	22.22	-0.03	0.548	0.320	0.736

Test No.	Band	Mode	Channel	RB	offset	Test Position	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T221	LTE B66	QPSK20M	132322	1	0	Right Cheek	Main	1	1	24	23.23	0.06	0.196	0.121	0.234
T222	LTE B66	QPSK20M	132322	1	0	Right Tilted	Main	1	1	24	23.23	0.02	0.106	0.063	0.127
T223	LTE B66	QPSK20M	132322	1	0	Left Cheek	Main	1	1	24	23.23	0.18	0.212	0.135	0.253
T224	LTE B66	QPSK20M	132322	1	0	Left Tilted	Main	1	1	24	23.23	0.06	0.120	0.075	0.143
T225	LTE B66	QPSK20M	132322	50	0	Right Cheek	Main	1	1	23	22.09	0.15	0.153	0.094	0.189
T226	LTE B66	QPSK20M	132322	50	0	Right Tilted	Main	1	1	23	22.09	0.04	0.083	0.049	0.102
T227	LTE B66	QPSK20M	132322	50	0	Left Cheek	Main	1	1	23	22.09	0.18	0.172	0.109	0.212
T228	LTE B66	QPSK20M	132322	50	0	Left Tilted	Main	1	1	23	22.09	0.09	0.098	0.062	0.121
T229	LTE B66	QPSK20M	132072	1	0	Left Cheek	Main	1	1	24	23.18	0.17	**0.242**	**0.154**	**0.292**
T230	LTE B66	QPSK20M	132572	1	0	Left Cheek	Main	1	1	24	23.17	0.02	0.240	0.150	0.291
T231	LTE B66	QPSK20M	132072	1	0	Left Cheek	Main	2	1	24	23.18	-0.05	0.233	0.148	0.281
T232	LTE B66	QPSK20M	132072	1	0	Left Cheek	Main	1	2	24	23.18	-0.11	0.225	0.143	0.272
T233	LTE B66	QPSK20M	132072	1	0	Left Cheek	Main	1	3	24	23.18	-0.14	0.210	0.134	0.254
T234	LTE B66	QPSK20M	132572	1	99	Right Cheek	Second	1	1	20.5	19.82	0.15	0.479	0.289	0.560
T235	LTE B66	QPSK20M	132572	1	99	Right Tilted	Second	1	1	20.5	19.82	0.02	0.405	0.221	0.474
T236	LTE B66	QPSK20M	132572	1	99	Left Cheek	Second	1	1	20.5	19.82	-0.19	0.302	0.178	0.353
T237	LTE B66	QPSK20M	132572	1	99	Left Tilted	Second	1	1	20.5	19.82	0	0.310	0.171	0.363
T238	LTE B66	QPSK20M	132572	50	25	Right Cheek	Second	1	1	20.5	19.73	-0.03	0.461	0.277	0.550
T239	LTE B66	QPSK20M	132572	50	25	Right Tilted	Second	1	1	20.5	19.73	-0.01	0.420	0.230	0.501
T240	LTE B66	QPSK20M	132572	50	25	Left Cheek	Second	1	1	20.5	19.73	0.01	0.313	0.186	0.374
T241	LTE B66	QPSK20M	132572	50	25	Left Tilted	Second	1	1	20.5	19.73	0.03	0.315	0.175	0.376
T242	LTE B66	QPSK20M	132072	1	99	Right Cheek	Second	1	1	20.5	19.64	-0.01	0.468	0.281	0.570
T243	LTE B66	QPSK20M	132322	1	99	Right Cheek	Second	1	1	20.5	19.66	0.02	**0.495**	**0.298**	**0.601**
T244	LTE B66	QPSK20M	132322	1	99	Right Cheek	Second	2	1	20.5	19.66	0	0.474	0.288	0.575
T245	LTE B66	QPSK20M	132322	1	99	Right Cheek	Second	1	2	20.5	19.66	-0.02	0.427	0.264	0.518
T246	LTE B66	QPSK20M	132322	1	99	Right Cheek	Second	1	3	20.5	19.66	0.01	0.473	0.287	0.574

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

4. Head SAR test results of 2.4G WIFI

Test No.	Band	Channel	Test Position	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T247	802.11b	1	Right Cheek	1	1	12.1	11.84	0.09	0.033	0.015	0.035
T248	802.11b	1	Right Tilted	1	1	12.1	11.84	0.02	0.020	0.008	0.021
T249	802.11b	1	Left Cheek	1	1	12.1	11.84	0.02	0.170	0.068	0.180
T250	802.11b	1	Left Tilted	1	1	12.1	11.84	0.07	0.066	0.031	0.070
T251	802.11b	6	Left Cheek	1	1	11.1	10.7	0.08	**0.261**	**0.104**	**0.286**
T252	802.11b	11	Left Cheek	1	1	11.6	11.25	0.04	0.221	0.086	0.240
T253	802.11b	6	Left Cheek	2	1	11.1	10.7	0.09	0.212	0.084	0.232
T254	802.11b	6	Left Cheek	3	1	11.1	10.7	0.08	0.202	0.079	0.221

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

5. Head SAR test results of BT

Test No.	Band	Channel	Test Position	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T728	BT DH5	39	Right Cheek	1	1	12.4	11.17	0.07	0.017	0.007	0.023
T729	BT DH5	39	Right Tilted	1	1	12.4	11.17	0.05	0.016	0.007	0.021
T730	BT DH5	39	Left Cheek	1	1	12.4	11.17	0.17	0.112	0.047	0.149
T731	BT DH5	39	Left Tilted	1	1	12.4	11.17	0.05	0.045	0.021	0.060
T732	BT DH5	0	Left Cheek	1	1	12.4	10.87	0.05	0.073	0.031	0.104
T733	BT DH5	78	Left Cheek	1	1	12.4	10.66	0.01	0.159	0.066	0.237
T734	BT DH5	78	Left Cheek	2	1	12.4	10.66	0.04	**0.165**	**0.067**	**0.246**
T735	BT DH5	78	Left Cheek	3	1	12.4	10.66	0.05	0.164	0.067	0.245

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

8.2.2 SAR MEASUREMENT RESULT OF BODY-WORN

1. Body-worn SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T255	GSM 850	GSM	190	Front Face	1.5	Main	1	1	32.7	31.49	-0.08	0.119	0.080	0.157
T256	GSM 850	GSM	190	Rear Face	1.5	Main	1	1	32.7	31.49	-0.06	0.180	0.113	0.238
T257	GSM 850	GSM	128	Rear Face	1.5	Main	1	1	32.7	31.33	-0.03	**0.216**	**0.136**	**0.296**
T258	GSM 850	GSM	251	Rear Face	1.5	Main	1	1	32.7	31.55	-0.03	0.154	0.096	0.201
T259	GSM 850	GSM	128	Rear Face	1.5	Main	2	1	32.7	31.33	-0.08	0.192	0.123	0.263
T260	GSM 850	GSM	128	Rear Face	1.5	Main	1	2	32.7	31.33	0.07	0.202	0.129	0.277
T261	GSM 850	GSM	128	Rear Face	1.5	Main	1	3	32.7	31.33	0.08	0.192	0.123	0.263
T272	GSM 850	GSM	190	Front Face	1.5	Second	1	1	33.2	32.01	0.03	0.148	0.114	0.195
T273	GSM 850	GSM	190	Rear Face	1.5	Second	1	1	33.2	32.01	0.01	0.176	0.135	0.231
T274	GSM 850	GSM	128	Rear Face	1.5	Second	1	1	33.2	31.83	-0.01	0.207	0.159	0.284
T275	GSM 850	GSM	251	Rear Face	1.5	Second	1	1	33.2	32.05	0.02	0.141	0.108	0.184
T276	GSM 850	GSM	128	Rear Face	1.5	Second	2	1	33.2	31.83	0	0.206	0.159	0.282
T277	GSM 850	GSM	128	Rear Face	1.5	Second	1	2	33.2	31.83	0.08	**0.217**	**0.166**	**0.297**
T278	GSM 850	GSM	128	Rear Face	1.5	Second	1	3	33.2	31.83	0.13	0.206	0.158	0.282
T289	GSM 1900	GSM	661	Front Face	1.5	Main	1	1	31	30.15	-0.01	0.141	0.086	0.171
T290	GSM 1900	GSM	661	Rear Face	1.5	Main	1	1	31	30.15	0.02	0.158	0.098	0.192
T291	GSM 1900	GSM	512	Rear Face	1.5	Main	1	1	31	30.27	-0.01	0.153	0.095	0.181
T292	GSM 1900	GSM	810	Rear Face	1.5	Main	1	1	31	30.04	-0.01	0.154	0.095	0.192
T293	GSM 1900	GSM	661	Rear Face	1.5	Main	2	1	31	30.15	0.07	0.159	0.098	0.193
T294	GSM 1900	GSM	661	Rear Face	1.5	Main	2	2	31	30.15	-0.02	0.176	0.109	0.214
T295	GSM 1900	GSM	661	Rear Face	1.5	Main	2	3	31	30.15	0.05	**0.211**	**0.128**	**0.257**
T306	GSM 1900	GSM	661	Front Face	1.5	Second	1	1	25	23.39	0.09	0.012	0.008	0.017
T307	GSM 1900	GSM	661	Rear Face	1.5	Second	1	1	25	23.39	0.16	0.014	0.009	0.020
T308	GSM 1900	GSM	512	Rear Face	1.5	Second	1	1	25	23.37	0.03	0.012	0.007	0.017
T309	GSM 1900	GSM	810	Rear Face	1.5	Second	1	1	25	23.42	-0.16	0.018	0.012	0.026
T310	GSM 1900	GSM	810	Rear Face	1.5	Second	2	1	25	23.42	-0.04	**0.022**	**0.013**	**0.031**
T311	GSM 1900	GSM	810	Rear Face	1.5	Second	2	2	25	23.42	0.06	0.018	0.011	0.026
T312	GSM 1900	GSM	810	Rear Face	1.5	Second	2	3	25	23.42	0.05	0.019	0.012	0.028

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

2. Body-worn SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T323	UMTS B2	RMC12.2K	9400	Front Face	1.5	Main	1	1	23.5	22.75	-0.02	0.211	0.129	0.251
T324	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Main	1	1	23.5	22.75	0.01	0.229	0.141	0.272
T325	UMTS B2	RMC12.2K	9262	Rear Face	1.5	Main	1	1	23.5	22.76	0.06	0.215	0.132	0.255
T326	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Main	1	1	23.5	22.88	0.04	0.246	0.151	0.284
T327	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Main	2	1	23.5	22.88	-0.07	0.238	0.145	0.275
T328	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Main	1	2	23.5	22.88	0.02	0.246	0.151	0.284
T329	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Main	1	3	23.5	22.88	-0.04	**0.274**	**0.168**	**0.316**
T340	UMTS B2	RMC12.2K	9400	Front Face	1.5	Second	1	1	23.8	22.72	0.04	0.095	0.063	0.122
T341	UMTS B2	RMC12.2K	9400	Rear Face	1.5	Second	1	1	23.8	22.72	0.04	0.122	0.077	0.156
T342	UMTS B2	RMC12.2K	9262	Rear Face	1.5	Second	1	1	23.8	22.76	0.03	0.110	0.070	0.140
T343	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Second	1	1	23.8	22.93	-0.02	0.127	0.080	0.155
T344	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Second	2	1	23.8	22.93	0.01	**0.170**	**0.106**	**0.208**
T345	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Second	2	2	23.8	22.93	0.03	0.158	0.099	0.193
T346	UMTS B2	RMC12.2K	9538	Rear Face	1.5	Second	2	3	23.8	22.93	0.03	0.128	0.080	0.156
T357	UMTS B4	RMC12.2K	1413	Front Face	1.5	Main	1	1	23.5	22.65	-0.09	0.213	0.141	0.259
T358	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Main	1	1	23.5	22.65	0.01	0.233	0.155	0.283
T359	UMTS B4	RMC12.2K	1312	Rear Face	1.5	Main	1	1	23.5	22.76	0	0.233	0.156	0.276
T360	UMTS B4	RMC12.2K	1513	Rear Face	1.5	Main	1	1	23.5	22.78	0.02	0.235	0.157	0.277
T361	UMTS B4	RMC12.2K	1513	Rear Face	1.5	Main	2	1	23.5	22.78	-0.01	0.235	0.156	0.277
T362	UMTS B4	RMC12.2K	1513	Rear Face	1.5	Main	1	2	23.5	22.78	0.01	**0.253**	**0.167**	**0.299**
T363	UMTS B4	RMC12.2K	1513	Rear Face	1.5	Main	1	3	23.5	22.78	0.05	0.246	0.163	0.290
T374	UMTS B4	RMC12.2K	1413	Front Face	1.5	Second	1	1	24	23.12	0.07	0.153	0.104	0.187
T375	UMTS B4	RMC12.2K	1413	Rear Face	1.5	Second	1	1	24	23.12	0.02	0.132	0.088	0.162
T376	UMTS B4	RMC12.2K	1312	Front Face	1.5	Second	1	1	24	23.05	0.06	0.142	0.097	0.177
T377	UMTS B4	RMC12.2K	1513	Front Face	1.5	Second	1	1	24	23.19	0.07	0.153	0.103	0.184
T378	UMTS B4	RMC12.2K	1513	Front Face	1.5	Second	2	1	24	23.19	0.08	0.157	0.106	0.189
T379	UMTS B4	RMC12.2K	1513	Front Face	1.5	Second	2	2	24	23.19	0.03	0.146	0.098	0.176
T380	UMTS B4	RMC12.2K	1513	Front Face	1.5	Second	2	3	24	23.19	-0.11	**0.161**	**0.108**	**0.194**
T391	UMTS B5	RMC12.2K	4182	Front Face	1.5	Main	1	1	24.5	23.28	0.02	0.170	0.116	0.225
T392	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Main	1	1	24.5	23.28	0.05	0.220	0.148	0.291
T393	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Main	1	1	24.5	23.25	0.04	0.223	0.151	0.297
T394	UMTS B5	RMC12.2K	4233	Rear Face	1.5	Main	1	1	24.5	23.23	0.07	0.215	0.145	0.288
T395	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Main	2	1	24.5	23.25	-0.02	**0.249**	**0.168**	**0.332**
T396	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Main	2	2	24.5	23.25	-0.14	0.249	0.166	0.332
T397	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Main	2	3	24.5	23.25	0	0.234	0.159	0.312
T408	UMTS B5	RMC12.2K	4182	Front Face	1.5	Second	1	1	25	23.88	0	0.193	0.149	0.250
T409	UMTS B5	RMC12.2K	4182	Rear Face	1.5	Second	1	1	25	23.88	-0.01	0.237	0.182	0.307
T410	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Second	1	1	25	23.75	0	0.252	0.194	0.336
T411	UMTS B5	RMC12.2K	4233	Rear Face	1.5	Second	1	1	25	23.79	0.01	0.246	0.189	0.325
T412	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Second	2	1	25	23.75	0.09	**0.260**	**0.200**	**0.347**
T413	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Second	2	2	25	23.75	0.11	0.255	0.196	0.340
T414	UMTS B5	RMC12.2K	4132	Rear Face	1.5	Second	2	3	25	23.75	0.13	0.256	0.197	0.341

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

3. Body-worn SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T425	LTE B2	QPSK20M	18900	1	0	Front Face	1.5	Main	1	1	22.8	21.89	0.03	0.161	0.098	0.199
T426	LTE B2	QPSK20M	18900	1	0	Rear Face	1.5	Main	1	1	22.8	21.89	0.18	0.174	0.106	0.215
T427	LTE B2	QPSK20M	18900	50	0	Front Face	1.5	Main	1	1	22.8	21.64	-0.02	0.171	0.103	0.223
T428	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Main	1	1	22.8	21.64	0.01	0.217	0.130	0.284
T429	LTE B2	QPSK20M	18700	50	0	Rear Face	1.5	Main	1	1	22.8	21.58	0	0.206	0.124	0.273
T430	LTE B2	QPSK20M	19100	50	0	Rear Face	1.5	Main	1	1	22.8	21.63	-0.02	**0.225**	**0.134**	**0.295**
T431	LTE B2	QPSK20M	19100	50	0	Rear Face	1.5	Main	2	1	22.8	21.63	0.04	0.206	0.125	0.270
T432	LTE B2	QPSK20M	19100	50	0	Rear Face	1.5	Main	1	2	22.8	21.63	-0.18	0.193	0.119	0.253
T433	LTE B2	QPSK20M	19100	50	0	Rear Face	1.5	Main	1	3	22.8	21.63	-0.04	0.204	0.125	0.267
T449	LTE B2	QPSK20M	18900	1	0	Front Face	1.5	Second	1	1	24	23.06	-0.06	0.127	0.085	0.158
T450	LTE B2	QPSK20M	18900	1	0	Rear Face	1.5	Second	1	1	24	23.06	-0.05	0.143	0.086	0.178
T451	LTE B2	QPSK20M	18900	50	0	Front Face	1.5	Second	1	1	23	21.88	0.03	0.101	0.067	0.131
T452	LTE B2	QPSK20M	18900	50	0	Rear Face	1.5	Second	1	1	23	21.88	0.02	0.112	0.068	0.145
T453	LTE B2	QPSK20M	18700	1	0	Rear Face	1.5	Second	1	1	24	22.97	0.03	0.135	0.081	0.171
T454	LTE B2	QPSK20M	19100	1	0	Rear Face	1.5	Second	1	1	24	22.99	-0.1	0.125	0.079	0.158
T455	LTE B2	QPSK20M	18900	1	0	Rear Face	1.5	Second	2	1	24	23.06	-0.01	**0.150**	**0.091**	**0.186**
T456	LTE B2	QPSK20M	18900	1	0	Rear Face	1.5	Second	2	2	24	23.06	-0.02	0.147	0.089	0.183
T457	LTE B2	QPSK20M	18900	1	0	Rear Face	1.5	Second	2	3	24	23.06	0.02	0.121	0.077	0.150
T473	LTE B4	QPSK20M	20175	1	0	Front Face	1.5	Main	1	1	23.9	23.19	-0.04	0.263	0.176	0.310
T474	LTE B4	QPSK20M	20175	1	0	Rear Face	1.5	Main	1	1	23.9	23.19	0.1	0.271	0.181	0.319
T475	LTE B4	QPSK20M	20175	50	0	Front Face	1.5	Main	1	1	22.9	22.08	0.02	0.205	0.136	0.248
T476	LTE B4	QPSK20M	20175	50	0	Rear Face	1.5	Main	1	1	22.9	22.08	0.08	0.214	0.143	0.259
T477	LTE B4	QPSK20M	20050	1	0	Rear Face	1.5	Main	1	1	23.9	23.08	0.02	0.267	0.179	0.322
T478	LTE B4	QPSK20M	20300	1	0	Rear Face	1.5	Main	1	1	23.9	23.06	-0.01	0.268	0.179	0.325
T479	LTE B4	QPSK20M	20300	1	0	Rear Face	1.5	Main	2	1	23.9	23.19	-0.17	0.290	0.194	0.342
T480	LTE B4	QPSK20M	20300	1	0	Rear Face	1.5	Main	2	2	23.9	23.19	0.17	**0.320**	**0.213**	**0.377**
T481	LTE B4	QPSK20M	20300	1	0	Rear Face	1.5	Main	2	3	23.9	23.19	-0.05	0.266	0.176	0.313
T497	LTE B4	QPSK20M	20050	1	99	Front Face	1.5	Second	1	1	23.9	23.17	0.01	0.149	0.101	0.176
T498	LTE B4	QPSK20M	20050	1	99	Rear Face	1.5	Second	1	1	23.9	23.17	-0.02	0.125	0.084	0.148
T499	LTE B4	QPSK20M	20050	50	50	Front Face	1.5	Second	1	1	22.9	22.08	0	0.114	0.077	0.138
T500	LTE B4	QPSK20M	20050	50	50	Rear Face	1.5	Second	1	1	22.9	22.08	0.11	0.096	0.065	0.116
T501	LTE B4	QPSK20M	20175	1	99	Front Face	1.5	Second	1	1	23.9	23.14	0.01	0.155	0.105	0.185
T502	LTE B4	QPSK20M	20300	1	99	Front Face	1.5	Second	1	1	23.9	23.14	0.02	**0.156**	**0.105**	**0.186**
T503	LTE B4	QPSK20M	20300	1	99	Front Face	1.5	Second	2	1	23.9	23.14	0.05	0.147	0.099	0.175
T504	LTE B4	QPSK20M	20300	1	99	Front Face	1.5	Second	1	2	23.9	23.14	0.01	0.133	0.090	0.158
T505	LTE B4	QPSK20M	20300	1	99	Front Face	1.5	Second	1	3	23.9	23.14	0.02	0.138	0.093	0.164

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T521	LTE B5	QPSK10M	20525	1	0	Front Face	1.5	Main	1	1	24.5	23.84	-0.02	0.208	0.140	0.242
T522	LTE B5	QPSK10M	20525	1	0	Rear Face	1.5	Main	1	1	24.5	23.84	0.02	0.292	0.186	0.340
T523	LTE B5	QPSK10M	20525	25	0	Front Face	1.5	Main	1	1	23.5	22.78	0.05	0.170	0.114	0.201
T524	LTE B5	QPSK10M	20525	25	0	Rear Face	1.5	Main	1	1	23.5	22.78	0	0.229	0.146	0.270
T525	LTE B5	QPSK10M	20450	1	0	Rear Face	1.5	Main	1	1	24.5	23.79	-0.18	0.238	0.156	0.281
T526	LTE B5	QPSK10M	20600	1	0	Rear Face	1.5	Main	1	1	24.5	23.81	0.11	0.246	0.159	0.289
T527	LTE B5	QPSK10M	20525	1	0	Rear Face	1.5	Main	2	1	24.5	23.84	0.03	0.268	0.173	0.312
T528	LTE B5	QPSK10M	20525	1	0	Rear Face	1.5	Main	1	2	24.5	23.84	0.01	**0.298**	**0.189**	**0.347**
T529	LTE B5	QPSK10M	20525	1	0	Rear Face	1.5	Main	1	3	24.5	23.84	0.01	0.251	0.164	0.292
T545	LTE B5	QPSK10M	20525	1	49	Front Face	1.5	Second	1	1	24.5	23.71	0.05	0.180	0.140	0.216
T546	LTE B5	QPSK10M	20525	1	49	Rear Face	1.5	Second	1	1	24.5	23.71	0.01	0.213	0.164	0.256
T547	LTE B5	QPSK10M	20525	25	25	Front Face	1.5	Second	1	1	23.5	22.66	-0.03	0.146	0.113	0.177
T548	LTE B5	QPSK10M	20525	25	25	Rear Face	1.5	Second	1	1	23.5	22.66	0.03	0.175	0.135	0.212
T549	LTE B5	QPSK10M	20450	1	49	Rear Face	1.5	Second	1	1	24.5	23.53	0	0.214	0.165	0.268
T550	LTE B5	QPSK10M	20600	1	49	Rear Face	1.5	Second	1	1	24.5	23.58	-0.02	0.224	0.173	0.277
T551	LTE B5	QPSK10M	20600	1	49	Rear Face	1.5	Second	2	1	24.5	23.58	0.02	**0.232**	**0.179**	**0.287**
T552	LTE B5	QPSK10M	20600	1	49	Rear Face	1.5	Second	2	2	24.5	23.58	0	0.214	0.165	0.265
T553	LTE B5	QPSK10M	20600	1	49	Rear Face	1.5	Second	2	3	24.5	23.58	-0.05	0.200	0.154	0.247
T569	LTE B7	QPKS20M	21350	1	0	Front Face	1.5	Main	1	1	22.4	21.52	0.01	0.135	0.075	0.165
T570	LTE B7	QPKS20M	21350	1	0	Rear Face	1.5	Main	1	1	22.4	21.52	0.11	0.131	0.073	0.161
T571	LTE B7	QPKS20M	21350	50	0	Front Face	1.5	Main	1	1	22.4	21.33	0.05	0.138	0.076	0.177
T572	LTE B7	QPKS20M	21350	50	0	Rear Face	1.5	Main	1	1	22.4	21.33	0.18	0.139	0.077	0.178
T573	LTE B7	QPKS20M	20850	50	50	Rear Face	1.5	Main	1	1	22.4	21.28	0.01	0.140	0.082	0.181
T574	LTE B7	QPKS20M	21100	50	50	Rear Face	1.5	Main	1	1	22.4	21.17	0.04	0.126	0.074	0.167
T575	LTE B7	QPKS20M	20850	50	50	Rear Face	1.5	Main	2	1	22.4	21.28	0.07	0.116	0.068	0.150
T576	LTE B7	QPKS20M	20850	50	50	Rear Face	1.5	Main	1	2	22.4	21.28	-0.02	**0.153**	**0.087**	**0.198**
T577	LTE B7	QPKS20M	20850	50	50	Rear Face	1.5	Main	1	3	22.4	21.28	-0.03	0.133	0.076	0.172
T593	LTE B7	QPKS20M	21350	1	0	Front Face	1.5	Second	1	1	21.4	20.54	0.03	0.076	0.044	0.093
T594	LTE B7	QPKS20M	21350	1	0	Rear Face	1.5	Second	1	1	21.4	20.54	0.04	0.097	0.056	0.118
T595	LTE B7	QPKS20M	21350	50	0	Front Face	1.5	Second	1	1	21.4	20.35	0.09	0.076	0.043	0.096
T596	LTE B7	QPKS20M	21350	50	0	Rear Face	1.5	Second	1	1	21.4	20.35	0.06	**0.095**	**0.055**	**0.121**
T597	LTE B7	QPKS20M	20850	50	25	Rear Face	1.5	Second	1	1	21.4	20.31	0.01	0.090	0.052	0.116
T598	LTE B7	QPKS20M	21100	50	0	Rear Face	1.5	Second	1	1	21.4	20.28	0.05	0.092	0.053	0.119
T599	LTE B7	QPKS20M	21350	50	0	Rear Face	1.5	Second	2	1	21.4	20.35	0.06	0.075	0.043	0.096
T600	LTE B7	QPKS20M	21350	50	0	Rear Face	1.5	Second	1	2	21.4	20.35	-0.03	0.069	0.038	0.087
T601	LTE B7	QPKS20M	21350	50	0	Rear Face	1.5	Second	1	3	21.4	20.35	-0.14	0.081	0.047	0.103

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T617	LTE B12	QPSK10M	23060	1	0	Front Face	1.5	Main	1	1	24.5	23.56	-0.02	0.127	0.085	0.158
T618	LTE B12	QPSK10M	23060	1	0	Rear Face	1.5	Main	1	1	24.5	23.56	-0.01	0.197	0.124	0.245
T619	LTE B12	QPSK10M	23060	25	0	Front Face	1.5	Main	1	1	23.5	22.72	-0.04	0.107	0.071	0.128
T620	LTE B12	QPSK10M	23060	25	0	Rear Face	1.5	Main	1	1	23.5	22.72	0.01	0.165	0.104	0.197
T621	LTE B12	QPSK10M	23095	1	0	Rear Face	1.5	Main	1	1	24.5	23.53	0.03	0.196	0.125	0.245
T622	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Main	1	1	24.5	23.50	0.15	0.219	0.140	0.276
T623	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Main	2	1	24.5	23.50	-0.01	**0.230**	**0.146**	**0.289**
T624	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Main	2	2	24.5	23.50	-0.07	0.215	0.137	0.271
T625	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Main	2	3	24.5	23.50	0.01	0.199	0.127	0.250
T641	LTE B12	QPSK10M	23060	1	0	Front Face	1.5	Second	1	1	24.5	23.47	0.11	0.142	0.111	0.180
T642	LTE B12	QPSK10M	23060	1	0	Rear Face	1.5	Second	1	1	24.5	23.47	0	0.173	0.136	0.219
T643	LTE B12	QPSK10M	23060	25	0	Front Face	1.5	Second	1	1	23.5	22.35	-0.01	0.116	0.091	0.151
T644	LTE B12	QPSK10M	23060	25	0	Rear Face	1.5	Second	1	1	23.5	22.35	0.01	0.146	0.115	0.190
T645	LTE B12	QPSK10M	23095	1	0	Rear Face	1.5	Second	1	1	24.5	23.39	0.02	0.186	0.147	0.240
T646	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Second	1	1	24.5	23.35	-0.03	0.198	0.157	0.258
T647	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Second	2	1	24.5	23.35	-0.01	**0.202**	**0.160**	**0.263**
T648	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Second	2	2	24.5	23.35	0.04	0.193	0.153	0.252
T649	LTE B12	QPSK10M	23130	1	0	Rear Face	1.5	Second	2	3	24.5	23.35	-0.05	0.191	0.150	0.249
T665	LTE B66	QPSK20M	132322	1	0	Front Face	1.5	Main	1	1	24	23.23	-0.13	0.279	0.185	0.333
T666	LTE B66	QPSK20M	132322	1	0	Rear Face	1.5	Main	1	1	24	23.23	0.03	0.284	0.189	0.339
T667	LTE B66	QPSK20M	132322	50	25	Front Face	1.5	Main	1	1	23	22.09	0	0.221	0.147	0.273
T668	LTE B66	QPSK20M	132322	50	25	Rear Face	1.5	Main	1	1	23	22.09	0.16	0.226	0.151	0.279
T669	LTE B66	QPSK20M	132072	1	0	Rear Face	1.5	Main	1	1	24	23.18	0	0.273	0.183	0.330
T670	LTE B66	QPSK20M	132572	1	0	Rear Face	1.5	Main	1	1	24	23.17	0	0.275	0.182	0.333
T671	LTE B66	QPSK20M	132322	1	0	Rear Face	1.5	Main	2	1	24	23.23	-0.03	0.287	0.191	0.343
T672	LTE B66	QPSK20M	132322	1	0	Rear Face	1.5	Main	2	2	24	23.23	0.08	**0.309**	**0.205**	**0.369**
T673	LTE B66	QPSK20M	132322	1	0	Rear Face	1.5	Main	2	3	24	23.23	-0.07	0.261	0.169	0.312
T689	LTE B66	QPSK20M	132572	1	0	Front Face	1.5	Second	1	1	24	23.17	0.06	0.155	0.103	0.188
T690	LTE B66	QPSK20M	132572	1	0	Rear Face	1.5	Second	1	1	24	23.17	0.04	0.127	0.085	0.154
T691	LTE B66	QPSK20M	132572	50	25	Front Face	1.5	Second	1	1	23	22.05	0.05	0.125	0.083	0.156
T692	LTE B66	QPSK20M	132572	50	25	Rear Face	1.5	Second	1	1	23	22.05	0.07	0.097	0.064	0.121
T693	LTE B66	QPSK20M	132072	1	0	Front Face	1.5	Second	1	1	24	23.08	0.16	0.143	0.097	0.177
T694	LTE B66	QPSK20M	132322	1	0	Front Face	1.5	Second	1	1	24	23.09	0.04	0.138	0.092	0.170
T695	LTE B66	QPSK20M	132572	1	0	Front Face	1.5	Second	2	1	24	23.17	-0.03	**0.165**	**0.110**	**0.200**
T696	LTE B66	QPSK20M	132572	1	0	Front Face	1.5	Second	2	2	24	23.17	0.07	0.137	0.092	0.166
T697	LTE B66	QPSK20M	132572	1	0	Front Face	1.5	Second	2	3	24	23.17	0.02	0.151	0.102	0.183

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

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

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T714	802.11b	1	Front Face	1.5	1	1	20.1	19.06	-0.09	0.047	0.025	0.059
T715	802.11b	1	Rear Face	1.5	1	1	20.1	19.06	0.08	0.089	0.045	0.113
T716	802.11b	6	Rear Face	1.5	1	1	19.1	18.13	0.05	0.084	0.044	0.106
T717	802.11b	11	Rear Face	1.5	1	1	19.6	18.76	0.01	**0.100**	**0.051**	**0.121**
T718	802.11b	11	Rear Face	1.5	2	1	19.6	18.76	0.15	0.084	0.044	0.102
T719	802.11b	11	Rear Face	1.5	3	1	19.6	18.76	0.05	0.093	0.049	0.113

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

5. Body-worn SAR test results of BT

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T736	BT DH5	39	Front Face	1.5	1	1	12.4	11.17	0	<0.001	<0.001	<0.001
T737	BT DH5	39	Rear Face	1.5	1	1	12.4	11.17	0	<0.001	<0.001	<0.001
T738	BT DH5	0	Front Face	1.5	1	1	12.4	10.87	0	<0.001	<0.001	<0.001
T739	BT DH5	78	Front Face	1.5	1	1	12.4	10.66	0	<0.001	<0.001	<0.001
T740	BT DH5	39	Front Face	1.5	2	1	12.4	11.17	0	<0.001	<0.001	<0.001
T741	BT DH5	39	Front Face	1.5	3	1	12.4	11.17	0	<0.001	<0.001	<0.001

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

8.2.3 SAR MEASUREMENT RESULT OF HOTSPOT

1. Hotspot SAR test results of GSM

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T262	GSM 850	GPRS 2TX	190	Front Face	1	Main	1	1	29.7	28.06	-0.06	0.201	0.125	0.293
T263	GSM 850	GPRS 2TX	190	Rear Face	1	Main	1	1	29.7	28.06	0.02	0.310	0.177	0.452
T264	GSM 850	GPRS 2TX	190	Left Side	1	Main	1	1	29.7	28.06	0.08	0.123	0.064	0.179
T265	GSM 850	GPRS 2TX	190	Right Side	1	Main	1	1	29.7	28.06	-0.03	0.040	0.028	0.059
T266	GSM 850	GPRS 2TX	190	Bottom Side	1	Main	1	1	29.7	28.06	0.05	0.125	0.067	0.182
T267	GSM 850	GPRS 2TX	128	Rear Face	1	Main	1	1	29.7	27.98	0.1	0.349	0.205	0.519
T268	GSM 850	GPRS 2TX	251	Rear Face	1	Main	1	1	29.7	28.13	0	0.242	0.143	0.347
T269	GSM 850	GPRS 2TX	128	Rear Face	1	Main	2	1	29.7	27.98	0.17	0.343	0.200	0.510
T270	GSM 850	GPRS 2TX	128	Rear Face	1	Main	1	2	29.7	27.98	0.12	0.355	0.205	0.528
T271	GSM 850	GPRS 2TX	128	Rear Face	1	Main	1	3	29.7	27.98	0.01	**0.381**	**0.221**	**0.566**
T279	GSM 850	GPRS 2TX	190	Front Face	1	Second	1	1	30.2	28.93	0.03	0.194	0.104	0.260
T280	GSM 850	GPRS 2TX	190	Rear Face	1	Second	1	1	30.2	28.93	0.01	0.210	0.161	0.281
T281	GSM 850	GPRS 2TX	190	Left Side	1	Second	1	1	30.2	28.93	0.02	0.347	0.234	0.465
T282	GSM 850	GPRS 2TX	190	Right Side	1	Second	1	1	30.2	28.93	-0.01	0.176	0.118	0.236
T283	GSM 850	GPRS 2TX	190	Top Side	1	Second	1	1	30.2	28.93	-0.19	0.147	0.072	0.197
T284	GSM 850	GPRS 2TX	128	Left Side	1	Second	1	1	30.2	28.81	0.02	**0.398**	**0.273**	**0.548**
T285	GSM 850	GPRS 2TX	251	Left Side	1	Second	1	1	30.2	28.96	-0.04	0.247	0.167	0.329
T286	GSM 850	GPRS 2TX	128	Left Side	1	Second	2	1	30.2	28.81	-0.09	0.385	0.266	0.530
T287	GSM 850	GPRS 2TX	128	Left Side	1	Second	1	2	30.2	28.81	-0.05	0.364	0.251	0.501
T288	GSM 850	GPRS 2TX	128	Left Side	1	Second	1	3	30.2	28.81	0.02	0.369	0.256	0.508
T296	GSM 1900	GPRS 2TX	661	Front Face	1	Main	1	1	28	26.82	-0.04	0.246	0.145	0.323
T297	GSM 1900	GPRS 2TX	661	Rear Face	1	Main	1	1	28	26.82	0.05	0.331	0.192	0.434
T298	GSM 1900	GPRS 2TX	661	Left Side	1	Main	1	1	28	26.82	0.09	0.120	0.071	0.157
T299	GSM 1900	GPRS 2TX	661	Right Side	1	Main	1	1	28	26.82	-0.11	0.081	0.048	0.106
T300	GSM 1900	GPRS 2TX	661	Bottom Side	1	Main	1	1	28	26.82	-0.07	0.342	0.194	0.449
T301	GSM 1900	GPRS 2TX	512	Bottom Side	1	Main	1	1	28	26.74	0.02	0.307	0.176	0.410
T302	GSM 1900	GPRS 2TX	810	Bottom Side	1	Main	1	1	28	26.94	-0.04	0.329	0.187	0.420
T303	GSM 1900	GPRS 2TX	661	Bottom Side	1	Main	2	1	28	26.82	-0.09	0.320	0.182	0.420
T304	GSM 1900	GPRS 2TX	661	Bottom Side	1	Main	1	2	28	26.82	-0.09	0.385	0.218	0.505
T305	GSM 1900	GPRS 2TX	661	Bottom Side	1	Main	1	3	28	26.82	0.02	**0.389**	**0.220**	**0.510**
T313	GSM 1900	GPRS 2TX	661	Front Face	1	Second	1	1	22	20.45	0.01	0.021	0.013	0.030
T314	GSM 1900	GPRS 2TX	661	Rear Face	1	Second	1	1	22	20.45	0.04	0.033	0.021	0.048
T315	GSM 1900	GPRS 2TX	661	Left Side	1	Second	1	1	22	20.45	0.09	0.028	0.017	0.040
T316	GSM 1900	GPRS 2TX	661	Right Side	1	Second	1	1	22	20.45	-0.09	0.006	0.003	0.009
T317	GSM 1900	GPRS 2TX	661	Top Side	1	Second	1	1	22	20.45	0.13	0.022	0.011	0.032
T318	GSM 1900	GPRS 2TX	512	Rear Face	1	Second	1	1	22	20.48	0.02	0.025	0.015	0.036
T319	GSM 1900	GPRS 2TX	810	Rear Face	1	Second	1	1	22	20.43	0.03	**0.038**	**0.023**	**0.055**
T320	GSM 1900	GPRS 2TX	810	Rear Face	1	Second	2	1	22	20.43	-0.07	0.033	0.020	0.047
T321	GSM 1900	GPRS 2TX	810	Rear Face	1	Second	1	2	22	20.43	0.04	0.033	0.020	0.048
T322	GSM 1900	GPRS 2TX	810	Rear Face	1	Second	1	3	22	20.43	0.1	0.026	0.016	0.038

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

2. Hotspot SAR test results of UMTS

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T330	UMTS B2	RMC12.2K	9400	Front Face	1	Main	1	1	23.5	22.75	0	0.445	0.256	0.529
T331	UMTS B2	RMC12.2K	9400	Rear Face	1	Main	1	1	23.5	22.75	-0.01	0.490	0.285	0.582
T332	UMTS B2	RMC12.2K	9400	Left Side	1	Main	1	1	23.5	22.75	0.02	0.242	0.139	0.288
T333	UMTS B2	RMC12.2K	9400	Right Side	1	Main	1	1	23.5	22.75	0.09	0.149	0.087	0.177
T334	UMTS B2	RMC12.2K	9400	Bottom Side	1	Main	1	1	23.5	22.75	-0.06	0.612	0.338	0.727
T335	UMTS B2	RMC12.2K	9262	Bottom Side	1	Main	1	1	23.5	22.76	0	0.581	0.323	0.689
T336	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	1	1	23.5	22.88	0.05	**0.670**	**0.370**	**0.773**
T337	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	2	1	23.5	22.88	-0.1	0.538	0.298	0.621
T338	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	1	2	23.5	22.88	0.06	0.548	0.306	0.632
T339	UMTS B2	RMC12.2K	9538	Bottom Side	1	Main	1	3	23.5	22.88	0.05	0.617	0.343	0.712
T347	UMTS B2	RMC12.2K	9400	Front Face	1	Second	1	1	23.8	22.72	0.05	0.133	0.071	0.171
T348	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	1	1	23.8	22.72	0.02	0.279	0.170	0.358
T349	UMTS B2	RMC12.2K	9400	Left Side	1	Second	1	1	23.8	22.72	0.07	0.257	0.151	0.330
T350	UMTS B2	RMC12.2K	9400	Right Side	1	Second	1	1	23.8	22.72	0.07	0.055	0.032	0.071
T351	UMTS B2	RMC12.2K	9400	Top Side	1	Second	1	1	23.8	22.72	-0.1	0.185	0.096	0.237
T352	UMTS B2	RMC12.2K	9262	Rear Face	1	Second	1	1	23.8	22.76	0.02	0.251	0.156	0.319
T353	UMTS B2	RMC12.2K	9538	Rear Face	1	Second	1	1	23.8	22.93	-0.02	0.277	0.167	0.338
T354	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	2	1	23.8	22.72	0.03	**0.307**	**0.188**	**0.394**
T355	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	2	2	23.8	22.72	-0.15	0.234	0.147	0.300
T356	UMTS B2	RMC12.2K	9400	Rear Face	1	Second	2	3	23.8	22.72	0.08	0.230	0.142	0.295
T364	UMTS B4	RMC12.2K	1413	Front Face	1	Main	1	1	23.5	22.65	-0.05	0.398	0.259	0.484
T365	UMTS B4	RMC12.2K	1413	Rear Face	1	Main	1	1	23.5	22.65	-0.04	0.409	0.267	0.497
T366	UMTS B4	RMC12.2K	1413	Left Side	1	Main	1	1	23.5	22.65	0.05	0.243	0.127	0.296
T367	UMTS B4	RMC12.2K	1413	Right Side	1	Main	1	1	23.5	22.65	0.16	0.122	0.072	0.148
T368	UMTS B4	RMC12.2K	1413	Bottom Side	1	Main	1	1	23.5	22.65	-0.01	0.416	0.239	0.506
T369	UMTS B4	RMC12.2K	1312	Bottom Side	1	Main	1	1	23.5	22.76	-0.02	0.392	0.226	0.465
T370	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	1	1	23.5	22.78	-0.01	0.454	0.260	0.536
T371	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	2	1	23.5	22.78	-0.01	**0.461**	**0.264**	**0.544**
T372	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	2	2	23.5	22.78	0.06	0.460	0.264	0.543
T373	UMTS B4	RMC12.2K	1513	Bottom Side	1	Main	2	3	23.5	22.78	0.03	0.457	0.262	0.539
T381	UMTS B4	RMC12.2K	1413	Front Face	1	Second	1	1	24	23.12	0.02	0.220	0.151	0.269
T382	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	1	1	24	23.12	-0.01	**0.235**	**0.148**	**0.288**
T383	UMTS B4	RMC12.2K	1413	Left Side	1	Second	1	1	24	23.12	0.05	0.184	0.110	0.225
T384	UMTS B4	RMC12.2K	1413	Right Side	1	Second	1	1	24	23.12	0.02	0.059	0.034	0.072
T385	UMTS B4	RMC12.2K	1413	Top Side	1	Second	1	1	24	23.12	-0.04	0.215	0.110	0.263
T386	UMTS B4	RMC12.2K	1312	Rear Face	1	Second	1	1	24	23.05	0.01	0.221	0.144	0.275
T387	UMTS B4	RMC12.2K	1513	Rear Face	1	Second	1	1	24	23.19	0.03	0.217	0.124	0.261
T388	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	2	1	24	23.12	0	0.226	0.145	0.277
T389	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	1	2	24	23.12	-0.07	0.233	0.152	0.285
T390	UMTS B4	RMC12.2K	1413	Rear Face	1	Second	1	3	24	23.12	-0.05	0.234	0.149	0.287

Test No.	Band	Mode	Channel	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T398	UMTS B5	RMC12.2K	4182	Front Face	1	Main	1	1	24.5	23.28	0.02	0.329	0.206	0.436
T399	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	1	1	24.5	23.28	0.13	0.434	0.255	0.575
T400	UMTS B5	RMC12.2K	4182	Left Side	1	Main	1	1	24.5	23.28	0.16	0.171	0.092	0.226
T401	UMTS B5	RMC12.2K	4182	Right Side	1	Main	1	1	24.5	23.28	-0.07	0.066	0.046	0.087
T402	UMTS B5	RMC12.2K	4182	Bottom Side	1	Main	1	1	24.5	23.28	-0.11	0.191	0.105	0.253
T403	UMTS B5	RMC12.2K	4132	Rear Face	1	Main	1	1	24.5	23.25	0.07	0.426	0.254	0.568
T404	UMTS B5	RMC12.2K	4233	Rear Face	1	Main	1	1	24.5	23.23	0.01	0.404	0.241	0.541
T405	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	2	1	24.5	23.28	0.07	**0.496**	**0.291**	**0.657**
T406	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	2	2	24.5	23.28	0.09	0.463	0.271	0.613
T407	UMTS B5	RMC12.2K	4182	Rear Face	1	Main	2	3	24.5	23.28	0.1	0.456	0.268	0.604
T415	UMTS B5	RMC12.2K	4182	Front Face	1	Second	1	1	25	23.88	0	0.223	0.121	0.289
T416	UMTS B5	RMC12.2K	4182	Rear Face	1	Second	1	1	25	23.88	-0.02	0.257	0.198	0.333
T417	UMTS B5	RMC12.2K	4182	Left Side	1	Second	1	1	25	23.88	0	0.408	0.278	0.528
T418	UMTS B5	RMC12.2K	4182	Right Side	1	Second	1	1	25	23.88	0	0.221	0.150	0.286
T419	UMTS B5	RMC12.2K	4182	Top Side	1	Second	1	1	25	23.88	-0.07	0.150	0.074	0.194
T420	UMTS B5	RMC12.2K	4132	Left Side	1	Second	1	1	25	23.75	-0.07	0.395	0.272	0.527
T421	UMTS B5	RMC12.2K	4233	Left Side	1	Second	1	1	25	23.79	0.03	0.365	0.249	0.482
T422	UMTS B5	RMC12.2K	4182	Left Side	1	Second	2	1	25	23.88	-0.01	**0.429**	**0.294**	**0.555**
T423	UMTS B5	RMC12.2K	4182	Left Side	1	Second	2	2	25	23.88	-0.03	0.417	0.285	0.540
T424	UMTS B5	RMC12.2K	4182	Left Side	1	Second	2	3	25	23.88	-0.02	0.413	0.283	0.535

Note: 1) The value with boldface is the maximum SAR Value of each test band.
2) Since the test distance between body-worn and additional SAR is the same and they are also at sensor off, the additional SAR with sensor off in front face / rear face at 15 mm are no longer added.

3. Hotspot SAR test results of LTE

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T434	LTE B2	QPSK20M	18900	1	0	Front Face	1	Main	1	1	22.8	21.89	0.04	0.337	0.193	0.416
T435	LTE B2	QPSK20M	18900	1	0	Rear Face	1	Main	1	1	22.8	21.89	0.01	0.458	0.259	0.565
T436	LTE B2	QPSK20M	18900	1	0	Left Side	1	Main	1	1	22.8	21.89	-0.03	0.187	0.107	0.231
T437	LTE B2	QPSK20M	18900	1	0	Right Side	1	Main	1	1	22.8	21.89	0.01	0.124	0.072	0.153
T438	LTE B2	QPSK20M	18900	1	0	Bottom Side	1	Main	1	1	22.8	21.89	0	0.468	0.258	0.577
T439	LTE B2	QPSK20M	18900	50	0	Front Face	1	Main	1	1	22.8	21.64	0.02	0.326	0.188	0.426
T440	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Main	1	1	22.8	21.64	0.03	0.424	0.244	0.554
T441	LTE B2	QPSK20M	18900	50	0	Left Side	1	Main	1	1	22.8	21.64	0	0.193	0.110	0.252
T442	LTE B2	QPSK20M	18900	50	0	Right Side	1	Main	1	1	22.8	21.64	-0.02	0.128	0.074	0.167
T443	LTE B2	QPSK20M	18900	50	0	Bottom Side	1	Main	1	1	22.8	21.64	0.02	0.473	0.261	0.618
T444	LTE B2	QPSK20M	18700	50	0	Bottom Side	1	Main	1	1	22.8	21.58	-0.04	0.457	0.253	0.605
T445	LTE B2	QPSK20M	19100	50	0	Bottom Side	1	Main	1	1	22.8	21.63	-0.02	0.485	0.268	0.635
T446	LTE B2	QPSK20M	19100	50	0	Bottom Side	1	Main	2	1	22.8	21.63	0.02	0.544	0.300	0.712
T447	LTE B2	QPSK20M	19100	50	0	Bottom Side	1	Main	2	2	22.8	21.63	-0.03	0.498	0.278	0.652
T448	LTE B2	QPSK20M	19100	50	0	Bottom Side	1	Main	2	3	22.8	21.63	-0.07	**0.572**	**0.314**	**0.749**
T458	LTE B2	QPSK20M	18900	1	0	Front Face	1	Second	1	1	24	23.06	0	0.145	0.077	0.180
T459	LTE B2	QPSK20M	18900	1	0	Rear Face	1	Second	1	1	24	23.06	-0.03	0.298	0.183	0.370
T460	LTE B2	QPSK20M	18900	1	0	Left Side	1	Second	1	1	24	23.06	0.02	0.282	0.165	0.350
T461	LTE B2	QPSK20M	18900	1	0	Right Side	1	Second	1	1	24	23.06	0.06	0.071	0.041	0.088
T462	LTE B2	QPSK20M	18900	1	0	Top Side	1	Second	1	1	24	23.06	0.01	0.185	0.097	0.230
T463	LTE B2	QPSK20M	18900	50	0	Front Face	1	Second	1	1	23	21.88	0.1	0.118	0.063	0.153
T464	LTE B2	QPSK20M	18900	50	0	Rear Face	1	Second	1	1	23	21.88	-0.03	0.240	0.147	0.311
T465	LTE B2	QPSK20M	18900	50	0	Left Side	1	Second	1	1	23	21.88	0.06	0.223	0.130	0.289
T466	LTE B2	QPSK20M	18900	50	0	Right Side	1	Second	1	1	23	21.88	0.08	0.055	0.032	0.071
T467	LTE B2	QPSK20M	18900	50	0	Top Side	1	Second	1	1	23	21.88	0.14	0.151	0.078	0.196
T468	LTE B2	QPSK20M	18700	1	0	Rear Face	1	Second	1	1	24	22.97	-0.05	0.291	0.180	0.369
T469	LTE B2	QPSK20M	19100	1	0	Rear Face	1	Second	1	1	24	22.99	-0.05	0.312	0.189	0.394
T470	LTE B2	QPSK20M	19100	1	0	Rear Face	1	Second	2	1	24	22.99	-0.09	0.322	0.200	0.406
T471	LTE B2	QPSK20M	19100	1	0	Rear Face	1	Second	2	2	24	22.99	-0.03	**0.336**	**0.209**	**0.424**
T472	LTE B2	QPSK20M	19100	1	0	Rear Face	1	Second	2	3	24	22.99	-0.11	0.290	0.174	0.366

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T482	LTE B4	QPSK20M	20175	1	0	Front Face	1	Main	1	1	23.9	23.19	0.02	0.406	0.270	0.478
T483	LTE B4	QPSK20M	20175	1	0	Rear Face	1	Main	1	1	23.9	23.19	-0.03	0.481	0.313	0.566
T484	LTE B4	QPSK20M	20175	1	0	Left Side	1	Main	1	1	23.9	23.19	0.06	0.243	0.131	0.286
T485	LTE B4	QPSK20M	20175	1	0	Right Side	1	Main	1	1	23.9	23.19	-0.13	0.126	0.075	0.148
T486	LTE B4	QPSK20M	20175	1	0	Bottom Side	1	Main	1	1	23.9	23.19	-0.04	0.583	0.333	0.687
T487	LTE B4	QPSK20M	20175	50	0	Front Face	1	Main	1	1	22.9	22.08	0.04	0.316	0.210	0.382
T488	LTE B4	QPSK20M	20175	50	0	Rear Face	1	Main	1	1	22.9	22.08	0.01	0.390	0.254	0.472
T489	LTE B4	QPSK20M	20175	50	0	Left Side	1	Main	1	1	22.9	22.08	0.03	0.193	0.104	0.233
T490	LTE B4	QPSK20M	20175	50	0	Right Side	1	Main	1	1	22.9	22.08	0.03	0.101	0.060	0.122
T491	LTE B4	QPSK20M	20175	50	0	Bottom Side	1	Main	1	1	22.9	22.08	0	0.482	0.276	0.583
T492	LTE B4	QPSK20M	20050	1	0	Bottom Side	1	Main	1	1	23.9	23.08	-0.02	0.547	0.314	0.660
T493	LTE B4	QPSK20M	20300	1	0	Bottom Side	1	Main	1	1	23.9	23.06	-0.01	**0.608**	**0.347**	**0.737**
T494	LTE B4	QPSK20M	20300	1	0	Bottom Side	1	Main	2	1	23.9	23.06	-0.02	0.470	0.270	0.570
T495	LTE B4	QPSK20M	20300	1	0	Bottom Side	1	Main	1	2	23.9	23.06	0.04	0.544	0.311	0.660
T496	LTE B4	QPSK20M	20300	1	0	Bottom Side	1	Main	1	3	23.9	23.06	0	0.504	0.288	0.611
T506	LTE B4	QPSK20M	20050	1	99	Front Face	1	Second	1	1	23.9	23.17	0.06	0.230	0.158	0.272
T507	LTE B4	QPSK20M	20050	1	99	Rear Face	1	Second	1	1	23.9	23.17	0.03	0.202	0.136	0.239
T508	LTE B4	QPSK20M	20050	1	99	Left Side	1	Second	1	1	23.9	23.17	-0.04	0.155	0.097	0.183
T509	LTE B4	QPSK20M	20050	1	99	Right Side	1	Second	1	1	23.9	23.17	0.19	0.059	0.035	0.070
T510	LTE B4	QPSK20M	20050	1	99	Top Side	1	Second	1	1	23.9	23.17	0.05	0.237	0.121	0.280
T511	LTE B4	QPSK20M	20050	50	50	Front Face	1	Second	1	1	22.9	22.08	0	0.159	0.109	0.192
T512	LTE B4	QPSK20M	20050	50	50	Rear Face	1	Second	1	1	22.9	22.08	0.13	0.173	0.115	0.209
T513	LTE B4	QPSK20M	20050	50	50	Left Side	1	Second	1	1	22.9	22.08	0.07	0.119	0.074	0.144
T514	LTE B4	QPSK20M	20050	50	50	Right Side	1	Second	1	1	22.9	22.08	0.03	0.050	0.027	0.060
T515	LTE B4	QPSK20M	20050	50	50	Top Side	1	Second	1	1	22.9	22.08	0.16	0.192	0.097	0.232
T516	LTE B4	QPSK20M	20175	1	99	Top Side	1	Second	1	1	23.9	23.14	0.17	0.249	0.127	0.297
T517	LTE B4	QPSK20M	20300	1	99	Top Side	1	Second	1	1	23.9	23.14	0.01	**0.272**	**0.138**	**0.324**
T518	LTE B4	QPSK20M	20300	1	99	Top Side	1	Second	2	1	23.9	23.14	0.18	0.228	0.118	0.272
T519	LTE B4	QPSK20M	20300	1	99	Top Side	1	Second	1	2	23.9	23.14	0.11	0.241	0.123	0.287
T520	LTE B4	QPSK20M	20300	1	99	Top Side	1	Second	1	3	23.9	23.14	-0.08	0.226	0.115	0.269

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T530	LTE B5	QPSK10M	20525	1	0	Front Face	1	Main	1	1	24.5	23.84	0.02	0.341	0.198	0.397
T531	LTE B5	QPSK10M	20525	1	0	Rear Face	1	Main	1	1	24.5	23.84	0.01	0.499	0.294	0.581
T532	LTE B5	QPSK10M	20525	1	0	Left Side	1	Main	1	1	24.5	23.84	0.09	0.213	0.108	0.248
T533	LTE B5	QPSK10M	20525	1	0	Right Side	1	Main	1	1	24.5	23.84	0.03	0.079	0.054	0.091
T534	LTE B5	QPSK10M	20525	1	0	Bottom Side	1	Main	1	1	24.5	23.84	0.02	0.256	0.138	0.298
T535	LTE B5	QPSK10M	20525	25	0	Front Face	1	Main	1	1	23.5	22.78	0.02	0.265	0.154	0.313
T536	LTE B5	QPSK10M	20525	25	0	Rear Face	1	Main	1	1	23.5	22.78	0.03	0.413	0.236	0.488
T537	LTE B5	QPSK10M	20525	25	0	Left Side	1	Main	1	1	23.5	22.78	0.04	0.173	0.088	0.204
T538	LTE B5	QPSK10M	20525	25	0	Right Side	1	Main	1	1	23.5	22.78	0.02	0.063	0.043	0.074
T539	LTE B5	QPSK10M	20525	25	0	Bottom Side	1	Main	1	1	23.5	22.78	0	0.198	0.107	0.234
T540	LTE B5	QPSK10M	20450	1	0	Rear Face	1	Main	1	1	24.5	23.79	-0.07	0.481	0.283	0.567
T541	LTE B5	QPSK10M	20600	1	0	Rear Face	1	Main	1	1	24.5	23.81	0.02	0.547	0.319	0.642
T542	LTE B5	QPSK10M	20600	1	0	Rear Face	1	Main	2	1	24.5	23.81	0.09	**0.547**	**0.321**	**0.642**
T543	LTE B5	QPSK10M	20600	1	0	Rear Face	1	Main	2	2	24.5	23.81	0.04	0.500	0.293	0.587
T544	LTE B5	QPSK10M	20600	1	0	Rear Face	1	Main	2	3	24.5	23.81	0.05	0.515	0.303	0.604
T554	LTE B5	QPSK10M	20525	1	49	Front Face	1	Second	1	1	24.5	23.71	-0.02	0.211	0.113	0.253
T555	LTE B5	QPSK10M	20525	1	49	Rear Face	1	Second	1	1	24.5	23.71	0.02	0.231	0.178	0.277
T556	LTE B5	QPSK10M	20525	1	49	Left Side	1	Second	1	1	24.5	23.71	-0.11	0.360	0.246	0.432
T557	LTE B5	QPSK10M	20525	1	49	Right Side	1	Second	1	1	24.5	23.71	0	0.194	0.132	0.233
T558	LTE B5	QPSK10M	20525	1	49	Top Side	1	Second	1	1	24.5	23.71	0.01	0.140	0.069	0.168
T559	LTE B5	QPSK10M	20525	25	25	Front Face	1	Second	1	1	23.5	22.66	0.01	0.168	0.090	0.204
T560	LTE B5	QPSK10M	20525	25	25	Rear Face	1	Second	1	1	23.5	22.66	0.02	0.185	0.142	0.225
T561	LTE B5	QPSK10M	20525	25	25	Left Side	1	Second	1	1	23.5	22.66	0.03	0.302	0.206	0.367
T562	LTE B5	QPSK10M	20525	25	25	Right Side	1	Second	1	1	23.5	22.66	0.02	0.157	0.107	0.191
T563	LTE B5	QPSK10M	20525	25	25	Top Side	1	Second	1	1	23.5	22.66	0.09	0.116	0.057	0.141
T564	LTE B5	QPSK10M	20450	1	49	Left Side	1	Second	1	1	24.5	23.53	0.01	0.367	0.252	0.459
T565	LTE B5	QPSK10M	20600	1	49	Left Side	1	Second	1	1	24.5	23.58	0.06	0.335	0.229	0.414
T566	LTE B5	QPSK10M	20450	1	49	Left Side	1	Second	2	1	24.5	23.53	0.01	**0.368**	**0.252**	**0.461**
T567	LTE B5	QPSK10M	20450	1	49	Left Side	1	Second	2	2	24.5	23.53	-0.03	0.359	0.246	0.449
T568	LTE B5	QPSK10M	20450	1	49	Left Side	1	Second	2	3	24.5	23.53	0	0.356	0.244	0.446

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T578	LTE B7	QPSK20M	21350	1	0	Front Face	1	Main	1	1	22.4	21.52	0.05	0.282	0.152	0.346
T579	LTE B7	QPSK20M	21350	1	0	Rear Face	1	Main	1	1	22.4	21.52	0.17	0.271	0.147	0.332
T580	LTE B7	QPSK20M	21350	1	0	Left Side	1	Main	1	1	22.4	21.52	-0.11	0.125	0.066	0.153
T581	LTE B7	QPSK20M	21350	1	0	Right Side	1	Main	1	1	22.4	21.52	0.02	0.037	0.020	0.045
T582	LTE B7	QPSK20M	21350	1	0	Bottom Side	1	Main	1	1	22.4	21.52	0.03	0.359	0.186	0.440
T583	LTE B7	QPSK20M	21350	50	0	Front Face	1	Main	1	1	22.4	21.33	0.18	0.288	0.155	0.369
T584	LTE B7	QPSK20M	21350	50	0	Rear Face	1	Main	1	1	22.4	21.33	-0.01	0.284	0.151	0.364
T585	LTE B7	QPSK20M	21350	50	0	Left Side	1	Main	1	1	22.4	21.33	0.03	0.126	0.065	0.161
T586	LTE B7	QPSK20M	21350	50	0	Right Side	1	Main	1	1	22.4	21.33	0	0.035	0.019	0.044
T587	LTE B7	QPSK20M	21350	50	0	Bottom Side	1	Main	1	1	22.4	21.33	-0.1	0.392	0.202	0.502
T588	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	Main	1	1	22.4	21.28	-0.1	0.410	0.213	0.531
T589	LTE B7	QPSK20M	21100	50	50	Bottom Side	1	Main	1	1	22.4	21.17	-0.17	0.392	0.203	0.520
T590	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	Main	2	1	22.4	21.28	-0.05	**0.431**	**0.221**	**0.558**
T591	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	Main	2	2	22.4	21.28	-0.03	0.374	0.198	0.484
T592	LTE B7	QPSK20M	20850	50	50	Bottom Side	1	Main	2	3	22.4	21.28	-0.06	0.399	0.207	0.517
T602	LTE B7	QPSK20M	21350	1	0	Front Face	1	Second	1	1	21.4	20.54	0.05	0.146	0.084	0.178
T603	LTE B7	QPSK20M	21350	1	0	Rear Face	1	Second	1	1	21.4	20.54	0.09	0.163	0.089	0.199
T604	LTE B7	QPSK20M	21350	1	0	Left Side	1	Second	1	1	21.4	20.54	0.03	0.199	0.104	0.243
T605	LTE B7	QPSK20M	21350	1	0	Right Side	1	Second	1	1	21.4	20.54	0.07	0.012	0.005	0.015
T606	LTE B7	QPSK20M	21350	1	0	Top Side	1	Second	1	1	21.4	20.54	-0.15	0.083	0.038	0.101
T607	LTE B7	QPSK20M	21350	50	0	Front Face	1	Second	1	1	21.4	20.35	0.03	0.127	0.072	0.162
T608	LTE B7	QPSK20M	21350	50	0	Rear Face	1	Second	1	1	21.4	20.35	0.15	0.165	0.090	0.210
T609	LTE B7	QPSK20M	21350	50	0	Left Side	1	Second	1	1	21.4	20.35	0.01	0.198	0.104	0.252
T610	LTE B7	QPSK20M	21350	50	0	Right Side	1	Second	1	1	21.4	20.35	0.09	0.014	0.005	0.017
T611	LTE B7	QPSK20M	21350	50	0	Top Side	1	Second	1	1	21.4	20.35	-0.11	0.088	0.040	0.112
T612	LTE B7	QPSK20M	20850	50	25	Left Side	1	Second	1	1	21.4	20.31	-0.05	0.186	0.098	0.239
T613	LTE B7	QPSK20M	21100	50	0	Left Side	1	Second	1	1	21.4	20.28	-0.05	0.179	0.095	0.232
T614	LTE B7	QPSK20M	21350	50	0	Left Side	1	Second	2	1	21.4	20.35	-0.07	0.209	0.110	0.266
T615	LTE B7	QPSK20M	21350	50	0	Left Side	1	Second	2	2	21.4	20.35	-0.08	**0.211**	**0.111**	**0.269**
T616	LTE B7	QPSK20M	21350	50	0	Left Side	1	Second	2	3	21.4	20.35	-0.01	0.198	0.103	0.252

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T626	LTE B12	QPSK10M	23060	1	0	Front Face	1	Main	1	1	24.5	23.56	0.01	0.236	0.145	0.293
T627	LTE B12	QPSK10M	23060	1	0	Rear Face	1	Main	1	1	24.5	23.56	-0.03	0.357	0.207	0.444
T628	LTE B12	QPSK10M	23060	1	0	Left Side	1	Main	1	1	24.5	23.56	-0.03	0.185	0.096	0.230
T629	LTE B12	QPSK10M	23060	1	0	Right Side	1	Main	1	1	24.5	23.56	0.01	0.043	0.031	0.054
T630	LTE B12	QPSK10M	23060	1	0	Bottom Side	1	Main	1	1	24.5	23.56	0.03	0.146	0.069	0.181
T631	LTE B12	QPSK10M	23060	25	0	Front Face	1	Main	1	1	23.5	22.72	0.01	0.197	0.121	0.236
T632	LTE B12	QPSK10M	23060	25	0	Rear Face	1	Main	1	1	23.5	22.72	-0.06	0.304	0.176	0.364
T633	LTE B12	QPSK10M	23060	25	0	Left Side	1	Main	1	1	23.5	22.72	0.03	0.140	0.073	0.168
T634	LTE B12	QPSK10M	23060	25	0	Right Side	1	Main	1	1	23.5	22.72	0.08	0.038	0.027	0.045
T635	LTE B12	QPSK10M	23060	25	0	Bottom Side	1	Main	1	1	23.5	22.72	0.06	0.126	0.060	0.151
T636	LTE B12	QPSK10M	23095	1	0	Rear Face	1	Main	1	1	24.5	23.53	0.12	0.383	0.225	0.479
T637	LTE B12	QPSK10M	23130	1	0	Rear Face	1	Main	1	1	24.5	23.50	-0.09	0.396	0.233	0.498
T638	LTE B12	QPSK10M	23130	1	0	Rear Face	1	Main	2	1	24.5	23.50	0	0.409	0.241	0.515
T639	LTE B12	QPSK10M	23130	1	0	Rear Face	1	Main	2	2	24.5	23.50	-0.03	0.432	0.251	0.544
T640	LTE B12	QPSK10M	23130	1	0	Rear Face	1	Main	2	3	24.5	23.50	-0.01	**0.452**	**0.259**	**0.569**
T650	LTE B12	QPSK10M	23060	1	0	Front Face	1	Second	1	1	24.5	23.47	0.01	0.208	0.116	0.264
T651	LTE B12	QPSK10M	23060	1	0	Rear Face	1	Second	1	1	24.5	23.47	0.08	0.228	0.132	0.289
T652	LTE B12	QPSK10M	23060	1	0	Left Side	1	Second	1	1	24.5	23.47	-0.03	0.296	0.207	0.375
T653	LTE B12	QPSK10M	23060	1	0	Right Side	1	Second	1	1	24.5	23.47	0.05	0.133	0.092	0.169
T654	LTE B12	QPSK10M	23060	1	0	Top Side	1	Second	1	1	24.5	23.47	-0.08	0.162	0.082	0.205
T655	LTE B12	QPSK10M	23060	25	0	Front Face	1	Second	1	1	23.5	22.35	0.01	0.176	0.098	0.229
T656	LTE B12	QPSK10M	23060	25	0	Rear Face	1	Second	1	1	23.5	22.35	0	0.190	0.109	0.248
T657	LTE B12	QPSK10M	23060	25	0	Left Side	1	Second	1	1	23.5	22.35	0	0.245	0.172	0.319
T658	LTE B12	QPSK10M	23060	25	0	Right Side	1	Second	1	1	23.5	22.35	0	0.114	0.079	0.149
T659	LTE B12	QPSK10M	23060	25	0	Top Side	1	Second	1	1	23.5	22.35	0.02	0.133	0.068	0.173
T660	LTE B12	QPSK10M	23095	1	0	Left Side	1	Second	1	1	24.5	23.39	0.01	0.315	0.222	0.407
T661	LTE B12	QPSK10M	23130	1	0	Left Side	1	Second	1	1	24.5	23.35	-0.01	**0.328**	**0.230**	**0.428**
T662	LTE B12	QPSK10M	23130	1	0	Left Side	1	Second	2	1	24.5	23.35	-0.08	0.321	0.225	0.419
T663	LTE B12	QPSK10M	23130	1	0	Left Side	1	Second	1	2	24.5	23.35	-0.07	0.310	0.218	0.404
T664	LTE B12	QPSK10M	23130	1	0	Left Side	1	Second	1	3	24.5	23.35	0.01	0.311	0.218	0.406

Test No.	Band	Mode	Channel	RB	offset	Test Position	Separation Distance (cm)	Ant	SIM	Battery	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T674	LTE B66	QPSK20M	132322	1	0	Front Face	1	Main	1	1	24	23.23	0	0.438	0.290	0.523
T675	LTE B66	QPSK20M	132322	1	0	Rear Face	1	Main	1	1	24	23.23	-0.06	0.486	0.318	0.580
T676	LTE B66	QPSK20M	132322	1	0	Left Side	1	Main	1	1	24	23.23	0	0.209	0.113	0.250
T677	LTE B66	QPSK20M	132322	1	0	Right Side	1	Main	1	1	24	23.23	0.02	0.109	0.065	0.130
T678	LTE B66	QPSK20M	132322	1	0	Bottom Side	1	Main	1	1	24	23.23	-0.01	0.522	0.298	0.623
T679	LTE B66	QPSK20M	132322	50	25	Front Face	1	Main	1	1	23	22.09	0.01	0.334	0.221	0.412
T680	LTE B66	QPSK20M	132322	50	25	Rear Face	1	Main	1	1	23	22.09	0.18	0.392	0.256	0.483
T681	LTE B66	QPSK20M	132322	50	25	Left Side	1	Main	1	1	23	22.09	0.03	0.159	0.086	0.196
T682	LTE B66	QPSK20M	132322	50	25	Right Side	1	Main	1	1	23	22.09	0.07	0.088	0.052	0.108
T683	LTE B66	QPSK20M	132322	50	25	Bottom Side	1	Main	1	1	23	22.09	0.01	0.401	0.228	0.494
T684	LTE B66	QPSK20M	132072	1	0	Bottom Side	1	Main	1	1	24	23.18	0.03	0.508	0.292	0.614
T685	LTE B66	QPSK20M	132572	1	0	Bottom Side	1	Main	1	1	24	23.17	-0.04	**0.556**	**0.316**	**0.673**
T686	LTE B66	QPSK20M	132572	1	0	Bottom Side	1	Main	2	1	24	23.17	0.03	0.521	0.298	0.631
T687	LTE B66	QPSK20M	132572	1	0	Bottom Side	1	Main	1	2	24	23.17	0.03	0.522	0.296	0.632
T688	LTE B66	QPSK20M	132572	1	0	Bottom Side	1	Main	1	3	24	23.17	-0.07	0.535	0.304	0.648
T698	LTE B66	QPSK20M	132572	1	0	Front Face	1	Second	1	1	24	23.17	0.05	0.202	0.136	0.245
T699	LTE B66	QPSK20M	132572	1	0	Rear Face	1	Second	1	1	24	23.17	0.08	0.189	0.113	0.229
T700	LTE B66	QPSK20M	132572	1	0	Left Side	1	Second	1	1	24	23.17	0	0.178	0.109	0.215
T701	LTE B66	QPSK20M	132572	1	0	Right Side	1	Second	1	1	24	23.17	0.07	0.070	0.041	0.085
T702	LTE B66	QPSK20M	132572	1	0	Top Side	1	Second	1	1	24	23.17	0	0.247	0.126	0.299
T703	LTE B66	QPSK20M	132572	50	25	Front Face	1	Second	1	1	23	22.05	0.09	0.154	0.104	0.192
T704	LTE B66	QPSK20M	132572	50	25	Rear Face	1	Second	1	1	23	22.05	0	0.156	0.093	0.194
T705	LTE B66	QPSK20M	132572	50	25	Left Side	1	Second	1	1	23	22.05	0.02	0.142	0.087	0.177
T706	LTE B66	QPSK20M	132572	50	25	Right Side	1	Second	1	1	23	22.05	0.07	0.058	0.034	0.072
T707	LTE B66	QPSK20M	132572	50	25	Top Side	1	Second	1	1	23	22.05	0.01	0.194	0.099	0.241
T708	LTE B66	QPSK20M	132072	1	0	Top Side	1	Second	1	1	24	23.08	0	0.179	0.090	0.221
T709	LTE B66	QPSK20M	132322	1	0	Top Side	1	Second	1	1	24	23.09	0.06	0.216	0.109	0.266
T710	LTE B66	QPSK20M	132572	1	0	Top Side	1	Second	2	1	24	23.17	-0.02	0.262	0.133	0.317
T711	LTE B66	QPSK20M	132572	1	0	Top Side	1	Second	2	2	24	23.17	-0.09	0.267	0.135	0.323
T712	LTE B66	QPSK20M	132572	1	0	Top Side	1	Second	2	3	24	23.17	0.13	**0.271**	**0.137**	**0.328**

Note: 1) The value with boldface is the maximum SAR Value of each test band.
2) Since the test distance between body-worn and additional SAR is the same and they are also at sensor off, the additional SAR with sensor off in front face / rear face at 15 mm are no longer added.

4. Hotspot SAR test results of 2.4G WIFI

Test No.	Band	Channel	Test Position	Separation Distance (cm)	Battery	Data Rate	Maximum Tune-up (dBm)	Conducted Power (dBm)	Power Drift (dB)	SAR 1g (W/kg)	SAR 10g (W/kg)	Reported 1g SAR
T720	802.11b	1	Front Face	1	1	1	20.1	19.06	0.08	0.111	0.056	0.141
T721	802.11b	1	Rear Face	1	1	1	20.1	19.06	0.01	0.207	0.098	0.263
T722	802.11b	1	Right Side	1	1	1	20.1	19.06	-0.09	0.196	0.090	0.249
T723	802.11b	1	Top Side	1	1	1	20.1	19.06	-0.04	0.052	0.029	0.066
T724	802.11b	6	Rear Face	1	1	1	19.1	18.13	0.03	0.210	0.100	0.263
T725	802.11b	11	Rear Face	1	1	1	19.6	18.76	0.02	0.215	0.102	0.261
T726	802.11b	6	Rear Face	1	2	1	19.1	18.13	-0.09	**0.223**	**0.110**	**0.279**
T727	802.11b	6	Rear Face	1	3	1	19.1	18.13	0.07	0.211	0.105	0.264

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

5. Hotspot SAR test results of BT

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
T742	BT DH5	39	Front Face	1	1	1	12.4	11.17	0	<0.001	<0.001	<0.001
T743	BT DH5	39	Rear Face	1	1	1	12.4	11.17	0	<0.001	<0.001	<0.001
T744	BT DH5	39	Right Side	1	1	1	12.4	11.17	0.09	0.020	0.007	0.027
T745	BT DH5	39	Top Side	1	1	1	12.4	11.17	0	<0.001	<0.001	<0.001
T746	BT DH5	0	Right Side	1	1	1	12.4	10.87	-0.02	0.014	0.004	0.020
T747	BT DH5	78	Right Side	1	1	1	12.4	10.66	0.06	0.027	0.010	0.040
T748	BT DH5	78	Right Side	1	2	1	12.4	10.66	-0.05	**0.033**	**0.013**	**0.049**
T749	BT DH5	78	Right Side	1	3	1	12.4	10.66	0.04	0.033	0.012	0.049

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.

8.3 MULTIPLE TRANSMITTER EVALUATION

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

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

8.3.1 STAND-ALONE SAR TEST EXCLUSION

Per FCC KDB 447498D01, 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
1	GSM Voice(Ant 1) + BT	Yes	Yes	N/A
2	GSM DATA(Ant 1) + BT	N/A	Yes	N/A
3	GSM Voice(Ant 2) + BT	Yes	Yes	N/A
4	GSM DATA (Ant 2)+ BT	N/A	Yes	N/A
5	GSM Voice(Ant 1) + WiFi 2.4G	Yes	Yes	N/A
6	GSM DATA(Ant 1) + WiFi 2.4G	N/A	Yes	Yes
7	GSM Voice(Ant 2) + WiFi 2.4G	Yes	Yes	N/A
8	GSM DATA(Ant 2) + WiFi 2.4G	N/A	Yes	Yes
9	UMTS (Ant 1) + BT	Yes	Yes	N/A
10	UMTS (Ant 2) + BT	Yes	Yes	N/A
11	UMTS (Ant 1) + WiFi 2.4G	Yes	Yes	Yes
12	UMTS (Ant 2) + WiFi 2.4G	Yes	Yes	Yes
13	LTE (Ant 1) + WiFi 2.4G	Yes	Yes	Yes
14	LTE(Ant 1) + BT	Yes	Yes	N/A
15	LTE (Ant 2) + WiFi 2.4G	Yes	Yes	Yes
16	LTE (Ant 2) + BT	Yes	Yes	N/A

Note:
1) WiFi 2.4G and Bluetooth can't transmit simultaneously.
2) 2G&3G&4G main antenna(Ant1) and second antenna(Ant 2) can't transmit simultaneously
3) The device supports WiFi VOIP function.
4) The device supports VOLTE function.

8.3.2 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	0.069	0.019	0.035	0.025	0.157	0.296	0.293	0.566	0.179	0.059	/	0.182
GSM 1900	0.097	0.068	0.242	0.071	0.171	0.257	0.323	0.434	0.157	0.106	/	0.510
UMTS B2	0.224	0.166	0.457	0.160	0.251	0.316	0.529	0.582	0.288	0.177	/	0.773
UMTS B4	0.240	0.139	0.361	0.152	0.259	0.299	0.484	0.497	0.296	0.148	/	0.544
UMTS B5	0.105	0.035	0.066	0.050	0.225	0.332	0.436	0.657	0.226	0.087	/	0.253
LTE B2	0.155	0.135	0.340	0.131	0.223	0.295	0.426	0.565	0.252	0.167	/	0.749
LTE B4	0.214	0.119	0.326	0.119	0.310	0.377	0.478	0.566	0.286	0.148	/	0.737
LTE B5	0.071	0.024	0.072	0.030	0.242	0.347	0.397	0.642	0.248	0.091	/	0.298
LTE B7	0.203	0.157	0.394	0.161	0.177	0.198	0.369	0.364	0.161	0.045	/	0.558
LTE B12	0.068	0.023	0.046	0.024	0.158	0.289	0.293	0.569	0.230	0.054	/	0.181
LTE B66	0.234	0.127	0.292	0.143	0.333	0.369	0.523	0.580	0.250	0.130	/	0.673
802.11b/g	0.035	0.021	0.286	0.070	0.059	0.121	0.141	0.279	/	0.249	0.066	/
Bluetooth	0.023	0.021	0.246	0.060	<0.001	<0.001	<0.001	<0.001	/	0.049	<0.001	/
Max. SAR Summation	**0.275**	**0.187**	**0.743**	**0.231**	**0.392**	**0.498**	**0.670**	**0.936**	**0.296**	**0.426**	**0.066**	**0.773**
Hot Spot Separation	-	-	-	-	-	-	/	/	/	/	/	/
SPLSR	**-**	**-**	**-**	**-**	**-**	**-**	/	/	/	/	/	/

Note: MAX. $\sum SAR_{1g}$ =0.936W/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

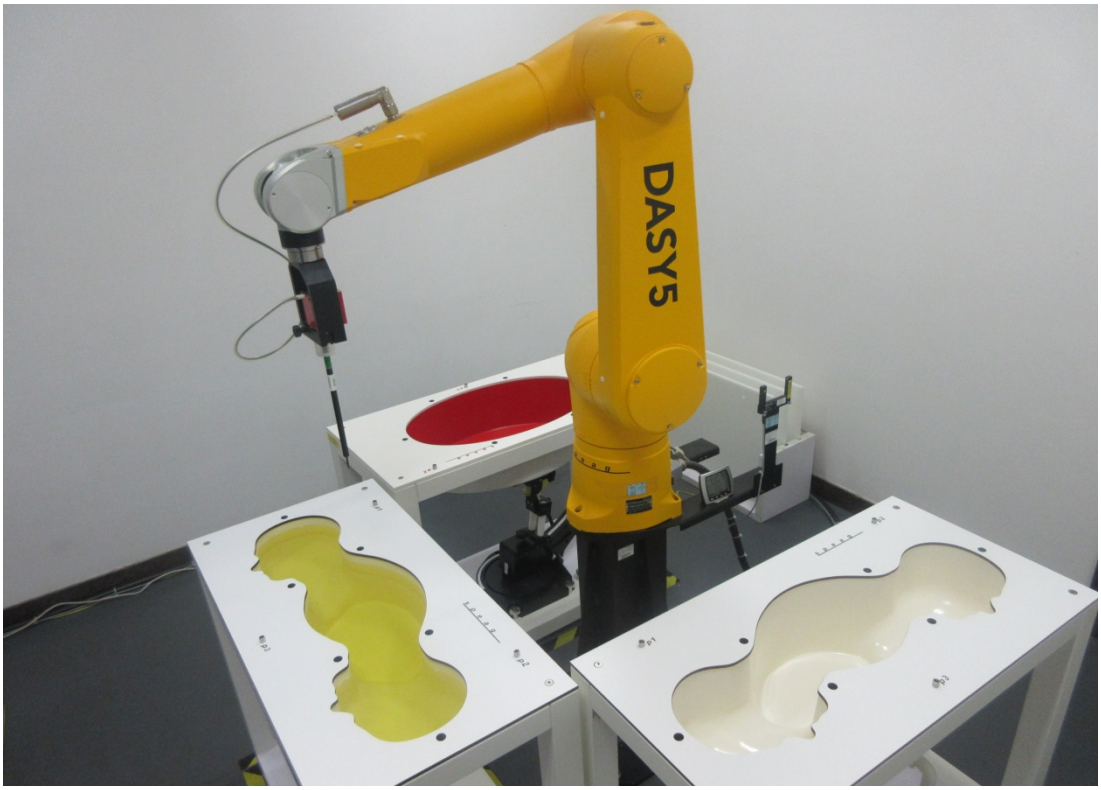
Position	Head				Body-worn		Hotspot					
	Right Cheek	Right Tilted	Left Cheek	Left Tilted	Front Face (1.5cm)	Rear Face (1.5cm)	Front Face (1cm)	Rear Face (1cm)	Left Side (1cm)	Right Side (1cm)	Top Side (1cm)	Bottom Side (1cm)
GSM 850	0.810	0.577	0.673	0.521	0.195	0.297	0.260	0.281	0.548	0.236	0.197	/
GSM 1900	0.384	0.180	0.126	0.109	0.017	0.031	0.030	0.055	0.040	0.009	0.032	/
UMTS B2	0.902	0.569	0.391	0.295	0.122	0.208	0.171	0.394	0.330	0.071	0.237	/
UMTS B4	0.653	0.465	0.241	0.377	0.194	0.162	0.269	0.288	0.225	0.072	0.263	/
UMTS B5	0.748	0.516	0.510	0.442	0.250	0.347	0.289	0.333	0.555	0.286	0.194	/
LTE B2	0.753	0.379	0.225	0.184	0.158	0.186	0.180	0.424	0.350	0.088	0.230	/
LTE B4	0.875	0.447	0.520	0.357	0.186	0.148	0.272	0.239	0.183	0.070	0.324	/
LTE B5	0.647	0.455	0.468	0.447	0.216	0.287	0.253	0.277	0.461	0.233	0.168	/
LTE B7	0.587	0.412	0.219	0.155	0.096	0.121	0.178	0.210	0.269	0.017	0.112	/
LTE B12	0.906	0.720	0.695	0.534	0.180	0.263	0.264	0.289	0.428	0.169	0.205	/
LTE B66	0.601	0.501	0.374	0.376	0.200	0.154	0.245	0.229	0.215	0.085	0.328	/
802.11b/g	0.035	0.021	0.286	0.070	0.059	0.121	0.141	0.279	/	0.249	0.066	/
Bluetooth	0.023	0.021	0.246	0.060	<0.001	<0.001	<0.001	<0.001	/	0.049	<0.001	/
Max. SAR Summation	**0.941**	**0.741**	**0.981**	**0.604**	**0.309**	**0.468**	**0.430**	**0.703**	**0.619**	**0.535**	**0.394**	/
Hot Spot Separation	-	-	-	-	-	-	/	/	/	/	/	/
SPLSR	**-**	**-**	**-**	**-**	**-**	**-**	/	/	/	/	/	/

Note: MAX. $\sum SAR_{1g}$ =0.981W/Kg <1.6W/Kg, so the SAR to peak location separation ratio should not be considered.

APPENDIX

1. Test Layout

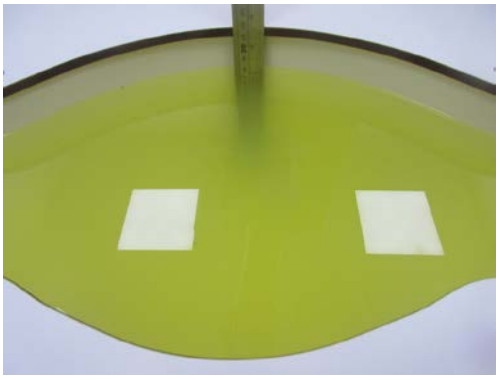
Specific Absorption Rate Test Layout



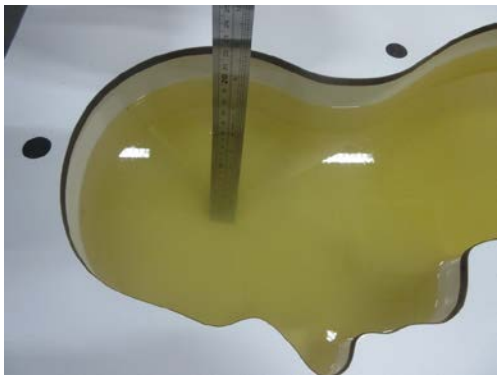
Liquid depth in the flat Phantom (≥15cm depth)

Head_750MHz_15.4cm

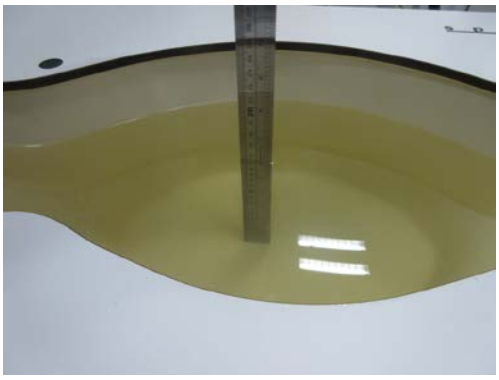
Body_750MHz_17.7cm



Head_835MHz~900MHz_15.3cm

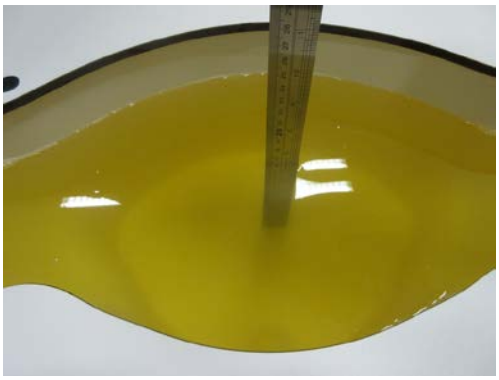


Body_835MHz_15.9cm

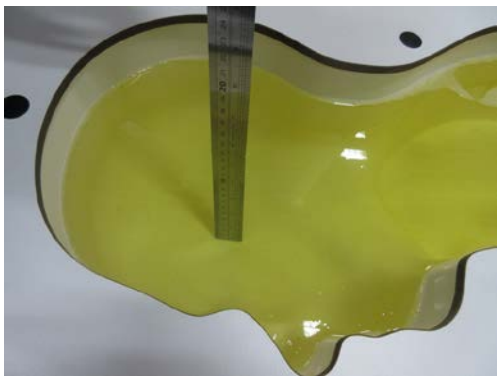


Head_1750MHz_15.1cm

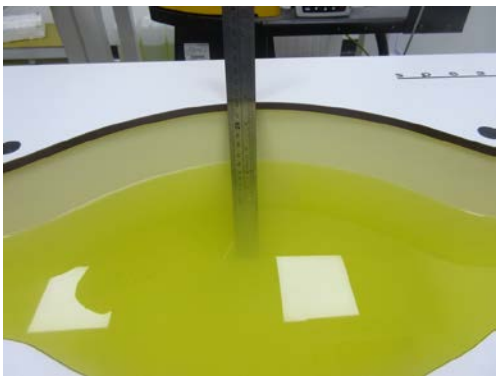
Body_1750MHz_16.1cm



Head_1900MHz~2600MHz_15.8cm



Body_1900MHz~2600MHz_15.3cm



Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-1-1904C018_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-1-1904C018_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-1-1904C018_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-1-1904C018_Appendix D.)

Appendix E. Antenna location and standalone SAR test exclusion

(Pls See BTL-FCC SAR-1-1904C018_Appendix E.)

End of Test Report