FCCSAR Test Report

FCC ID: QISAGS-L03

Project No.	:	1705C003
Equipment	:	Huawei MediaPad T3 10 (MediaPad T3 10 for short)
Model Name	:	AGS-L03
Applicant	:	Huawei Technologies Co., Ltd.
Address	:	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District,Shenzhen, 518129, P.R.C

Date of Receipt	:	May 02, 2017
Date of Test	:	May 07, 2017~ May 15, 2017
Issued Date	:	May 19, 2017
Tested by	:	BTL Inc.

Rot . Liang

PREPARED BY : (Rot Liang)

Steven Lu

APPROVED BY : (Steven Lu)

BTL INC.

No.3,Jinshagang 1st Road, Shixia,Dalang Town, Dongguan, Guangdong, China.

TEL: +86-769-8318-3000FAX: +86-769-8319-6000

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 the standards traceable to National Measurement Laboratory (**NML**), or National Institute of Standards and Technology (**NIST**) .

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.

BTL's reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **BTL-self**, extracts from the test report shall not be reproduced except in full with **BTL**'s authorized written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO Guide17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

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.

Table of Contents Page

Table of Contents Page

REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCSAR-1-1705C003	Original Issue	May 19, 2017

1. GENERAL SUMMARY

Equipment	Huawei MediaPad T3 10 (MediaPad T3 10 for short)
Brand Name	HUAWEI
Model Name	AGS-L03
Model difference	N/A
Manufacturer	Huawei Technologies Co., Ltd.
Address	Administration Building, Headquarters ofHuaweiTechnologies Co., Ltd., Bantian, LonggangDistrict,Shenzhen, 518129, P.R.C
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 **KDB616217 D04** SAR for laptop and tablets v01r02 **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

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-FCCSAR-1-1705C003) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-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, DalangTown,Dong Guan, China.523792

2.2 MEASUREMENT UNCERTAINTY

Note:Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz,when the highest measured1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described inIEEE 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

3.1STATEMENT OF COMPLIANCE

Equipment Class	Mode	Highest Body-worn SAR-1g(W/kg)
PCE	GSM850	0.88
	GSM1900	0.94
	UMTS Band 2	1.28
	UMTS Band 4	1.18
	UMTS Band 5	1.02
	LTE Band 2	1.36
	LTE Band 4	1.19
	LTE Band 7	0.92
	LTE Band 12	0.68
	LTE Band 25	1.18
	LTE Band 26	0.82
	LTE Band 41	1.12
DTS	2.4G WLAN	0.53
NII	5.3G WLAN	0.56
	5.6G WLAN	0.58
	5.8G WLAN	0.36
DSS	BT	0.26
Note : The highest reported SAR body-worn accessory and simultaneous transmission are1.36 W/kg and 1.58 W/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 0mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

2)Thedevice is in compliance with Specific Absorption Rate(SAR)for generalpopulationuncontrolled 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 Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12 and LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26(Frequency range: 814-849 MHz) due to similar frequency range,same maximum tune up limit and same channel bandwidth.

3.2 GENERAL DESCRIPTION OF EUT

Equipment	Huawei MediaPad T3 10 (MediaPad T3 10 for short)		
Model Name	AGS-L03		
IMEI Code	Sample 1:864273030006843		
	Sample 2:864273030006777		
S/N	Sample 1:D8TNU17322900115		
	Sample 2:D8TNU17322900108		
HW Version	SH1AGSL09M		
SW Version	AGS-L03C331B005		
Modulation	GSM(GMSK/8PSK),UMTS(QPSK),LTE(QPSK/16QAM),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 Band 2	1850-1910	1930-1990
	UMTS Band 4	1710-1755	2110-2155
	UMTS Band 5	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110-2155
	LTE Band 5	824-849	869-894
	LTE Band 7	2500-2570	2620-2690
	LTE Band 12	699-716	729-746
	LTE Band 17	704-716	734-746
	LTE Band 25	1850-1915	1930-1995
	LTE Band 26	814-849	859-894
	LTE Band 41	2555-2655	2555-2655
	Bluetooth	2400 ~2483.5	
	2.4GWIFI	2400 ~2483.5	
	5GWIFI	5150-5250 5250-5350 5470-5725 5725-5850	
GPRS/EDGEMultislot Class(12)	Max Number of Timeslots in Uplink:	4	
	Max Number of Timeslots in Downlink:	4	
	Max Total Timeslot:	5	
GSM Device class	Class B		
HSDPA UE Category	14		
HSUPA UE Category	6		
DC-HSDPA Category	24		
Power Class:	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(UMTS Band 2/4/5)		
	3, tested with power control “all Max” (LTE Band 2/4/5/7/12/17/25/26/41)		
Test Channels (low-mid-high):	128-190-251 (GSM850)		
	512-661-810 (GSM1900)		
	9262-9400-9538(UMTS Band 2)		
	1312-1413-1513 (UMTS Band 4)		
	4132-4182-4233 (UMTS Band 5)		
	18700-18900-19100(LTE Band 2 BW=20MHz)		
	20050-20175-20300(LTE Band 4 BW=20MHz)		
	20450-20525-20600(LTE Band 5 BW=10MHz)		
	20850-21100-21350(LTE Band 7 BW=20MHz)		
	23060-23095-23130(LTE Band 12 BW=10MHz)		

<table>
<tr><td rowspan="8"></td><td colspan="5">23780-23790-23800(LTE Band 17 BW=10MHz)</td></tr>
<tr><td colspan="5">26140-26365-26590(LTE Band 25 BW=20MHz)</td></tr>
<tr><td colspan="5">26765-26865-26965(LTE Band 26 BW=20MHz)</td></tr>
<tr><td colspan="5">40340-40740-41140(LTE Band 41 BW=20MHz)</td></tr>
<tr><td colspan="5">1-6 -11(2.4G WIFI 802.11b/g/n HT20)</td></tr>
<tr><td>5G WIFI</td><td>Band 1</td><td>Band 2</td><td>Band 3</td><td>Band 4</td></tr>
<tr><td>a/n20</td><td>36-40-44-48</td><td>52-56-60-64</td><td>100-104-108-112-116-132-136-140</td><td>149-153-157-161-165</td></tr>
<tr><td>n40</td><td>38-46</td><td>54-62</td><td>102-134</td><td>151-159</td></tr>
<tr><td colspan="5">0-39-78(BT)</td></tr>
<tr><td colspan="6">Other Information</td></tr>
<tr><td>Battery</td><td colspan="5">Huawei Technologies Co., Ltd.
BatteryModel: HB3080G1EBC
Rated capacity: 4650mAh
Nominal Voltage: ⎓ +3.8V
Charging Voltage: ⎓ +4.35V
1. Harbin Coslight Power Co.,Ltd.
2. SCUD (FUJIAN) Electronics Co., Ltd</td></tr>
<tr><td>With Earphone(Yes/No)</td><td colspan="5">Yes</td></tr>
</table>

3.3LABORATORY ENVIRONMENT

Temperature	Min. = 18ºC, Max. = 25ºC
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
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	Sep. 22, 2016	1 Year
2	E-field Probe	Speag	EX3DV4	7383	Dec. 27, 2016	1 Year
3	System Validation Dipole	Speag	D750V3	1095	Sep. 30, 2015	3 Years
4	System Validation Dipole	Speag	D835V2	4d160	Sep. 30, 2015	3 Years
5	System Validation Dipole	Speag	D1750V2	1101	Sep. 22, 2015	3 Years
6	System Validation Dipole	Speag	D1900V2	5d179	Sep. 29, 2015	3 Years
7	System Validation Dipole	Speag	D2450V2	919	Sep. 28, 2015	3 Years
8	System Validation Dipole	Speag	D2600V2	1067	Sep. 28, 2015	3 Years
9	System Validation Dipole	Speag	D5GHzV2	1160	Oct. 05, 2015	3 Years
10	ELI4 Phantom	Speag	ELI4 Phantom V5.0	1222	N/A	N/A
11	8960 Series 10 Wireless Co m Test set	Agilent	E5515E	MY52112163	Sep. 04, 2016	1 Year
12	CMW500-Wideband Radio Communication Tester	RS	CMW500	152372	Mar. 26, 2017	1 Year
13	CMW500-Wideband Radio Communication Tester	RS	CMW500	153083	May 04,2016	1 Year
14	Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	N/A	N/A
15	Power Amplifier	Mini-Circuits	ZVE-8G+	520701341	N/A	N/A
16	ENA Network Analyzer	Agilent	E5071C	MY46102965	Mar. 26, 2017	1 Year
17	MXG Analog Signal Generat or	Agilent	N5181A	MY49060710	Sep. 04, 2016	1 Year
18	P-series power meter	Agilent	N1911A	MY45100473	Sep. 04, 2016	1 Year
19	wideband power sensor	Agilent	N1921A	MY51100041	Sep. 04, 2016	1 Year
20	power Meter	Anritsu	ML2495A	1128009	Mar. 26, 2017	1 Year
21	Pulse Power Sensor	Anritsu	MA 2411B	1027500	Mar. 26, 2017	1 Year
22	Dielectric Assessment Kit	Speag	DAK-3.5	1226	N/A	N/A
23	Dual directional coupler	Woken	TS-PCC0M-05	107090019	May 16, 2017	1 Year

Remark:1.” N/A” denotes no model name,serial No. orcalibration specified.

2.

1) Per KDB865664 D01 requirements for dipole calibration, the test laboratory has adopted three-year extended calibration interval. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.

a) There is no physical damage on the dipole;

b) System check with specific dipole is within 10% of calibrated value;

c) The most recent return-loss result , measured at least annually, deviates by no more than 20% from the previous measurement;

d) The most recent measurement of the real or imaginary parts of the impedance, measured at least annually is within 5Ω from the previous measurement.

2) Network analyzer probe calibration against air, distilled water and a short block performed before measuring liquid parameters.

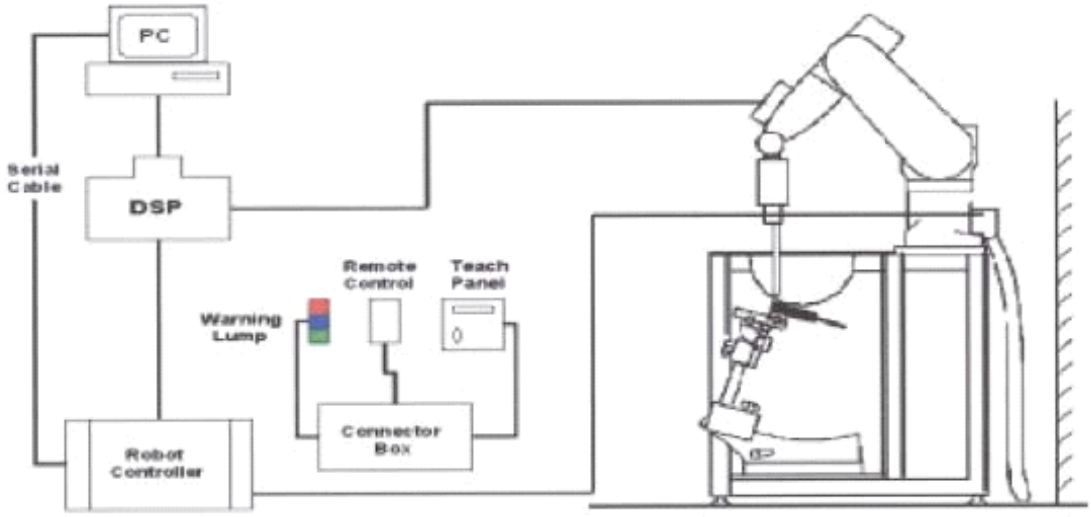
4.SAR MEASUREMENTS SYSTEM CONFIGURATION

4.1SAR MEASUREMENT SET-UP

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

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

4.1.1Test Setup Layout



4.2DASY5E-FIELDPROBESYSTEM

The SAR measurementswere conducted with thedosimetric probe EX3DV4(manufactured bySPEAG),designed intheclassicaltriangular configuration and optimized fordosimetricevaluation.

4.2.1EX3DV4 PROBE SPECIFICATION

Construction	Symmetricaldesign with triangular coreInterleavedsensorsBuilt-inshieldingagainst static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibrationservice 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

EX3DV4 E-field Probe

4.2.2E-FIELD PROBE CALIBRATION

Eachprobeiscalibratedaccordingtoadosimetricassessmentprocedurewithaccuracybetterthan±10 %.The sphericalisotropywas evaluatedandfoundtobebetterthan±0.25dB.The sensitivity parameters (NormX,NormY,NormZ),thediode compression parameter (DCP) and the conversion factor(ConvF) ofthe 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 capacityoftissue (brain or muscle),

ΔT=Temperature increase due to RF exposure.

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

Where:σ=Simulatedtissueconductivity,

ρ=Tissue density (kg/m3).

4.2.3OTHER TEST EQUIPMENT

4.2.3.1. Device Holder forTransmitters

Construction: Simple buteffectiveandeasy-to-use extension forMounting Device thatfacilitates the testingoflargerdevices(e.g.,laptops,cameras,etc.)Itislightweight andfitseasilyontheupperpartoftheMountingDeviceinplaceof the phonepositioner.The extension isfullycompatible withtheTwinSAM, ELI4and SAM v6.0Phantoms.
Material: POM, Acrylic glass,Foam

4.2.3.2 Phantom

Model	ELI4 Phantom
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.
ShellThickness	2±0.1 mm
Filling Volume	Approx. 30 liters
Dimensions	Length: 600 mm ; Width: 190mm Height: adjustable feet
Aailable	Special

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.
ShellThickness	2 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length:1000mm; Width: 500mm Height: adjustable feet
Aailable	Special

4.2.4SCANNING 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. Theindicated 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 systemby repeatedly detecting the surface with the optical and mechanical surface detector and comparingthe results. The output gives the detecting heights of both systems, the difference between the twosystems and the standard deviation of the detection repeatability. Air bubbles or refraction in theliquid due to separation of the sugar-water mixture gives poor repeatability (above ± 0.1mm). Toprevent wrong results tests are only executed when the liquid is free of air bubbles. The differencebetween the optical surface detection and the actual surface depends on the probe and is specifiedwith each probe. (It does not depend on the surface reflectivity or the probe angle to the surfacewithin ± 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 inx- 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 thebottom 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 SAMphantom in 2 mm steps. This measurement shows the continuity of the liquid and can - depending inthe 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

4.2.5SPATIAL PEAK SAR EVALUATION

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

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

Extrapolation

The extrapolation is based on a least square algorithm [W. Gander, Computermathematik,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, Computermathematik, 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 compansate boundary effects on E-field probes.

4.2.6DATA STORAGE AND EVALUATION

4.2.5.1Data Storage

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (inmicrovolt readings from the probe sensors), together with all necessary software parameters for thedata evaluation (probe calibration data, liquid parameters and device frequency and modulation data) inmeasurement files with the extension ".DAE4". The software evaluates the desired unit and format foroutput each time the data is visualized or exported. This allows verification of the complete softwaresetup 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, theparameter 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 theselected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are notavailable in certain situations or show meaningless results, e.g., a SAR output in a lossless media willalways be zero. Raw data can also be exported to perform the evaluation with other software packages.

4.2.7Data Evaluation by SEMCAD

TheSEMCADsoftwareautomaticallyexecutesthefollowingprocedurestocalculatethefieldunitsfrom the microvolt readings atthe probe connector. The parameters used inthe evaluation arestored in the configurationmodules ofthe software:

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

These parametersmust be setcorrectly in the software. They can be found in the component documents ortheycanbeimported into thesoftware fromtheconfiguration files issued forthe DASY5 components. Inthedirectmeasuring mode of the multimeter option,theparametersoftheactual systemsetup are used. Inthescan visualization and exportmodes,theparametersstored inthe corresponding document files are used.

Thefirst stepoftheevaluation isalinearization ofthe filtered input signal toaccount for the compression characteristics ofthe detector diode.The compensation depends on the input signal, the diode type and the DC-transmission factor fromthe diode tothe evaluation electronics.

If theexciting field ispulsed, thecrest factorof thesignal must beknown tocorrectly 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 channeli	(i = x,y,z)
	U_i= input signal of channel i	(i = x, y,z)
	cf=crestfactorofexciting field	(DASY parameter)
	dcp_i=diode compressionpoint	(DASYparameter)

Fromthe 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 channeli (i = x,y,z)

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

ConvF = sensitivity enhancement in solution

aij=sensorsensitivityfactorsfor H-field probes

f=carrier frequency [GHz]

E_i=electric fieldstrength of channel i in V/m

H_i= magnetic field strength ofchannel 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 rateinmW/g

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

Note thatthedensity isnormally setto 1(or1.06),toaccount 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}=totalmagnetic 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 dielectic parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ± 5% of the target values.

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

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
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 2000	-	30.0	-	0.2	-	-	69.8	-
Body 2450	-	31.4	-	0.1	-	-	68.5	-
Body 2600	-	31.8	-	0.1	-	-	68.1	-
Body 5G	-	-	-	-	-	10.7	78.6	10.7

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
Body	750	22.1	0.970	56.320	0.96	55.5	1.04	1.48	May 14, 2017
Body	835	22.5	0.968	54.350	0.97	55.2	-0.21	-1.54	May 13, 2017
Body	1750	22.3	1.479	52.250	1.49	53.4	-0.74	-2.15	May 12, 2017
Body	1900	22.6	1.535	54.920	1.52	53.3	0.99	3.04	May 07, 2017
Body	1900	22.1	1.546	52.040	1.52	53.3	1.71	-2.36	May 09, 2017
Body	1900	22.5	1.551	53.970	1.52	53.3	2.04	1.26	May 10, 2017
Body	2450	22.3	1.981	53.390	1.95	52.7	1.59	1.31	May 12, 2017
Body	2600	22.3	2.194	52.410	2.16	52.5	1.57	-0.17	May 08, 2017
Body	5300	22.1	5.477	47.430	5.42	48.9	1.05	-3.01	May 15, 2017
Body	5600	22.1	5.931	46.720	5.77	48.5	2.79	-3.67	May 15, 2017
Body	5800	22.1	6.186	46.280	6.00	48.2	3.10	-3.98	May 15, 2017

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

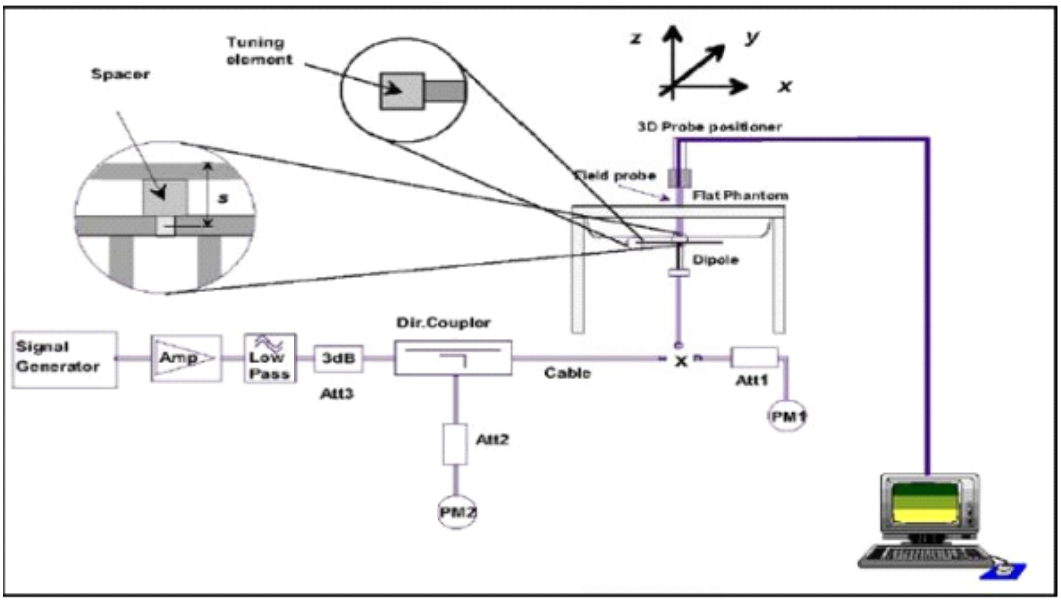
The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE P1528 (described above). The following table shows system check results for all frequency bands 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
Body	May 14, 2017	750	8.65	2.14	8.56	-1.04	1095
Body	May 13, 2017	835	9.52	2.45	9.80	2.94	4d160
Body	May 12, 2017	1750	35.70	8.81	35.24	-1.29	1101
Body	May 07, 2017	1900	39.60	9.66	38.64	-2.42	5d179
Body	May 09, 2017	1900	39.60	9.95	39.80	0.51	5d179
Body	May 10, 2017	1900	39.60	10.10	40.40	2.02	5d179
Body	May 12, 2017	2450	51.10	13.10	52.40	2.54	919
Body	May 08, 2017	2600	54.10	13.20	52.80	-2.40	1067
Body	May 15, 2017	5300	78.40	8.07	80.70	2.93	1160
Body	May 15, 2017	5600	81.50	8.16	81.60	0.12	1160
Body	May 15, 2017	5800	78.30	8.01	80.10	2.30	1160

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 plexiglass spacer. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. It is fed with a power of 250 mW(below 5GHz) or 100mW(above 5GHz). 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

6.1SAR MEASUREMENT VARIABILITY

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

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

7.1SAR TEST CONFIGURATION

7.1.1GSM 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 8-PSK.

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
	2 TX slots	1.5	1.5	1
	3 TX slots	3	3	3
	4 TX slots	4.5	4.5	4
GSM1900	1 TX slot	0	0	0
	2 TX slots	1.5	1.5	1
	3 TX slots	3	3	2
	4 TX slots	4.5	4.5	3

7.1.2UMTS 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 applying the required inner loop power control procedure 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 Head exposure configurations in voice mode is measured using a 12.2 kbps RMC with TPC bits configured to all “1s”. SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than ¼ dB higher than that measured in 12.2 kbps RMC.Otherwise SAR is measured on the maximum output channel in 12.2 kbps AMR with 3.4kbps SRB(signalling radio bearer) using the exposure configuration that results in the highest SAR in12.2kbps RMC for that RF channel.

(2).Body SAR Measurements
SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits configured to all “1s”. SAR for other spreading codes and multiple DPDCHn, when supported by the EUT, are not required when the maximum average outputs of each RF channel, for each spreading code and DPDCHn configuration, are less than ¼ dB higher than those measured in 12.2 kbps RMC.

3. HSDPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements”” procedures of 3G device. In addition, body SAR is also measured for HSDPA when the maximum average outputs of each RF channel with HSDPA active is at ¼ dB higher than that measured without HSDPA using 12.2kbps RMC or the maximum SAR 12.2kbps RMC is above 75% of the SAR limit. Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.
HSDPA should be configured according to UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HAPRQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission condition, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the below table, β_{hs} for HS-DPCCH is set automatically to the correct value when Δ ACK, Δ NACK, Δ CQI = 8. The variation of the β_c /β_d ratio causes a power reduction at sub-tests 2 - 4.

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

Note 1: ΔACK, ΔNACK and ΔCQI = 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 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_{ec} (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

In DC-HSDPA implementation of this device, the uplink parameters are the same as HSDPA. No additional channels and modulations (16 QAM, and 64 QAM) are supported in uplink. The difference is only in the downlink parameters, where two carriers are supported. HSDPA settings were used on uplink.

For Rel. 8 DC-HSDPA apply the four subtests from HSDPA Release 5 except use fixed reference channel H-Set 12 for DC-HSDPA. And we can apply the same SAR test exclusion criteria used for Rel. 6 HSPA for Rel. 7 HSPA+ and Rel. 8 DC-HSDPA. That is, if the HSPA, HSPA+, or the DC-HSDPA maximum output is not more than 0.25 dB higher than WCDMA, SAR measurement for those modes is not required.
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.

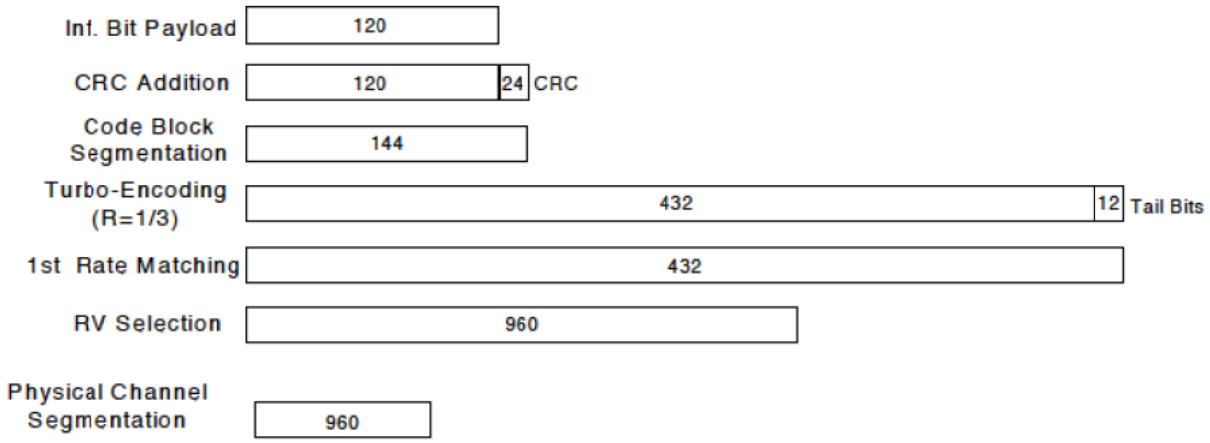


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

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 WideBand Radio Communication Tester was used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing.SAR test were performed with the same number of RB and RB offsets transmitting on all TTI frames(Maximum TTI)

1. Spectrum Plots for RB configurations

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

2. MPR

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

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

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

3. A-MPR

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

4. LTE procedures for SAR testing

A) Largest channel bandwidth standalone SAR test requirements

i) QPSK with 1 RB allocation

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

ii) QPSK with 50% RB allocation

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

iii) QPSK with 100% RB allocation

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

iv) Higher order modulations

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

B) Other channel bandwidth standalone SAR test requirements

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

LTE (TDD) Test Configuration

TDD LTE Band 41supports 3GPP TS 36for Time-Division Duplex (TDD) systems, SAR must be tested using a fixedperiodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDDconfigurations.
TDD LTE Band 41supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations andTable 4.2-1 for Special subframe configurations.

Figure 4.2-1: Frame structure type 2

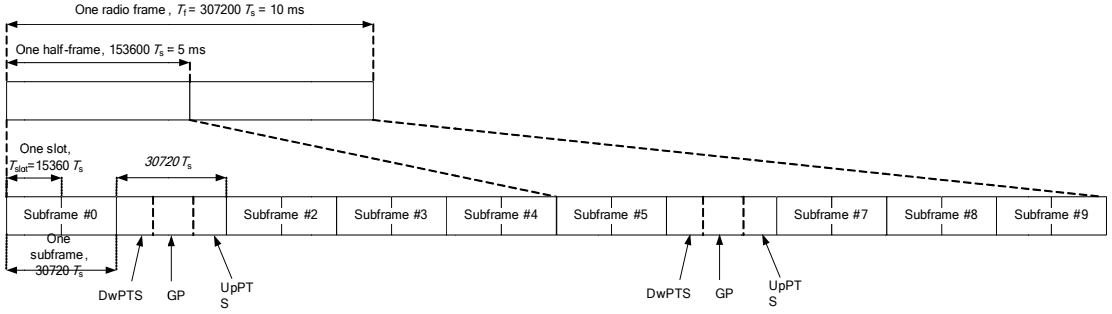


Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 4.2-2: Uplink-downlink configurations

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

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

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

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

Uplink Component=UpPTS

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

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

And we can get different Duty cycles under different configurations:

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

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

7.1.4WIFI TEST CONFIGURATION

For WLAN SAR testing, WLAN engineering testing software installed on the DUT can providecontinuous transmitting RF signal.

2.4G

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

5G

Mode	802.11a	802.11n HT20	802.11n HT40
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.

SAR Test Requirements for OFDM configurations

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

7.1.4.2 5G SAR Test Requirements

✧ **U-NII-1 and U-NII-2A Band**

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

✧ **U-NII-2C, U-NII-3 Bands**

The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification.

Unless band gap channels are permanently disabled, they must be considered for SAR testing. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels.11 When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

7.1.4.3 OFDM transmission mode and SAR test channel selection

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

7.1.4.4 Initial test configuration procedure

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

7.2SAR SENSOR WORKING

When the sensor is active，the active distance as below：

Ant	Test Position	Active distance（mm）
Main Ant	Rear Face	19
	Top Side	16
2.4G/5G WiFi Ant	Rear Face	11
	Top Side	11

The SAR power reduce as below：

Band	Reduce power（dBm）	Min. power
GSM850(Voice)	3	30
GSM1900(Voice)	7	23
GSM850(GPRS)	8.5	24
GSM1900(GPRS)	13.5	16.5
UMTS Band 2	9.5	13.5
UMTS Band 4	10	12.5
UMTS Band 5	2	20
LTE Band 2	9	14
LTE Band 4	10	13
LTE Band 5	3	20
LTE Band 7	12.3	10
LTE Band 12	4	19
LTE Band 17	4	19
LTE Band 25	7.5	15
LTE Band 26	3	20
LTE Band 41	9	14
2.4G WiFi	6	12
5G WiFi	6	10

Note: 1.The GPRS reduce power refers to the power of GPRS 1TX.
2. The UMTS reduce power refers to the power of WCDMA.
3. The LTE reduce power refers to the power of QPSK/1RB
4. The 2.4G WiFi reduce power refers to the power of 802.11b.
5. When the power is reach at the Min.power ,the power will not be reduced any more.
6. The sensor can only be triggered at the rear face and top side.

7.3POWER REDUCTION BY PROXIMITY SENSOR

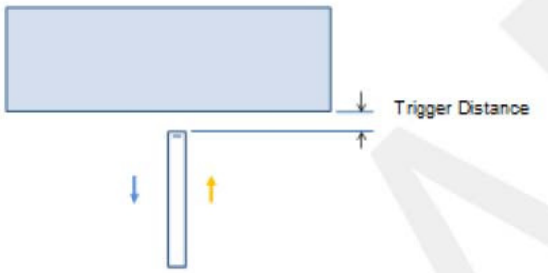
7.3.1 Proximity Sensor Triggering Distance

The bottom of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 §6.2 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The measurement was then repeated for the Rear surface.

The DUT featured a sound indicator on its player that showed the status of the proximity sensor (Triggered or not triggered). This was used to determine the status of the sensor during the proximity sensor assessment as monitoring the output power directly was not practical without affecting the measurement.

It was confirmed separately that the output power was altered according to the proximity sensor status indication. This was achieved by observing the proximity sensor status at the same time as monitoring the conducted power. Section 9 contains both the full and reduced conducted power measurements.



Proximity Sensor Trigger Distance Assessment
KDB 616219 §6.2, Edge 1

Proximity Sensor Trigger Distance Assessment
KDB 616219 §6.2, Rear

LEGEND

Direction of DUT travel for determination of power reduction triggering point

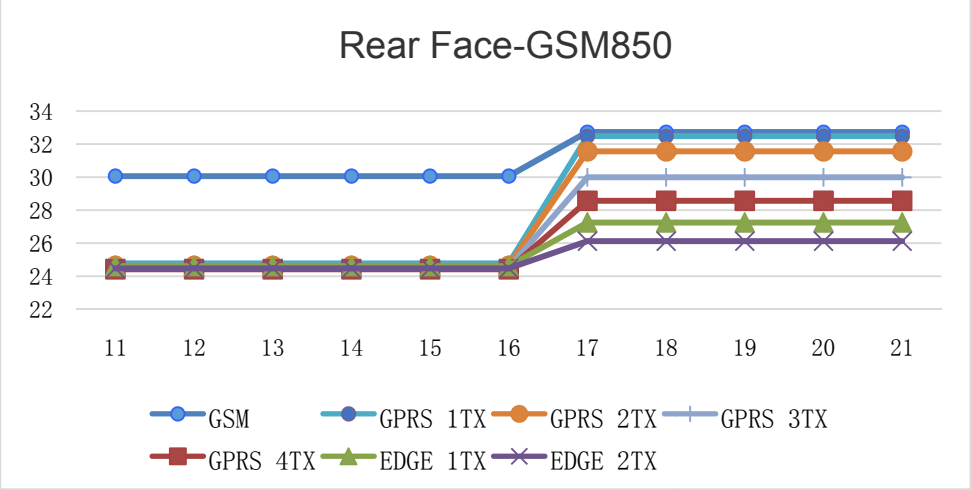
Direction of DUT travel for determination of full power resumption triggering point

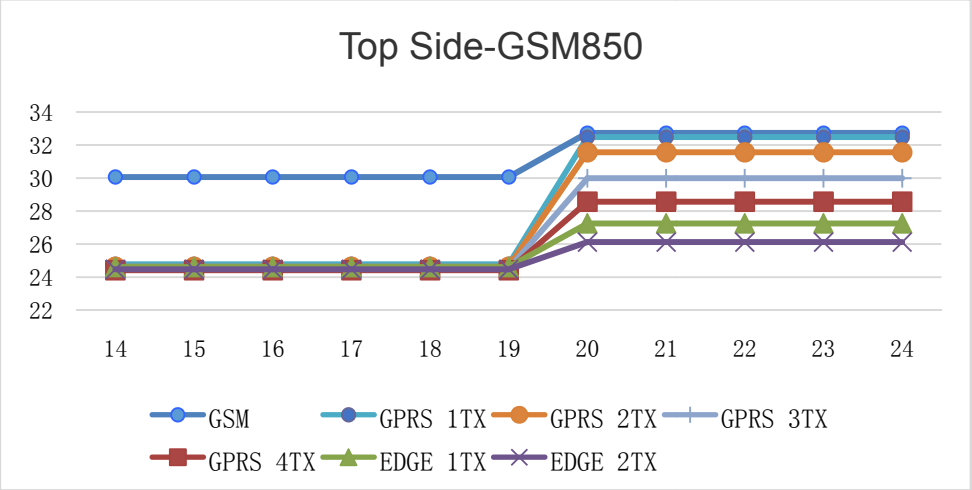
Proximity Sensor Triggering Distance Measurement Results

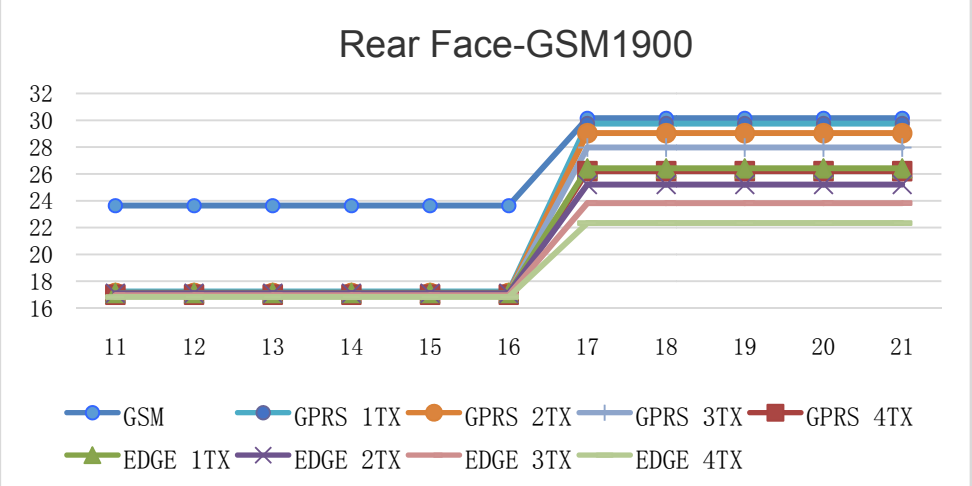
mode		Distance (mm)										
		Rear Face										
		Sensor on						Sensor off				
		11	12	13	14	15	16	17	18	19	20	21
GSM 850	GSM	30.06	30.06	30.06	30.06	30.06	30.06	32.73	32.73	32.73	32.73	32.73
	GPRS 1TX	24.78	24.78	24.78	24.78	24.78	24.78	32.48	32.48	32.48	32.48	32.48
	GPRS 2TX	24.63	24.63	24.63	24.63	24.63	24.63	31.56	31.56	31.56	31.56	31.56
	GPRS 3TX	24.51	24.51	24.51	24.51	24.51	24.51	29.99	29.99	29.99	29.99	29.99
	GPRS 4TX	24.42	24.42	24.42	24.42	24.42	24.42	28.57	28.57	28.57	28.57	28.57
	EDGE 1TX	24.61	24.61	24.61	24.61	24.61	24.61	27.25	27.25	27.25	27.25	27.25
	EDGE 2TX	24.48	24.48	24.48	24.48	24.48	24.48	26.12	26.12	26.12	26.12	26.12
GSM 1900	GSM	23.64	23.64	23.64	23.64	23.64	23.64	30.15	30.15	30.15	30.15	30.15
	GPRS 1TX	17.24	17.24	17.24	17.24	17.24	17.24	29.75	29.75	29.75	29.75	29.75
	GPRS 2TX	17.14	17.14	17.14	17.14	17.14	17.14	29.04	29.04	29.04	29.04	29.04
	GPRS 3TX	17.07	17.07	17.07	17.07	17.07	17.07	27.97	27.97	27.97	27.97	27.97
	GPRS 4TX	17	17	17	17	17	17	26.21	26.21	26.21	26.21	26.21
	EDGE 1TX	17.12	17.12	17.12	17.12	17.12	17.12	26.42	26.42	26.42	26.42	26.42
	EDGE 2TX	17.11	17.11	17.11	17.11	17.11	17.11	25.2	25.2	25.2	25.2	25.2
	EDGE 3TX	16.96	16.96	16.96	16.96	16.96	16.96	23.82	23.82	23.82	23.82	23.82
	EDGE 4TX	16.83	16.83	16.83	16.83	16.83	16.83	22.34	22.34	22.34	22.34	22.34
UMTS	UMTS B2	14.25	14.25	14.25	14.25	14.25	14.25	23.4	23.4	23.4	23.4	23.4
	UMTS B4	13.58	13.58	13.58	13.58	13.58	13.58	23.26	23.26	23.26	23.26	23.26
	UMTS B5	21.07	21.07	21.07	21.07	21.07	21.07	23.07	23.07	23.07	23.07	23.07
LTE	LTE B2	13.46	13.46	13.46	13.46	13.46	13.46	22.87	22.87	22.87	22.87	22.87
	LTE B4	13.05	13.05	13.05	13.05	13.05	13.05	22.55	22.55	22.55	22.55	22.55
	LTE B5	20.17	20.17	20.17	20.17	20.17	20.17	23.02	23.02	23.02	23.02	23.02
	LTE B7	10.45	10.45	10.45	10.45	10.45	10.45	21.96	21.96	21.96	21.96	21.96
	LTE B12	19.29	19.29	19.29	19.29	19.29	19.29	22.53	22.53	22.53	22.53	22.53
	LTE B17	18.85	18.85	18.85	18.85	18.85	18.85	23.22	23.22	23.22	23.22	23.22
	LTE B25	14.08	14.08	14.08	14.08	14.08	14.08	22.05	22.05	22.05	22.05	22.05
	LTE B26	20.99	20.99	20.99	20.99	20.99	20.99	23.27	23.27	23.27	23.27	23.27
	LTE B41	14.84	14.84	14.84	14.84	14.84	14.84	22.77	22.77	22.77	22.77	22.77

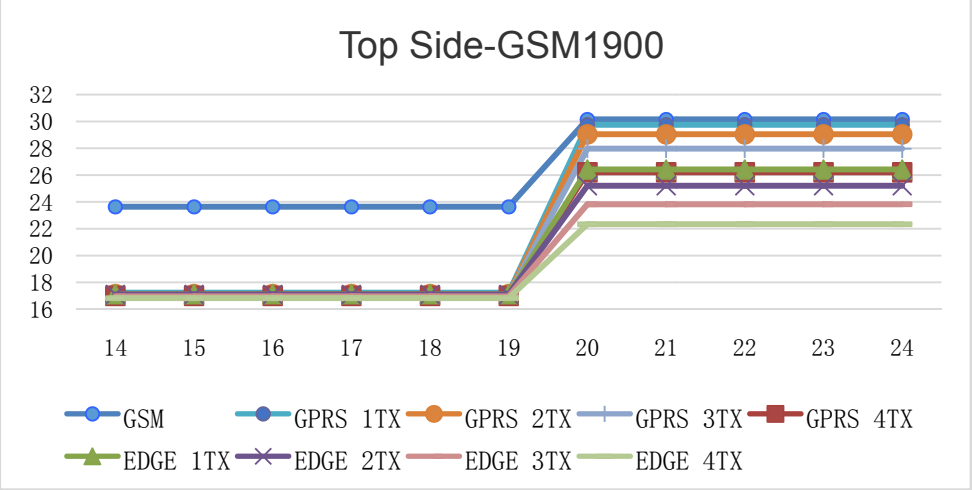
mode		Distance (mm)										
		Top Side										
		Sensor on						Sensor off				
		14	15	16	17	18	19	20	21	22	23	24
GSM 850	GSM	30.06	30.06	30.06	30.06	30.06	30.06	32.73	32.73	32.73	32.73	32.73
	GPRS 1TX	24.78	24.78	24.78	24.78	24.78	24.78	32.48	32.48	32.48	32.48	32.48
	GPRS 2TX	24.63	24.63	24.63	24.63	24.63	24.63	31.56	31.56	31.56	31.56	31.56
	GPRS 3TX	24.51	24.51	24.51	24.51	24.51	24.51	29.99	29.99	29.99	29.99	29.99
	GPRS 4TX	24.42	24.42	24.42	24.42	24.42	24.42	28.57	28.57	28.57	28.57	28.57
	EDGE 1TX	24.61	24.61	24.61	24.61	24.61	24.61	27.25	27.25	27.25	27.25	27.25
	EDGE 2TX	24.48	24.48	24.48	24.48	24.48	24.48	26.12	26.12	26.12	26.12	26.12
GSM 1900	GSM	23.64	23.64	23.64	23.64	23.64	23.64	30.15	30.15	30.15	30.15	30.15
	GPRS 1TX	17.24	17.24	17.24	17.24	17.24	17.24	29.75	29.75	29.75	29.75	29.75
	GPRS 2TX	17.14	17.14	17.14	17.14	17.14	17.14	29.04	29.04	29.04	29.04	29.04
	GPRS 3TX	17.07	17.07	17.07	17.07	17.07	17.07	27.97	27.97	27.97	27.97	27.97
	GPRS 4TX	17	17	17	17	17	17	26.21	26.21	26.21	26.21	26.21
	EDGE 1TX	17.12	17.12	17.12	17.12	17.12	17.12	26.42	26.42	26.42	26.42	26.42
	EDGE 2TX	17.11	17.11	17.11	17.11	17.11	17.11	25.2	25.2	25.2	25.2	25.2
	EDGE 3TX	16.96	16.96	16.96	16.96	16.96	16.96	23.82	23.82	23.82	23.82	23.82
	EDGE 4TX	16.83	16.83	16.83	16.83	16.83	16.83	22.34	22.34	22.34	22.34	22.34
UMTS	UMTS B2	14.25	14.25	14.25	14.25	14.25	14.25	23.4	23.4	23.4	23.4	23.4
	UMTS B4	13.58	13.58	13.58	13.58	13.58	13.58	23.26	23.26	23.26	23.26	23.26
	UMTS B5	21.07	21.07	21.07	21.07	21.07	21.07	23.07	23.07	23.07	23.07	23.07
LTE	LTE B2	13.46	13.46	13.46	13.46	13.46	13.46	22.87	22.87	22.87	22.87	22.87
	LTE B4	13.05	13.05	13.05	13.05	13.05	13.05	22.55	22.55	22.55	22.55	22.55
	LTE B5	20.17	20.17	20.17	20.17	20.17	20.17	23.02	23.02	23.02	23.02	23.02
	LTE B7	10.45	10.45	10.45	10.45	10.45	10.45	21.96	21.96	21.96	21.96	21.96
	LTE B12	19.29	19.29	19.29	19.29	19.29	19.29	22.53	22.53	22.53	22.53	22.53
	LTE B17	18.85	18.85	18.85	18.85	18.85	18.85	23.22	23.22	23.22	23.22	23.22
	LTE B25	14.08	14.08	14.08	14.08	14.08	14.08	22.05	22.05	22.05	22.05	22.05
	LTE B26	20.99	20.99	20.99	20.99	20.99	20.99	23.27	23.27	23.27	23.27	23.27
	LTE B41	14.84	14.84	14.84	14.84	14.84	14.84	22.77	22.77	22.77	22.77	22.77

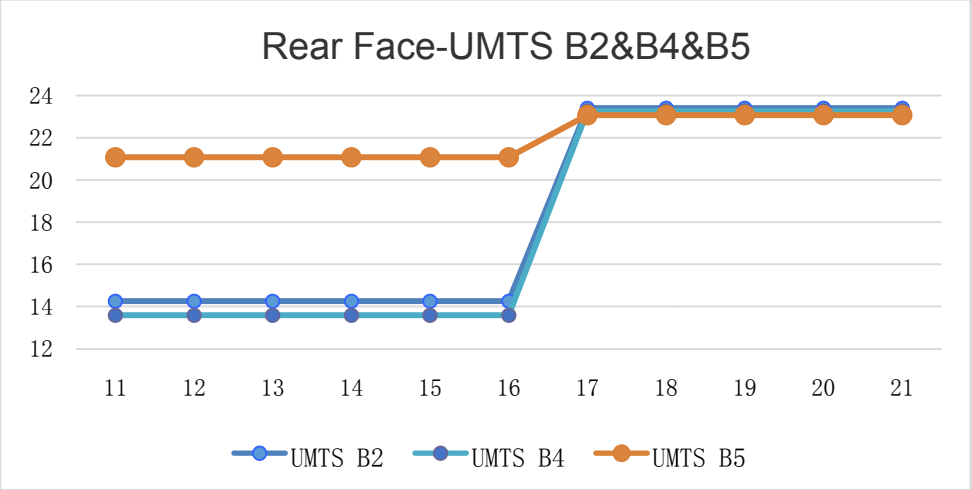
mode		Distance (mm)										
		Rear Face/Top Side										
		Sensor on						Sensor off				
		6	7	8	9	10	11	12	13	14	15	16
WiFi	2.4G	13.35	13.35	13.35	13.35	13.35	13.35	19.12	19.12	19.12	19.12	19.12
	5G	10.17	10.17	10.17	10.17	10.17	10.17	15.84	15.84	15.84	15.84	15.84

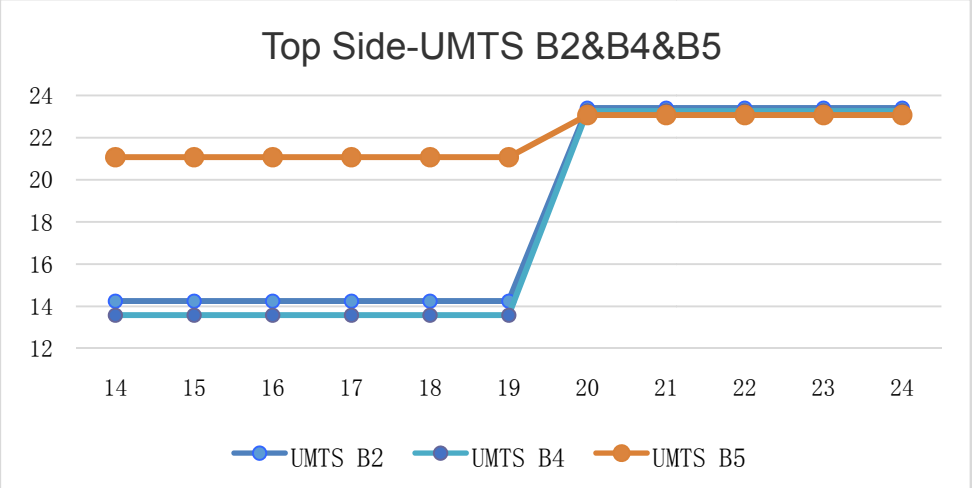

Rear Face-GSM850
34
32
30
28
26
24
22
11
12
13
14
15
16
17
18
19
20
21
GSM
GPRS 1TX
GPRS 2TX
GPRS 3TX
GPRS 4TX
EDGE 1TX
EDGE 2TX

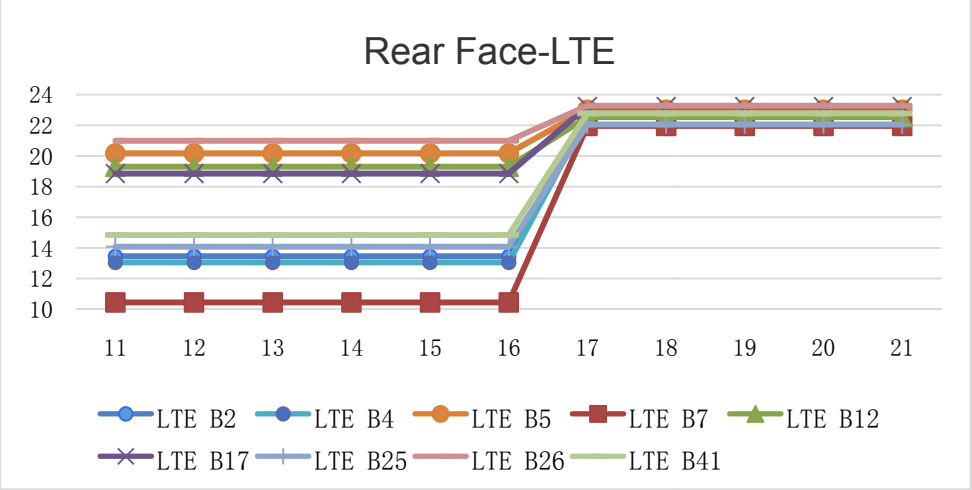

Top Side-GSM850
34
32
30
28
26
24
22
14
15
16
17
18
19
20
21
22
23
24
GSM
GPRS 1TX
GPRS 2TX
GPRS 3TX
GPRS 4TX
EDGE 1TX
EDGE 2TX

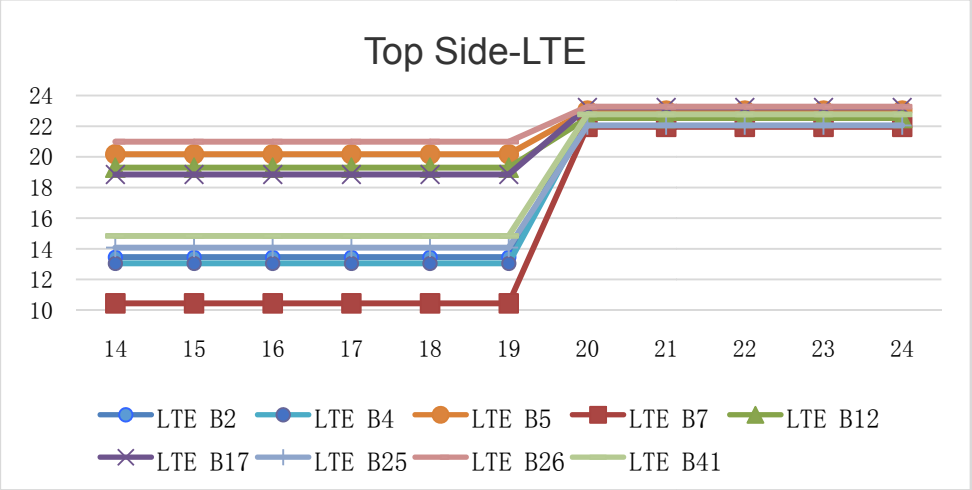

Rear Face-GSM1900
32
30
28
26
24
22
20
18
16
11
12
13
14
15
16
17
18
19
20
21
GSM
GPRS 1TX
GPRS 2TX
GPRS 3TX
GPRS 4TX
EDGE 1TX
EDGE 2TX
EDGE 3TX
EDGE 4TX

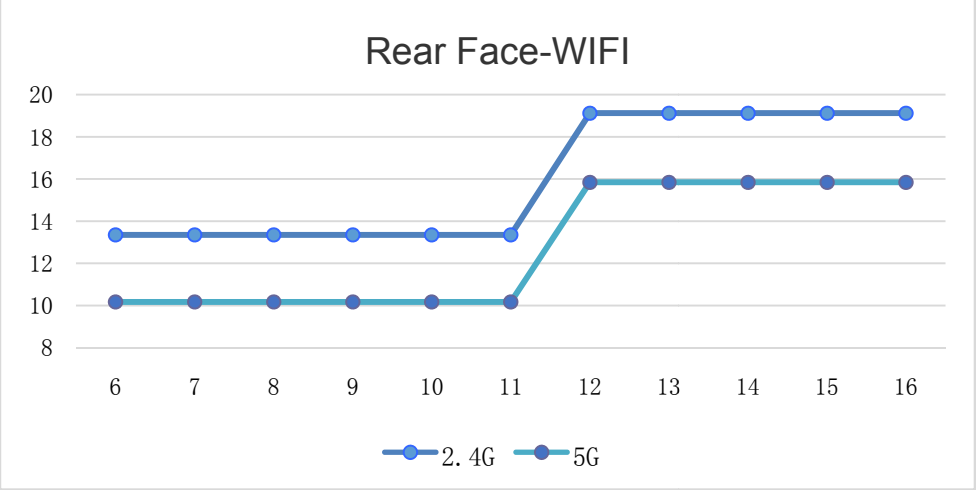

Top Side-GSM1900
32
30
28
26
24
22
20
18
16
14
15
16
17
18
19
20
21
22
23
24
GSM
GPRS 1TX
GPRS 2TX
GPRS 3TX
GPRS 4TX
EDGE 1TX
EDGE 2TX
EDGE 3TX
EDGE 4TX

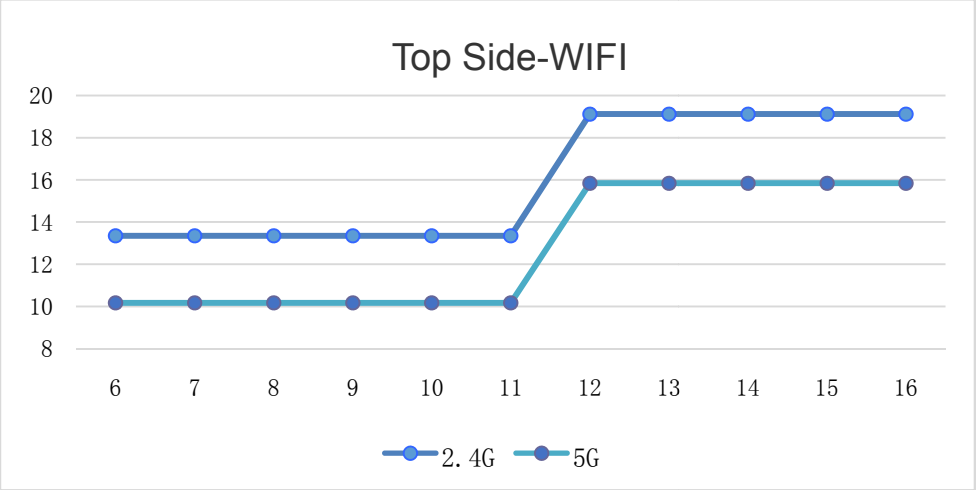

Rear Face-UMTS B2&B4&B5
24
22
20
18
16
14
12
11
12
13
14
15
16
17
18
19
20
21
UMTS B2
UMTS B4
UMTS B5


Top Side-UMTS B2&B4&B5
24
22
20
18
16
14
12
14
15
16
17
18
19
20
21
22
23
24
UMTS B2
UMTS B4
UMTS B5


Rear Face-LTE
24
22
20
18
16
14
12
10
11
12
13
14
15
16
17
18
19
20
21
LTE B2
LTE B4
LTE B5
LTE B7
LTE B12
LTE B17
LTE B25
LTE B26
LTE B41


Top Side-LTE
24
22
20
18
16
14
12
10
14
15
16
17
18
19
20
21
22
23
24
LTE B2
LTE B4
LTE B5
LTE B7
LTE B12
LTE B17
LTE B25
LTE B26
LTE B41


Rear Face-WIFI
20
18
16
14
12
10
8
6
7
8
9
10
11
12
13
14
15
16
2. 4G
5G


Top Side-WIFI
20
18
16
14
12
10
8
6
7
8
9
10
11
12
13
14
15
16
2. 4G
5G

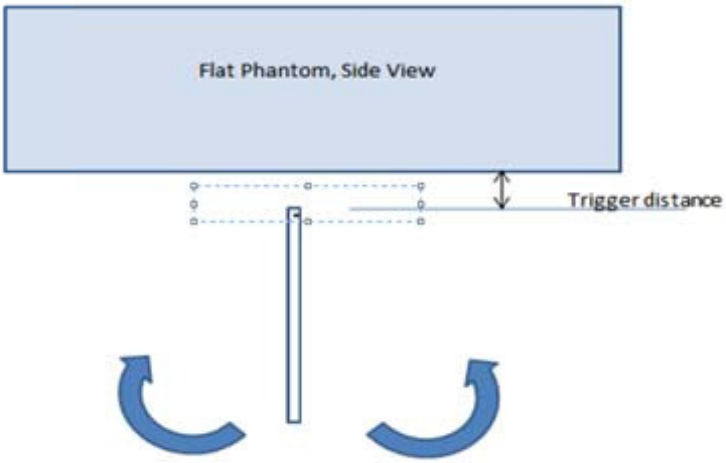
7.3.2. Proximity Sensor Coverage (KDB 616217 §6.3)

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

7.3.3. Proximity Sensor Tilt Angle Assessment (KDB 616217 §6.4)

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

The EUT was rotated about Edge 1 for angles up to +/- 45°. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to +/- 45°.



Proximity sensor tilt angle assessment (bottom)

Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Bottom

Band (MHz)	Minimum trigger distance measured according to KDB 616217 §6.2		Minimum distance at which power reduction was maintained over +/-45°		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
	Rear	Top	Rear	Top											
GSM 850	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
GSM 1900	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
UMTS B2	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
UMTS B4	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
UMTS B5	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B4	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B5	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B7	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B12	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B17	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B25	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B26	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
LTE B41	16mm	19mm	16mm	19mm	on	on	on	on	on	on	on	on	on	on	on
2.4G	11mm	11mm	11mm	11mm	on	on	on	on	on	on	on	on	on	on	on
5G	11mm	11mm	11mm	11mm	on	on	on	on	on	on	on	on	on	on	on

7.4 TEST POSITION

7.4.1Head test configuration

The device does not have telephone receiver. Next to the ear operation is not supported. Voice mode is limited to speaker mode and headset operations only, so additional Head SAR testing for this type of voice use is not required per KDB616217D04.

7.4.2 Body

The overall diagonal dimension of the display section of a tablet is 27.2cm>20cm,Per FCC KDB 616217,the back surface and edges of the tablet should be tested for SAR compliance with the Tablet touching the phantom.SAR evaluation for the front surface of tablet display screens are generally not necessary.
The SAR Exclusion Threshold in KDB 447498 D01can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned adjacent the phantom and the edge containing the antenna positioned perpendicular to the phantom.

SAR test reduction and exclusion guidance

(1)The SAR exclusion threshold for distances<50mm is defined by the following equation:

$$\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \sqrt{\text{Frequency (GHz)}} \leq 3.0$$

The test exclusions are applicable only when the minimum test separation distance is ≤50mm and for transmission frequencies between 100MHz and 6GHz. When the minimum test separation distance is<5mm, a distance of 5mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

(2)The SAR exclusion threshold for distances>50mm is defined by the following equation, as illustrated in KDB 447498 D01 Appendix B:

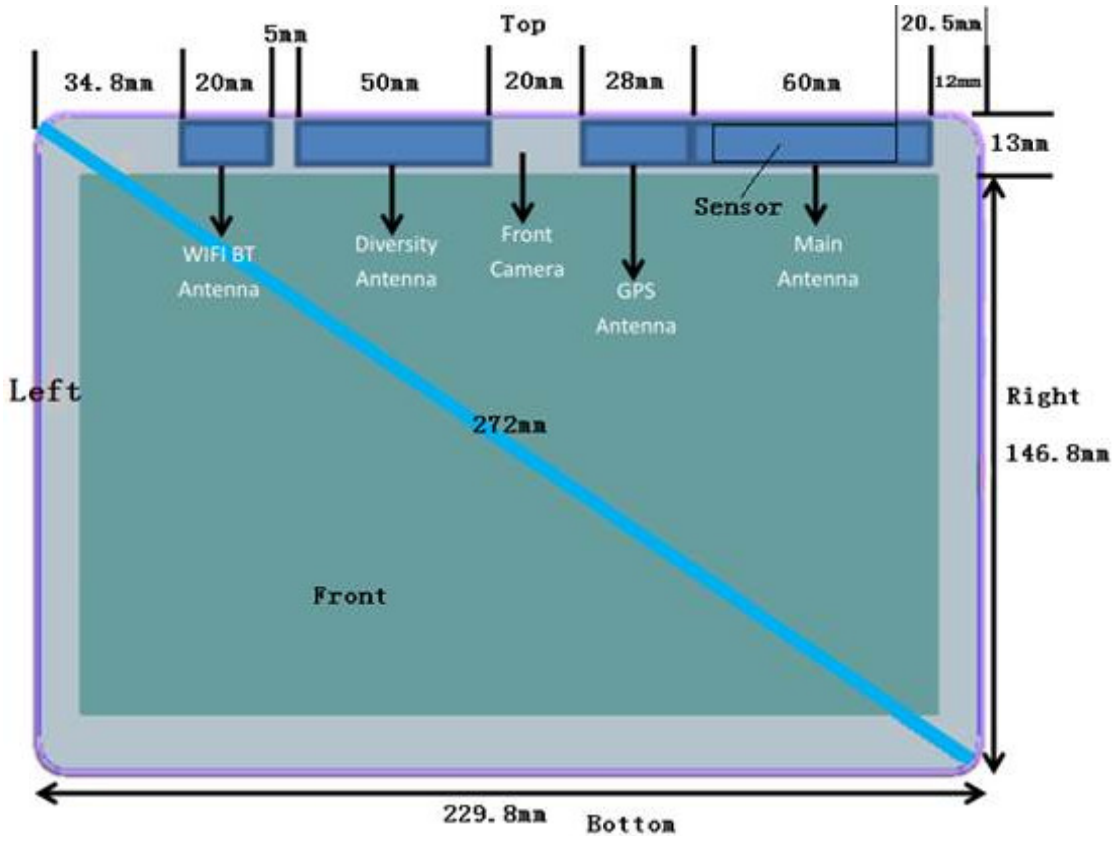
a) at 100 MHz to1500 MHz

[Power allowed at numeric Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · ($f_{(MHz)}$/150)] mW

b) at >1500MHz and ≤6GHz

[Power allowed at numeric Threshold at 50 mm in step 1) + (test separation distance - 50 mm) ·10] mW

The location of the antenna inside EUT is as below:



Note:
1) Diversity antenna is used to improve the acceptance of performance of the main antenna, it does not have a transmitter function.

The distance <50mm (sensor off)

Mode	Position	Pmax (dBm) *	Pmax (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	Test Requirement (Yes/No)
BT	Rear/ Top	9.5	8.91	5	2.480	2.80	3	No
	Left	9.5	8.91	34.8	2.480	0.37	3	No
2.4GWiFi	Rear/ Top	20	100	5	2.462	31.38	3	Yes
	Left	20	100	34.8	2.462	4.09	3	Yes
5G WiFi	Rear/ Top	17.5	56.23	5	5.825	27.14	3	Yes
	Left	17.5	56.23	34.8	5.825	3.90	3	Yes
GSM850	Rear/ Top	31	1258.93	5	0.8488	231.97	3	Yes
	Right	31	1258.93	12	0.8488	96.65	3	Yes
GSM1900	Rear/ Top	28	630.96	5	1.9098	174.39	3	Yes
	Right	28	630.96	12	1.9098	72.66	3	Yes
UMTS Band 2	Rear/ Top	24.5	281.84	5	1.9076	77.85	3	Yes
	Right	24.5	281.84	12	1.9076	32.44	3	Yes
UMTS Band 4	Rear/ Top	24	251.19	5	1.7526	66.51	3	Yes
	Right	24	251.19	12	1.7526	27.71	3	Yes
UMTS Band 5	Rear/ Top	24	251.19	5	0.8466	46.22	3	Yes
	Right	24	251.19	12	0.8466	19.26	3	Yes
LTE Band 2	Rear/ Top	24	251.19	5	1.900	69.25	3	Yes
	Right	24	251.19	12	1.900	28.85	3	Yes
LTE Band 4	Rear/ Top	24	251.19	5	1.745	66.36	3	Yes
	Right	24	251.19	12	1.745	27.65	3	Yes
LTE Band 5	Rear/ Top	24	251.19	5	0.844	46.15	3	Yes
	Right	24	251.19	12	0.844	19.23	3	Yes
LTE Band 7	Rear/ Top	23.3	213.80	5	2.560	68.41	3	Yes
	Right	23.3	213.80	12	2.560	28.51	3	Yes
LTE Band 12	Rear/ Top	24.5	281.84	5	0.711	47.53	3	Yes
	Right	24.5	281.84	12	0.711	19.80	3	Yes
LTE	Rear/ Top	24.5	281.84	5	0.711	47.53	3	Yes

Band 17	Right	24.5	281.84	12	0.711	19.80	3	Yes
LTE Band 25	Rear/ Top	23.5	223.87	5	1.905	61.80	3	Yes
	Right	23.5	223.87	12	1.905	25.75	3	Yes
LTE Band 26	Rear/ Top	24	251.19	5	0.8415	46.08	3	Yes
	Right	24	251.19	12	0.8415	19.20	3	Yes
LTE Band 41	Rear/ Top	24	251.19	5	2.645	81.70	3	Yes
	Right	24	251.19	12	2.645	34.04	3	Yes

The distance <50mm (sensor on)

Mode	Position	Pmax (dBm) *	Pmax (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	Test Requirement (Yes/No)
BT	Rear/ Top	9.5	8.91	5	2.480	2.80	3	No
2.4G WiFi	Rear/ Top	14	25.12	5	2.462	7.88	3	Yes
5G WiFi	Rear/ Top	12	15.85	5	5.825	7.65	3	Yes
GSM850	Rear/ Top	25.5	354.81	5	0.8488	65.38	3	Yes
GSM1900	Rear/ Top	17.5	56.23	5	1.9098	15.54	3	Yes
UMTS Band 2	Rear/ Top	15	31.62	5	1.9076	8.74	3	Yes
UMTS Band 4	Rear/ Top	14.5	28.18	5	1.7526	7.46	3	Yes
UMTS Band 5	Rear/ Top	22	158.49	5	0.8466	29.17	3	Yes
LTE Band 2	Rear/ Top	15	31.62	5	1.900	8.72	3	Yes
LTE Band 4	Rear/ Top	14	25.12	5	1.745	6.64	3	Yes
LTE Band 5	Rear/ Top	21	125.89	5	0.844	23.13	3	Yes
LTE Band 7	Rear/ Top	11	12.59	5	2.560	4.03	3	Yes
LTE Band 12	Rear/ Top	20	100.00	5	0.711	16.86	3	Yes
LTE Band 17	Rear/ Top	20	100.00	5	0.711	16.86	3	Yes
LTE Band 25	Rear/ Top	16	39.81	5	1.905	10.99	3	Yes
LTE Band 26	Rear/ Top	21	125.89	5	0.8415	23.10	3	Yes
LTE Band 41	Rear/ Top	15	31.62	5	2.645	10.29	3	Yes

The distance >50mm

Mode	Position	f (GHz)	Power allowed at numeric Threshold at 50mm	Distance (mm)	P_{max} (dBm)*	P_{max} (mW)	SAR Exclusion Result (mW)	Test Requirement (Yes/No)
BT	Right	2.480	95.25	175	9.5	8.91	1345.25	No
	Bottom	2.480	95.25	146.8	9.5	8.91	1063.25	No
2.4GWiFi	Right	2.462	95.60	175	20	100	1345.59	No
	Bottom	2.462	95.60	146.8	20	100	1063.59	No
5GWiFi	Right	5.825	62.15	175	17.5	56.23	1312.15	No
	Bottom	5.825	62.15	146.8	17.5	56.23	1030.15	No
GSM850	Left	0.8488	162.81	157.8	31	1258.93	772.82	Yes
	Bottom	0.8488	162.81	146.8	31	1258.93	710.57	Yes
GSM1900	Left	1.9098	108.54	157.8	28	630.96	1186.54	No
	Bottom	1.9098	108.54	146.8	28	630.96	1076.54	No
UMTS Band 2	Left	1.9076	108.60	157.8	24.5	281.84	1186.60	No
	Bottom	1.9076	108.60	146.8	24.5	281.84	1076.60	No
UMTS Band 4	Left	1.7526	113.31	157.8	24	251.19	1191.31	No
	Bottom	1.7526	113.31	146.8	24	251.19	1081.31	No
UMTS Band 5	Left	0.8466	163.02	157.8	24	251.19	670.57	No
	Bottom	0.8466	163.02	146.8	24	251.19	608.49	No
LTE Band 2	Left	1.900	108.82	157.8	24	251.19	1186.82	No
	Bottom	1.900	108.82	146.8	24	251.19	1076.82	No
LTE Band 4	Left	1.745	113.26	157.8	24	251.19	1191.55	No
	Bottom	1.745	113.26	146.8	24	251.19	1081.55	No
LTE Band 5	Left	0.844	163.28	157.8	24	251.19	668.70	No
	Bottom	0.844	163.28	146.8	24	251.19	606.81	No
LTE Band 7	Left	2.560	93.75	157.8	23.3	213.80	1171.75	No
	Bottom	2.560	93.75	146.8	23.3	213.80	1061.75	No
LTE Band 12	Left	0.711	177.89	157.8	24.5	281.84	704.72	No
	Bottom	0.711	177.89	146.8	24.5	281.84	552.58	No
LTE Band 17	Left	0.711	177.89	157.8	24.5	281.84	704.72	No
	Bottom	0.711	177.89	146.8	24.5	281.84	552.58	No
LTE Band 25	Left	1.905	108.68	157.8	23.5	223.87	1186.68	No
	Bottom	1.905	108.68	146.8	23.5	223.87	1076.68	No
LTE	Left	0.8415	163.52	157.8	24	251.19	713.44	No

Band 26	Bottom	0.8415	163.52	146.8	24	251.19	651.73	No
LTE Band 41	Left	2.645	92.23	157.8	24	251.19	1170.23	No
	Bottom	2.645	92.23	146.8	24	251.19	1060.23	No

Note: Even though the BT and right side of WiFi 2.4G/5G for test exclusion, the estimated values were too conservative. The SAR measurements of BT and right side WiFi 2.4G/5G and was made.

8.TEST RESULT

8.1CONDUCTED POWER RESULTS

8.1.1CONDUCTED POWER MEASUREMENTS OF GSM850

1) Conducted power measurement results of GSM850

GSM850(sensor off)		Tune-up	Max Burst Average Power (dBm)			Tune-up	Max Frame Average Power (dBm)		
			128CH	190CH	251CH		128CH	190CH	251CH
			824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GSM (CS)		34.50	32.73	32.83	32.85	25.31	23.54	23.64	23.66
GPRS/ EDGE (GMSK)	1 Tx Slot	34.00	32.48	32.20	32.25	24.81	23.29	23.01	23.06
	2 Tx Slots	32.50	31.56	31.30	31.38	26.37	25.43	25.17	25.25
	3 Tx Slots	31.00	29.99	30.03	30.10	26.58	25.57	25.61	25.68
	4 Tx Slots	29.50	28.57	28.57	28.61	26.32	25.39	25.39	25.43
EDGE (8PSK)	1 Tx Slot	28.00	27.25	27.13	27.29	18.81	18.06	17.94	18.10
	2 Tx Slots	27.00	26.12	25.94	25.92	20.87	19.99	19.81	19.79
	3 Tx Slots	25.00	24.36	24.38	24.35	20.58	19.94	19.96	19.93
	4 Tx Slots	24.00	22.78	23.05	22.84	20.82	19.60	19.87	19.66
GSM850(sensor on)		Tune-up	Max Burst Average Power (dBm)			Tune-up	Max Frame Average Power (dBm)		
			128CH	190CH	251CH		128CH	190CH	251CH
			824.2MHz	836.6MHz	848.8MHz		824.2MHz	836.6MHz	848.8MHz
GSM (CS)		31.50	30.06	30.25	30.27	22.31	20.87	21.06	21.08
GPRS/ EDGE (GMSK)	1 Tx Slot	25.50	24.78	24.77	24.81	16.31	15.59	15.58	15.62
	2 Tx Slots	25.50	24.63	24.64	24.81	19.37	18.50	18.51	18.68
	3 Tx Slots	25.50	24.51	24.61	24.68	21.08	20.09	20.19	20.26
	4 Tx Slots	25.50	24.42	24.52	24.57	22.32	21.24	21.34	21.39
EDGE (8PSK)	1 Tx Slot	25.50	24.61	24.59	24.58	16.31	15.42	15.40	15.39
	2 Tx Slots	25.50	24.48	24.52	24.51	19.37	18.35	18.39	18.38
	3 Tx Slots	25.00	24.54	24.51	24.52	20.58	20.12	20.09	20.10
	4 Tx Slots	24.00	23.14	23.22	23.12	20.82	19.96	20.04	19.94

Note:
1) The conducted power of GSM850 is measured with RMS detector.
2) Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 time slots.
3) Per KDB941225 D01, the bolded GPRS3Tx mode was selected for SAR testing with sensor off and the bolded GPRS4 Tx mode was selected for SAR testing with sensor onaccording to the highest frame –averaged output power table.
4) 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)
5) The 3 Tx Slots and 4 Tx Slot of EDGE(8PSK) mode don't support the sensor function, so the power is not reduced.

8.1.2CONDUCTED POWER MEASUREMENTS OF GSM1900

1) Conducted power measurement results of GSM1900

GSM1900(sensor off)		Tune-up	Max Burst Average Power (dBm)			Tune-up	Max Frame Average Power (dBm)		
			512CH	661CH	810CH		512CH	661CH	810CH
			1850.2MHz	1880MHz	1909.8MHz		1850.2MHz	1880MHz	1909.8MHz
GSM (CS)		31.50	30.15	30.17	30.16	22.31	20.96	20.98	20.97
GPRS /EDGE (GMSK)	1 Tx Slot	31.00	29.75	29.53	29.31	21.81	20.56	20.34	20.12
	2 Tx Slots	29.50	29.04	28.86	28.59	23.37	22.91	22.73	22.46
	3 Tx Slots	28.00	27.97	27.82	27.59	23.58	23.55	23.40	23.17
	4 Tx Slots	26.50	26.21	26.22	26.05	23.32	23.03	23.04	22.87
EDGE (8PSK)	1 Tx Slot	26.50	26.42	26.25	26.12	17.31	17.23	17.06	16.93
	2 Tx Slots	25.50	25.20	25.16	24.92	19.37	19.07	19.03	18.79
	3 Tx Slots	24.50	23.82	23.68	23.32	20.08	19.40	19.26	18.90
	4 Tx Slots	23.50	22.34	22.53	21.97	20.32	19.16	19.35	18.79
GSM1900(sensor on)		Tune-up	Max Burst Average Power (dBm)			Tune-up	Max Frame Average Power (dBm)		
			512CH	661CH	810CH		512CH	661CH	810CH
			1850.2MHz	1880MHz	1909.8MHz		1850.2MHz	1880MHz	1909.8MHz
GSM (CS)		24.50	23.64	23.81	23.67	15.31	14.45	14.62	14.48
GPRS /EDGE (GMSK)	1 Tx Slot	17.50	17.24	17.44	17.32	8.31	8.05	8.25	8.13
	2 Tx Slots	17.50	17.14	17.32	17.19	11.37	11.01	11.19	11.06
	3 Tx Slots	17.50	17.07	17.18	17.07	13.08	12.65	12.76	12.65
	4 Tx Slots	17.50	17.00	17.04	17.02	14.32	13.82	13.86	13.84
EDGE (8PSK)	1 Tx Slot	17.50	17.12	17.28	17.12	8.31	7.93	8.09	7.93
	2 Tx Slots	17.50	17.11	17.15	17.07	11.37	10.98	11.02	10.94
	3 Tx Slots	17.50	16.96	17.02	16.94	13.08	12.54	12.60	12.52
	4 Tx Slots	17.50	16.83	16.84	16.75	14.32	13.65	13.66	13.57

Note:
1) The conducted power of GSM1900 is measured with RMS detector.
2) Frame-averaged output power was calculated from the measured burst-averaged output power by converting the slot powers into linear units and calculating the energy over 8 time slots.
3) Per KDB941225 D01, the bolded GPRS 3Tx mode was selected for SAR testing with sensor off and the bolded GPRS 4Tx mode was selected for SAR testing with sensor on according to the highest frame –averaged output power table.
4) 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)

8.1.3CONDUCTED POWER MEASUREMENTS OF UMTS Band 2

UMTS Band 2 (sensor off)		Tune-up	SAR Conducted Power (dBm)		
			9262CH	9400CH	9538CH
			1852.4	1880	1907.6
WCDMA	12.2kbps RMC	24.50	23.40	23.29	23.44
	64kbps RMC	24.50	23.30	23.32	23.43
	144kbps RMC	24.50	23.40	23.27	23.46
	384kbps RMC	24.50	23.36	23.28	23.48
HSDPA	Subtest 1	23.50	22.39	22.32	22.45
	Subtest 2	23.50	22.35	22.33	22.41
	Subtest 3	22.50	21.85	21.80	21.87
	Subtest 4	22.50	21.84	21.75	21.87
HSUPA	Subtest 1	23.50	22.40	22.27	22.44
	Subtest 2	22.50	21.83	21.77	21.93
	Subtest 3	23.50	22.38	22.27	22.45
	Subtest 4	22.50	22.33	22.34	22.49
	Subtest 5	23.50	22.36	22.34	22.42
DC-HSDPA	Subtest 1	23.50	22.39	22.32	22.45
	Subtest 2	23.50	22.35	22.33	22.41
	Subtest 3	22.50	21.85	21.80	21.87
	Subtest 4	22.50	21.84	21.75	21.87

UMTS Band 2 (sensor on)		Tune-up	SAR Conducted Power (dBm)		
			9262CH	9400CH	9538CH
			1852.4	1880	1907.6
WCDMA	12.2kbps RMC	15.00	14.25	14.26	14.34
	64kbps RMC	15.00	14.23	14.25	14.35
	144kbps RMC	15.00	14.25	14.27	14.33
	384kbps RMC	15.00	14.23	14.25	14.37
HSDPA	Subtest 1	15.00	14.18	13.62	13.99
	Subtest 2	15.00	13.09	13.55	13.13
	Subtest 3	14.50	14.15	13.05	13.59
	Subtest 4	14.50	12.60	12.96	12.63
HSUPA	Subtest 1	15.00	14.13	13.64	13.75
	Subtest 2	15.00	13.86	13.34	13.42
	Subtest 3	14.50	13.18	13.47	13.37
	Subtest 4	14.50	14.15	13.84	14.01
	Subtest 5	14.50	13.21	13.57	13.65
DC-HSDPA	Subtest 1	15.00	14.18	13.62	13.99
	Subtest 2	15.00	13.09	13.55	13.13
	Subtest 3	14.50	14.15	13.05	13.59
	Subtest 4	14.50	12.60	12.96	12.63

HSPA+

Since 16QAM is not used for uplink, the uplink category and release is same as HSUPA,i.e,CAT6 Rel 6.Therefore,the RF conducted power is not measured.

Note:

1) The conducted power of UMTS Band 2 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.

8.1.4CONDUCTED POWER MEASUREMENTS OF UMTS Band 4

UMTSBand 4 (sensor off)		Tune-up	SAR Conducted Power (dBm)		
			1312CH	1413CH	1513CH
			1712.4	1732.6	1752.6
WCDMA	12.2kbps RMC	24.00	23.26	23.29	23.21
	64kbps RMC	24.00	23.33	23.29	23.27
	144kbps RMC	24.00	23.32	23.27	23.26
	384kbps RMC	24.00	23.32	23.27	23.25
HSDPA	Subtest 1	24.00	22.35	22.33	22.29
	Subtest 2	24.00	22.32	22.27	22.25
	Subtest 3	23.00	21.75	21.74	21.66
	Subtest 4	23.00	21.74	21.73	21.68
HSUPA	Subtest 1	24.00	22.27	22.26	22.27
	Subtest 2	23.00	21.75	21.75	21.65
	Subtest 3	24.00	22.32	22.28	22.24
	Subtest 4	23.00	22.32	22.32	22.28
	Subtest 5	24.00	22.34	22.32	22.36
DC-HSDPA	Subtest 1	24.00	22.35	22.33	22.29
	Subtest 2	24.00	22.32	22.27	22.25
	Subtest 3	23.00	21.75	21.74	21.66
	Subtest 4	23.00	21.74	21.73	21.68

UMTSBand 4 (sensor on)		Tune-up	SAR Conducted Power (dBm)		
			1312CH	1413CH	1513CH
			1712.4	1732.6	1752.6
WCDMA	12.2kbps RMC	14.50	13.58	13.55	13.82
	64kbps RMC	14.50	13.59	13.56	13.84
	144kbps RMC	14.50	13.61	13.55	13.81
	384kbps RMC	14.50	13.62	13.55	13.82
HSDPA	Subtest 1	14.50	13.36	13.31	12.79
	Subtest 2	14.50	13.22	13.13	12.64
	Subtest 3	14.00	13.18	13.09	12.71
	Subtest 4	14.00	12.71	12.84	12.14
HSUPA	Subtest 1	14.50	13.35	13.22	13.70
	Subtest 2	14.50	12.79	12.76	12.54
	Subtest 3	14.00	13.31	13.16	12.63
	Subtest 4	14.00	13.36	13.31	12.79
	Subtest 5	14.00	13.27	13.24	12.83
DC-HSDPA	Subtest 1	14.50	13.36	13.31	12.79
	Subtest 2	14.50	13.22	13.13	12.64
	Subtest 3	14.00	13.18	13.09	12.71
	Subtest 4	14.00	12.71	12.84	12.14

HSPA+

Since 16QAM is not used for uplink, the uplink category and release is same as HSUPA,i.e,CAT6 Rel 6.Therefore,the RF conducted power is not measured.

Note:

1) The conducted power of UMTS Band 4 is measured with RMS detector.

2) 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.

8.1.5CONDUCTED POWER MEASUREMENTS OF UMTS Band 5

UMTS Band5 (sensor off)		Tune-up	SAR Conducted Power (dBm)		
			4132CH	4182CH	4233CH
			826.4	836.4	846.6
WCDMA	12.2kbps RMC	24.00	23.07	23.16	23.09
	64kbps RMC	24.00	23.04	23.03	23.18
	144kbps RMC	24.00	23.05	23.22	23.17
	384kbps RMC	24.00	23.07	23.23	23.18
HSDPA	Subtest 1	23.00	22.13	22.25	22.25
	Subtest 2	23.00	22.14	22.26	22.20
	Subtest 3	22.50	21.69	21.71	21.68
	Subtest 4	22.50	21.66	21.72	21.62
HSUPA	Subtest 1	23.00	21.57	21.52	21.62
	Subtest 2	21.00	20.86	20.83	20.81
	Subtest 3	22.00	20.75	20.93	20.62
	Subtest 4	22.00	21.42	21.44	21.45
	Subtest 5	22.00	20.96	20.95	21.01
DC-HSDPA	Subtest 1	23.00	22.13	22.25	22.25
	Subtest 2	23.00	22.14	22.26	22.20
	Subtest 3	22.50	21.69	21.71	21.68
	Subtest 4	22.50	21.66	21.72	21.62

UMTS Band 5 (sensor on)		Tune-up	SAR Conducted Power (dBm)		
			4132CH	4182CH	4233CH
			826.4	836.4	846.6
WCDMA	12.2kbps RMC	22.00	21.07	21.12	21.11
	64kbps RMC	22.00	21.06	21.11	21.08
	144kbps RMC	22.00	21.08	21.10	21.07
	384kbps RMC	22.00	21.06	21.13	21.14
HSDPA	Subtest 1	22.00	20.07	20.08	20.03
	Subtest 2	22.00	20.01	20.08	20.07
	Subtest 3	21.50	20.04	19.88	20.01
	Subtest 4	21.50	19.58	19.51	19.52
HSUPA	Subtest 1	21.50	20.05	20.08	20.08
	Subtest 2	21.00	19.53	19.54	19.58
	Subtest 3	21.00	20.05	20.07	20.09
	Subtest 4	21.00	20.08	20.08	20.04
	Subtest 5	21.00	20.04	20.03	20.01
DC-HSDPA	Subtest 1	22.00	20.07	20.08	20.03
	Subtest 2	22.00	20.01	20.08	20.07
	Subtest 3	21.50	20.04	19.88	20.01
	Subtest 4	21.50	19.58	19.51	19.52

HSPA+

Since 16QAM is not used for uplink, the uplink category and release is same as HSUPA,i.e,CAT6 Rel 6.Therefore,the RF conducted power is not measured.

Note:

1) The conducted power of UMTS Band 5 is measured with RMS detector.

2) 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.

8.1.6CONDUCTED POWER MEASUREMENTS OF LTE Band 2

1）Conducted power measurement results of LTE Band 2(sensor off)

FDD LTE B2					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18607	18900	19193
					1850.7	1880	1909.3
1.4MHz	QPSK	1	0	24.00	22.58	22.52	22.90
		1	2	24.00	22.70	22.57	22.88
		1	5	24.00	22.61	22.62	22.89
		3	0	24.00	22.72	22.68	22.79
		3	1	24.00	22.76	22.71	22.82
		3	3	24.00	22.84	22.72	22.72
		6	0	23.00	21.80	21.71	21.87
	16QAM	1	0	23.00	21.32	21.23	21.72
		1	2	23.00	21.42	21.14	21.80
		1	5	23.00	21.34	21.20	21.83
		3	0	23.00	21.64	21.48	21.86
		3	1	23.00	21.75	21.01	21.92
		3	3	23.00	21.63	21.00	21.96
		6	0	22.00	20.92	20.52	20.68
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18615	18900	19185
					1851.5	1880	1908.5
3MHz	QPSK	1	0	24.00	22.75	22.60	22.78
		1	7	24.00	22.85	22.67	22.78
		1	14	24.00	22.82	22.67	22.78
		8	0	23.00	21.77	21.71	21.94
		8	3	23.00	21.77	21.73	21.79
		8	7	23.00	21.70	21.72	21.80
		15	0	23.00	21.74	21.71	21.87
	16QAM	1	0	23.00	21.88	21.79	21.84
		1	7	23.00	22.09	22.00	21.86
		1	14	23.00	21.90	21.72	21.72
		8	0	22.00	21.19	20.65	20.68
		8	3	22.00	21.15	20.68	20.63
		8	7	22.00	20.77	20.65	20.63
		15	0	22.00	20.85	20.49	20.49

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18625	18900	19175
					1852.5	1880	1907.5
5MHz	QPSK	1	0	24.00	22.93	22.50	22.58
		1	12	24.00	22.92	22.64	22.71
		1	24	24.00	22.73	22.57	22.76
		12	0	23.00	21.72	21.69	21.88
		12	6	23.00	21.70	21.73	21.84
		12	13	23.00	21.71	21.71	21.82
		25	0	23.00	21.77	21.71	21.87
	16QAM	1	0	23.00	21.04	21.06	21.25
		1	12	23.00	21.16	21.22	21.30
		1	24	23.00	21.09	21.17	21.34
		12	0	22.00	20.58	20.58	20.47
		12	6	22.00	20.66	20.62	20.52
		12	13	22.00	20.68	20.59	20.52
		25	0	22.00	20.66	20.50	20.47
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18650	18900	19150
					1855	1880	1905
10MHz	QPSK	1	0	24.00	22.89	22.61	22.80
		1	24	24.00	22.79	22.84	22.79
		1	49	24.00	22.96	22.69	22.95
		25	0	23.00	21.86	21.72	21.74
		25	12	23.00	21.66	21.77	21.84
		25	25	23.00	21.66	21.74	21.83
		50	0	23.00	21.67	21.75	21.79
	16QAM	1	0	23.00	21.85	22.06	21.67
		1	24	23.00	21.78	22.16	21.77
		1	49	23.00	21.86	21.76	21.78
		25	0	22.00	20.71	20.59	20.87
		25	12	22.00	20.53	20.72	20.87
		25	25	22.00	20.51	20.75	20.84
		50	0	22.00	20.61	20.58	20.56

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18675	18900	19125
					1857.5	1880	1902.5
15MHz	QPSK	1	0	24.00	22.94	22.51	22.56
		1	38	24.00	22.95	22.63	22.75
		1	74	24.00	22.93	22.58	22.66
		36	0	23.00	21.77	22.58	21.72
		36	18	23.00	21.67	21.72	21.66
		36	39	23.00	21.75	21.64	21.75
		75	0	23.00	21.67	21.67	21.74
	16QAM	1	0	23.00	21.91	22.00	22.45
		1	38	23.00	22.15	21.88	22.68
		1	74	23.00	21.88	22.02	22.47
		36	0	22.00	20.52	20.62	20.54
		36	18	22.00	20.46	20.61	20.59
		36	39	22.00	20.56	20.51	20.58
		75	0	22.00	20.55	20.48	20.47
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18700	18900	19100
					1860	1880	1900
20MHz	QPSK	1	0	24.00	22.87	22.96	22.84
		1	50	24.00	22.78	22.62	22.74
		1	99	24.00	22.33	22.85	22.62
		50	0	23.00	21.76	21.74	21.80
		50	25	23.00	21.75	21.73	21.71
		50	50	23.00	21.62	21.64	21.76
		100	0	23.00	21.76	21.68	21.78
	16QAM	1	0	23.00	21.35	21.61	21.41
		1	50	23.00	21.45	21.50	22.24
		1	99	23.00	21.27	21.33	21.26
		50	0	22.00	20.73	20.50	20.60
		50	25	22.00	20.71	20.58	20.63
		50	50	22.00	20.50	20.66	20.68
		100	0	22.00	20.64	20.61	20.60

2）Conducted power measurement results of LTE Band 2 (sensor on)

FDD LTE B2					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18607	18900	19193
					1850.7	1880	1909.3
1.4MHz	QPSK	1	0	15.00	13.49	13.46	13.50
		1	2	15.00	13.55	13.49	13.78
		1	5	15.00	13.68	13.43	13.64
		3	0	15.00	13.48	13.55	13.73
		3	1	15.00	13.62	13.68	13.74
		3	3	15.00	13.53	13.58	13.72
		6	0	15.00	13.53	13.41	13.55
	16QAM	1	0	15.00	13.65	14.01	13.61
		1	2	15.00	13.60	14.09	13.64
		1	5	15.00	13.52	13.73	13.67
		3	0	15.00	13.50	13.55	13.93
		3	1	15.00	13.43	13.61	13.93
		3	3	15.00	13.44	13.65	13.97
		6	0	15.00	13.82	13.58	13.77
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18615	18900	19185
					1851.5	1880	1908.5
3MHz	QPSK	1	0	15.00	13.67	13.44	13.62
		1	7	15.00	13.58	13.42	13.71
		1	14	15.00	13.52	13.45	13.61
		8	0	15.00	13.55	13.45	13.62
		8	3	15.00	13.55	13.47	13.56
		8	7	15.00	13.48	13.42	13.60
		15	0	15.00	13.51	13.45	13.66
	16QAM	1	0	15.00	13.43	13.67	13.70
		1	7	15.00	13.93	13.85	13.70
		1	14	15.00	13.61	13.86	13.43
		8	0	15.00	14.03	13.56	13.55
		8	3	15.00	14.06	13.59	13.51
		8	7	15.00	14.09	13.54	13.41
		15	0	15.00	13.67	13.63	13.62

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18625	18900	19175
					1852.5	1880	1907.5
5MHz	QPSK	1	0	15.00	13.73	13.16	13.71
		1	12	15.00	13.76	13.48	13.84
		1	24	15.00	13.59	13.47	13.45
		12	0	15.00	13.60	13.45	13.59
		12	6	15.00	13.58	13.49	13.64
		12	13	15.00	13.58	13.53	13.59
		25	0	15.00	13.63	13.53	13.65
	16QAM	1	0	15.00	13.48	13.73	13.54
		1	12	15.00	13.72	14.01	13.62
		1	24	15.00	13.36	13.89	13.26
		12	0	15.00	13.58	13.66	13.60
		12	6	15.00	13.56	13.79	13.66
		12	13	15.00	13.54	13.76	13.57
		25	0	15.00	13.72	13.57	13.70
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18650	18900	19150
					1855	1880	1905
10MHz	QPSK	1	0	15.00	13.87	13.57	13.69
		1	24	15.00	13.78	13.62	13.87
		1	49	15.00	13.78	13.50	13.71
		25	0	15.00	13.60	13.56	13.55
		25	12	15.00	13.54	13.57	13.69
		25	25	15.00	13.50	13.42	13.57
		50	0	15.00	13.56	13.45	13.64
	16QAM	1	0	15.00	14.06	13.90	13.56
		1	24	15.00	13.56	13.98	13.53
		1	49	15.00	13.81	13.29	13.62
		25	0	15.00	13.55	13.51	13.71
		25	12	15.00	13.58	13.61	13.74
		25	25	15.00	13.54	13.61	13.72
		50	0	15.00	13.59	13.58	13.58

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18675	18900	19125
					1857.5	1880	1902.5
15MHz	QPSK	1	0	15.00	13.83	13.57	13.43
		1	38	15.00	13.62	13.38	13.51
		1	74	15.00	13.64	13.48	13.47
		36	0	15.00	13.45	13.48	13.46
		36	18	15.00	13.49	13.47	13.46
		36	39	15.00	13.59	13.34	13.49
		75	0	15.00	13.52	13.38	13.40
	16QAM	1	0	15.00	13.69	13.83	14.06
		1	38	15.00	14.00	13.69	14.07
		1	74	15.00	13.71	13.91	14.08
		36	0	15.00	13.58	13.91	13.45
		36	18	15.00	13.59	13.50	13.45
		36	39	15.00	13.59	13.36	13.39
		75	0	15.00	13.51	13.40	13.40
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					18700	18900	19100
					1860	1880	1900
20MHz	QPSK	1	0	15.00	13.57	13.69	13.48
		1	50	15.00	13.77	13.79	14.12
		1	99	15.00	13.35	13.70	13.50
		50	0	15.00	13.79	13.69	13.76
		50	25	15.00	13.76	13.61	13.70
		50	50	15.00	13.59	13.52	13.75
		100	0	15.00	13.66	13.59	13.67
	16QAM	1	0	15.00	13.49	13.56	13.70
		1	50	15.00	13.77	13.63	13.69
		1	99	15.00	13.39	13.75	13.54
		50	0	15.00	13.78	13.65	13.65
		50	25	15.00	13.74	13.76	13.70
		50	50	15.00	13.73	13.55	13.76
		100	0	15.00	13.75	13.61	13.62

8.1.7CONDUCTED POWER MEASUREMENTS OF LTE Band 4

1）Conducted power measurement results of LTE Band 4 (sensor off)

FDD LTE B4					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19957	20175	20393
					1710.7	1732.5	1754.3
1.4MHz	QPSK	1	0	24.00	22.53	22.50	22.58
		1	2	24.00	22.55	22.52	22.51
		1	5	24.00	22.51	22.51	22.56
		3	0	24.00	22.50	22.50	22.55
		3	1	24.00	22.54	22.58	22.59
		3	3	24.00	22.63	22.58	22.59
		6	0	23.00	21.51	21.55	21.57
	16QAM	1	0	23.00	21.51	21.94	21.54
		1	2	23.00	21.62	21.98	21.68
		1	5	23.00	21.59	21.94	21.60
		3	0	23.00	21.53	21.58	22.07
		3	1	23.00	21.51	21.52	21.88
		3	3	23.00	21.55	21.52	22.10
		6	0	22.00	20.57	20.53	21.07
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19965	20175	20385
					1711.5	1732.5	1753.5
3MHz	QPSK	1	0	24.00	22.55	22.53	22.52
		1	7	24.00	22.86	22.60	22.64
		1	14	24.00	22.87	22.52	22.74
		8	0	23.00	21.50	21.57	21.55
		8	3	23.00	21.58	21.59	21.64
		8	7	23.00	21.57	21.56	21.60
		15	0	23.00	21.66	21.68	21.62
	16QAM	1	0	23.00	21.65	22.05	21.55
		1	7	23.00	21.88	21.90	21.59
		1	14	23.00	21.78	21.59	21.51
		8	0	22.00	20.61	20.63	20.52
		8	3	22.00	20.64	20.57	20.50
		8	7	22.00	20.56	20.59	20.56
		15	0	22.00	20.83	20.68	20.59

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19975	20175	20375
					1712.5	1732.5	1752.5
5MHz	QPSK	1	0	24.00	22.59	22.56	22.70
		1	12	24.00	22.72	22.57	22.79
		1	24	24.00	22.73	22.51	22.84
		12	0	23.00	21.54	21.58	21.67
		12	6	23.00	21.65	21.61	21.70
		12	13	23.00	21.71	21.59	21.79
		25	0	23.00	21.64	21.58	21.78
	16QAM	1	0	23.00	21.58	21.53	21.53
		1	12	23.00	21.53	21.54	21.61
		1	24	23.00	21.51	21.57	21.57
		12	0	22.00	20.58	20.52	20.62
		12	6	22.00	20.59	20.55	20.65
		12	13	22.00	20.66	20.53	20.72
		25	0	22.00	20.72	20.54	20.70
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20000	20175	20350
					1715	1732.5	1750
10MHz	QPSK	1	0	24.00	22.56	22.56	22.57
		1	24	24.00	22.75	22.52	22.79
		1	49	24.00	22.62	22.52	22.74
		25	0	23.00	21.61	21.67	21.64
		25	12	23.00	21.70	21.66	21.72
		25	25	23.00	21.57	21.59	21.66
		50	0	23.00	21.65	21.64	21.67
	16QAM	1	0	23.00	21.56	21.85	21.55
		1	24	23.00	21.87	21.91	21.51
		1	49	23.00	21.61	21.87	21.75
		25	0	22.00	20.58	20.61	20.63
		25	12	22.00	20.55	20.59	20.69
		25	25	22.00	20.55	20.52	20.67
		50	0	22.00	20.60	20.54	20.60

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20025	20175	20325
					1717.5	1732.5	1747.5
15MHz	QPSK	1	0	24.00	22.72	22.56	22.56
		1	37	24.00	22.59	22.56	22.50
		1	74	24.00	22.71	22.51	22.55
		36	0	23.00	21.75	22.31	21.64
		36	19	23.00	21.58	21.57	21.71
		36	39	23.00	21.54	21.58	21.58
		75	0	23.00	21.53	21.55	21.61
	16QAM	1	0	23.00	21.60	21.58	22.42
		1	37	23.00	22.20	21.53	22.07
		1	74	23.00	21.74	21.59	22.38
		36	0	22.00	20.62	20.99	20.59
		36	19	22.00	20.65	20.69	20.65
		36	39	22.00	20.60	20.61	20.63
		75	0	22.00	20.60	20.56	20.61
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20050	20175	20300
					1720	1732.5	1745
20MHz	QPSK	1	0	24.00	22.55	22.52	22.55
		1	50	24.00	22.55	22.60	22.60
		1	99	24.00	22.88	22.90	22.64
		50	0	23.00	21.61	21.64	21.72
		50	25	23.00	21.62	21.65	21.73
		50	50	23.00	21.60	21.53	21.60
		100	0	23.00	21.61	21.60	21.66
	16QAM	1	0	23.00	21.55	21.60	21.74
		1	50	23.00	21.57	21.63	21.68
		1	99	23.00	21.56	21.58	21.53
		50	0	22.00	20.67	20.56	20.75
		50	25	22.00	20.59	20.58	20.69
		50	50	22.00	20.53	20.56	20.59
		100	0	22.00	20.68	20.60	20.57

2）Conducted power measurement results of LTE Band 4 (sensor on)

FDD LTE B4					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19957	20175	20393
					1710.7	1732.5	1754.3
1.4MHz	QPSK	1	0	14.00	13.52	13.50	13.55
		1	2	14.00	13.59	13.36	13.58
		1	5	14.00	13.54	13.39	13.52
		3	0	14.00	13.49	13.60	13.54
		3	1	14.00	13.64	13.63	13.59
		3	3	14.00	13.55	13.63	13.58
		6	0	14.00	13.40	13.56	13.53
	16QAM	1	0	14.00	13.43	13.78	13.10
		1	2	14.00	13.55	13.82	13.75
		1	5	14.00	13.45	13.77	13.71
		3	0	14.00	13.30	13.55	13.51
		3	1	14.00	13.26	13.47	13.53
		3	3	14.00	13.26	13.50	13.51
		6	0	14.00	13.31	13.43	13.46
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19965	20175	20385
					1711.5	1732.5	1753.5
3MHz	QPSK	1	0	14.00	13.41	13.46	13.44
		1	7	14.00	13.56	13.68	13.53
		1	14	14.00	13.58	13.58	13.42
		8	0	14.00	13.47	13.54	13.46
		8	3	14.00	13.52	13.55	13.56
		8	7	14.00	13.38	13.53	13.50
		15	0	14.00	13.59	13.53	13.53
	16QAM	1	0	14.00	13.74	13.44	13.45
		1	7	14.00	13.82	13.47	13.71
		1	14	14.00	13.81	13.41	13.59
		8	0	14.00	13.89	13.60	13.63
		8	3	14.00	13.88	13.75	13.73
		8	7	14.00	13.85	13.71	13.66
		15	0	14.00	13.83	13.69	13.58

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					19975	20175	20375
					1712.5	1732.5	1752.5
5MHz	QPSK	1	0	14.00	13.50	13.19	13.53
		1	12	14.00	13.62	13.19	13.66
		1	24	14.00	13.44	13.47	13.53
		12	0	14.00	13.53	13.60	13.65
		12	6	14.00	13.61	13.63	13.69
		12	13	14.00	13.65	13.59	13.71
		25	0	14.00	13.61	13.59	13.62
	16QAM	1	0	14.00	13.25	13.72	13.43
		1	12	14.00	13.47	13.81	13.69
		1	24	14.00	13.29	13.70	13.66
		12	0	14.00	13.69	13.59	13.74
		12	6	14.00	13.65	13.61	13.59
		12	13	14.00	13.68	13.57	13.76
		25	0	14.00	13.77	13.59	13.79
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20000	20175	20350
					1715	1732.5	1750
10MHz	QPSK	1	0	14.00	13.75	13.51	13.55
		1	24	14.00	13.75	13.53	13.82
		1	49	14.00	13.60	13.46	13.71
		25	0	14.00	13.55	13.58	13.68
		25	12	14.00	13.61	13.62	13.69
		25	25	14.00	13.50	13.49	13.56
		50	0	14.00	13.58	13.61	13.58
	16QAM	1	0	14.00	13.88	13.84	13.49
		1	24	14.00	13.84	13.89	13.59
		1	49	14.00	13.47	13.89	13.40
		25	0	14.00	13.63	13.56	13.78
		25	12	14.00	13.67	13.59	13.71
		25	25	14.00	13.57	13.68	13.56
		50	0	14.00	13.62	13.68	13.53

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20025	20175	20325
					1717.5	1732.5	1747.5
15MHz	QPSK	1	0	14.00	13.79	13.57	13.63
		1	37	14.00	13.73	13.52	13.63
		1	74	14.00	13.80	13.53	13.53
		36	0	14.00	13.69	13.53	13.64
		36	19	14.00	13.55	13.66	13.77
		36	39	14.00	13.47	13.59	13.68
		75	0	14.00	13.55	13.60	13.58
	16QAM	1	0	14.00	13.48	13.63	13.69
		1	37	14.00	13.73	13.56	13.88
		1	74	14.00	13.78	13.33	13.43
		36	0	14.00	13.73	13.33	13.56
		36	19	14.00	13.49	13.78	13.67
		36	39	14.00	13.42	13.78	13.64
		75	0	14.00	13.70	13.69	13.69
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20050	20175	20300
					1720	1732.5	1745
20MHz	QPSK	1	0	14.00	13.10	13.90	13.64
		1	50	14.00	13.41	13.63	13.66
		1	99	14.00	13.19	13.82	13.62
		50	0	14.00	13.73	13.75	13.80
		50	25	14.00	13.63	13.69	13.71
		50	50	14.00	13.63	13.66	13.71
		100	0	14.00	13.63	13.66	13.62
	16QAM	1	0	14.00	13.50	13.17	13.24
		1	50	14.00	13.89	13.60	13.84
		1	99	14.00	13.36	13.30	13.30
		50	0	14.00	13.71	13.77	13.72
		50	25	14.00	13.77	13.72	13.66
		50	50	14.00	13.60	13.51	13.53
		100	0	14.00	13.73	13.61	13.67

8.1.8CONDUCTED POWER MEASUREMENTS OF LTE Band 5

1）Conducted power measurement results of LTE Band 5(sensor off)

FDD LTE B5					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20407	20525	20643
					824.7	836.5	848.3
1.4MHz	QPSK	1	0	24.00	22.92	22.78	23.06
		1	2	24.00	23.00	22.88	23.02
		1	5	24.00	23.09	22.86	22.94
		3	0	24.00	22.98	22.97	22.97
		3	1	24.00	23.10	23.02	22.97
		3	3	24.00	23.08	23.04	22.94
		6	0	23.00	22.03	22.01	21.97
	16QAM	1	0	23.00	21.73	21.64	21.97
		1	2	23.00	22.02	21.73	21.95
		1	5	23.00	22.17	21.64	21.82
		3	0	23.00	22.03	21.37	22.16
		3	1	23.00	21.95	21.42	22.18
		3	3	23.00	21.93	21.72	22.13
		6	0	22.00	21.18	20.62	20.98
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20415	20525	20635
					825.5	836.5	847.5
3MHz	QPSK	1	0	24.00	23.00	22.90	23.04
		1	7	24.00	23.08	23.05	23.20
		1	14	24.00	23.14	23.04	22.76
		8	0	23.00	22.04	21.88	21.99
		8	3	23.00	21.96	22.02	22.03
		8	7	23.00	21.91	21.95	21.98
		15	0	23.00	21.99	21.95	22.00
	16QAM	1	0	23.00	21.73	21.49	21.86
		1	7	23.00	22.08	21.72	21.86
		1	14	23.00	22.21	21.69	21.61
		8	0	22.00	20.78	20.96	20.61
		8	3	22.00	20.76	20.95	20.65
		8	7	22.00	20.65	21.12	20.86
		15	0	22.00	20.85	20.84	20.80

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20425	20525	20625
					826.5	836.5	846.5
5MHz	QPSK	1	0	24.00	22.87	22.76	22.97
		1	12	24.00	23.09	22.75	23.11
		1	24	24.00	22.90	22.57	22.81
		12	0	23.00	22.02	21.84	21.93
		12	6	23.00	22.00	21.98	22.00
		12	13	23.00	22.08	21.95	21.94
		25	0	23.00	22.03	21.90	21.89
	16QAM	1	0	23.00	21.47	21.51	21.49
		1	12	23.00	21.66	21.44	21.61
		1	24	23.00	21.28	21.42	21.50
		12	0	22.00	21.02	20.89	20.93
		12	6	22.00	21.00	20.85	20.99
		12	13	22.00	20.98	20.91	20.93
		25	0	22.00	21.06	20.82	20.89
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20450	20525	20600
					829	836.5	844
10MHz	QPSK	1	0	24.00	23.02	23.02	23.10
		1	24	24.00	23.30	23.12	23.22
		1	49	24.00	23.15	22.88	23.01
		25	0	23.00	22.11	21.96	21.97
		25	12	23.00	22.03	22.01	21.96
		25	25	23.00	22.04	21.92	21.81
		50	0	23.00	22.12	21.90	21.95
	16QAM	1	0	23.00	22.04	22.27	21.85
		1	24	23.00	22.38	22.28	21.89
		1	49	23.00	22.04	22.37	21.92
		25	0	22.00	20.94	21.00	21.07
		25	12	22.00	20.95	21.04	20.99
		25	25	22.00	20.80	20.96	20.82
		50	0	22.00	21.11	20.75	20.92

2) Conducted power measurement results of LTE Band 5(sensor on)

FDD LTE B5					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20407	20525	20643
					824.7	836.5	848.3
1.4MHz	QPSK	1	0	21.00	19.88	19.61	20.07
		1	2	21.00	19.87	19.90	20.16
		1	5	21.00	19.72	19.89	20.09
		3	0	21.00	19.86	19.79	20.02
		3	1	21.00	20.01	19.95	20.04
		3	3	21.00	19.99	19.97	20.01
		6	0	21.00	19.84	19.90	19.98
	16QAM	1	0	21.00	19.82	20.00	19.85
		1	2	21.00	20.02	20.09	19.99
		1	5	21.00	20.14	19.89	19.86
		3	0	21.00	19.99	19.74	20.18
		3	1	21.00	19.82	19.83	20.04
		3	3	21.00	19.88	19.80	20.18
		6	0	21.00	19.86	19.57	20.12
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20415	20525	20635
					825.5	836.5	847.5
3MHz	QPSK	1	0	21.00	20.06	19.78	19.86
		1	7	21.00	20.04	19.81	20.00
		1	14	21.00	19.78	19.82	19.80
		8	0	21.00	19.95	19.80	19.91
		8	3	21.00	19.91	19.83	19.95
		8	7	21.00	19.79	19.86	19.90
		15	0	21.00	19.88	19.77	19.92
	16QAM	1	0	21.00	20.06	19.96	19.67
		1	7	21.00	20.23	20.19	19.88
		1	14	21.00	19.64	20.11	19.61
		8	0	21.00	19.77	19.94	19.82
		8	3	21.00	19.84	19.97	19.84
		8	7	21.00	19.74	19.98	19.79
		15	0	21.00	19.85	19.86	19.81

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20425	20525	20625
					826.5	836.5	846.5
5MHz	QPSK	1	0	21.00	19.91	19.87	19.64
		1	12	21.00	20.02	20.16	19.74
		1	24	21.00	19.90	20.07	19.59
		12	0	21.00	20.05	19.85	19.84
		12	6	21.00	20.01	19.90	19.90
		12	13	21.00	19.97	19.96	19.84
		25	0	21.00	19.93	19.84	19.81
	16QAM	1	0	21.00	19.40	19.59	19.48
		1	12	21.00	19.59	19.89	19.62
		1	24	21.00	19.27	19.79	19.22
		12	0	21.00	19.97	19.88	19.55
		12	6	21.00	19.93	19.75	19.80
		12	13	21.00	19.98	19.78	19.84
		25	0	21.00	19.97	19.83	19.79
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20450	20525	20600
					829	836.5	844
10MHz	QPSK	1	0	21.00	20.25	19.96	20.14
		1	24	21.00	20.22	19.86	20.09
		1	49	21.00	20.22	19.88	19.97
		25	0	21.00	20.06	19.90	20.02
		25	12	21.00	20.05	19.98	19.90
		25	25	21.00	19.91	19.93	19.80
		50	0	21.00	20.03	19.81	19.90
	16QAM	1	0	21.00	19.99	20.25	19.95
		1	24	21.00	19.96	19.87	19.76
		1	49	21.00	20.02	20.19	19.67
		25	0	21.00	20.05	20.06	20.24
		25	12	21.00	20.04	20.18	20.04
		25	25	21.00	19.86	20.11	19.90
		50	0	21.00	19.97	19.98	19.98

8.1.9CONDUCTED POWER MEASUREMENTS OF LTE Band 7

1）Conducted power measurement results of LTE Band 7 (sensor off)

FDD LTE B7					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20775	21100	21425
					2502.5	2535	2567.5
5MHz	QPSK	1	0	23.30	22.07	22.08	22.04
		1	12	23.30	22.16	22.22	22.12
		1	24	23.30	21.95	21.97	21.98
		12	0	22.30	21.10	21.31	21.27
		12	6	22.30	21.02	21.35	21.28
		12	13	22.30	21.07	21.42	21.26
		25	0	22.30	21.12	21.46	21.28
	16QAM	1	0	22.30	20.54	20.75	20.92
		1	12	22.30	20.51	20.78	20.99
		1	24	22.30	20.33	20.68	20.96
		12	0	21.30	19.93	20.26	20.19
		12	6	21.30	19.83	20.31	20.21
		12	13	21.30	19.79	20.25	20.12
		25	0	21.30	20.11	20.25	20.14
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20800	21100	21400
					2505	2535	2565
10MHz	QPSK	1	0	23.30	22.27	22.37	22.30
		1	24	23.30	22.24	22.79	22.52
		1	49	23.30	22.22	22.32	21.43
		25	0	22.30	21.15	21.41	21.28
		25	12	22.30	21.13	21.41	21.34
		25	25	22.30	21.09	21.36	21.21
		50	0	22.30	21.09	21.40	21.34
	16QAM	1	0	22.30	21.21	21.12	21.31
		1	24	22.30	21.19	21.61	21.19
		1	49	22.30	21.20	21.51	20.73
		25	0	21.30	20.11	20.54	20.37
		25	12	21.30	19.98	20.45	20.42
		25	25	21.30	19.92	20.41	20.19
		50	0	21.30	20.08	20.42	20.25

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20825	21100	21375
					2507.5	2535	2562.5
15MHz	QPSK	1	0	23.30	22.47	22.18	22.22
		1	38	23.30	22.66	22.41	22.32
		1	74	23.30	22.36	22.19	21.59
		36	0	22.30	21.16	21.44	21.39
		36	18	22.30	21.20	21.42	21.28
		36	39	22.30	21.17	21.41	21.20
		75	0	22.30	21.19	21.44	21.32
	16QAM	1	0	22.30	21.38	20.84	21.88
		1	38	22.30	21.65	21.67	21.90
		1	74	22.30	21.34	21.61	21.20
		36	0	21.30	20.19	20.34	20.25
		36	18	21.30	20.22	20.30	20.03
		36	39	21.30	20.11	20.29	19.98
		75	0	21.30	20.13	20.31	20.12
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20850	21100	21350
					2510	2535	2560
20MHz	QPSK	1	0	23.30	21.96	22.23	22.05
		1	50	23.30	22.25	22.92	22.78
		1	99	23.30	21.75	22.22	21.34
		50	0	22.30	21.29	21.44	21.35
		50	25	22.30	21.23	21.38	21.29
		50	50	22.30	21.17	21.43	21.24
		100	0	22.30	21.09	21.45	21.30
	16QAM	1	0	22.30	20.83	21.14	21.25
		1	50	22.30	20.85	21.40	21.32
		1	99	22.30	20.75	21.19	20.97
		50	0	21.30	19.96	20.41	20.28
		50	25	21.30	20.28	20.30	20.30
		50	50	21.30	20.28	20.38	20.00
		100	0	21.30	20.16	20.41	20.16

2）Conducted power measurement results of LTE Band 7 (sensor on)

FDD LTE B7					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20775	21100	21425
					2502.5	2535	2567.5
5MHz	QPSK	1	0	11.00	10.92	10.93	10.96
		1	12	11.00	10.92	10.92	10.59
		1	24	11.00	10.81	10.74	10.40
		12	0	11.00	10.90	10.93	10.62
		12	6	11.00	10.92	10.93	10.63
		12	13	11.00	10.91	10.97	10.57
		25	0	11.00	10.96	10.96	10.59
	16QAM	1	0	11.00	10.83	10.84	10.23
		1	12	11.00	10.91	10.92	10.81
		1	24	11.00	10.93	10.63	10.60
		12	0	11.00	10.90	10.60	10.79
		12	6	11.00	10.81	10.54	10.79
		12	13	11.00	10.80	10.51	10.73
		25	0	11.00	10.80	10.42	10.65
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20800	21100	21400
					2505	2535	2565
10MHz	QPSK	1	0	11.00	10.35	10.41	10.35
		1	24	11.00	10.91	10.95	10.80
		1	49	11.00	10.27	10.10	9.75
		25	0	11.00	10.87	10.92	10.69
		25	12	11.00	10.92	10.94	10.81
		25	25	11.00	10.82	10.74	10.41
		50	0	11.00	10.81	10.75	10.57
	16QAM	1	0	11.00	10.39	10.86	10.52
		1	24	11.00	10.97	10.94	10.97
		1	49	11.00	10.30	10.54	9.88
		25	0	11.00	10.90	10.94	10.80
		25	12	11.00	10.95	10.90	10.93
		25	25	11.00	10.94	10.90	10.61
		50	0	11.00	10.91	10.89	10.71

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20825	21100	21375
					2507.5	2535	2562.5
15MHz	QPSK	1	0	11.00	10.73	10.80	10.80
		1	38	11.00	10.82	10.80	10.93
		1	74	11.00	10.75	10.36	10.05
		36	0	11.00	10.89	10.83	10.88
		36	18	11.00	10.90	10.83	10.95
		36	39	11.00	10.81	10.71	10.67
		75	0	11.00	10.81	10.87	10.84
	16QAM	1	0	11.00	10.70	10.90	10.62
		1	38	11.00	10.91	10.86	10.87
		1	74	11.00	10.82	10.79	10.45
		36	0	11.00	10.71	10.91	10.82
		36	18	11.00	10.92	10.89	10.89
		36	39	11.00	10.94	10.87	10.70
		75	0	11.00	10.93	10.92	10.91
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					20850	21100	21350
					2510	2535	2560
20MHz	QPSK	1	0	11.00	10.45	10.58	10.24
		1	50	11.00	10.96	10.83	10.97
		1	99	11.00	10.61	10.05	10.73
		50	0	11.00	10.82	10.38	10.85
		50	25	11.00	10.86	10.85	10.96
		50	50	11.00	10.92	10.71	10.68
		100	0	11.00	10.72	10.85	10.89
	16QAM	1	0	11.00	10.93	10.92	10.65
		1	50	11.00	10.91	10.64	10.72
		1	99	11.00	10.93	10.50	10.16
		50	0	11.00	10.97	10.90	10.84
		50	25	11.00	10.91	10.75	10.83
		50	50	11.00	10.96	10.80	10.73
		100	0	11.00	10.78	10.94	10.92

8.1.10CONDUCTED POWER MEASUREMENTS OF LTE Band 12

1）Conducted power measurement results of LTE Band 12 (sensor off)

FDD LTE B12					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23017	23095	23173
					699.7	707.5	715.3
1.4MHz	QPSK	1	0	24.50	23.40	23.53	23.41
		1	2	24.50	23.49	23.51	23.40
		1	5	24.50	23.53	23.48	23.42
		3	0	24.50	23.36	23.64	23.54
		3	1	24.50	23.43	23.71	23.63
		3	3	24.50	23.45	23.64	23.58
		6	0	23.50	22.71	22.71	22.71
	16QAM	1	0	23.50	22.53	22.49	22.17
		1	2	23.50	22.61	22.64	22.14
		1	5	23.50	22.67	22.52	22.84
		3	0	23.50	22.59	22.31	22.63
		3	1	23.50	22.71	22.27	22.62
		3	3	23.50	22.72	22.30	22.57
		6	0	22.50	21.80	21.82	21.51
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23025	23095	23165
					700.5	707.5	714.5
3MHz	QPSK	1	0	24.50	23.26	23.61	23.78
		1	7	24.50	23.59	23.70	23.66
		1	14	24.50	23.68	23.52	23.59
		8	0	23.50	22.66	22.63	22.74
		8	3	23.50	22.67	22.60	22.68
		8	7	23.50	22.60	22.62	22.64
		15	0	23.50	22.63	22.69	22.66
	16QAM	1	0	23.50	22.27	22.95	22.67
		1	7	23.50	22.60	23.06	22.65
		1	14	23.50	22.64	22.90	22.74
		8	0	22.50	21.89	21.79	21.91
		8	3	22.50	21.74	21.90	21.66
		8	7	22.50	21.79	21.77	21.57
		15	0	22.50	21.61	21.67	21.49

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23035	23095	23155
					701.5	707.5	713.5
5MHz	QPSK	1	0	24.50	23.25	23.48	23.39
		1	12	24.50	23.91	23.51	23.59
		1	24	24.50	23.60	23.39	23.42
		12	0	23.50	22.62	22.58	22.61
		12	6	23.50	22.69	22.57	22.72
		12	13	23.50	22.61	22.63	22.68
		25	0	23.50	22.54	22.69	22.66
	16QAM	1	0	23.50	21.77	21.96	22.24
		1	12	23.50	22.21	22.07	22.33
		1	24	23.50	21.86	21.95	22.29
		12	0	22.50	21.58	21.48	21.53
		12	6	22.50	21.75	21.49	21.65
		12	13	22.50	21.66	21.54	21.69
		25	0	22.50	21.31	21.60	21.68
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23060	23095	23130
					704	707.5	711
10MHz	QPSK	1	0	24.50	22.53	23.13	23.05
		1	24	24.50	24.01	24.00	23.85
		1	49	24.50	23.24	23.57	23.47
		25	0	23.50	22.60	22.52	22.73
		25	12	23.50	22.52	22.60	22.67
		25	25	23.50	22.55	22.54	22.65
		50	0	23.50	22.62	22.58	22.65
	16QAM	1	0	23.50	21.55	22.53	22.17
		1	24	23.50	23.01	23.06	22.58
		1	49	23.50	22.23	22.95	22.21
		25	0	22.50	21.56	21.60	21.68
		25	12	22.50	21.59	21.71	21.83
		25	25	22.50	21.53	21.64	21.76
		50	0	22.50	21.58	21.55	21.54

2）Conducted power measurement results of LTE Band 12 (sensor on)

FDD LTE B12					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23017	23095	23173
					699.7	707.5	715.3
1.4MHz	QPSK	1	0	20.00	19.01	19.14	18.90
		1	2	20.00	19.09	19.19	18.88
		1	5	20.00	19.09	19.05	18.80
		3	0	20.00	19.01	19.18	19.14
		3	1	20.00	19.17	19.24	19.24
		3	3	20.00	19.27	19.26	19.19
		6	0	20.00	19.21	19.12	19.06
	16QAM	1	0	20.00	19.00	19.33	19.24
		1	2	20.00	19.15	19.22	19.21
		1	5	20.00	19.09	18.99	19.13
		3	0	20.00	19.09	18.78	19.02
		3	1	20.00	18.92	18.73	19.02
		3	3	20.00	19.23	18.75	18.97
		6	0	20.00	19.10	18.81	18.77
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23025	23095	23165
					700.5	707.5	714.5
3MHz	QPSK	1	0	20.00	19.34	19.04	19.18
		1	7	20.00	19.37	19.19	19.04
		1	14	20.00	19.24	19.09	19.07
		8	0	20.00	19.11	19.14	19.22
		8	3	20.00	19.14	19.13	19.18
		8	7	20.00	19.18	19.13	19.07
		15	0	20.00	19.11	19.18	19.17
	16QAM	1	0	20.00	19.31	18.89	18.96
		1	7	20.00	19.26	18.85	18.96
		1	14	20.00	18.97	19.25	18.82
		8	0	20.00	18.90	19.15	18.99
		8	3	20.00	18.80	19.14	19.14
		8	7	20.00	18.85	19.14	19.10
		15	0	20.00	19.11	19.15	19.01

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23035	23095	23155
					701.5	707.5	713.5
5MHz	QPSK	1	0	20.00	19.17	19.00	18.96
		1	12	20.00	19.07	18.81	19.02
		1	24	20.00	18.92	18.66	18.85
		12	0	20.00	19.04	19.10	19.08
		12	6	20.00	19.20	19.09	19.11
		12	13	20.00	19.01	19.13	19.19
		25	0	20.00	18.96	19.18	19.15
	16QAM	1	0	20.00	18.23	18.71	18.73
		1	12	20.00	18.51	18.75	18.93
		1	24	20.00	18.45	18.96	18.72
		12	0	20.00	19.09	19.10	19.02
		12	6	20.00	19.34	19.11	19.05
		12	13	20.00	19.25	19.12	19.03
		25	0	20.00	19.13	19.15	19.18
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23060	23095	23130
					704	707.5	711
10MHz	QPSK	1	0	20.00	19.29	18.90	19.01
		1	24	20.00	19.33	19.37	19.38
		1	49	20.00	19.32	19.03	18.93
		25	0	20.00	19.09	19.03	19.10
		25	12	20.00	19.06	19.13	19.20
		25	25	20.00	19.11	19.15	19.21
		50	0	20.00	19.14	19.16	19.11
	16QAM	1	0	20.00	19.21	18.72	19.00
		1	24	20.00	18.89	19.03	19.00
		1	49	20.00	19.19	19.37	18.74
		25	0	20.00	19.05	19.11	19.21
		25	12	20.00	19.17	19.18	19.28
		25	25	20.00	18.98	19.20	19.21
		50	0	20.00	18.98	19.04	19.12

8.1.11CONDUCTED POWER MEASUREMENTS OF LTE Band 17

1）Conducted power measurement results of LTE Band 17 (sensor off)

FDD LTE B17					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23755	23790	23825
					706.5	710	713.5
5MHz	QPSK	1	0	24.50	22.98	22.80	22.83
		1	12	24.50	23.08	22.86	22.92
		1	24	24.50	23.00	22.74	22.91
		12	0	23.50	22.11	22.05	22.08
		12	6	23.50	22.08	22.06	22.19
		12	13	23.50	22.05	22.04	22.18
		25	0	23.50	22.14	22.08	22.03
	16QAM	1	0	23.50	21.56	21.82	21.76
		1	12	23.50	21.51	22.05	21.80
		1	24	23.50	21.60	21.92	21.77
		12	0	22.50	21.05	20.88	21.02
		12	6	22.50	21.01	20.94	21.04
		12	13	22.50	21.07	20.93	21.01
		25	0	22.50	21.18	20.99	20.99
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23780	23790	23800
					709	710	711
10MHz	QPSK	1	0	24.50	23.22	22.95	23.16
		1	24	24.50	23.45	23.16	23.17
		1	49	24.50	23.17	22.83	22.81
		25	0	23.50	22.14	22.08	22.01
		25	12	23.50	22.19	22.12	22.08
		25	25	23.50	22.07	22.15	22.06
		50	0	23.50	22.11	22.06	22.05
	16QAM	1	0	23.50	22.21	22.34	22.02
		1	24	23.50	22.01	22.29	22.03
		1	49	23.50	22.19	22.31	21.96
		25	0	22.50	21.02	21.17	21.06
		25	12	22.50	20.98	21.22	21.09
		25	25	22.50	20.94	21.08	21.11
		50	0	22.50	21.07	20.98	20.96

2) Conducted power measurement results of LTE Band 17 (sensor on)

FDD LTE B17					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23755	23790	23825
					706.5	710	713.5
5MHz	QPSK	1	0	20.00	18.51	18.39	18.51
		1	12	20.00	18.67	18.39	18.61
		1	24	20.00	18.56	18.24	18.40
		12	0	20.00	18.66	18.44	18.51
		12	6	20.00	18.60	18.50	18.64
		12	13	20.00	18.65	18.52	18.62
		25	0	20.00	18.66	18.45	18.58
	16QAM	1	0	20.00	18.05	18.45	18.19
		1	12	20.00	18.33	18.16	18.06
		1	24	20.00	18.22	18.05	18.06
		12	0	20.00	18.57	18.38	18.37
		12	6	20.00	18.47	18.48	18.50
		12	13	20.00	18.33	18.46	18.49
		25	0	20.00	18.64	18.49	18.57
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					23780	23790	23800
					709	710	711
10MHz	QPSK	1	0	20.00	18.85	18.80	18.57
		1	24	20.00	19.05	18.81	18.59
		1	49	20.00	18.77	18.47	18.50
		25	0	20.00	18.61	18.44	18.56
		25	12	20.00	18.64	18.55	18.59
		25	25	20.00	18.53	18.50	18.55
		50	0	20.00	18.59	18.44	18.51
	16QAM	1	0	20.00	18.62	18.19	18.33
		1	24	20.00	18.50	18.59	18.45
		1	49	20.00	18.67	18.16	18.43
		25	0	20.00	18.53	18.56	18.62
		25	12	20.00	18.66	18.67	18.79
		25	25	20.00	18.54	18.72	18.71
		50	0	20.00	18.47	18.55	18.52

8.1.12CONDUCTED POWER MEASUREMENTS OF LTE Band 25

1）Conducted power measurement results of LTE Band 25 (sensor off)

FDD LTE B25					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26047	26365	26683
					1850.7	1882.5	1914.3
1.4MHz	QPSK	1	0	23.50	22.30	22.19	22.48
		1	2	23.50	22.30	22.24	22.41
		1	5	23.50	22.31	22.24	22.35
		3	0	23.50	22.33	22.31	22.51
		3	1	23.50	22.36	22.34	22.59
		3	3	23.50	22.35	22.34	22.53
		6	0	22.50	21.32	21.38	21.62
	16QAM	1	0	22.50	21.08	21.09	21.56
		1	2	22.50	21.10	21.12	21.75
		1	5	22.50	21.02	21.06	21.51
		3	0	22.50	21.30	21.07	21.58
		3	1	22.50	21.32	21.10	21.60
		3	3	22.50	21.31	21.09	21.68
		6	0	21.50	20.57	20.31	20.48
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26055	26365	26675
					1851.5	1882.5	1913.5
3MHz	QPSK	1	0	23.50	22.44	22.40	22.37
		1	7	23.50	22.55	22.35	22.52
		1	14	23.50	22.58	22.16	22.53
		8	0	22.50	21.32	21.34	21.60
		8	3	22.50	21.32	21.36	21.61
		8	7	22.50	21.25	21.33	21.57
		15	0	22.50	21.30	21.33	21.58
	16QAM	1	0	22.50	21.31	21.80	21.62
		1	7	22.50	21.49	21.76	21.67
		1	14	22.50	21.31	21.66	21.52
		8	0	21.50	20.20	20.33	20.21
		8	3	21.50	20.28	20.35	20.34
		8	7	21.50	20.17	20.32	20.36
		15	0	21.50	20.13	20.27	20.27

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26065	26365	26665
					1852.5	1882.5	1912.5
5MHz	QPSK	1	0	23.50	22.40	22.23	22.28
		1	12	23.50	22.49	22.22	22.39
		1	24	23.50	22.48	22.22	22.43
		12	0	22.50	21.37	21.23	21.58
		12	6	22.50	21.35	21.26	21.61
		12	13	22.50	21.36	21.24	21.54
		25	0	22.50	21.32	21.25	21.63
	16QAM	1	0	22.50	21.19	21.48	21.71
		1	12	22.50	21.14	21.61	21.75
		1	24	22.50	21.07	21.38	21.52
		12	0	21.50	20.15	20.16	20.44
		12	6	21.50	20.23	20.19	20.48
		12	13	21.50	20.25	20.16	20.42
		25	0	21.50	20.42	20.29	20.39
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26090	26365	26640
					1855	1882.5	1910
10MHz	QPSK	1	0	23.50	22.52	22.26	22.52
		1	24	23.50	22.65	22.58	22.58
		1	49	23.50	22.71	22.24	22.23
		25	0	22.50	21.41	21.46	21.37
		25	12	22.50	21.37	21.48	21.49
		25	25	22.50	21.29	21.33	21.28
		50	0	22.50	21.34	21.35	21.33
	16QAM	1	0	22.50	21.36	21.14	21.52
		1	24	22.50	21.48	21.24	21.45
		1	49	22.50	21.60	21.66	21.43
		25	0	21.50	20.30	20.42	20.56
		25	12	21.50	20.30	20.35	20.38
		25	25	21.50	20.33	20.35	20.21
		50	0	21.50	20.29	20.35	20.27

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26115	26365	26615
					1857.5	1882.5	1907.5
15MHz	QPSK	1	0	23.50	22.67	22.15	22.25
		1	37	23.50	22.59	22.36	22.15
		1	74	23.50	22.62	22.08	22.27
		36	0	22.50	21.37	22.08	21.48
		36	19	22.50	21.50	21.42	21.42
		36	39	22.50	21.45	21.32	21.33
		75	0	22.50	21.48	21.35	21.39
	16QAM	1	0	22.50	21.46	21.12	22.16
		1	37	22.50	21.54	21.17	22.44
		1	74	22.50	21.54	21.01	21.77
		36	0	21.50	20.27	20.81	20.32
		36	19	21.50	20.38	20.36	20.31
		36	39	21.50	20.39	20.25	20.24
		75	0	21.50	20.43	20.16	20.29
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26140	26365	26590
					1860	1882.5	1905
20MHz	QPSK	1	0	23.50	22.05	22.49	22.15
		1	50	23.50	22.47	22.68	22.85
		1	99	23.50	22.07	22.60	22.14
		50	0	22.50	21.33	21.38	21.43
		50	25	22.50	21.37	21.40	21.44
		50	50	22.50	21.36	21.26	21.29
		100	0	22.50	21.40	21.30	21.40
	16QAM	1	0	22.50	21.28	21.39	21.86
		1	50	22.50	21.47	21.29	21.97
		1	99	22.50	21.29	21.23	21.88
		50	0	21.50	20.38	20.28	20.20
		50	25	21.50	20.42	20.27	20.31
		50	50	21.50	20.29	20.17	20.23
		100	0	21.50	20.47	20.29	20.28

2）Conducted power measurement results of LTE Band 25 (sensor on)

FDD LTE B25					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26047	26365	26683
					1850.7	1882.5	1914.3
1.4MHz	QPSK	1	0	16.00	14.28	14.37	14.23
		1	2	16.00	14.34	14.50	14.40
		1	5	16.00	14.29	14.43	14.27
		3	0	16.00	14.27	14.37	14.39
		3	1	16.00	14.33	14.48	14.41
		3	3	16.00	14.31	14.48	14.31
		6	0	16.00	14.28	14.41	14.25
	16QAM	1	0	16.00	14.31	14.04	14.31
		1	2	16.00	14.45	14.07	14.49
		1	5	16.00	14.22	14.01	14.30
		3	0	16.00	14.19	14.43	14.57
		3	1	16.00	14.07	14.36	14.51
		3	3	16.00	14.03	14.55	14.45
		6	0	16.00	14.09	14.23	14.48
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26055	26365	26675
					1851.5	1882.5	1913.5
3MHz	QPSK	1	0	16.00	14.40	14.46	14.39
		1	7	16.00	14.44	14.44	14.27
		1	14	16.00	14.28	14.41	14.48
		8	0	16.00	14.30	14.41	14.46
		8	3	16.00	14.30	14.39	14.42
		8	7	16.00	14.22	14.36	14.39
		15	0	16.00	14.28	14.37	14.47
	16QAM	1	0	16.00	14.10	14.16	14.27
		1	7	16.00	14.19	14.52	14.29
		1	14	16.00	14.14	14.43	14.13
		8	0	16.00	14.22	14.41	14.24
		8	3	16.00	14.21	14.52	14.20
		8	7	16.00	14.26	14.48	14.19
		15	0	16.00	14.30	14.47	14.49

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26065	26365	26665
					1852.5	1882.5	1912.5
5MHz	QPSK	1	0	16.00	14.29	14.16	14.23
		1	12	16.00	14.32	14.29	14.32
		1	24	16.00	14.24	14.26	14.40
		12	0	16.00	14.26	14.38	14.53
		12	6	16.00	14.24	14.42	14.47
		12	13	16.00	14.29	14.37	14.34
		25	0	16.00	14.19	14.37	14.50
	16QAM	1	0	16.00	14.12	14.01	14.46
		1	12	16.00	14.03	14.14	14.55
		1	24	16.00	14.06	14.17	14.19
		12	0	16.00	14.28	14.20	14.41
		12	6	16.00	14.35	14.24	14.35
		12	13	16.00	14.35	14.19	14.32
		25	0	16.00	14.32	14.39	14.57
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26090	26365	26640
					1855	1882.5	1910
10MHz	QPSK	1	0	16.00	14.51	14.51	14.57
		1	24	16.00	14.43	14.50	14.49
		1	49	16.00	14.58	14.33	14.55
		25	0	16.00	14.30	14.37	14.30
		25	12	16.00	14.23	14.45	14.37
		25	25	16.00	14.28	14.31	14.19
		50	0	16.00	14.30	14.35	14.26
	16QAM	1	0	16.00	14.57	14.53	14.08
		1	24	16.00	14.34	14.56	14.41
		1	49	16.00	14.40	14.48	14.14
		25	0	16.00	14.12	14.36	14.43
		25	12	16.00	14.20	14.46	14.40
		25	25	16.00	14.21	14.31	14.22
		50	0	16.00	14.22	14.14	14.24

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26115	26365	26615
					1857.5	1882.5	1907.5
15MHz	QPSK	1	0	16.00	14.25	14.20	14.18
		1	37	16.00	14.33	14.28	14.40
		1	74	16.00	14.55	14.17	14.50
		36	0	16.00	14.37	14.17	14.35
		36	19	16.00	14.40	14.43	14.32
		36	39	16.00	14.40	14.31	14.32
		75	0	16.00	14.43	14.27	14.30
	16QAM	1	0	16.00	14.34	14.62	14.25
		1	37	16.00	14.56	14.05	14.20
		1	74	16.00	14.52	14.22	14.19
		36	0	16.00	14.22	14.22	14.32
		36	19	16.00	14.24	14.45	14.31
		36	39	16.00	14.22	14.29	14.22
		75	0	16.00	14.39	14.34	14.24
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26140	26365	26590
					1860	1882.5	1905
20MHz	QPSK	1	0	16.00	14.13	14.55	14.19
		1	50	16.00	14.58	14.57	14.63
		1	99	16.00	14.07	14.43	14.31
		50	0	16.00	14.55	14.45	14.46
		50	25	16.00	14.45	14.44	14.44
		50	50	16.00	14.47	14.27	14.36
		100	0	16.00	14.50	14.32	14.37
	16QAM	1	0	16.00	14.16	14.40	14.57
		1	50	16.00	14.42	14.35	14.60
		1	99	16.00	14.15	14.11	14.52
		50	0	16.00	14.55	14.34	14.45
		50	25	16.00	14.54	14.43	14.42
		50	50	16.00	14.35	14.47	14.26
		100	0	16.00	14.53	14.29	14.38

8.1.13CONDUCTED POWER MEASUREMENTS OF LTE Band 26

1）Conducted power measurement results of LTE Band 26 (sensor off)

FDD LTE B26					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26697	26865	27033
					814.7	831	848.3
1.4MHz	QPSK	1	0	24.00	22.61	22.72	23.00
		1	2	24.00	22.91	22.81	23.08
		1	5	24.00	22.73	22.79	23.02
		3	0	24.00	22.94	22.90	23.02
		3	1	24.00	23.01	23.05	23.15
		3	3	24.00	22.83	22.97	23.11
		6	0	23.00	21.89	21.92	21.99
	16QAM	1	0	23.00	21.55	22.01	21.84
		1	2	23.00	21.65	21.62	22.01
		1	5	23.00	21.50	21.52	21.97
		3	0	23.00	21.56	21.36	22.26
		3	1	23.00	21.52	21.40	22.25
		3	3	23.00	21.55	21.32	22.26
		6	0	22.00	20.59	20.84	20.72
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26705	26865	27025
					815.5	831	847.5
3MHz	QPSK	1	0	24.00	23.00	23.04	22.95
		1	7	24.00	22.96	22.99	22.98
		1	14	24.00	22.96	22.90	22.80
		8	0	23.00	21.87	22.02	22.08
		8	3	23.00	21.85	22.02	22.03
		8	7	23.00	21.81	21.95	21.99
		15	0	23.00	21.90	22.07	22.00
	16QAM	1	0	23.00	21.92	22.19	21.82
		1	7	23.00	21.86	22.36	21.92
		1	14	23.00	21.94	22.28	21.66
		8	0	22.00	20.88	21.18	20.88
		8	3	22.00	20.55	21.09	20.83
		8	7	22.00	20.45	21.10	20.83
		15	0	22.00	20.70	21.00	20.79

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26715	26865	27015
					816.5	831	846.5
5MHz	QPSK	1	0	24.00	22.87	22.64	22.95
		1	12	24.00	22.89	22.88	22.92
		1	24	24.00	22.79	22.47	22.68
		12	0	23.00	21.79	21.93	22.09
		12	6	23.00	21.80	22.00	22.08
		12	13	23.00	21.91	21.96	22.03
		25	0	23.00	21.84	21.96	21.97
	16QAM	1	0	23.00	21.43	21.59	21.54
		1	12	23.00	21.26	21.69	21.42
		1	24	23.00	21.06	21.55	21.65
		12	0	22.00	20.76	20.71	20.95
		12	6	22.00	20.83	20.68	20.90
		12	13	22.00	20.95	20.74	20.74
		25	0	22.00	21.04	20.76	20.80
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26740	26865	26990
					819	831	844
10MHz	QPSK	1	0	24.00	23.11	22.82	23.11
		1	24	24.00	23.26	22.99	23.23
		1	49	24.00	23.00	22.84	23.07
		25	0	23.00	22.04	22.06	22.09
		25	12	23.00	21.92	22.02	22.02
		25	25	23.00	21.92	21.94	21.91
		50	0	23.00	21.85	22.05	22.03
	16QAM	1	0	23.00	22.01	21.83	21.39
		1	24	23.00	21.96	21.89	21.94
		1	49	23.00	22.01	21.91	21.91
		25	0	22.00	20.82	20.98	21.00
		25	12	22.00	20.93	21.15	20.99
		25	25	22.00	20.88	20.82	20.77
		50	0	22.00	20.81	20.88	20.95

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26765	26865	26965
					821.5	831	841.5
15MHz	QPSK	1	0	24.00	23.27	22.71	22.92
		1	37	24.00	23.18	22.98	23.03
		1	74	24.00	23.01	22.80	22.79
		36	0	23.00	22.05	22.80	21.97
		36	19	23.00	22.03	21.97	22.02
		36	39	23.00	21.84	21.91	21.97
		75	0	23.00	21.88	22.01	21.89
	16QAM	1	0	23.00	22.07	22.18	22.68
		1	37	23.00	21.90	22.23	22.90
		1	74	23.00	21.90	22.28	22.56
		36	0	22.00	20.92	21.08	20.88
		36	19	22.00	20.72	20.98	20.87
		36	39	22.00	20.69	20.85	20.73
		75	0	22.00	20.73	20.93	20.76

2）Conducted power measurement results of LTE Band 26 (sensor on)

FDD LTE B26					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26697	26865	27033
					814.7	831	848.3
1.4MHz	QPSK	1	0	21.00	20.79	20.70	20.89
		1	2	21.00	20.82	20.79	20.88
		1	5	21.00	20.70	20.66	20.82
		3	0	21.00	20.80	20.77	20.83
		3	1	21.00	20.87	20.94	20.85
		3	3	21.00	20.90	20.83	20.93
		6	0	21.00	20.85	20.78	20.84
	16QAM	1	0	21.00	20.67	20.47	20.80
		1	2	21.00	20.73	20.54	20.82
		1	5	21.00	20.63	20.78	20.89
		3	0	21.00	20.85	20.68	20.85
		3	1	21.00	20.81	20.90	20.87
		3	3	21.00	20.51	20.87	20.87
		6	0	21.00	20.56	20.75	20.73
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26705	26865	27025
					815.5	831	847.5
3MHz	QPSK	1	0	21.00	20.77	20.80	20.92
		1	7	21.00	20.99	20.96	20.94
		1	14	21.00	20.95	20.76	20.61
		8	0	21.00	20.84	20.89	20.90
		8	3	21.00	20.73	20.89	20.84
		8	7	21.00	20.79	20.86	20.81
		15	0	21.00	20.77	20.94	20.81
	16QAM	1	0	21.00	20.84	20.70	20.86
		1	7	21.00	20.92	20.74	20.85
		1	14	21.00	20.54	20.71	20.80
		8	0	21.00	20.70	20.95	20.86
		8	3	21.00	20.90	20.80	20.81
		8	7	21.00	20.83	20.95	20.75
		15	0	21.00	20.78	20.84	20.76

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26715	26865	27015
					816.5	831	846.5
5MHz	QPSK	1	0	21.00	20.83	20.45	20.93
		1	12	21.00	20.77	20.46	20.78
		1	24	21.00	20.71	20.44	20.68
		12	0	21.00	20.78	20.82	20.91
		12	6	21.00	20.78	20.88	20.90
		12	13	21.00	20.79	20.82	20.83
		25	0	21.00	20.82	20.84	20.88
	16QAM	1	0	21.00	20.51	20.46	20.60
		1	12	21.00	20.17	20.49	20.65
		1	24	21.00	20.22	20.36	20.54
		12	0	21.00	20.83	20.68	20.87
		12	6	21.00	20.81	20.77	20.85
		12	13	21.00	20.92	20.80	20.80
		25	0	21.00	20.97	20.84	20.84
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26740	26865	26990
					819	831	844
10MHz	QPSK	1	0	21.00	20.97	20.69	20.97
		1	24	21.00	20.97	20.97	20.91
		1	49	21.00	20.95	20.82	20.81
		25	0	21.00	20.91	20.94	20.95
		25	12	21.00	20.87	20.89	20.85
		25	25	21.00	20.73	20.81	20.80
		50	0	21.00	20.84	20.83	20.94
	16QAM	1	0	21.00	20.92	20.89	20.73
		1	24	21.00	20.92	20.93	20.83
		1	49	21.00	20.88	20.82	20.83
		25	0	21.00	20.89	20.93	20.85
		25	12	21.00	20.80	20.92	20.86
		25	25	21.00	20.77	20.90	20.92
		50	0	21.00	20.89	20.93	20.89

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					26765	26865	26965
					821.5	831	841.5
15MHz	QPSK	1	0	21.00	20.99	20.83	20.96
		1	37	21.00	20.68	20.75	20.89
		1	74	21.00	20.61	20.61	20.74
		36	0	21.00	20.84	20.61	20.85
		36	19	21.00	20.88	20.92	20.91
		36	39	21.00	20.73	20.81	20.86
		75	0	21.00	20.87	20.89	20.78
	16QAM	1	0	21.00	20.98	20.92	20.61
		1	37	21.00	20.90	20.81	20.78
		1	74	21.00	20.78	20.91	20.49
		36	0	21.00	20.76	20.81	20.85
		36	19	21.00	20.78	20.93	20.81
		36	39	21.00	20.64	20.79	20.72
		75	0	21.00	20.81	20.86	20.80

8.1.14CONDUCTED POWER MEASUREMENTS OFLTE Band 41

1）Conducted power measurement results of LTE Band 41 (sensor off)

FDD LTE B41					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40625	40740	41215
					2557.5	2605	2652.5
5MHz	QPSK	1	0	24.00	23.12	22.70	22.63
		1	12	24.00	23.37	23.08	22.98
		1	24	24.00	23.20	22.80	22.70
		12	0	23.00	22.34	21.94	21.84
		12	6	23.00	22.25	21.85	21.75
		12	13	23.00	22.16	21.76	21.66
		25	0	23.00	22.20	21.94	21.95
	16QAM	1	0	23.00	21.61	21.21	21.11
		1	12	23.00	21.76	21.36	21.26
		1	24	23.00	21.52	21.12	21.02
		12	0	22.00	20.96	20.56	20.46
		12	6	22.00	21.11	20.71	20.61
		12	13	22.00	21.17	20.77	20.67
		25	0	22.00	21.33	20.93	20.83
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40290	40740	41190
					2560	2605	2650
10MHz	QPSK	1	0	24.00	22.90	22.73	22.63
		1	24	24.00	23.24	23.02	22.70
		1	49	24.00	22.88	22.71	22.61
		25	0	23.00	22.28	22.11	22.01
		25	12	23.00	22.23	22.06	21.96
		25	25	23.00	22.17	22.00	21.90
		50	0	23.00	22.24	22.07	21.97
	16QAM	1	0	23.00	21.81	21.64	21.54
		1	24	23.00	21.92	21.75	21.65
		1	49	23.00	21.68	21.51	21.41
		25	0	22.00	21.45	21.28	21.18
		25	12	22.00	21.36	21.19	21.09
		25	25	22.00	21.36	21.19	21.09
		50	0	22.00	21.37	21.20	21.10

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40315	40740	41165
					2562.5	2605	2647.5
15MHz	QPSK	1	0	24.00	22.95	22.92	22.65
		1	38	24.00	23.21	23.18	22.91
		1	74	24.00	22.93	22.90	22.63
		36	0	23.00	22.28	22.25	21.98
		36	18	23.00	22.21	22.18	21.91
		36	39	23.00	22.12	22.09	21.82
		75	0	23.00	22.19	22.16	21.89
	16QAM	1	0	23.00	22.03	22.00	21.73
		1	38	23.00	22.04	22.01	21.74
		1	74	23.00	21.82	21.79	21.52
		36	0	22.00	21.39	21.36	21.09
		36	18	22.00	21.13	21.10	20.83
		36	39	22.00	21.01	20.98	20.71
		75	0	22.00	21.14	21.11	20.84
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40340	40740	41140
					2565	2605	2645
20MHz	QPSK	1	0	24.00	22.77	22.83	22.71
		1	50	24.00	23.40	23.23	23.03
		1	99	24.00	22.86	22.81	22.22
		50	0	23.00	22.73	22.15	22.02
		50	25	23.00	22.40	22.21	21.99
		50	50	23.00	22.14	21.89	21.52
		100	0	23.00	22.20	21.99	21.78
	16QAM	1	0	23.00	21.87	21.49	21.60
		1	50	23.00	22.09	21.83	21.55
		1	99	23.00	21.63	21.57	21.07
		50	0	22.00	21.36	21.12	20.86
		50	25	22.00	21.26	21.18	20.82
		50	50	22.00	21.20	20.86	20.66
		100	0	22.00	21.05	20.92	20.63

2) Conducted power measurement results of LTE Band 41 (sensor on)

FDD LTE B41					Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40625	40740	41215
					2557.5	2605	2652.5
5MHz	QPSK	1	0	15.00	14.88	14.58	14.29
		1	12	15.00	14.99	14.69	14.49
		1	24	15.00	14.81	14.51	14.31
		12	0	15.00	14.94	14.64	14.44
		12	6	15.00	14.92	14.62	14.42
		12	13	15.00	14.88	14.58	14.38
		25	0	15.00	14.91	14.61	14.41
	16QAM	1	0	15.00	14.80	14.50	14.30
		1	12	15.00	14.96	14.66	14.46
		1	24	15.00	14.63	14.33	14.13
		12	0	15.00	14.89	14.59	14.39
		12	6	15.00	14.92	14.62	14.42
		12	13	15.00	14.92	14.62	14.42
		25	0	15.00	14.96	14.66	14.46
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40290	40740	41190
					2560	2605	2650
10MHz	QPSK	1	0	15.00	14.98	14.48	14.41
		1	24	15.00	14.99	14.49	14.42
		1	49	15.00	14.84	14.34	14.27
		25	0	15.00	14.98	14.48	14.41
		25	12	15.00	14.96	14.46	14.39
		25	25	15.00	14.88	14.38	14.31
		50	0	15.00	14.93	14.43	14.36
	16QAM	1	0	15.00	14.89	14.39	14.32
		1	24	15.00	14.97	14.47	14.40
		1	49	15.00	14.95	14.45	14.38
		25	0	15.00	14.96	14.46	14.39
		25	12	15.00	14.95	14.45	14.38
		25	25	15.00	14.90	14.40	14.33
		50	0	15.00	14.84	14.34	14.27

3）

Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40315	40740	41165
					2562.5	2605	2647.5
15MHz	QPSK	1	0	15.00	14.97	14.54	14.39
		1	38	15.00	14.99	14.65	14.63
		1	74	15.00	14.95	14.53	14.31
		36	0	15.00	14.92	14.61	14.36
		36	18	15.00	14.95	14.62	14.37
		36	39	15.00	14.91	14.58	14.21
		75	0	15.00	14.92	14.59	14.28
	16QAM	1	0	15.00	14.91	14.53	14.11
		1	38	15.00	14.88	14.49	13.97
		1	74	15.00	14.54	14.28	14.30
		36	0	15.00	14.95	14.36	14.08
		36	18	15.00	14.98	14.63	14.28
		36	39	15.00	14.94	14.61	14.10
		75	0	15.00	14.94	14.57	14.16
Bandwidth	Modulation	RB size	RB offset	Tune-up	Low	Mid	High
					40340	40740	41140
					2565	2605	2645
20MHz	QPSK	1	0	15.00	14.84	14.70	14.34
		1	50	15.00	14.99	14.83	14.72
		1	99	15.00	14.90	14.37	14.22
		50	0	15.00	14.92	14.80	14.46
		50	25	15.00	14.95	14.72	14.47
		50	50	15.00	14.92	14.49	14.31
		100	0	15.00	14.94	14.57	14.38
	16QAM	1	0	15.00	14.81	14.58	14.21
		1	50	15.00	14.57	14.39	14.07
		1	99	15.00	14.46	13.99	14.40
		50	0	15.00	14.92	14.81	14.18
		50	25	15.00	14.93	14.82	14.38
		50	50	15.00	14.88	14.66	14.20
		100	0	15.00	14.90	14.74	14.26

8.1.15CONDUCTED POWER MEASUREMENTS OFWiFi 2.4G

1) Conducted power measurement results of WiFi 2.4G (sensor off)

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
802.11b	1	2412	1	12.00	14.00	13.31	No
	6	2437		18.00	20.00	19.12	Yes
	11	2462		12.00	14.00	13.24	No
802.11g	1	2412	6	Not Required	14.00	Not Required	No
	6	2437		Not Required	18.00	Not Required	No
	11	2462		Not Required	14.00	Not Required	No
802.11n HT20	1	2412	6.5	Not Required	16.00	Not Required	No
	6	2437		Not Required	16.00	Not Required	No
	11	2462		Not Required	16.00	Not Required	No

2) Conducted power measurement results of WiFi 2.4G (sensor on)

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune-up	Average Power (dBm)	SAR Test (Yes/No)
802.11b	1	2412	1	12.00	14.00	13.45	Yes
	6	2437		18.00	14.00	13.35	No
	11	2462		12.00	14.00	13.31	No
802.11g	1	2412	6	12.00	14.00	13.17	No
	6	2437		16.00	14.00	13.04	No
	11	2462		12.00	14.00	13.01	No
802.11n HT20	1	2412	6.5	12.00	14.00	13.18	No
	6	2437		16.00	14.00	13.01	No
	11	2462		12.00	14.00	13.02	No

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 andthe adjusted SAR is ≤ 1.2 W/kg.

8.1.16CONDUCTED POWER MEASUREMENTS OFWiFi5G

1) Conducted power measurement results of WiFi 5G (sensor off)

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.2G	802.11a	36	5180	6	16.00	17.50	15.84	No
		40	5200		16.00	17.50	15.74	No
		44	5220		16.00	17.50	15.67	No
		48	5240		16.00	17.50	15.87	No
	802.11n HT20	36	5180	6.5	16.00	17.50	15.78	No
		40	5200		16.00	17.50	15.77	No
		44	5220		16.00	17.50	15.64	No
		48	5240		16.00	17.50	15.55	No
	802.11n HT40	38	5190	13.5	16.00	17.50	15.52	No
		46	5230		16.00	17.50	15.53	No
Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.3G	802.11a	52	5260	6	16.00	17.50	16.12	No
		56	5280		16.00	17.50	16.08	No
		60	5300		16.00	17.50	16.23	Yes
		64	5320		16.00	17.50	16.14	No
	802.11n HT20	52	5260	6.5	16.00	17.50	16.08	No
		56	5280		16.00	17.50	16.13	No
		60	5300		16.00	17.50	16.04	No
		64	5320		16.00	17.50	16.09	No
	802.11n HT40	54	5270	13.5	16.00	17.50	15.57	No
		62	5310		16.00	17.50	15.55	No

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.5G	802.11a	100	5500	6	16.00	17.50	16.11	No
		104	5520		16.00	17.50	16.07	No
		108	5540		16.00	17.50	16.06	No
		112	5560		16.00	17.50	16.16	Yes
		116	5580		16.00	17.50	16.15	No
		132	5660		16.00	17.50	16.05	No
		136	5680		16.00	17.50	16.03	No
		140	5700		16.00	17.50	15.99	No
	802.11n HT20	100	5500	6.5	16.00	17.50	16.14	No
		104	5520		16.00	17.50	16.13	No
		108	5540		16.00	17.50	16.21	No
		112	5560		16.00	17.50	16.07	No
		116	5580		16.00	17.50	16.11	No
		132	5660		16.00	17.50	16.19	No
		136	5680		16.00	17.50	16.08	No
		140	5700		16.00	17.50	16.09	No
	802.11n HT40	102	5510	13.5	16.00	17.50	15.51	No
		134	5670		16.00	17.50	15.58	No
Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.8G	802.11a	149	5745	6	16.00	17.50	16.49	No
		153	5765		16.00	17.50	16.44	No
		157	5785		16.00	17.50	16.51	Yes
		161	5805		16.00	17.50	16.42	No
		165	5825		16.00	17.50	16.47	No
	802.11n HT20	149	5745	6.5	16.00	17.50	16.43	No
		153	5765		16.00	17.50	16.44	No
		157	5785		16.00	17.50	16.39	No
		161	5805		16.00	17.50	16.54	No
		165	5825		16.00	17.50	16.49	No
	802.11n HT40	151	5755	13.5	16.00	17.50	15.52	No
		159	5795		16.00	17.50	15.63	No

2) Conducted power measurement results of WiFi 5G (sensor on)

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.2G	802.11a	36	5180	6	16.00	12.00	10.17	No
		40	5200		16.00	12.00	10.22	No
		44	5220		16.00	12.00	10.21	No
		48	5240		16.00	12.00	10.31	No
	802.11n HT20	36	5180	6.5	16.00	12.00	10.27	No
		40	5200		16.00	12.00	10.14	No
		44	5220		16.00	12.00	10.13	No
		48	5240		16.00	12.00	10.17	No
	802.11n HT40	38	5190	13.5	16.00	12.00	10.11	No
		46	5230		16.00	12.00	10.09	No
Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.3G	802.11a	52	5260	6	16.00	12.00	10.37	No
		56	5280		16.00	12.00	10.41	No
		60	5300		16.00	12.00	10.53	No
		64	5320		16.00	12.00	10.61	Yes
	802.11n HT20	52	5260	6.5	16.00	12.00	10.36	No
		56	5280		16.00	12.00	10.31	No
		60	5300		16.00	12.00	10.52	No
		64	5320		16.00	12.00	10.72	No
	802.11n HT40	54	5270	13.5	16.00	12.00	10.17	No
		62	5310		16.00	12.00	10.56	No

Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.5G	802.11a	100	5500	6	16.00	12.00	10.05	No
		104	5520		16.00	12.00	10.02	No
		108	5540		16.00	12.00	10.12	No
		112	5560		16.00	12.00	10.11	No
		116	5580		16.00	12.00	10.13	No
		132	5660		16.00	12.00	10.71	Yes
		136	5680		16.00	12.00	10.53	No
		140	5700		16.00	12.00	10.57	No
	802.11n HT20	100	5500	6.5	16.00	12.00	10.07	No
		104	5520		16.00	12.00	10.03	No
		108	5540		16.00	12.00	10.10	No
		112	5560		16.00	12.00	10.09	No
		116	5580		16.00	12.00	10.19	No
		132	5660		16.00	12.00	10.74	No
		136	5680		16.00	12.00	10.56	No
		140	5700		16.00	12.00	10.65	No
	802.11n HT40	102	5510	13.5	16.00	12.00	10.16	No
		134	5670		16.00	12.00	10.48	No
Band	Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Power Setting	Tune -up	Average Power (dBm)	SAR Test (Yes/No)
5.8G	802.11a	149	5745	6	16.00	12.00	10.32	Yes
		153	5765		16.00	12.00	10.13	No
		157	5785		16.00	12.00	10.15	No
		161	5805		16.00	12.00	10.01	No
		165	5825		16.00	12.00	10.04	No
	802.11n HT20	149	5745	6.5	16.00	12.00	10.28	No
		153	5765		16.00	12.00	10.18	No
		157	5785		16.00	12.00	10.05	No
		161	5805		16.00	12.00	10.04	No
		165	5825		16.00	12.00	10.02	No
	802.11n HT40	151	5755	13.5	16.00	12.00	10.06	No
		159	5795		16.00	12.00	10.02	No

8.1.17CONDUCTED POWER MEASUREMENTS OFBT

BT	Tune Up	Average ConductedPower (dBm)		
		CH0	CH39	CH78
DH5	9.50	8.48	9.23	8.30
2DH5	9.50	6.34	8.33	6.20
3DH5	9.50	6.35	8.31	6.21

BT	Tune Up	Average ConductedPower (dBm)		
		CH0	CH19	CH39
BLE	9.50	6.14	7.98	6.03

Note:
1) The conducted power of BT is measured with RMS detector.

8.2SAR 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 powerChannel 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 Section7.1.4 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 for 5GHZ WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed power. Other transmission mode were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than1.2W/kg. See Section 7.1.4 for more information.

8.2.1SAR MEASUREMENT RESULT

1. SAR test results of GSM&UMTS

Test No.	Band	Mode	CH	Test Position	Separation Distance(cm)	Earphone	Sensor(on/off)	Battery	Tuneup	Measured	Drift(dB)	SAR Value (W/kg)1-g	Reported SAR
T01	GSM 850	GPRS4TX	190	Rear Face	0	-	on	1	25.5	24.52	0.05	0.666	0.835
T02	GSM 850	GPRS4TX	190	Top Side	0	-	on	1	25.5	24.52	0.07	0.520	0.652
T03	GSM 850	GPRS4TX	128	Rear Face	0	-	on	1	25.5	24.42	0.02	0.636	0.816
T04	GSM 850	GPRS4TX	251	Rear Face	0	-	on	1	25.5	24.57	0.06	**0.711**	**0.881**
T05	GSM 850	GPRS4TX	251	Rear Face	0	-	on	2	25.5	24.52	0.03	0.698	0.875
T21	GSM 850	GPRS3TX	190	Rear Face	1.5	-	off	1	31	30.03	-0.04	0.336	0.420
T22	GSM 850	GPRS3TX	190	Top Side	1.8	-	off	1	31	30.03	0.01	0.211	0.264
T23	GSM 850	GPRS3TX	190	Right Side	0	-	off	1	31	30.03	-0.08	**0.371**	**0.464**
T24	GSM 850	GPRS3TX	190	Left Side	0	-	off	1	31	30.03	0.02	0.149	0.186
T25	GSM 850	GPRS3TX	190	Bottom Side	0	-	off	1	31	30.03	-0.02	0.087	0.109
T26	GSM 850	GPRS3TX	190	Right Side	0	-	off	2	31	30.03	0.00	0.368	0.460
T31	GSM 1900	GPRS4TX	661	Rear Face	0	-	on	1	17.5	17.04	0.00	0.477	0.530
T32	GSM 1900	GPRS4TX	661	Top Side	0	-	on	1	17.5	17.04	0.05	**0.491**	**0.546**
T33	GSM 1900	GPRS4TX	661	Top Side	0	-	on	2	17.5	17.04	0.03	0.482	0.536
T41	GSM 1900	GPRS3TX	661	Rear Face	1.5	-	off	1	28	27.82	-0.01	0.348	0.363
T42	GSM 1900	GPRS3TX	661	Top Side	1.8	-	off	1	28	27.82	0.00	0.276	0.288
T43	GSM 1900	GPRS3TX	661	Right Side	0	-	off	1	28	27.82	0.09	**0.899**	**0.937**
T44	GSM 1900	GPRS3TX	512	Right Side	0	-	off	1	28	27.82	0.05	0.781	0.814
T45	GSM 1900	GPRS3TX	810	Right Side	0	-	off	1	28	27.82	0.02	0.783	0.816
T46	GSM 1900	GPRS3TX	661	Right Side	2	-	off	2	28	27.82	0.01	0.892	0.930
T47	GSM 1900	GPRS3TX	661	Right Side(1st repeated)	0	-	off	1	28	27.82	0.00	0.889	0.927
T51	UMTS B2	RMC12.2K	9400	Rear Face	0	-	on	1	15	14.26	0.00	0.630	0.747
T52	UMTS B2	RMC12.2K	9400	Top Side	0	-	on	1	15	14.26	0.02	**0.662**	**0.785**
T53	UMTS B2	RMC12.2K	9400	Top Side	0	-	on	2	15	14.26	0.00	0.638	0.757
T60	UMTS B2	RMC12.2K	9400	Rear Face	1.5	-	off	1	24.5	23.29	0.08	0.456	0.603
T61	UMTS B2	RMC12.2K	9400	Top Side	1.8	-	off	1	24.5	23.29	0.01	0.403	0.532
T62	UMTS B2	RMC12.2K	9400	Right Side	0	-	off	1	24.5	23.29	0.09	**0.970**	**1.282**
T63	UMTS B2	RMC12.2K	9262	Right Side	0	-	off	1	24.5	23.4	0.03	0.933	1.202
T64	UMTS B2	RMC12.2K	9538	Right Side	0	-	off	1	24.5	23.44	0.00	0.918	1.172
T65	UMTS B2	RMC12.2K	9400	Right Side	0	1	off	1	24.5	23.29	0.03	0.947	1.251
T66	UMTS B2	RMC12.2K	9400	Right Side	0	2	off	1	24.5	23.29	-0.02	0.952	1.258
T67	UMTS B2	RMC12.2K	9400	Right Side	0	3	off	1	24.5	23.29	0.01	0.958	1.266
T68	UMTS B2	RMC12.2K	9400	Right Side	0	-	off	2	24.5	23.29	0.08	0.962	1.271
T69	UMTS B2	RMC12.2K	9400	Right Side(1st repeated)	0	-	off	1	24.5	23.29	0.03	0.959	1.267
T70	UMTS B2	RMC12.2K	9400	Right Side(with replaced holder)	0	-	off	1	24.5	23.29	0.03	0.963	1.272

T71	UMTS B4	RMC12.2K	1413	Rear Face	0	-	on	1	14.5	13.55	0.00	0.730	0.908
T72	UMTS B4	RMC12.2K	1413	Top Side	0	-	on	1	14.5	13.55	0.00	0.513	0.638
T73	UMTS B4	RMC12.2K	1312	Rear Face	0	-	on	1	14.5	13.58	0.00	**0.883**	**1.091**
T74	UMTS B4	RMC12.2K	1513	Rear Face	0	-	on	1	14.5	13.82	0.00	0.697	0.815
T75	UMTS B4	RMC12.2K	1312	Rear Face	0	-	on	2	14.5	13.58	0.05	0.853	1.054
T76	UMTS B4	RMC12.2K	1312	Rear Face(1st repeated)	0	-	on	1	14.5	13.58	0.00	0.879	1.086
T81	UMTS B4	RMC12.2K	1413	Rear Face	1.5	-	off	1	24	23.29	-0.07	0.377	0.444
T82	UMTS B4	RMC12.2K	1413	Top Side	1.8	-	off	1	24	23.29	-0.01	0.174	0.205
T83	UMTS B4	RMC12.2K	1413	Right Side	0	-	off	1	24	23.29	0.03	0.861	1.014
T84	UMTS B4	RMC12.2K	1312	Right Side	0	-	off	1	24	23.26	0.01	0.753	0.893
T85	UMTS B4	RMC12.2K	1513	Right Side	0	-	off	1	24	23.21	-0.01	**0.985**	**1.182**
T86	UMTS B4	RMC12.2K	1513	Right Side	0	-	off	2	24	23.21	0.00	0.976	1.171
T87	UMTS B4	RMC12.2K	1513	Rear Face(1st repeated)	0	-	off	1	24	23.21	0.00	0.981	1.177
T91	UMTS B5	RMC12.2K	4182	Rear Face	0	-	on	1	22	21.12	0.08	0.801	0.981
T92	UMTS B5	RMC12.2K	4182	Top Side	0	-	on	1	22	21.12	0.05	0.555	0.680
T93	UMTS B5	RMC12.2K	4132	Rear Face	0	-	on	1	22	21.07	-0.01	**0.821**	**1.017**
T94	UMTS B5	RMC12.2K	4233	Rear Face	0	-	on	1	22	21.11	0.03	0.778	0.955
T95	UMTS B5	RMC12.2K	4132	Rear Face(1st repeated)	0	-	on	2	22	21.07	0.06	0.819	1.015
T101	UMTS B5	RMC12.2K	4182	Rear Face	1.5	-	off	1	24	23.16	0.01	0.248	0.301
T102	UMTS B5	RMC12.2K	4182	Top Side	1.8	-	off	1	24	23.16	0.03	0.106	0.129
T103	UMTS B5	RMC12.2K	4182	Right Side	0	-	off	1	24	23.16	0.00	0.417	0.506
T104	UMTS B5	RMC12.2K	4182	Right Side	2	-	off	2	24	23.16	0.06	**0.467**	**0.567**

2. SAR test results of LTE

Test No.	Band	Mode	CH	RB	offset	Test Position	Separation Distance(cm)	Earphone	Sensor(on/off)	Battery	Tune up	Measured	Drift(dB)	SAR Value (W/kg)1-g	Reported SAR
T110	LTE B2	QPSK20M	19100	1	50	Rear Face	0	-	on	1	15	14.12	0.00	0.595	0.729
T111	LTE B2	QPSK20M	19100	1	50	Top Side	0	-	on	1	15	14.12	0.02	0.68	0.833
T112	LTE B2	QPSK20M	18700	50	0	Rear Face	0	-	on	1	15	13.79	0.00	0.713	0.942
T113	LTE B2	QPSK20M	18700	50	0	Top Side	0	-	on	1	15	13.79	-0.05	0.625	0.826
T114	LTE B2	QPSK20M	18700	1	50	Top Side	0	-	on	1	15	13.77	0.01	0.558	0.741
T115	LTE B2	QPSK20M	18900	1	50	Top Side	0	-	on	1	15	13.79	0.05	0.626	0.827
T116	LTE B2	QPSK20M	18900	50	0	Rear Face	0	-	on	1	15	13.69	-0.03	0.573	0.775
T117	LTE B2	QPSK20M	19100	50	0	Rear Face	0	-	on	1	15	13.76	0.00	0.579	0.770
T118	LTE B2	QPSK20M	18900	50	0	Top Side	0	-	on	1	15	13.69	0.02	0.578	0.781
T119	LTE B2	QPSK20M	19100	50	0	Top Side	0	-	on	1	15	13.76	0.00	0.703	0.935
T120	LTE B2	QPSK20M	19100	100	0	Rear Face	0	-	on	1	15	13.67	0.00	0.602	0.818
T121	LTE B2	QPSK20M	19100	100	0	Top Side	0	-	on	1	15	13.67	0.00	0.673	0.914
T122	LTE B2	QPSK20M	18700	50	0	Rear Face	0	-	on	2	15	13.79	0.00	**0.714**	**0.943**
T131	LTE B2	QPSK20M	18900	1	0	Rear Face	1.7	-	off	1	24	22.96	0.00	0.430	0.546
T132	LTE B2	QPSK20M	18900	1	0	Top Side	2	-	off	1	24	22.96	0.03	0.318	0.404
T133	LTE B2	QPSK20M	18900	1	0	Right Side	0	-	off	1	24	22.96	0.07	1.000	1.271
T134	LTE B2	QPSK20M	19100	50	0	Rear Face	1.7	-	off	1	23	21.8	0.03	0.303	0.399
T135	LTE B2	QPSK20M	19100	50	0	Top Side	2	-	off	1	23	21.8	0.02	0.216	0.285
T136	LTE B2	QPSK20M	19100	50	0	Right Side	0	-	off	1	23	21.8	0.00	0.736	0.970
T137	LTE B2	QPSK20M	18700	1	0	Right Side	0	-	off	1	24	22.87	0.03	0.956	1.240
T138	LTE B2	QPSK20M	19100	1	0	Right Side	0	-	off	1	24	22.84	0.09	**1.040**	**1.358**
T139	LTE B2	QPSK20M	18700	50	0	Right Side	2	-	off	1	23	21.76	-0.01	0.775	1.031
T140	LTE B2	QPSK20M	18900	50	0	Right Side	2	-	off	1	23	21.74	0.06	0.788	1.053
T141	LTE B2	QPSK20M	19100	1	0	Right Side	0	1	off	1	24	22.84	-0.02	0.994	1.298
T142	LTE B2	QPSK20M	19100	1	0	Right Side	0	2	off	1	24	22.84	0.00	0.985	1.287
T143	LTE B2	QPSK20M	19100	1	0	Right Side	0	3	off	1	24	22.84	0.07	0.931	1.216
T144	LTE B2	QPSK20M	19100	100	0	Right Side	0	-	off	1	23	21.78	0.03	0.721	0.955
T145	LTE B2	QPSK20M	19100		0	Right Side	0	-	off	2	24	22.84	0.06	0.986	1.288
T146	LTE B2	QPSK20M	19100	1	0	Right Side (1st repeated)	0	-	off	1	24	22.84	0.00	0.992	1.296
T151	LTE B4	QPSK20M	20175	1	0	Rear Face	0	-	on	1	14	13.9	0.00	0.707	0.723
T152	LTE B4	QPSK20M	20175	1	0	Top Side	0	-	on	1	14	13.9	0.02	0.327	0.335
T153	LTE B4	QPSK20M	20300	50	0	Rear Face	0	-	on	1	14	13.8	0.00	**0.734**	**0.769**
T154	LTE B4	QPSK20M	20300	50	0	Top Side	0	-	on	1	14	13.8	0.01	0.393	0.412

T155	LTE B4	QPSK20M	20300	1	0	Rear Face	0	-	on	2	14	13.9	0.06	0.723	0.740
T171	LTE B4	QPSK20M	20175	1	99	Rear Face	1.5	-	off	1	24	22.9	-0.08	0.354	0.456
T172	LTE B4	QPSK20M	20175	1	99	Top Side	1.8	-	off	1	24	22.9	-0.02	0.130	0.167
T173	LTE B4	QPSK20M	20175	1	99	Right Side	0	-	off	1	24	22.9	0.05	0.812	1.046
T174	LTE B4	QPSK20M	20300	50	25	Rear Face	1.5	-	off	1	23	21.73	0.00	0.288	0.386
T175	LTE B4	QPSK20M	20300	50	25	Top Side	1.8	-	off	1	23	21.73	0.03	0.128	0.171
T176	LTE B4	QPSK20M	20300	50	25	Right Side	0	-	off	1	23	21.73	0.01	0.714	0.957
T177	LTE B4	QPSK20M	20050	1	99	Right Side	0	-	off	1	24	22.88	0.08	0.778	1.007
T178	LTE B4	QPSK20M	20300	1	99	Right Side	0	-	off	1	24	22.64	-0.02	**0.868**	**1.187**
T179	LTE B4	QPSK20M	20050	50	25	Right Side	0	-	off	1	24	21.62	-0.02	0.608	1.052
T180	LTE B4	QPSK20M	20175	50	25	Right Side	0	-	off	1	24	21.64	0.01	0.650	1.119
T181	LTE B4	QPSK20M	20300	1	99	Right Side	0	1	off	1	24	22.64	-0.02	0.861	1.178
T182	LTE B4	QPSK20M	20300	1	99	Right Side	0	2	off	1	24	22.64	-0.02	0.862	1.179
T183	LTE B4	QPSK20M	20300	1	99	Right Side	0	3	off	1	24	22.64	-0.02	0.859	1.175
T184	LTE B4	QPSK20M	20175	1	99	Right Side	0	-	off	2	24	22.64	0.00	0.853	1.167
T185	LTE B4	QPSK20M	20300	100	0	Right Side	0	-	off	1	23	21.66	0.01	0.603	0.821
T211	LTE B7	QPKS20M	21350	1	50	Rear Face	0	-	on	1	11	10.97	0.00	**0.517**	**0.521**
T212	LTE B7	QPKS20M	21350	1	50	Top Side	0	-	on	1	11	10.97	0.02	0.513	0.517
T213	LTE B7	QPKS20M	21350	50	25	Rear Face	0	-	on	1	11	10.96	0.00	0.505	0.510
T214	LTE B7	QPKS20M	21350	50	25	Top Side	0	-	on	1	11	10.96	0.01	0.478	0.482
T215	LTE B7	QPKS20M	21350	1	50	Rear Face	0	-	on	2	11	10.97	0.00	0.516	0.520
T221	LTE B7	QPSK20M	21100	1	50	Rear Face	1.5	-	off	1	23.3	22.92	0.02	0.523	0.571
T222	LTE B7	QPSK20M	21100	1	50	Top Side	1.8	-	off	1	23.3	22.92	0.01	0.721	0.787
T223	LTE B7	QPSK20M	21100	1	50	Right Side	0	-	off	1	23.3	22.92	0.08	**0.841**	**0.918**
T224	LTE B7	QPSK20M	21100	50	25	Rear Face	1.5	-	off	1	22.3	21.44	0.03	0.418	0.510
T225	LTE B7	QPSK20M	21100	50	25	Top Side	1.8	-	off	1	22.3	21.44	0.01	0.613	0.747
T226	LTE B7	QPSK20M	21100	50	25	Right Side	0	-	off	1	22.3	21.44	0.03	0.672	0.819
T227	LTE B7	QPSK20M	20820	1	50	Right Side	0	-	off	1	23.3	22.25	0.02	0.717	0.913
T228	LTE B7	QPSK20M	21350	1	50	Right Side	0	-	off	1	23.3	22.78	0.01	0.737	0.831
T229	LTE B7	QPSK20M	20820	50	25	Right Side	0	-	off	1	22.3	21.29	-0.06	0.574	0.724
T230	LTE B7	QPSK20M	21350	50	25	Right Side	0	-	off	1	22.3	21.35	0.00	0.572	0.712
T231	LTE B7	QPSK20M	21100	100	0	Right Side	0	-	off	1	22.3	21.45	0.01	0.625	0.760
T232	LTE B7	QPSK20M	21100	1	50	Right Side	0	-	off	2	23.3	22.92	0.00	0.832	0.908
T233	LTE B7	QPSK20M	21100	1	50	Right Side (1st repeated)	0	-	off	2	23.3	22.92	0.06	0.836	0.912
T241	LTE B12	QPSK10M	23130	1	24	Rear Face	0		on	1	20	19.38	0.02	**0.587**	**0.677**
T242	LTE B12	QPSK10M	23130	1	24	Top Side	0		on	1	20	19.38	0.01	0.256	0.295
T243	LTE B12	QPSK10M	23130	25	25	Rear Face	0		on	1	20	19.21	0.03	0.552	0.662
T244	LTE B12	QPSK10M	23130	25	25	Top Side	0		on	1	20	19.21	-0.01	0.248	0.297
T249	LTE B12	QPSK10M	23130	1	24	Rear Face	0		on	2	20	19.38	0.02	0.573	0.661

T261	LTE B12	QPSK10M	23060	1	24	Rear Face	1.5	-	off	1	24.5	24.01	-0.09	0.178	0.199
T262	LTE B12	QPSK10M	23060	1	24	Top Side	1.8	-	off	1	24.5	24.01	0.02	0.047	0.053
T263	LTE B12	QPSK10M	23060	1	24	Right Side	0	-	off	1	24.5	24.01	0.01	**0.236**	**0.264**
T264	LTE B12	QPSK10M	23130	25	0	Rear Face	1.5	-	off	1	23.5	22.73	0.00	0.146	0.174
T265	LTE B12	QPSK10M	23130	25	0	Top Side	1.8	-	off	1	23.5	22.73	0.03	0.041	0.049
T266	LTE B12	QPSK10M	23130	25	0	Right Side	0	-	off	1	23.5	22.73	0.07	0.202	0.241
T267	LTE B12	QPSK10M	23060	1	24	Right Side	2	-	off	2	24.5	24.01	-0.02	0.219	0.245
T301	LTE B25	QPSK20M	26590	1	50	Rear Face	0	-	on	1	16	14.63	0.00	0.718	0.984
T302	LTE B25	QPSK20M	26590	1	50	Top Side	0	-	on	1	16	14.63	0.08	0.745	1.021
T303	LTE B25	QPSK20M	26140	50	0	Rear Face	0	-	on	1	16	14.55	0.00	0.67	0.936
T304	LTE B25	QPSK20M	26140	50	0	Top Side	0	-	on	1	16	14.55	0.02	0.714	0.997
T305	LTE B25	QPSK20M	26140	1	50	Rear Face	0	-	on	1	16	14.58	0.02	0.818	1.134
T306	LTE B25	QPSK20M	26365	1	50	Rear Face	0	-	on	1	16	14.57	0.00	**0.825**	**1.147**
T307	LTE B25	QPSK20M	26140	1	50	Top Side	0	-	on	1	16	14.58	0.03	0.599	0.831
T308	LTE B25	QPSK20M	26365	1	50	Top Side	0	-	on	1	16	14.57	-0.05	0.737	1.024
T309	LTE B25	QPSK20M	26590	50	0	Rear Face	0	-	on	1	16	14.45	0.00	0.681	0.973
T310	LTE B25	QPSK20M	26365	50	0	Rear Face	0	-	on	1	16	14.46	0.00	0.76	1.083
T311	LTE B25	QPSK20M	26590	50	0	Top Side	0	-	on	1	16	14.45	0.06	0.777	1.110
T312	LTE B25	QPSK20M	26365	50	0	Top Side	0	-	on	1	16	14.46	0.07	0.734	1.046
T313	LTE B25	QPSK20M	26140	100	0	Rear Face	0	-	on	1	16	14.5	0.00	0.711	1.004
T314	LTE B25	QPSK20M	26140	100	0	Top Side	0	-	on	1	16	14.5	0.00	0.678	0.958
T315	LTE B25	QPSK20M	26365	1	50	Rear Face	0	-	on	2	16	14.57	0.03	0.813	1.130
T316	LTE B25	QPSK20M	26365	1	50	Rear Face（1st repeated）	0	-	on	1	16	14.57	0.03	0.823	1.144
T321	LTE B25	QPSK20M	26590	1	50	Rear Face	1.5	-	off	1	23.5	22.85	0.03	0.414	0.481
T322	LTE B25	QPSK20M	26590	1	50	Top Side	1.8	-	off	1	23.5	22.85	0.01	0.406	0.472
T323	LTE B25	QPSK20M	26590	1	50	Right Side	0	-	off	1	23.5	22.85	0.08	**1.020**	**1.185**
T324	LTE B25	QPSK20M	26590	50	25	Rear Face	1.7	-	off	1	22.5	21.44	0.06	0.347	0.443
T325	LTE B25	QPSK20M	26590	50	25	Top Side	2	-	off	1	22.5	21.44	-0.03	0.325	0.415
T326	LTE B25	QPSK20M	26590	50	25	Right Side	0	-	off	1	22.5	21.44	0.02	0.641	0.818
T327	LTE B25	QPSK20M	26140	1	50	Right Side	0	-	off	1	22.5	22.47	0.03	1.000	1.007
T328	LTE B25	QPSK20M	26365	1	50	Right Side	0	-	off	1	22.5	22.68	0.00	0.989	0.949
T329	LTE B25	QPSK20M	26140	50	25	Right Side	0	-	off	1	22.5	21.37	0.06	0.866	1.123
T330	LTE B25	QPSK20M	26365	50	25	Right Side	0	-	off	1	22.5	21.4	0.07	0.789	1.016
T331	LTE B25	QPSK20M	26590	100	0	Right Side	0	-	off	1	21.5	21.41	0.02	0.780	0.796
T332	LTE B25	QPSK20M	26590	1	50	Right Side	0	-	off	2	23.5	22.85	0.01	0.998	1.159
T333	LTE B25	QPSK20M	26590	1	50	Right Side（1st repeated）	0	-	off	1	23.5	22.85	0.01	1.010	1.173
T341	LTE B26	QPSK15M	26765	1	0	Rear Face	0	-	on	1	21	20.99	0.05	**0.819**	**0.821**
T342	LTE B26	QPSK15M	26765	1	0	Top Side	0	-	on	1	21	20.99	0.00	0.522	0.523

T343	LTE B26	QPSK15M	26865	36	19	Rear Face	0	-	on	1	21	20.92	0.03	0.800	0.815
T344	LTE B26	QPSK15M	26865	36	19	Top Side	0	-	on	1	21	20.92	0.01	0.551	0.561
T345	LTE B26	QPSK15M	26865	1	0	Rear Face	0	-	on	1	21	20.83	0.03	0.789	0.820
T346	LTE B26	QPSK15M	26965	1	0	Rear Face	0	-	on	1	21	20.96	0.04	0.735	0.742
T347	LTE B26	QPSK15M	26765	36	19	Rear Face	0	-	on	1	21	20.88	0.00	0.792	0.814
T348	LTE B26	QPSK15M	26965	36	19	Rear Face	0	-	on	1	21	20.91	0.06	0.750	0.766
T349	LTE B26	QPSK15M	26965	75	0	Rear Face	0	-	on	1	21	20.86	-0.02	0.743	0.767
T350	LTE B26	QPSK15M	26765	1	0	Rear Face	0	-	on	2	21	20.99	-0.01	0.803	0.805
T351	LTE B26	QPSK15M	26765	1	0	Rear Face (1st repeated)	0	-	on	1	21	20.99	0.03	0.817	0.819
T361	LTE B26	QPSK15M	26765	1	0	Rear Face	1.5	-	off	1	24	23.27	-0.07	0.211	0.250
T362	LTE B26	QPSK15M	26765	1	0	Top Side	1.8	-	off	1	24	23.27	-0.08	0.102	0.121
T363	LTE B26	QPSK15M	26765	1	0	Right Side	0	-	off	1	24	23.27	-0.02	**0.339**	**0.401**
T364	LTE B26	QPSK15M	26765	36	0	Rear Face	1.5	-	off	1	23	22.05	0.02	0.123	0.153
T365	LTE B26	QPSK15M	26765	36	0	Top Side	1.8	-	off	1	23	22.05	0.01	0.036	0.045
T366	LTE B26	QPSK15M	26765	36	0	Right Side	0	-	off	1	23	22.05	0.00	0.256	0.319
T367	LTE B26	QPSK15M	26765	1	0	Right Side	2	-	off	2	24	23.27	0.03	0.328	0.388
T371	LTE B41	QPSK20M	40340	1	50	Rear Face	0	-	on	1	15	14.99	0.00	**1.120**	**1.123**
T372	LTE B41	QPSK20M	40340	1	50	Top Side	0	-	on	1	15	14.99	-0.04	0.971	0.973
T373	LTE B41	QPSK20M	40340	50	25	Rear Face	0	-	on	1	15	14.95	0.00	0.944	0.955
T374	LTE B41	QPSK20M	40340	50	25	Top Side	0	-	on	1	15	14.95	0.03	0.708	0.716
T375	LTE B41	QPSK20M	40740	1	50	Rear Face	0	-	on	1	15	14.83	0.04	0.989	1.028
T376	LTE B41	QPSK20M	41140	1	50	Rear Face	0	-	on	1	15	14.72	-0.03	1.020	1.088
T377	LTE B41	QPSK20M	40740	1	50	Top Side	0	-	on	1	15	14.83	0.01	0.932	0.969
T378	LTE B41	QPSK20M	41140	1	50	Top Side	0	-	on	1	15	14.72	-0.02	0.912	0.973
T379	LTE B41	QPSK20M	40740	50	25	Rear Face	0	-	on	1	15	14.72	0.01	0.978	1.043
T380	LTE B41	QPSK20M	41140	50	25	Rear Face	0	-	on	1	15	14.47	0.00	0.992	1.121
T381	LTE B41	QPSK20M	40340	100	0	Rear Face	0	-	on	1	15	14.94	0.00	1.050	1.065
T382	LTE B41	QPSK20M	40340	1	50	Rear Face	0	-	on	2	15	14.99	0.01	1.080	1.082
T383	LTE B41	QPSK20M	41140	1	50	Rear Face	0	-	on	1	15	14.99	-0.01	1.110	1.113
T391	LTE B41	QPSK20M	40340	1	50	Rear Face	1.5	-	off	1	24	23.4	0.03	0.430	0.494
T392	LTE B41	QPSK20M	40340	1	50	Top Side	1.8	-	off	1	24	23.4	0.00	0.680	0.781
T393	LTE B41	QPSK20M	40340	1	50	Right Side	0	-	off	1	24	23.4	0.02	0.671	0.770
T394	LTE B41	QPSK20M	40340	50	0	Rear Face	1.5	-	off	1	23	22.73	0.03	0.371	0.395
T395	LTE B41	QPSK20M	40340	50	0	Top Side	1.8	-	off	1	23	22.73	0.01	0.618	0.658
T396	LTE B41	QPSK20M	40340	50	0	Right Side	0	-	off	1	23	22.73	0.02	0.578	0.615
T397	LTE B41	QPSK20M	40340	1	50	Top Side	0	-	off	2	24	23.4	-0.01	**0.683**	**0.784**

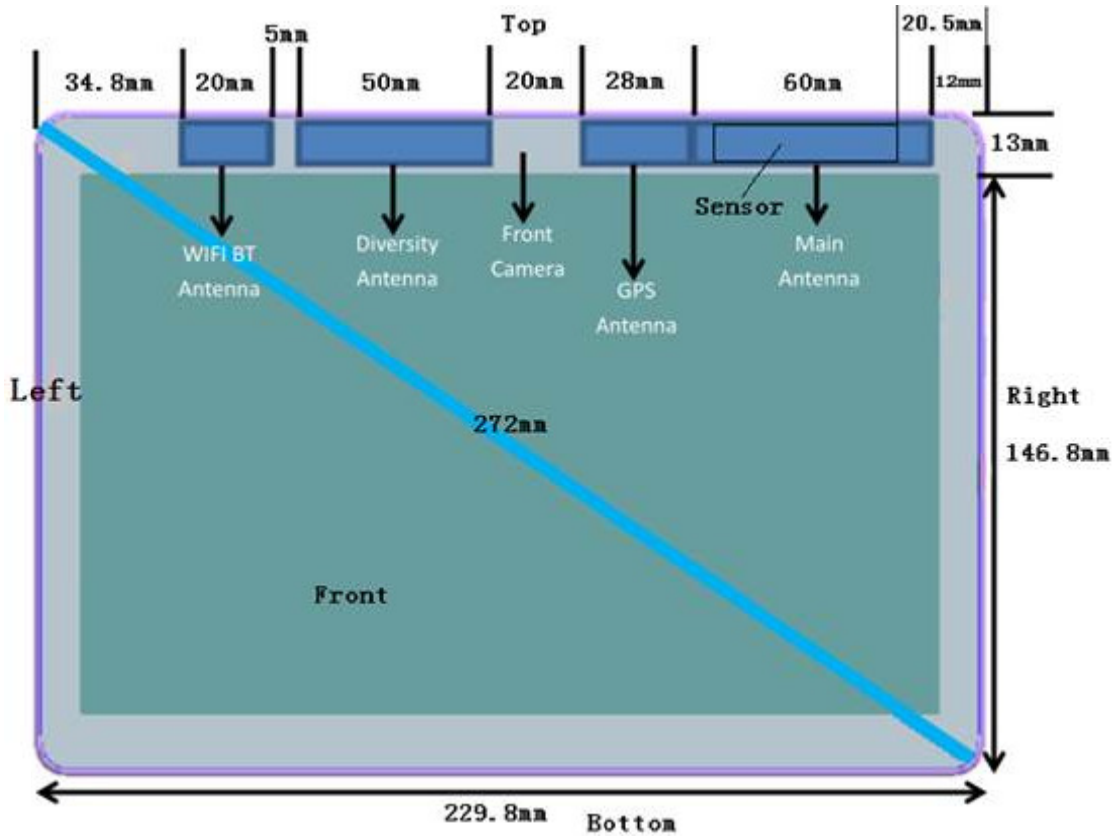
3. SAR test results of WIFI and BT

Test No.	Band	CH	Test Position	Separation Distance	Earphone	Sensor(on/off)	Battery	Data Rate	Power Setting	Tuneup	Measured	Drift(dB)	SAR Value (W/kg)1-g	Reported SAR
T401	802.11b	1	Rear Face	0	-	on	1	1	12	14	13.45	0.00	**0.464**	**0.527**
T402	802.11b	1	Top Side	0	-	on	1	1	12	14	13.45	0.01	0.156	0.177
T403	802.11b	1	Rear Face	0	-	on	2	1	12	14	13.45	0.00	0.461	0.523
T405	802.11b	6	Rear Face	1	-	off	1	1	18	20	19.12	0.04	0.223	0.273
T406	802.11b	6	Top Side	1	-	off	1	1	18	20	19.12	-0.03	0.152	0.186
T407	802.11b	6	Left Side	0	-	off	1	1	18	20	19.12	-0.03	**0.317**	**0.388**
T408	802.11b	6	Right Side	0	-	off	1	1	18	20	19.12	0.00	0.000	<0.001
T409	802.11b	6	Left Side	0	-	off	2	1	18	20	19.12	0.00	0.289	0.354
T411	802.11a B2	64	Rear Face	0	-	on	1	6.5	16	12	10.61	0.00	**0.405**	**0.558**
T412	802.11a B2	64	Top Side	0	-	on	1	6.5	16	12	10.61	0.07	0.342	0.471
T413	802.11a B2	64	Rear Face	0	-	on	2	6.5	16	12	10.61	0.02	0.403	0.555
T421	802.11a B2	60	Rear Face	1	-	off	1	6.5	16	17.5	15.87	0.00	**0.149**	**0.217**
T422	802.11a B2	60	Top Side	1	-	off	1	6.5	16	17.5	15.87	-0.01	0.091	0.132
T423	802.11a B2	60	Left Side	0	-	off	1	6.5	16	17.5	15.87	0.00	0.103	0.150
T424	802.11a B2	60	Right Side	0	-	off	1	6.5	16	17.5	15.87	0.00	0.000	<0.001
T425	802.11a B2	60	Rear Face	1	-	off	2	6.5	16	17.5	15.87	0.02	0.145	0.211
T431	802.11a B3	132	Rear Face	0	-	on	1	6.5	16	12	10.61	0.00	0.308	0.424
T432	802.11a B3	132	Top Side	0	-	on	1	6.5	16	12	10.61	0.00	**0.423**	**0.583**
T433	802.11a B3	132	Top Side	0	-	on	2	6.5	16	12	10.61	0.00	0.416	0.573
T441	802.11aB3	112	Rear Face	1	-	off	1	6.5	16	17.5	16.16	0.00	**0.118**	**0.161**
T442	802.11aB3	112	Top Side	1	-	off	1	6.5	16	17.5	16.16	-0.08	0.091	0.124
T443	802.11aB3	112	Left Side	0	-	off	1	6.5	16	17.5	16.16	-0.08	0.116	0.158
T444	802.11aB3	112	Right Side	0	-	off	1	6.5	16	17.5	16.16	0.00	0.000	<0.001
T445	802.11aB3	112	Rear Face	1	-	off	2	6.5	16	17.5	16.16	0.01	0.112	0.152
T451	802.11a B4	149	Rear Face	0	-	on	1	6.5	16	12	10.71	0.00	0.194	0.261
T452	802.11a B4	149	Top Side	0	-	on	1	6.5	16	12	10.71	-0.09	**0.270**	**0.363**
T453	802.11a B4	149	Top Side	0	-	on	2	6.5	16	12	10.71	0.00	0.263	0.354
T461	802.11a B4	157	Rear Face	1	-	off	1	6.5	16	17.5	16.51	0.03	0.052	0.065
T462	802.11a B4	157	Top Side	1	-	off	1	6.5	16	17.5	16.51	-0.01	0.076	0.095
T463	802.11a B4	157	Left Side	0	-	off	1	6.5	16	17.5	16.51	0.00	**0.123**	**0.154**
T464	802.11a B4	157	Right Side	0	-	off	1	6.5	16	17.5	16.51	0.00	0.000	<0.001
T465	802.11a B4	157	Top Side	1	-	off	2	6.5	16	17.5	16.51	0.00	0.075	0.094
T467	BT DH5	39	Rear Face	0	-	off	1	1	-	9.5	9.23	0.00	0.244	0.260
T468	BT DH5	39	Top Side	0	-	off	1	1	-	9.5	9.23	0.00	0.082	0.087
T469	BT DH5	39	Left Side	0	-	off	1	1	-	9.5	9.23	0.00	0.000	<0.001
T470	BT DH5	39	Right Side	0	-	off	1	1	-	9.5	9.23	0.00	0.000	<0.001
T471	BT DH5	39	Bottom Side	0	-	off	1	1	-	9.5	9.23	0.00	0.000	<0.001
T472	BT DH5	39	Rear Face	0	-	off	2	1	-	9.5	9.23	0.00	0.238	0.253

8.3 MULTIPLE TRANSMITTER EVALUATION

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

The location of the antennas inside the pad is shown as below picture:



Note:
1) Diversity antenna is used to improve the acceptance of performance of the main antenna, it does not have a transmitter function.

8.3.1ESTIMATED SAR CALCULATION

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

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

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

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

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

Estimated SAR calculation

Mode	Position	P_{max} (dBm)*	P_{max} (mW)	Distance (mm)	f (GHz)	X	Estimated SAR(W/Kg)*
2.4G WiFi	Bottom	-	-	146.8	-	-	0.400
5G WiFi	Bottom	-	-	146.8	-	-	0.400
GSM 1900	Left	-	-	157.8	-	-	0.400
	Bottom	-	-	146.8	-	-	0.400
UMTS B2/4/5	Left	-	-	157.8	-	-	0.400
	Bottom	-	-	146.8	-	-	0.400
LTE B2/4/5/7/12/17 /25/26/41	Left	-	-	157.8	-	-	0.400
	Bottom	-	-	146.8	-	-	0.400

8.3.2STAND-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.	Configuration	Body-worn
1	GPRS/EDGE (DATA) + WiFi	N/A
2	GPRS/EDGE(DATA)+BT	N/A
3	UMTS (DATA)+WiFi	Yes
4	UMTS (DATA)+BT	Yes
5	LTE(DATA)+WiFi	Yes
6	LTE(DATA)+BT	Yes

Note:
i) Wi-Fi and Bluetooth share the same antenna and can't transmit simultaneously.
ii) 2G&3G&4G share the same antenna and can't transmit simultaneously.
iii) The device does not support DTM function.
iv) Held to ear configurations are not applicable to Bluetooth and therefore were not considered for simultaneous transmission.

8.3.3SAR SUMMATION SCENARIO

1) About BT/WiFi and GSM/UMTS/LTE Main antenna (sensor off)

Test Position / SAR1g(W/kg)	Rear Face	Top Side	Right Side	Left Side	Bottom Side
GSM 850	0.420	0.264	0.464	0.186	0.109
GSM1900	0.363	0.288	0.937	0.400	0.400
UMTS Band 2	0.603	0.532	1.282	0.400	0.400
UMTS Band 4	0.444	0.205	1.182	0.400	0.400
UMTS Band 5	0.301	0.129	0.567	0.400	0.400
LTE Band 2	0.546	0.404	1.358	0.400	0.400
LTE Band 4	0.456	0.171	1.187	0.400	0.400
LTE Band 7	0.571	0.787	0.918	0.400	0.400
LTE Band 12	0.199	0.053	0.264	0.400	0.400
LTE Band 25	0.481	0.472	1.185	0.400	0.400
LTE Band 26	0.250	0.121	0.401	0.400	0.400
LTE Band 41	0.494	0.784	0.770	0.400	0.400
2.4GWiFi	0.273	0.186	<0.001	0.388	0.400
5.3G WiFi	0.217	0.132	<0.001	0.150	0.400
5.6G WiFi	0.161	0.124	<0.001	0.158	0.400
5.8G WiFi	0.065	0.095	<0.001	0.154	0.400
BT	0.260	0.087	<0.001	<0.001	<0.001
MAX$\sum SAR_{1g}$	0.876	0.973	<1.359	0.788	0.800

2) About BT/WiFi and GSM/UMTS/LTEMain antenna (sensor on)

Test Position / SAR1g(W/kg)	Rear Face	Top Side
GSM 850	0.881	0.652
GSM1900	0.530	0.546
UMTS Band 2	0.747	0.785
UMTS Band 4	1.091	0.638
UMTS Band 5	1.017	0.680
LTE Band 2	0.943	0.935
LTE Band 4	0.769	0.412
LTE Band 7	0.521	0.517
LTE Band 12	0.677	0.297
LTE Band 25	1.147	1.110
LTE Band 26	0.821	0.561
LTE Band 41	1.123	0.973
2.4GWiFi	0.527	0.177
5.3G WiFi	0.558	0.485
5.6G WiFi	0.424	0.583
5.8G WiFi	0.261	0.363
BT	0.260	0.087
MAX$\sum SAR_{1g}$	**1.705**	**1.693**

Reported SAR1g / Test Position	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B7	LTE B12	LTE B25	LTE B26	LTE B41	2.4G WiFi	MAX ∑SAR 1g
Rear (Sensor on)	0.881	/	/	/	/	/	/	/	/	/	/	/	0.527	1.408
	/	0.530	/	/	/	/	/	/	/	/	/	/	0.527	1.057
	/	/	0.747	/	/	/	/	/	/	/	/	/	0.527	1.274
	/	/	/	1.091	/	/	/	/	/	/	/	/	0.527	**1.618**
	/	/	/	/	1.017	/	/	/	/	/	/	/	0.527	1.544
	/	/	/	/	/	0.943	/	/	/	/	/	/	0.527	1.470
	/	/	/	/	/	/	0.769	/	/	/	/	/	0.527	1.296
	/	/	/	/	/	/	/	0.521	/	/	/	/	0.527	1.048
	/	/	/	/	/	/	/	/	0.677	/	/	/	0.527	1.204
	/	/	/	/	/	/	/	/	/	1.147	/	/	0.527	**1.674**
	/	/	/	/	/	/	/	/	/	/	0.821	/	0.527	1.348
	/	/	/	/	/	/	/	/	/	/	/	1.123	0.527	**1.650**

Reported SAR1g / Test Position	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B7	LTE B12	LTE B25	LTE B26	LTE B41	5.3G WiFi	MAX ∑SAR 1g
Rear (Sensor on)	0.881	/	/	/	/	/	/	/	/	/	/	/	0.558	1.439
	/	0.530	/	/	/	/	/	/	/	/	/	/	0.558	1.088
	/	/	0.747	/	/	/	/	/	/	/	/	/	0.558	1.305
	/	/	/	1.091	/	/	/	/	/	/	/	/	0.558	**1.649**
	/	/	/	/	0.943	/	/	/	/	/	/	/	0.558	1.575
	/	/	/	/	/	0.769	/	/	/	/	/	/	0.558	1.501
	/	/	/	/	/	/	1.057	/	/	/	/	/	0.558	1.326
	/	/	/	/	/	/	/	0.521	/	/	/	/	0.558	1.078
	/	/	/	/	/	/	/	/	0.677	/	/	/	0.558	1.235
	/	/	/	/	/	/	/	/	/	1.147	/	/	0.558	**1.705**
	/	/	/	/	/	/	/	/	/	/	0.821	/	0.558	1.379
	/	/	/	/	/	/	/	/	/	/	/	1.123	0.558	**1.680**

Reported SAR1g / Test Position	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B7	LTE B12	LTE B25	LTE B26	LTE B41	5.3G WiFi	MAX ∑SAR 1g
Top (Sensor on)	0.652	/	/	/	/	/	/	/	/	/	/	/	0.583	1.235
	/	0.546	/	/	/	/	/	/	/	/	/	/	0.583	1.129
	/	/	0.785	/	/	/	/	/	/	/	/	/	0.583	1.368
	/	/	/	0.638	/	/	/	/	/	/	/	/	0.583	1.221
	/	/	/	/	0.680	/	/	/	/	/	/	/	0.583	1.263
	/	/	/	/	/	0.935	/	/	/	/	/	/	0.583	1.518
	/	/	/	/	/	/	0.412	/	/	/	/	/	0.583	0.995
	/	/	/	/	/	/	/	0.517	/	/	/	/	0.583	1.100
	/	/	/	/	/	/	/	/	0.297	/	/	/	0.583	0.880
	/	/	/	/	/	/	/	/	/	1.110	/	/	0.583	**1.694**
	/	/	/	/	/	/	/	/	/	/	0.561	/	0.583	1.144
	/	/	/	/	/	/	/	/	/	/	/	0.973	0.583	1.556

Reported SAR1g / Test Position	GSM850	GSM1900	UMTS B2	UMTS B4	UMTS B5	LTE B2	LTE B4	LTE B7	LTE B12	LTE B25	LTE B26	LTE B41	5.6G WiFi	MAX ∑SAR 1g
Top (Sensor on)	0.652	/	/	/	/	/	/	/	/	/	/	/	0.471	1.123
	/	0.546	/	/	/	/	/	/	/	/	/	/	0.471	1.017
	/	/	0.785	/	/	/	/	/	/	/	/	/	0.471	1.256
	/	/	/	0.638	/	/	/	/	/	/	/	/	0.471	1.109
	/	/	/	/	0.680	/	/	/	/	/	/	/	0.471	1.151
	/	/	/	/	/	0.935	/	/	/	/	/	/	0.471	1.406
	/	/	/	/	/	/	0.412	/	/	/	/	/	0.471	0.883
	/	/	/	/	/	/	/	0.517	/	/	/	/	0.471	0.988
	/	/	/	/	/	/	/	/	0.297	/	/	/	0.471	0.768
	/	/	/	/	/	/	/	/	/	1.110	/	/	0.471	1.581
	/	/	/	/	/	/	/	/	/	/	0.561	/	0.471	1.032
	/	/	/	/	/	/	/	/	/	/	/	0.973	0.471	1.444

Note: 1) MAX. $\sum SAR_{1g}$<1.6 W/Kg, the SAR to peak location separation ratio should not be considered, otherwise, see section 8.3.4 for more information.
2) The highest simultaneous SAR value=1.581W/Kg, per KDB690783 D01

8.3.4SIMULTANEOUS TRANSMISSION CONLCUSION

According to KDB447498 D01, When the sum of SAR is larger than limit, SAR test exclusion isdetermined by the SAR to peak location separation ratio(SPLSR).When the SAR to peak location ratio for each pair of antennas is 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion. When 10-g SAR applies, the ratio must be ≤ 0.10.

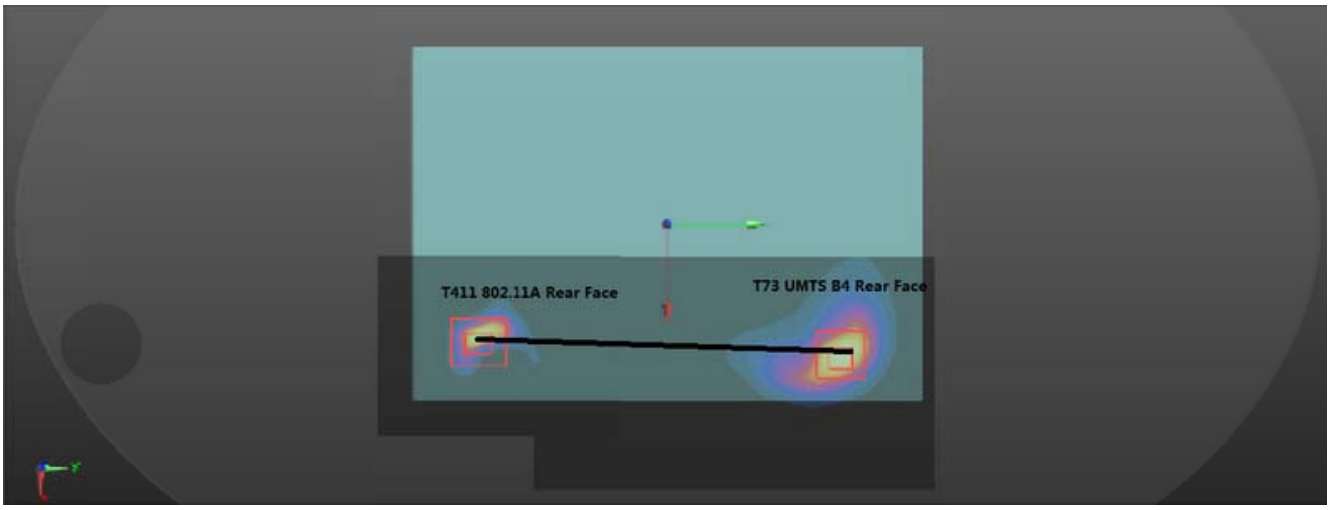
When SAR is measured for both antennas in the pair the peak location separation distance is computed by the followingformula:

$$\text{Distance}_{\text{Tx1-Tx2}} = R_i = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2}$$

$$\text{SPLS Ratio} = (SAR_1 + SAR_2)^{1.5}/R_i$$

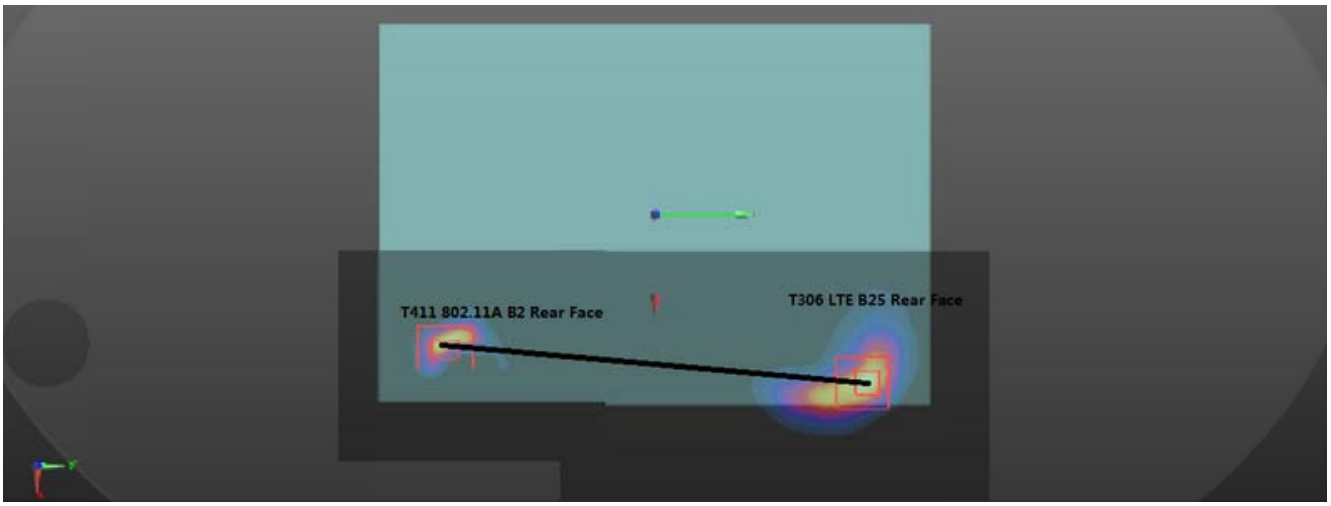
When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna. Due to curvatures on the SAM phantom, when SAR is estimated for one of the antennas in an antenna pair, the measured peak SAR location should be translated onto the test device to determine the peak location separation for the antenna pair. The ERP location on the phantom is aligned with the ERP location on the handset, with 6mm separation in the z coordinate due to the ear spacer. A measured peak location can be translated onto the handset, with respect to the ERP location, by ignoring the 6 mm offset in the z coordinate. The assumed peak location of the antenna with estimated SAR can also be determined with respect to the ERP location on the handset. The peak location separation distance is estimated by the x and y coordinated of the peaks, referenced to the ERP location. While flat phantoms are not expected to have these issues, the same peak translation approach should be applied to determine peak location separation.

1） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with UMTS Band4 and WiFi5.3G.
The Peak SAR location is as below:



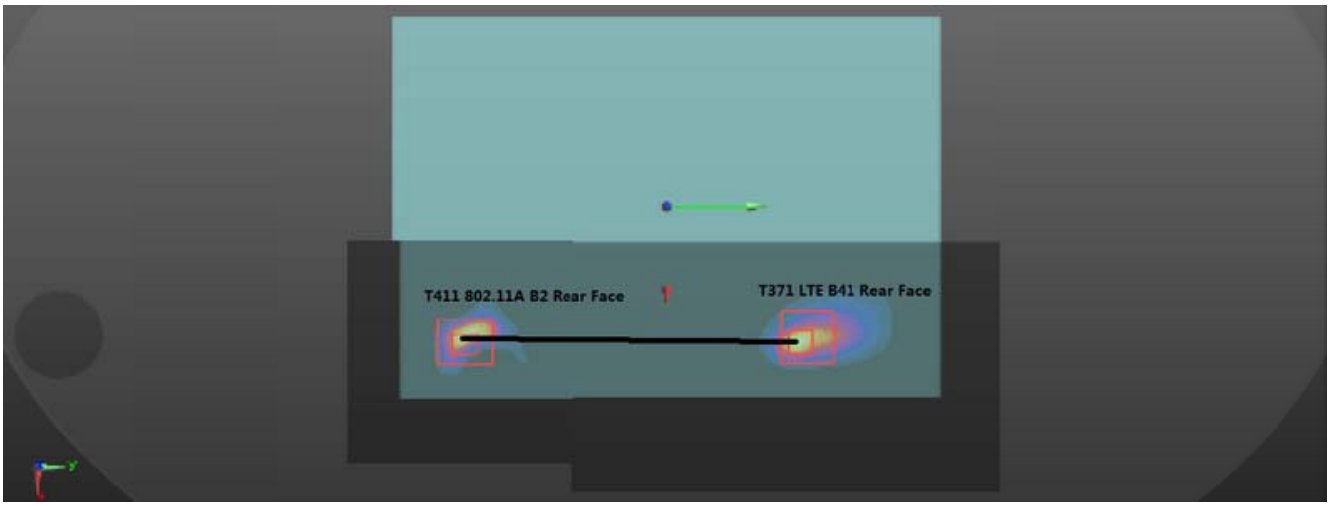
Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
UMTS B4	1.091	0.978	0.057	0.081	-0.179	170.0	0.012	0.04	No
WiFi 5.3G	0.558	0.511	0.0595	-0.089	-0.180				

2） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with LTE Band25 and WiFi5.3G.
The Peak SAR location is as below:



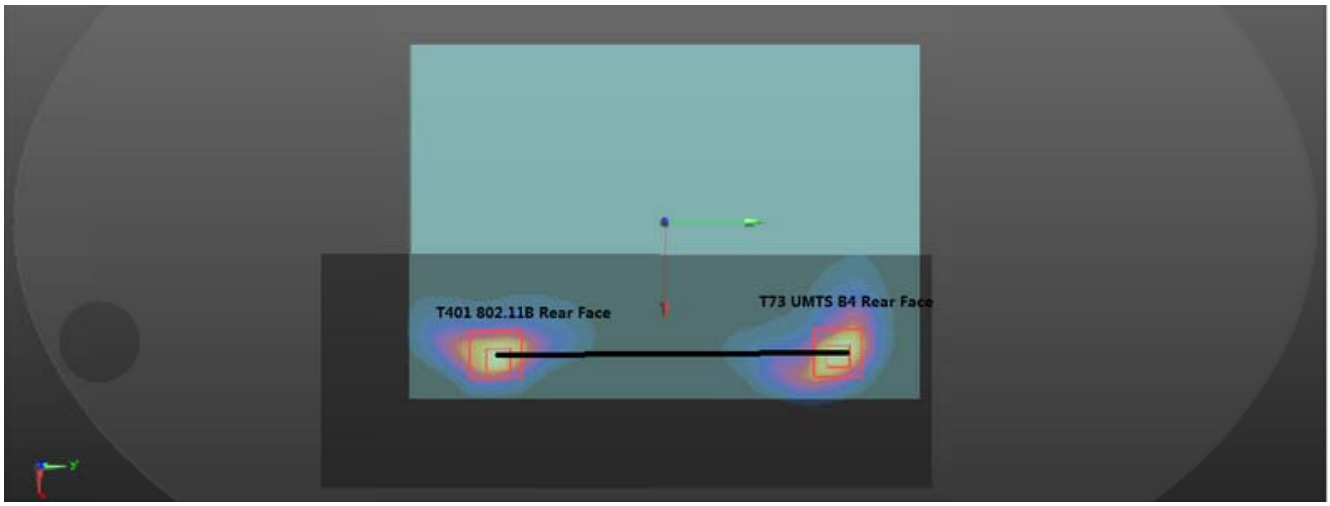
Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
LTE B25	1.147	0.991	0.0705	0.089	-0.178	178.4	0.012	0.04	No
WiFi 5.3G	0.558	0.511	0.0595	-0.089	-0.180				

3） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with LTE Band41and WiFi5.3G.
The Peak SAR location is as below:



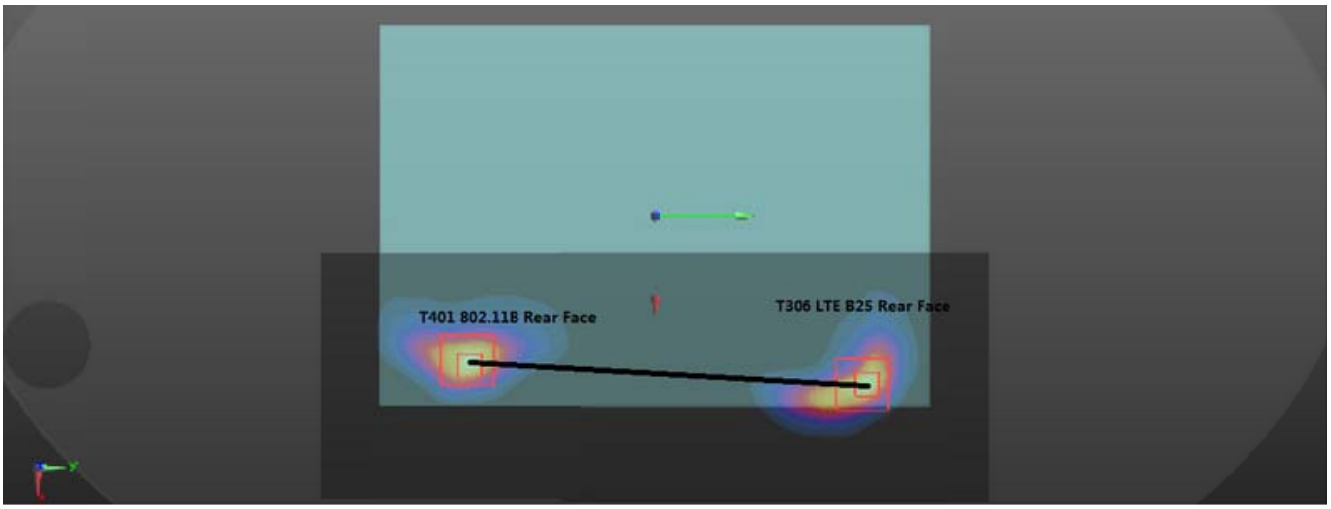
Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
LTE B41	1.123	1.460	0.057	0.0545	-0.179	143.5	0.015	0.04	No
WiFi 5.3G	0.558	0.511	0.0595	-0.089	-0.180				

4） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with UMTS Band 4 and WiFi2.4G.
The Peak SAR location is as below:



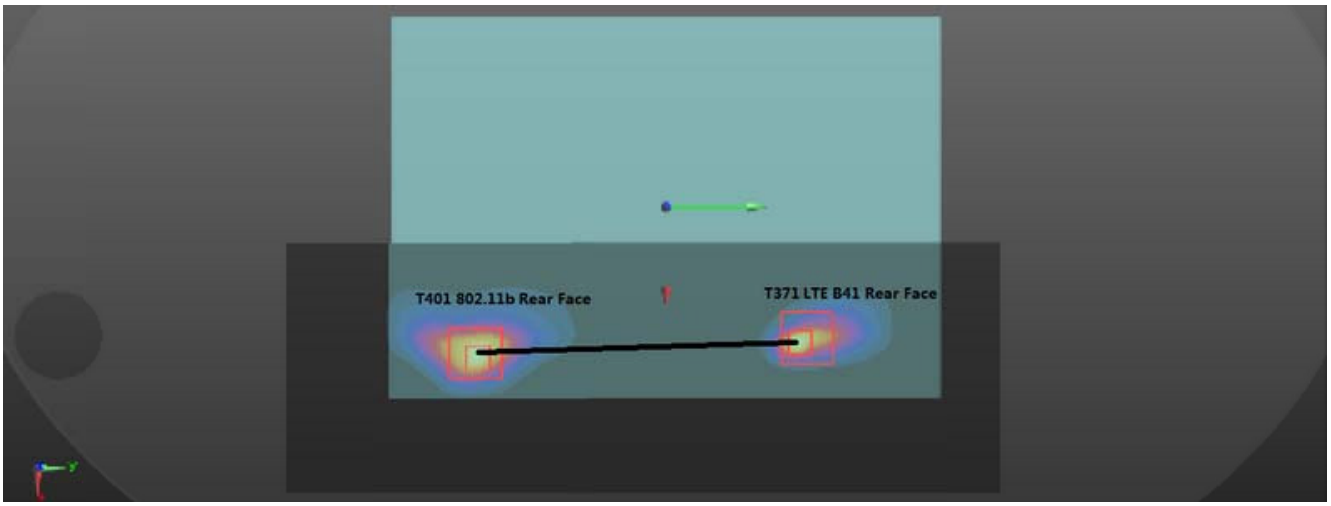
Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
UMTS B4	1.091	0.978	0.057	0.081	-0.179	158.6	0.013	0.04	No
WiFi 2.4G	0.527	0.500	0.0615	-0.0775	-0.179				

5） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with LTE Band25 and WiFi2.4G.
The Peak SAR location is as below:



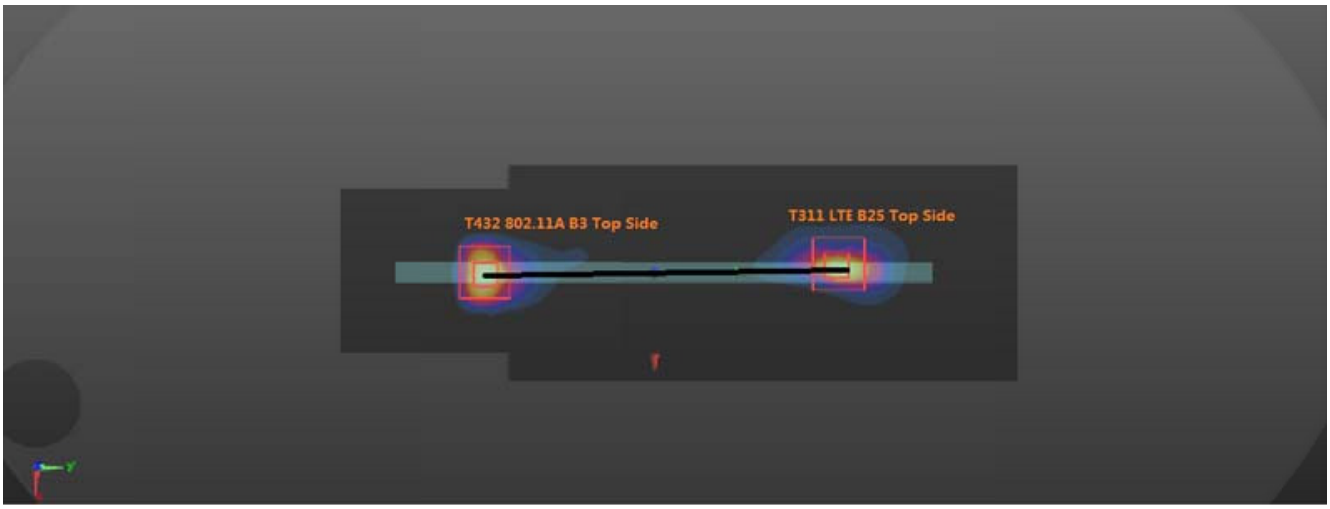
Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
LTE B25	1.147	0.991	0.0705	0.089	-0.178	166.7	0.013	0.04	No
WiFi 2.4G	0.527	0.500	0.0615	-0.0775	-0.179				

6） The sum of aggregate 1g SAR was above 1.6 W/kg for RearFace configuration with LTE Band41 and WiFi2.4G.
The Peak SAR location is as below:



Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
LTE B41	1.123	1.460	0.057	0.0545	-0.179	143.5	0.015	0.04	No
WiFi 2.4G	0.527	0.500	0.0615	-0.0775	-0.179				

7） The sum of aggregate 1g SAR was above 1.6 W/kg for Top Side configuration with LTE Band25 and WiFi5.6G.
The Peak SAR location is as below:

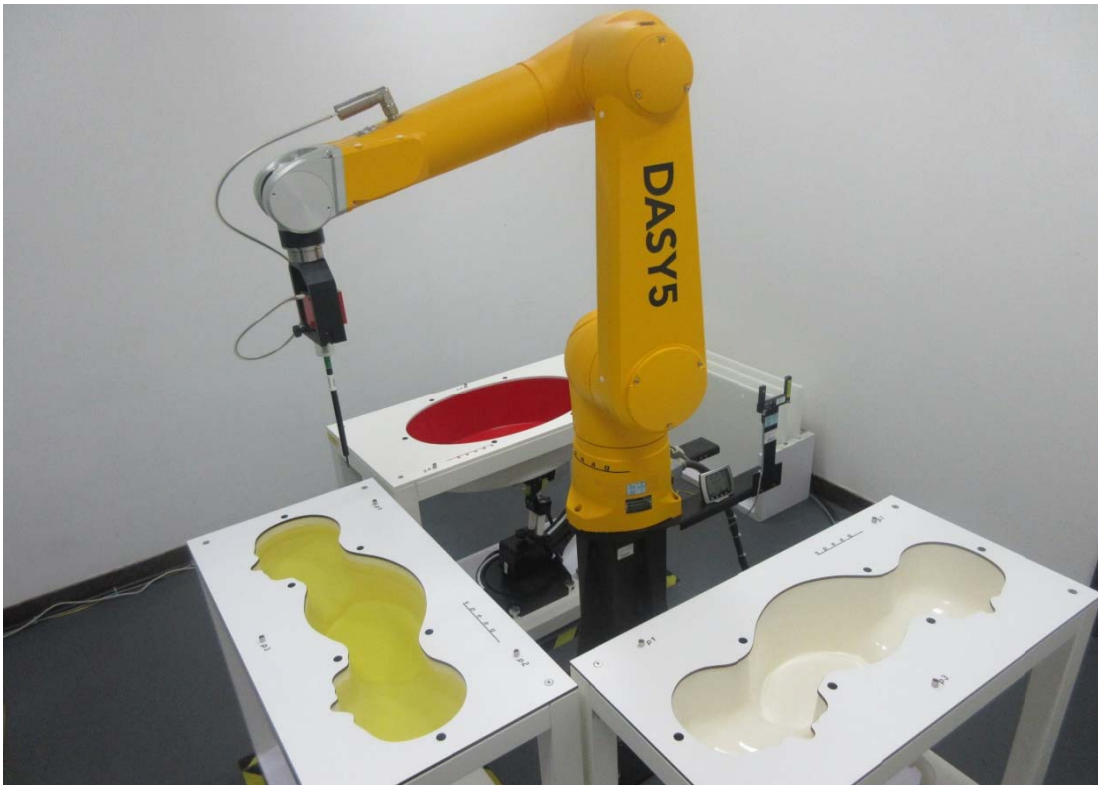


Mode	Reported SAR_{1g}	Peak SAR_{1g}	X	Y	Z	D(mm)	SPLSR	Ratio Limit	Simultaneous SAR
	mW/g	mW/g	m	m	m				
LTE B25	1.147	0.991	0.0705	0.089	-0.178	155.0	0.014	0.04	No
WiFi 5.6G	0.583	0.665	0.002	-0.077	-0.183				

APPENDIX

1. Test Layout

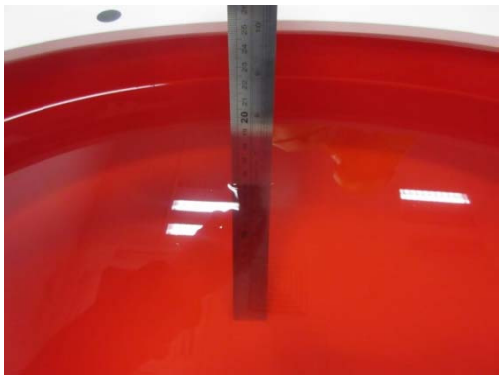
Specific Absorption Rate Test Layout



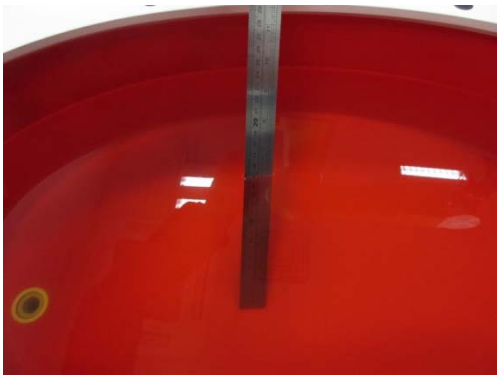
Liquid depth in the flat Phantom (≥15cm depth)

Body(750MHz)_15.6cm

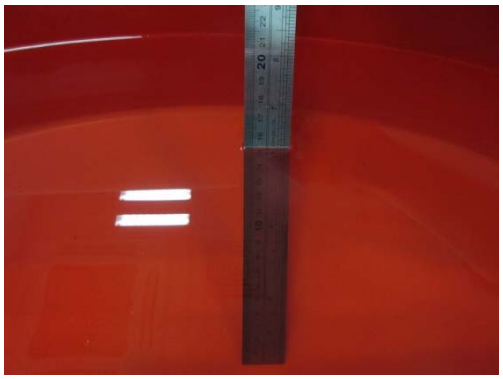
Body(835MHz)_15.7cm



Body(1750MHz)_15.6cm



Body(1900~3800MHz)_15.6cm



Body (5G)_15.8cm

Appendix A. SAR Plots of System Verification

(Pls See Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See Appendix B.)

Appendix C. Calibration Certificate for Probe and Dipole

(Pls See Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See Appendix D.)

End