FCC SAR TEST REPORT

Application No.:	HR/2022/10010
Applicant:	Honor Device Co., Ltd.
Manufacturer:	Honor Device Co., Ltd.
Product Name:	Smart Phone
Model No.(EUT):	CMA-LX3
Trade Mark:	HONOR
FCC ID:	2AYGCCMA-LX3
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2022-02-11
Date of Test:	2022-02-13 to 2022-03-01
Date of Issue:	2022-03-06
Test conclusion:	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:

Panta Sun

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Wireless Laboratory Manager

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REVISION HISTORY

Report Number	Revision	Description	Issue Date
SUHR/2022/1001007	01	Original	2022-03-06

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TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	0.67	0.35	0.58	/
GSM1900	0.94	0.55	**1.08**	1.98
WCDMA Band II	1.08	0.58	0.87	/
WCDMA Band IV	1.06	0.79	1.07	**2.89**
WCDMA Band V	1.06	0.37	0.66	/
LTE Band 2	**1.09**	0.46	0.93	1.99
LTE Band 4	0.95	0.71	1.07	2.66
LTE Band 5	0.72	0.22	0.38	/
LTE Band 7	1.08	0.42	1.03	2.26
LTE Band 13	0.46	0.24	0.40	/
LTE Band 26	0.59	0.21	0.36	/
LTE Band 38	1.04	0.34	0.67	/
LTE Band 66	0.73	**0.86**	1.08	/
WI-FI (2.4GHz)	0.20	0.27	0.40	/
WI-FI (5GHz)	0.55	0.34	0.72	1.18
BT	0.17	0.09	0.19	/
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.53	1.20	1.55	3.71
SPLSR	N/A	N/A	N/A	N/A
SPLSR Limited	0.04			0.1

Note:
1) The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.

Reviewed by

Well Wei

Well Wei

Prepared by

Nature Shen

Nature Shen

CONTENTS

1 General Information

1.1 Details of Client

Applicant:	Honor Device Co., Ltd.
Address:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China
Manufacturer:	Honor Device Co., Ltd.
Address:	Suite 3401, Unit A, Building 6, Shum Yip Sky Park, No. 8089, Hongli West Road, Xiangmihu Street, Futian District, Shenzhen, Guangdong 518040, People's Republic of China

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.
Address:	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Post code:	215000
Test Engineer:	Nature Shen, KING-P li

1.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **A2LA (Certificate No. 6336.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

• **Innovation, Science and Economic Development Canada**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

• **FCC –Designation Number: CN1312**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327

1.4 General Description of EUT

Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
Product Name:	Smart Phone		
Model No.(EUT):	CMA-LX3		
FCC ID:	2AYGCCMA-LX3		
Trade Mark:	HONOR		
Product Phase:	Identical Prototype		
IMEI:	869937050026684 869937050026890 869937050014300 869937050014318 869937050018624 869937050014185 869937050018657		
Hardware Version:	HL2CMAM		
Software Version:	4.2.0.32(C900E32R1P1)		
Antenna Type:	Internal Antenna		
Device Operating Configurations :			
Modulation Mode:	**GSM:** GMSK, 8PSK; **WCDMA:** QPSK; **LTE:** QPSK,16QAM, **WIFI:** DSSS, OFDM, OFDMA; **BT:** GFSK, π/4DQPSK,8DPSK		
Device Class:	B		
GPRS Multi-slots Class:	12	EGPRS Multi-slots Class:	12
HSDPA UE Category:	14	HSUPA UE Category	6
DC-HSDPA UE Category:	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band)		
	3, tested with power control Max Power(LTE Band)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	WCDMA Band II	1850~1910	1930~1990
	WCDMA Band IV	1710~1755	2110~2155
	WCDMA Band V	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 13	777~787	746~756
	LTE Band 26	814~849	859~894
	LTE Band 38	2570~2620	2570~2620
	LTE Band 66	1710~1780	2110~2200

	Bluetooth	2400~2483.5	2400~2483.5
	Wi-Fi 2.4G	2402~2462	2402~2462
	Wi-Fi 5G	5150~5250	5150~5250
		5250~5350	5250~5350
		5470~5725	5470~5725
		5725~5850	5725~5850
RF Cable:	☒ Provided by the aplicant ☐ Provided by the laboratory		
Battery1 Information:	Model:	HB496590EFW-F	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: NVT)	
Battery2 Information:	Model:	HB496590EFW	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: NVT)	
Battery3 Information:	Model:	HB496590EFW	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: Desay)	
Battery4 Information:	Model:	HB496590EFW-F	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: Desay)	
Battery5 Information:	Model:	HB496590EFW-F	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: SUCD)	
Battery6 Information:	Model:	HB496590EFW	
	Normal Voltage:	+3.87V	
	Rated capacity:	4900mAh	
	Manufacturer:	Honor Device Co., Ltd.(Factory: SUCD)	
Earphone1 Information:	Model:	MEND1532B528A11	
	Manufacturer:	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	
Earphone2 Information:	Model:	EPAB542-2WH05-DH	
	Manufacturer:	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	
Earphone3 Information:	Model:	1293-3283-3.5mm-339	
	Manufacturer:	BOLUO COUNTY QUANCHENG ELECTRONIC CO., LTD.	

1.4.1 DUT ,Antenna Locations (Back View)

The DUT Antenna Locations (Back View) can be refer to Appendix E.

Note:
1) The test device is a smart phone. The overall diagonal dimension of this device is 177 mm. Per KDB 648474 D04, because the diagonal distance of this device is ≥160mm, so it is a phablet.
2) DIV Antenna does not support transmitter function.

According to the distance between LTE/WCDMA/GSM&WIFI&BT antennas and the sides of the EUT we can draw the conclusion that:

EUT Sides for SAR Testing							
Mode	Exposure Condition	Front	Back	Left	Right	Top	Bottom
Ant 0	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	No	Yes
Ant 1	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	No	Yes
Ant 3	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
Ant 9	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	No	No
Ant 11	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No

Table 1： EUT Sides for SAR Testing

Note:
1) When the antenna-to-edge distance is greater than 2.5cm, such position does not need to be tested.

1.4.2 Power reduction specification

This device uses a single fixed level of power reduction through static table look-up for SAR compliance and it is triggered by a single event or operation

1) A fixed level power reduction is applied for some frequency bands when hotspot mode becomes active. When the hotspot is disabled, the power value will be recovered.

2) A fixed level power reduction is applied for some frequency bands when handset operate "held to the ear" condition, the power reduction triggered by audio receiver detection. The audio receiver detection is used to determine head or body scenario.

3) This device uses the mobile country code (MCC) detection mechanism to indicate whether the users in CE countries and FCC countries in set the relevant power level for some bands. The selection between different power levels is based on the country code detection mechanism.

4) For FCC SAR test should be evaluated at the power level of FCC mobile country code for each exposure conditions.

The detailed power reduction information can be referred to RF conducted power.

1.5 Test Specification

=Identity	Document Title
FCC 47CFR §2.1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
ANSI/IEEE C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.
IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 941225 D01	3G SAR Measurement Procedures v03r01
KDB 941225 D05	SAR for LTE Devices v02r05
KDB 941225 D05A	LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 941225 D06	Hotspot Mode SAR v02r01
KDB 248227 D01	SAR Guidance for IEEE 802 11 Wi-Fi SAR v02r02
KDB 648474 D04	Handset SAR v01r03
KDB 447498 D04	Interim General RF Exposure Guidance v01
KDB 865664 D01	SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02	RF Exposure Reporting v01r02
KDB 690783 D01	SAR Listings on Grants v01r03
KDB 616217 D04	SAR for laptop and tablets v01r02

1.6 RF exposure limits

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR* (Brain*Trunk)	**1.60 mW/g**	8.00 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g	0.40 mW/g
Spatial Peak SAR*** (Hands/Feet/Ankle/Wrist)	**4.00 mW/g**	20.00 mW/g

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation.)

2 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
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.	

Table 2： The Ambient Conditions

3 SAR Measurements System Configuration

3.1 The SAR Measurement System

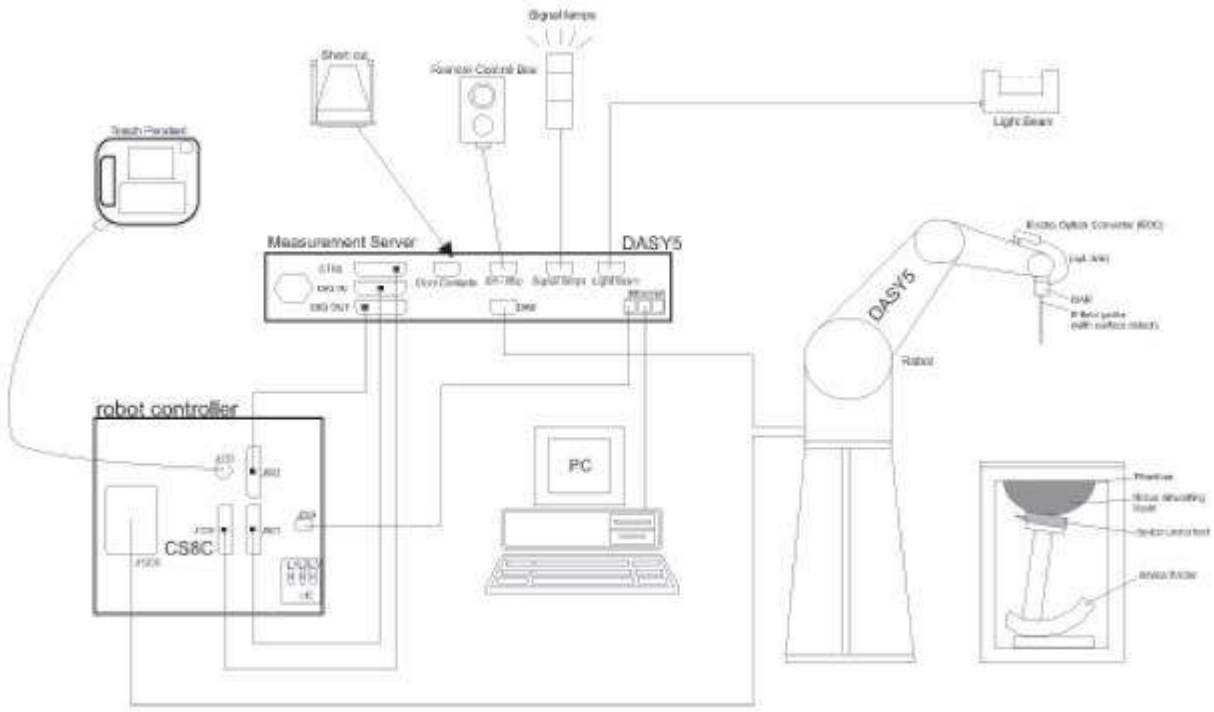
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY5 professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

The DASY5 system for performing compliance tests consists of the following items:
A standard high precision 6-axis robot (Stabile RX family) with controller, teach pendant and software .An arm extension for accommodation the data acquisition electronics (DAE).

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.

A data acquisition electronics (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.

The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.



F-1. SAR Measurement System Configuration

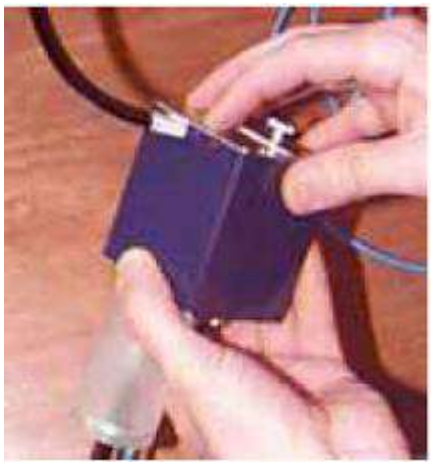
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows 7.
- DASY5 software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand, right-hand and Body Worn usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing to validating the proper functioning of the system.

3.2 Isotropic E-field Probe EX3DV4

	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields); the only probe that enables compliance testing for frequencies up to 6 GHz with precision of better 30%.
Compatibility	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI

3.3 Data Acquisition Electronics (DAE)

Model	DAE
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY4/5 embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV,400mV)
Input Offset Voltage	< 5µV (with auto zero)
Input Bias Current	< 50 f A
Dimensions	60 x 60 x 68 mm



3.4 SAM Twin Phantom

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx. 25 liters
Wooden Support	SPEAG standard phantom table

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.

Twin SAM V5.0 has the same shell geometry and is manufactured from the same material as Twin SAM V4.0, but has reinforced top structure.

3.5 ELI Phantom

Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2.0 ± 0.2 mm (bottom plate)
Dimensions	Major axis: 600 mm Minor axis: 400 mm
Filling Volume	approx. 30 liters
Wooden Support	SPEAG standard phantom table

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.

ELI V5.0 has the same shell geometry and is manufactured from the same material as ELI4, but has reinforced top structure.

3.6 Device Holder for Transmitters

F-2. **Device Holder for Transmitters**

- The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centres for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.
- The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

3.7 Measurement procedure

3.7.1 Scanning procedure

Step 1: Power reference measurement

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.

Step 2: *Area scan*

The SAR distribution at the exposed side of the head was measured at a distance of 4mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 15mm*15mm or 12mm*12mm or 10mm*10mm.Based on the area scan data, the area of the maximum absorption was determined by spline interpolation.

Step 3: *Zoom scan*

Around this point, a volume of 32mm*32mm*30mm (f≤2GHz), 30mm*30mm*30mm (f for 2-3GHz) and 24mm*24mm*22mm (f for 5-6GHz) was assessed by measuring 5x5x7 points (f≤2GHz), 7x7x7 points (f for 2-3GHz) and 7x7x12 points (f for 5-6GHz). On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

The data at the surface was extrapolated, since the centre of the dipoles is 2.0mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.2mm. (This can be variable. Refer to the probe specification).The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip. The maximum interpolated value was searched with a straight-forward algorithm. Around this maximum the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3D-Spline interpolation algorithm. The volume was integrated with the trapezoidal algorithm. One thousand points were interpolated to calculate the average. All neighbouring volumes were evaluated until no neighboring volume with a higher average value was found.

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std. 1528-2013.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Step 4: Power reference measurement (drift)

The Power Drift Measurement job measures the field at the same location as the most recent power reference measurement job within the same procedure, and with the same settings. The indicated drift is mainly the variation of the DUT's output power and should vary max. ± 5 %

3.7.2 Data Storage

The DASY software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DAE4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated. The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [m W/g], [m W/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

3.7.3 Data Evaluation by SEMCAD

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

Probe parameters:	- Sensitivity	Normi, ai0, ai1, ai2
	- Conversion factor	ConvFi
	- Diode compression point	Dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	ε
	- Density	ρ

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

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

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

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

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

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

E-field probes:

$$E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$$

H-field probes:

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

With Vi = compensated signal of channel i (i = x, y, z)
Normi = sensor sensitivity of channel I (i = x, y, z)
[mV/(V/m)2] for E-field Probes
ConvF = sensitivity enhancement in solution
aij = sensor sensitivity factors for H-field probes
f = carrier frequency [GHz]
Ei = electric field strength of channel i in V/m
Hi = magnetic field strength of channel i in A/m

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

$$E_{tot} = (E_x^2 + E_Y^2 + E_z^2)^{1/2}$$

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

$$SAR = (Etot^2 \cdot \sigma) / (\varepsilon \cdot 1000)$$

with SAR = local specific absorption rate in mW/g
Etot = total field strength in V/m
σ= conductivity in [mho/m] or [Siemens/m]
ε= equivalent tissue density in g/cm3

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

$$P_{pwe} = {E_{tot}}^2{}_2 / 3770 \text{ or } \quad P_{pwe} = {H_{tot}}^2 \cdot 37.7$$

with Ppwe = equivalent power density of a plane wave in mW/cm2
Etot = total electric field strength in V/m
Htot = total magnetic field strength in A/m

4 SAR measurement variability and uncertainty

4.1 SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

2) When the original highest measured SAR is ⩾ 0.80 W/kg, repeat that measurement once.

3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ⩾ 1.45 W/kg (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ⩾1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

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

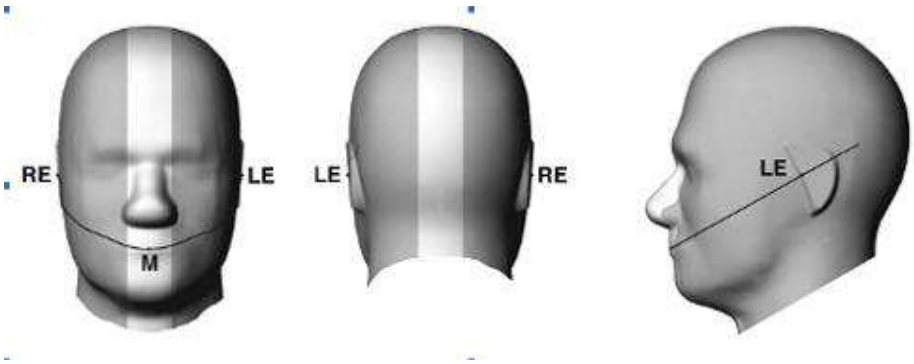
4.2 SAR measurement uncertainty

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

5 Description of Test Position

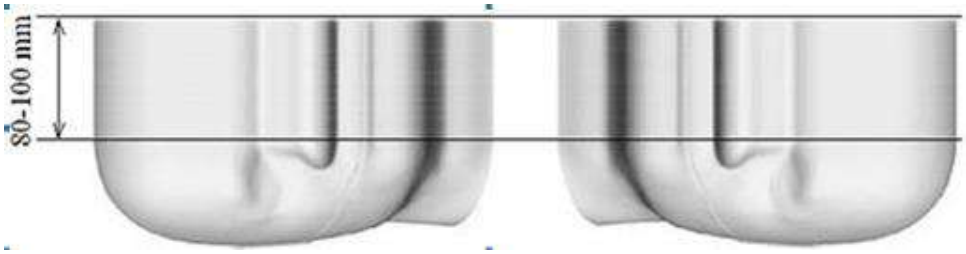
5.1 Head Exposure Condition

5.1.1 SAM Phantom Shape

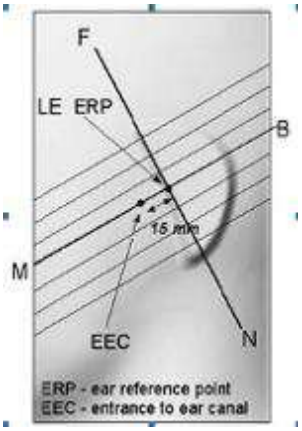


F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

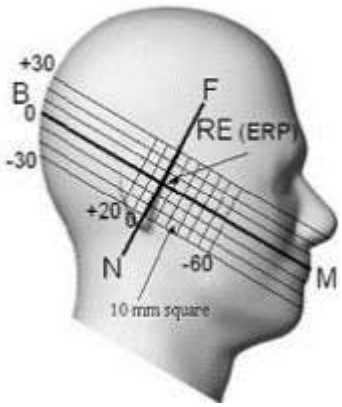
Note: The centre strip including the nose region has a different thickness tolerance.



F-4. Sagittally bisected phantom with extended perimeter (shown placed on its side as used for SAR measurements)

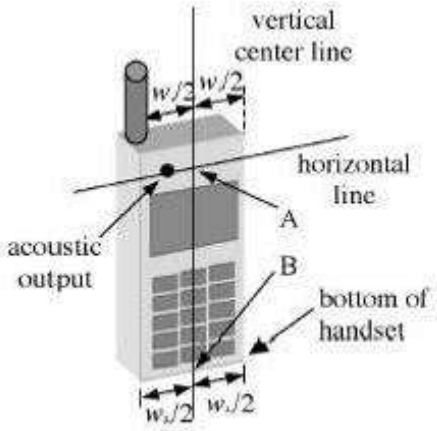


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

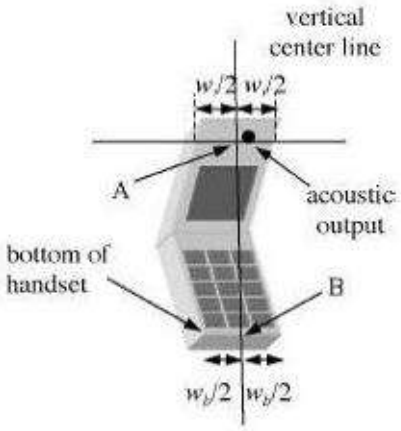


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

5.1.2 EUT constructions



F-7. Handset vertical and horizontal reference lines-“fixed case”



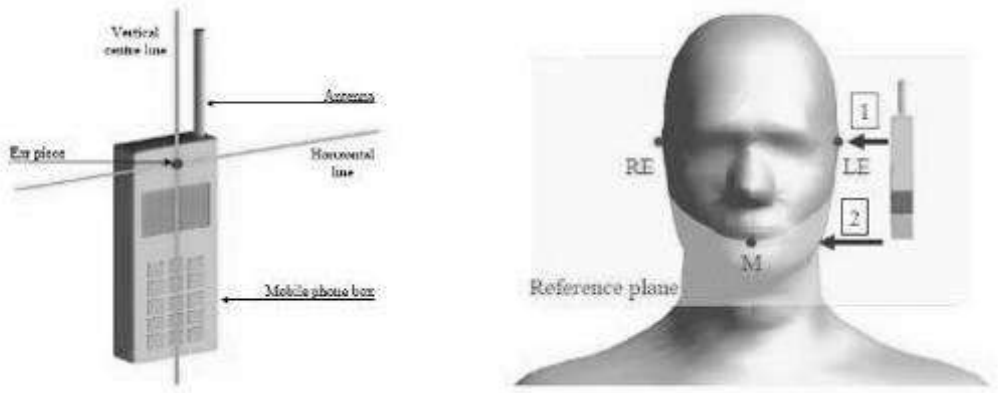
F-8. Handset vertical and horizontal reference lines-“clam-shell case”

5.1.3 Definition of the “cheek” position

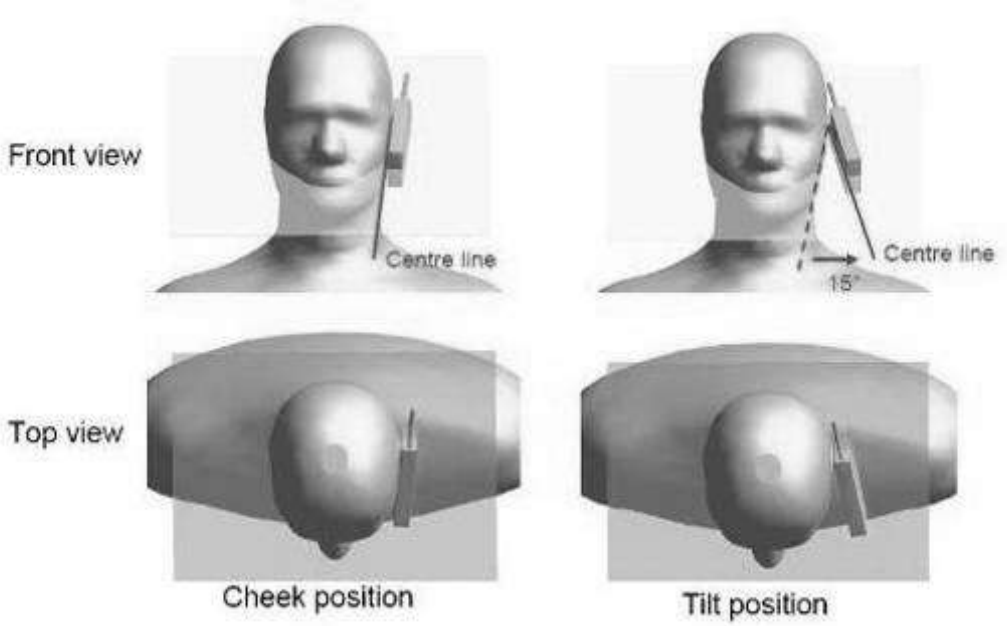
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the reference plane containing the three ear and mouth reference points (M, RE and LE) and align the centre of the ear piece with the line RE-LE.
b) Translate the mobile phone box towards the phantom with the ear piece aligned with the line LE-RE until telephone touches the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the box until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.

5.1.4 Definition of the “tilted” position

a) Position the device in the “cheek” position described above;
b) While maintaining the device in the reference plane described above and pivoting against the ear, move it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.



F-9. **Definition of the reference lines and points, on the phone and on the phantom and initial position**



F-10. **“Cheek” and “tilt” positions of the mobile phone on the left side**

5.2 Body Exposure Condition

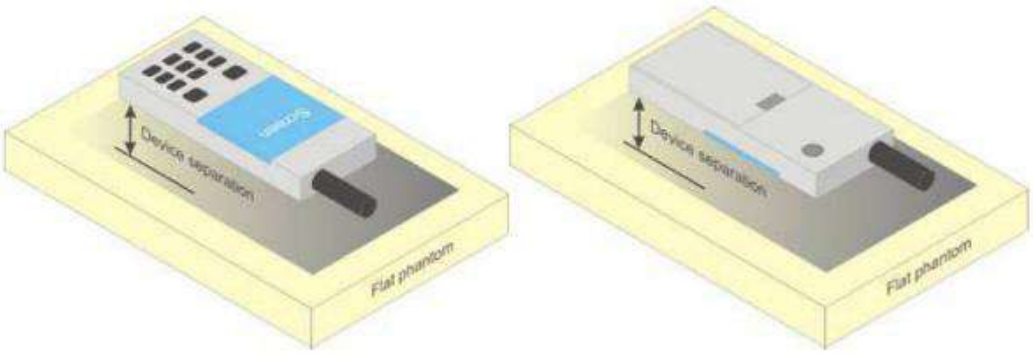
5.2.1 Body-worn accessory exposure conditions

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration. Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.



F-11. **Test positions for body-worn devices**

5.2.2 Wireless Router exposure conditions

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. For devices with form factors smaller than 9 cm x 5 cm, a test separation distance of 5 mm is required.

5.3 Extremity exposure conditions

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

Due to the SAR result, only the following frequency bands need to test with 0mm for the Product Specific 10-g SAR, the others are not required.

GSM1900 (Ant3)

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.253	0.01	20.18	22.90	1.871	0.473	Yes
Back side	GPRS 4TS	661/1880	1:2.075	0.560	0.17	20.18	22.90	1.871	1.048	Yes
Left side	GPRS 4TS	661/1880	1:2.075	0.209	0.11	20.18	22.90	1.871	0.391	Yes
Top side	GPRS 4TS	661/1880	1:2.075	0.654	0.13	20.18	22.90	1.871	1.223	No

WCDMA Band IV (Ant0)

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.298	0.08	20.48	22.90	1.746	0.520	Yes
Back side	RMC	1412/1732.4	1:1	0.795	0.03	20.48	22.90	1.746	1.388	No
Back side	RMC	1312/1712.4	1:1	0.630	0.03	20.34	22.90	1.803	1.136	Yes
Back side	RMC	1513/1752.6	1:1	0.687	0.07	20.46	22.90	1.754	1.205	No
Right side	RMC	1412/1732.4	1:1	0.190	0.11	20.48	22.90	1.746	0.332	Yes
Bottom side	RMC	1412/1732.4	1:1	0.676	0.08	20.48	22.90	1.746	1.180	Yes
Bottom side	RMC	1312/1712.4	1:1	0.636	0.07	20.34	22.90	1.803	1.147	Yes
Bottom side	RMC	1513/1752.6	1:1	0.709	0.07	20.46	22.90	1.754	1.244	No
Back side with Battery 2#	RMC	1412/1732.4	1:1	0.791	0.05	20.48	22.90	1.746	1.381	No
Back side with Battery 3#	RMC	1412/1732.4	1:1	0.784	0.15	20.48	22.90	1.746	1.369	No
Back side with Battery 4#	RMC	1412/1732.4	1:1	0.777	0.19	20.48	22.90	1.746	1.357	No
Back side with Battery 5#	RMC	1412/1732.4	1:1	0.770	0.13	20.48	22.90	1.746	1.344	No
Back side with Battery 6#	RMC	1412/1732.4	1:1	0.766	0.15	20.48	22.90	1.746	1.337	No

LTE B2 (Ant3)

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.217	0.07	16.94	20.90	2.489	0.540	Yes
Back side	20	QPSK 1_0	18900/1880	1:1	0.489	0.01	16.94	20.90	2.489	1.217	No
Left side	20	QPSK 1_0	18900/1880	1:1	0.090	0.03	16.94	20.90	2.489	0.225	Yes
Top side	20	QPSK 1_0	18900/1880	1:1	0.447	0.18	16.94	20.90	2.489	1.113	Yes
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.220	0.02	16.77	20.90	2.588	0.569	Yes
Back side	20	QPSK 50_0	18900/1880	1:1	0.503	0.05	16.77	20.90	2.588	**1.302**	No
Left side	20	QPSK 50_0	18900/1880	1:1	0.102	0.02	16.77	20.90	2.588	0.264	Yes
Top side	20	QPSK 50_0	18900/1880	1:1	0.427	0.09	16.77	20.90	2.588	1.105	Yes

LTE B4 (Ant1)

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.351	0.05	21.56	23.10	1.426	0.500	Yes
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.946	0.06	21.56	23.10	1.426	1.349	No
Back side-Repeat	20	QPSK 1_0	20175/1732.5	1:1	0.932	0.09	21.56	23.10	1.426	1.329	No
Right side	20	QPSK 1_0	20175/1732.5	1:1	0.202	0.15	21.56	23.10	1.426	0.288	Yes
Bottom side	20	QPSK 1_0	20175/1732.5	1:1	0.909	0.03	21.56	23.10	1.426	1.296	No
Back side with Battery 2#	20	QPSK 1_0	20175/1732.5	1:1	0.789	0.12	21.56	23.10	1.426	1.125	Yes
Back side with Battery 3#	20	QPSK 1_0	20175/1732.5	1:1	0.774	0.16	21.56	23.10	1.426	1.103	Yes
Back side with Battery 4#	20	QPSK 1_0	20175/1732.5	1:1	0.759	-0.19	21.56	23.10	1.426	1.082	Yes
Back side with Battery 5#	20	QPSK 1_0	20175/1732.5	1:1	0.795	0.20	21.56	23.10	1.426	1.133	Yes
Back side with Battery 6#	20	QPSK 1_0	20175/1732.5	1:1	0.805	0.18	21.56	23.10	1.426	1.148	Yes
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.362	0.05	21.55	23.10	1.429	0.517	Yes
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.820	0.03	21.55	23.10	1.429	1.172	Yes
Right side	20	QPSK 50_0	20175/1732.5	1:1	0.202	0.04	21.55	23.10	1.429	0.289	Yes
Bottom side	20	QPSK 50_0	20175/1732.5	1:1	0.711	0.15	21.55	23.10	1.429	1.016	Yes
Hotspot Test data(Separate 10mm 100%RB)											
Back side	20	QPSK 100_0	20175/1732.5	1:1	0.770	0.04	21.19	23.10	1.552	1.195	Yes
Bottom Side	20	QPSK 100_0	20175/1732.5	1:1	0.667	-0.01	21.19	23.10	1.552	1.035	Yes

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LTE B7 (Ant3)

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.176	0.06	18.73	20.50	1.503	0.265	Yes
Back side	20	QPSK 1_0	21100/2535	1:1	0.629	0.05	18.73	20.50	1.503	0.945	Yes
Left side	20	QPSK 1_0	21100/2535	1:1	0.263	0.01	18.73	20.50	1.503	0.395	Yes
Right side	20	QPSK 1_0	21100/2535	1:1	0.011	0.15	18.73	20.50	1.503	0.016	Yes
Top side	20	QPSK 1_0	21100/2535	1:1	0.753	0.03	18.73	20.50	1.503	1.132	Yes
Top side	20	QPSK 1_0	20850/2510	1:1	0.747	0.06	18.67	20.50	1.524	1.138	Yes
Top side	20	QPSK 1_0	21350/2560	1:1	0.839	0.03	18.65	20.50	1.531	1.285	No
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.176	0.02	18.35	20.50	1.641	0.289	Yes
Back side	20	QPSK 50_0	21100/2535	1:1	0.622	0.07	18.35	20.50	1.641	1.020	Yes
Left side	20	QPSK 50_0	21100/2535	1:1	0.278	0.06	18.35	20.50	1.641	0.456	Yes
Right side	20	QPSK 50_0	21100/2535	1:1	0.011	0.02	18.35	20.50	1.641	0.017	Yes
Top side	20	QPSK 50_0	21100/2535	1:1	0.784	0.01	18.35	20.50	1.641	1.286	No
Top side	20	QPSK 50_0	20850/2510	1:1	0.785	0.02	18.09	20.50	1.742	1.367	No
Top side	20	QPSK 50_0	21350/2560	1:1	0.852	0.04	18.27	20.50	1.671	**1.424**	No
Top side-Repeat	20	QPSK 50_0	21350/2560	1:1	0.848	0.09	18.27	20.50	1.671	1.417	No
Top side with Battery 2#	20	QPSK 50_0	21350/2560	1:1	0.843	0.02	18.27	20.50	1.671	1.409	No
Top side with Battery 3#	20	QPSK 50_0	21350/2560	1:1	0.839	0.05	18.27	20.50	1.671	1.402	No
Top side with Battery 4#	20	QPSK 50_0	21350/2560	1:1	0.830	0.11	18.27	20.50	1.671	1.387	No
Top side with Battery 5#	20	QPSK 50_0	21350/2560	1:1	0.821	0.18	18.27	20.50	1.671	1.372	No
Top side with Battery 6#	20	QPSK 50_0	21350/2560	1:1	0.847	0.20	18.27	20.50	1.671	1.415	No
Hotspot Test data(Separate 10mm 100%RB)											
Top side	20	QPSK 50_0	21100/2535	1:1	0.841	0.01	18.30	20.50	1.660	1.396	No

6 SAR System Verification Procedure

6.1 Tissue Simulate Liquid

6.1.1 Recipes for Tissue Simulate Liquid

The bellowing tables give the recipes for tissue simulating liquids to be used in different frequency bands：

Ingredients (% by weight)	Frequency (MHz)				
	450	700-900	1750-2000	2300-2500	2500-2700
Water	38.56	40.30	55.24	55.00	54.92
Salt (NaCl)	3.95	1.38	0.31	0.2	0.23
Sucrose	56.32	57.90	0	0	0
HEC	0.98	0.24	0	0	0
Bactericide	0.19	0.18	0	0	0
Tween	0	0	44.45	44.80	44.85
Salt: 99^{+}% Pure Sodium Chloride Water: De-ionized, 16 MΩ^{+} resistivity Tween: Polyoxyethylene (20) sorbitan monolaurate			Sucrose: 98^{+}% Pure Sucrose HEC: Hydroxyethyl Cellulose		
HSL5GHz is composed of the following ingredients： Water：50-65% Mineral oil：10-30% Emulsifiers：8-25% Sodium salt：0-1.5%					

Table 3： Recipe of Tissue Simulate Liquid

6.1.2 Measurement for Tissue Simulate Liquid

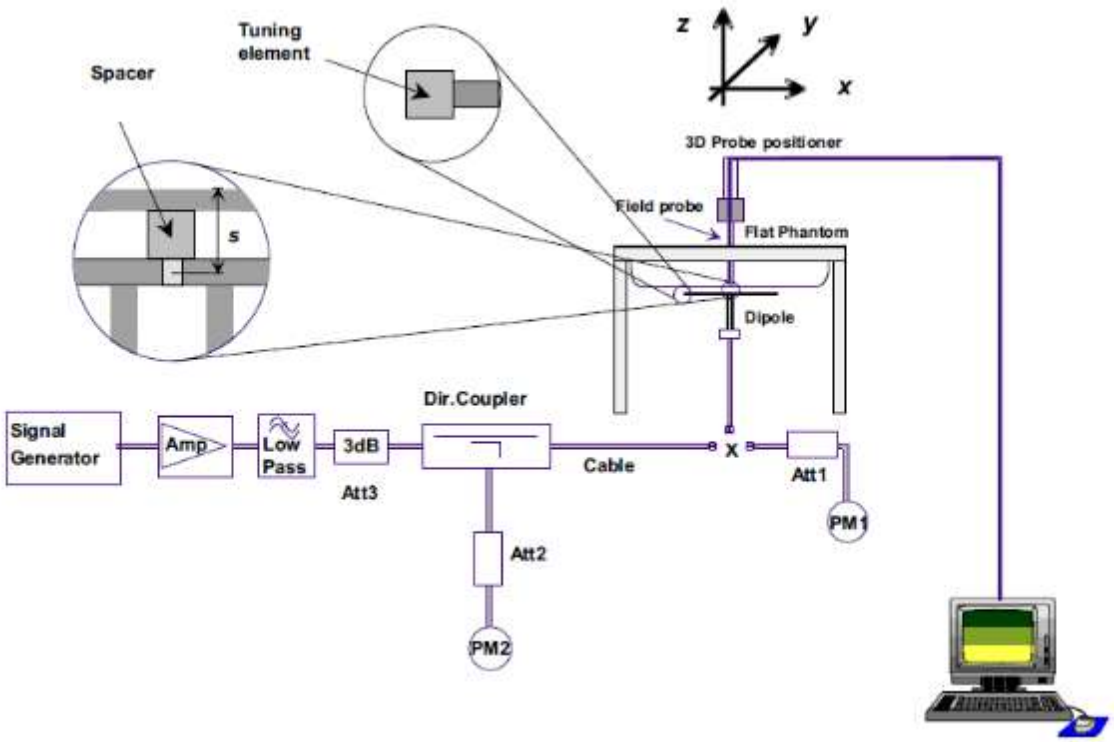
The Conductivity (σ) and Permittivity (ρ) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Tissue Type	Measured Frequency (MHz)	Target Tissue (±5%)		Measured Tissue		Liquid Temp.(℃)	Measured Date
		ε_r	σ(S/m)	ε_r	σ(S/m)		
750 Head	750	41.9 (39.81~44)	0.89 (0.85~0.94)	41.660	0.877	21.7	2022-02-24
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	41.624	0.894	22.0	2022-02-15
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.278	0.901	22.3	2022-02-25
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	41.621	0.894	21.9	2022-02-19
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	39.077	1.367	21.8	2022-02-17
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	38.789	1.330	21.6	2022-02-21
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	39.077	1.367	21.8	2022-02-18
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.086	1.402	22.2	2022-02-16
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.055	1.400	22.1	2022-02-23
2450 Head	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	37.607	1.883	22.2	2022-02-27
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.364	1.969	22.5	2022-02-13
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.445	1.969	22.3	2022-02-14
5250Head	5250	35.9 (34.11~37.70)	4.66 (4.47~4.95)	35.504	4.707	22.2	2022-03-01
5600 Head	5600	35.5 (33.73~37.30)	5.07 (4.82~5.32)	34.832	5.179	22.4	2022-03-01
5750 Head	5750	35.4 (33.63~37.17)	5.22 (4.96~5.48)	34.461	5.362	22.3	2022-03-01

Table 4： Measurement result of Tissue electric parameters

6.2 SAR System Check

The microwave circuit arrangement for system Check is sketched in F-12. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the following table (A power level of 250mW (below 3GHz) or 100mW (3-6GHz) was input to the dipole antenna). During the tests, the ambient temperature of the laboratory was in the range 22±2°C, the relative humidity was in the range 60% and the liquid depth above the ear reference points was above 15±0.5 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



F-12. the microwave circuit arrangement used for SAR system check

6.2.1 Justification for Extended SAR Dipole Calibrations

1) Referring to KDB865664 D01 requirements for dipole calibration, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements. 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) Return-loss is within 10% of calibrated measurement;
d) Impedance is within 5Ω from the previous measurement.

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

6.2.2 Summary System Check Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) (±10%)	Target SAR (normalized to 1W) (±10%)	Liquid Temp. (℃)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D750V3	Head	2.29	1.5	9.16	6.00	8.39 (7.55~9.23)	5.63 (5.07~6.19)	21.7	2022-02-24
D835V2	Head	2.22	1.45	8.88	5.80	9.52 (8.57~10.47)	6.17 (5.55~6.79)	22.0	2022-02-15
D835V2	Head	2.24	1.46	8.96	5.84	9.52 (8.57~10.47)	6.17 (5.55~6.79)	22.3	2022-02-25
D835V2	Head	2.30	1.52	9.20	6.08	9.52 (8.57~10.47)	6.17 (5.55~6.79)	21.9	2022-02-19
D1750V2	Head	8.94	4.74	35.76	18.96	35.3 (31.77~38.83)	18.7 (16.83~20.57)	21.8	2022-02-17
D1750V2	Head	8.70	4.61	34.80	18.44	35.3 (31.77~38.83)	18.7 (16.83~20.57)	21.6	2022-02-21
D1750V2	Head	8.83	4.68	35.32	18.72	35.3 (31.77~38.83)	18.7 (16.83~20.57)	21.8	2022-02-18
D1900V2	Head	9.67	4.94	38.68	19.76	39.7 (35.73~43.67)	20.3 (18.27~22.33)	22.2	2022-02-16
D1900V2	Head	10.00	5.12	40.00	20.48	39.7 (35.73~43.67)	20.3 (18.27~22.33)	22.1	2022-02-23
D2450V2	Head	14.10	6.51	56.40	26.04	52.2 (46.98~57.42)	24.5 (22.05~26.95)	22.2	2022-02-27
D2600V2	Head	13.90	6.23	55.60	24.92	57.1 (51.12~62.48)	25.4 (22.41~27.39)	22.5	2022-02-13
D2600V2	Head	13.90	6.24	55.60	24.96	57.1 (51.12~62.48)	25.4 (22.41~27.39)	22.3	2022-02-14
Validation Kit		Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) (±10%)	Target SAR (normalized to 1W) (±10%)	Liquid Temp. (℃)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D5GHzV2	Head(5.25 GHz)	7.23	2.07	72.30	20.70	78 (70.2~85.8)	21.8 (19.62~23.98)	22.2	2022-03-01
	Head(5.6 GHz)	8.60	2.45	86.00	24.50	79.9 (71.91~87.89)	22.5 (20.25~24.75)	22.4	2022-03-01
	Head(5.75 GHz)	8.06	2.29	80.60	22.90	76.4 (68.76~84.04)	21.2 (19.08~23.32)	22.3	2022-03-01

Table 5： SAR System Check Result

6.2.3 Detailed System Check Results

Please see the Appendix A

7 Test Configuration

7.1 3G SAR Test Reduction Procedure

According to KDB 941225D01, in the following procedures, the mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ 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. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as “otherwise” in the applicable procedures; SAR measurement is required for the secondary mode.

7.2 Operation Configurations

7.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using CMW500 the power lever is set to “5”and “0” in SAR of GSM 850 and GSM 1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 33 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 33 for this EUT, it has at most 4 timeslots in uplink, and at most 4 timeslots in downlink, the maximum total timeslot is 5.

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.

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.

The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode

7.2.2 WCDMA Test Configuration

1）. Output Power Verification

Maximum output power is verified on the high, middle and low channels according to procedures described in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all "1's" for WCDMA/HSDPA or by applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) are required in the SAR report. All configurations that are not supported by the handset or cannot be measured due to technical or equipment limitations must be clearly identified.

2）. Head SAR

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

3）. Body SAR

SAR for body configurations is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreaing code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the handset, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC.

4）. HSDPA / HSUPA / DC-HSDPA

According to KDB 941225 D01v03, RMC 12.2kbps setting is used to evaluate SAR. If the maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA

a) HSDPA

HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors(βc, βd), and HS-DPCCH power offset parameters (ΔACK, ΔNACK, ΔCQI) are set according to values indicated in the following table The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Sub-test	βc	Bd	βd(SF)	βc/βd	βhs	CM(dB)	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

Note1: △ACK, △NACK and △CQI= 8 Ahs = βhs/βc=30/15 βhs=30/15*βc
Note2:For the HS-DPCCH power mask requirement test in clause 5.2C,5.7A,and the Error Vector Magnitude(EVM) with HS-DPCCH test in clause 5.13.1.A,and HSDPA EVM with phase discontinuity in clause 5.13.1AA, △ACK and △NACK= 8 (Ahs=30/15) with βhs=30/15*βc,and △CQI=
7 (Ahs=24/15) with βhs=24/15*βc.
Note3: CM=1 forβc/βd =12/15, βhs/βc=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.

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

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

Table 6： settings of required H-Set 1 QPSK acc. to 3GPP 34.121

HS-DSCH Category	Maximum HS-DSCH Codes Received	Minimum Inter-TTI Interval	MaximumH S-DSCH Transport BlockBits/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

Table 7： HSDPA UE category

b) HSUPA

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 HSUPA should be configured according to the values indicated below as well as other applicable procedures described in the „WCDMA Handset" and „Release 5 HSUPA Data Device" sections of 3G device.

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.

Table 8： Subtests for UMTS Release 6 HSUPA

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).						

Table 9： HSUPA UE category

c) DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a Second serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.
The following tests were completed according to procedures in section 7.3.13 of 3GPP TS 34.108 v9.5.0.
A summary of these settings are illustrated below:
Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table 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

Table 10：settings of required H-Set 12 QPSK acc. to 3GPP 34.121

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.

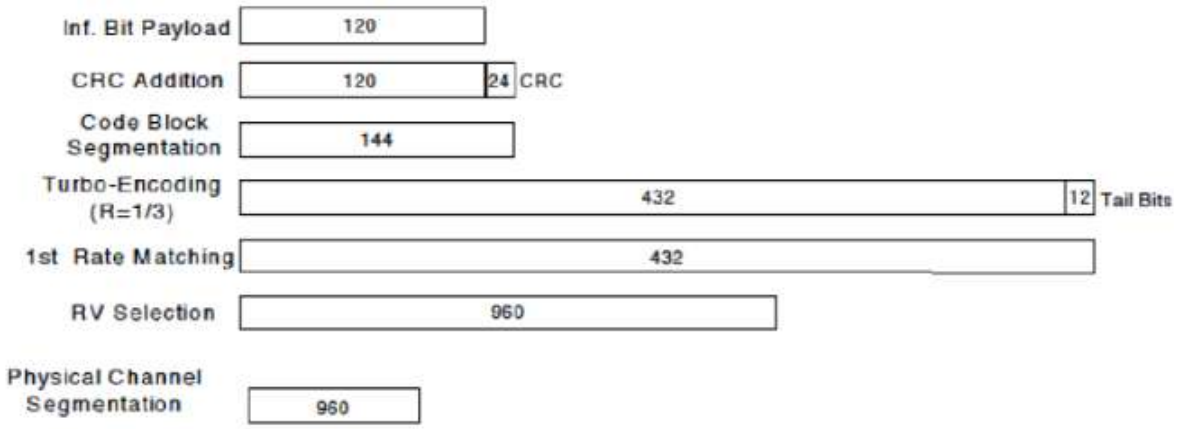


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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.

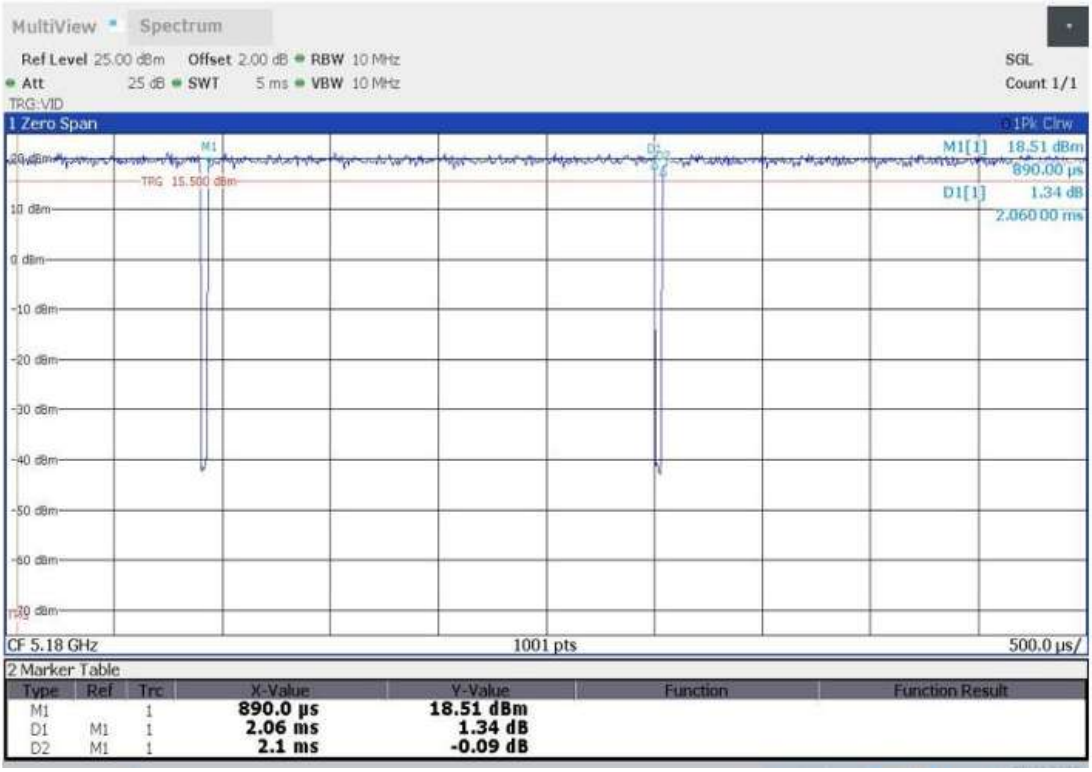
7.2.3 WiFi Test Configuration

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

7.2.3.1 Duty cycle

Wi-Fi 2.4GHz 802.11b:
Duty cycle=12.45/12.61=98.73%

Wi-Fi 5GHz 802.11a:
Duty cycle=2.06/2.10=98.10%



Wi-Fi 5GHz 802.11n-HT40:
Duty cycle=950/990=95.96%

7.2.3.2 Initial Test Position SAR Test Reduction Procedure

DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. The initial test position procedure is described in the following:

1）. 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 in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band. SAR is also not required for that exposure configuration in the subsequent test configuration(s).
2）. When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest extrapolated or estimated 1-g SAR conditions determined by area scans or next closest/smallest test separation distance and maximum RF coupling test positions based on manufacturer justification, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions (left, right, touch, tilt or subsequent surfaces and edges) are tested.
3）. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested. a) Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

7.2.3.3 Initial Test Configuration Procedures

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required. SAR test reduction for subsequent highest output test channels is determined according to *reported* SAR of the initial test configuration.
For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.
When the *reported* SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until *reported* SAR is ≤ 1.2 W/kg or all required channels are tested.

7.2.3.4 Subsequent Test Configuration Procedures

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. The initial test position procedure is applied to next to the ear, UMPC mini-tablet and hotspot mode configurations. When the same maximum output power is specified for multiple transmission modes, additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. The subsequent test configuration and SAR measurement procedures are described in the following.

1）. When SAR test exclusion provisions of KDB Publication 447498 are applicable and SAR measurement is not required for the initial test configuration, SAR is also not required for the next highest maximum output power transmission mode subsequent test configuration(s) in that frequency band or aggregated band and exposure configuration.

2）. When the highest *reported* SAR for the initial test configuration (when applicable, include subsequent highest output channels), according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.

3）. The number of channels in the initial test configuration and subsequent test configuration can be different due to differences in channel bandwidth. When SAR measurement is required for a subsequent test configuration and the channel bandwidth is smaller than that in the initial test configuration, all channels in the subsequent test configuration that overlap with the larger bandwidth channel tested in the initial test configuration should be used to determine the highest maximum output power channel. This step requires additional power measurement to identify the highest maximum output power channel in the subsequent test configuration to determine SAR test reduction.

a) SAR should first be measured for the channel with highest measured output power in the subsequent test configuration.

b) SAR for subsequent highest measured maximum output power channels in the subsequent test configuration is required only when the *reported* SAR of the preceding higher maximum output power channel(s) in the subsequent test configuration is > 1.2 W/kg or until all required channels are tested. i) For channels with the same measured maximum output power, SAR should be measured using the channel closest to the center frequency of the larger channel bandwidth channel in the initial test configuration.

4）. SAR measurements for the remaining highest specified maximum output power OFDM transmission mode configurations that have not been tested in the initial test configuration (highest maximum output) or subsequent test configuration(s) (subsequent next highest maximum output power) is determined by recursively applying the subsequent test configuration procedures in this section to the remaining configurations according to the following:

a) replace “subsequent test configuration” with “next subsequent test configuration” (i.e., subsequent next highest specified maximum output power configuration)

b) replace “initial test configuration” with “all tested higher output power configurations”

7.2.3.5 2.4 GHz WiFi SAR Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions. When SAR measurement is required for an OFDM configuration, the initial test configuration, subsequent test configuration and initial test position procedures are applied. The SAR test exclusion requirements for 802.11g/n OFDM configurations are described in following.

- **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 (section 5.3, including sub-sections). 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 802.11 g/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.

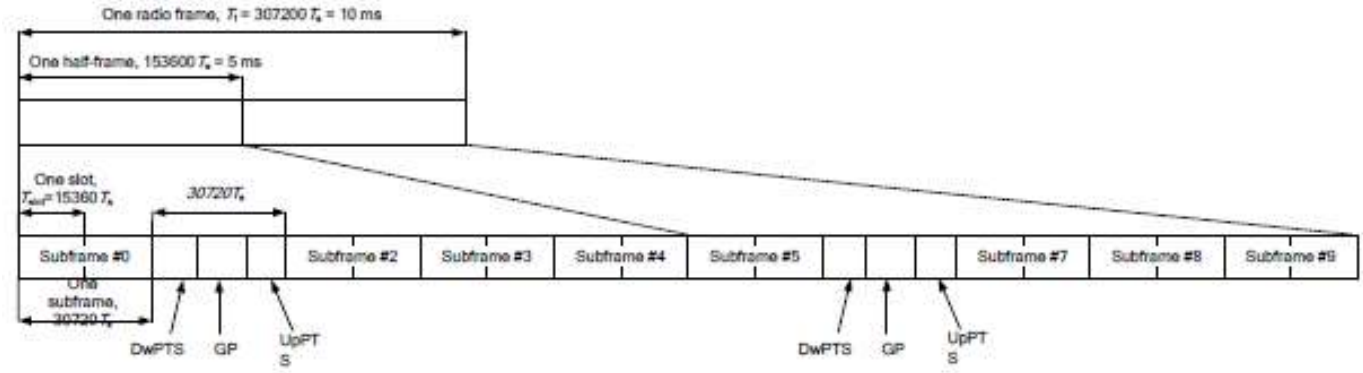
7.2.4 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The Anritsu MT8820C was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

TDD LTE test consideration

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.
SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.
LTE TDD Band support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Frame structure type 2:



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

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

Calculated Duty Cycle=[Extended cyclic prefix in uplink x (Ts) x # of S + # of U]/10ms

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

A) Spectrum Plots for RB Configurations

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

B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

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
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3

C) A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

D) Largest channel bandwidth standalone SAR test requirements

1) 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.

2) QPSK with 50% RB allocation

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

3) 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 1) and 2) 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.

4) 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.

E) 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.

8 Test Result

8.1 Measurement of RF conducted Power

8.1.1 Conducted Power of GSM

Ant0 GSM 850										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		128	190	251			128	190	251	
GSM(GMSK)	GSM	32.57	32.58	32.45	33.80	-9.19	23.38	23.39	23.26	24.61
GPRS (GMSK)	1 TX Slot	32.61	32.45	32.21	33.80	-9.19	23.42	23.26	23.02	24.61
	2 TX Slots	29.31	29.15	29.01	30.80	-6.18	23.13	22.97	23.13	24.62
	3 TX Slots	26.97	26.93	26.92	29.00	-4.42	22.55	22.51	22.55	24.58
	4 TX Slots	25.51	25.74	25.57	27.80	-3.17	22.34	22.57	22.40	24.63
EDGE (GMSK)	1 TX Slot	32.58	32.46	32.18	33.80	-9.19	23.39	23.27	22.99	24.61
	2 TX Slots	29.28	29.14	29.05	30.80	-6.18	23.10	22.96	23.10	24.62
	3 TX Slots	26.88	26.89	26.81	29.00	-4.42	22.46	22.47	22.46	24.58
	4 TX Slots	25.46	25.67	25.51	27.80	-3.17	22.29	22.50	22.34	24.63
EGPRS(8PSK)	1 TX Slot	26.15	26.48	26.65	28.80	-9.19	16.96	17.29	17.46	19.61
	2 TX Slots	24.01	24.06	24.26	25.80	-6.18	17.83	17.88	18.08	19.62
	3 TX Slots	21.94	22.19	22.69	24.00	-4.42	17.52	17.77	18.27	19.58
	4 TX Slots	20.34	20.65	21.03	22.80	-3.17	17.17	17.48	17.86	19.63
Ant3 GSM 850										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		128	190	251			128	190	251	
GSM(GMSK)	GSM	32.75	32.80	32.51	33.80	-9.19	23.56	23.61	23.32	24.61
GPRS (GMSK)	1 TX Slot	32.77	32.84	32.75	33.80	-9.19	23.58	23.65	23.56	24.61
	2 TX Slots	29.75	29.94	29.65	30.80	-6.18	23.57	23.76	23.57	24.62
	3 TX Slots	27.49	27.77	27.52	29.00	-4.42	23.07	23.35	23.07	24.58
	4 TX Slots	26.06	26.33	26.11	27.80	-3.17	22.89	23.16	22.94	24.63
EDGE (GMSK)	1 TX Slot	32.74	32.81	32.71	33.80	-9.19	23.55	23.62	23.52	24.61
	2 TX Slots	29.77	29.88	29.59	30.80	-6.18	23.59	23.70	23.59	24.62
	3 TX Slots	27.35	27.67	27.49	29.00	-4.42	22.93	23.25	22.93	24.58
	4 TX Slots	26.01	26.22	26.05	27.80	-3.17	22.84	23.05	22.88	24.63
EGPRS(8PSK)	1 TX Slot	26.90	26.91	26.99	28.80	-9.19	17.71	17.72	17.80	19.61
	2 TX Slots	24.24	24.35	24.29	25.80	-6.18	18.06	18.17	18.11	19.62
	3 TX Slots	22.19	22.38	22.19	24.00	-4.42	17.77	17.96	17.77	19.58
	4 TX Slots	21.19	21.45	21.31	22.80	-3.17	18.02	18.28	18.14	19.63
Ant1 GSM 1900										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	29.46	30.07	29.56	30.80	-9.19	20.27	20.88	20.37	21.61
GPRS (GMSK)	1 TX Slot	29.43	30.04	29.51	30.80	-9.19	20.24	20.85	20.32	21.61
	2 TX Slots	26.42	27.03	26.56	27.80	-6.18	20.24	20.85	20.24	21.62
	3 TX Slots	24.47	25.08	24.60	26.00	-4.42	20.05	20.66	20.05	21.58
	4 TX Slots	23.18	23.79	23.15	24.80	-3.17	20.01	20.62	19.98	21.63
EDGE (GMSK)	1 TX Slot	29.47	30.08	29.50	30.80	-9.19	20.28	20.89	20.31	21.61
	2 TX Slots	26.60	27.21	26.62	27.80	-6.18	20.42	21.03	20.42	21.62
	3 TX Slots	24.41	25.02	24.65	26.00	-4.42	19.99	20.60	19.99	21.58
	4 TX Slots	23.04	23.65	23.11	24.80	-3.17	19.87	20.48	19.94	21.63
EGPRS(8PSK)	1 TX Slot	25.21	25.82	25.22	27.80	-9.19	16.02	16.63	16.03	18.61
	2 TX Slots	23.48	24.09	23.56	24.80	-6.18	17.30	17.91	17.38	18.62
	3 TX Slots	21.52	22.13	21.51	23.00	-4.42	17.10	17.71	17.09	18.58
	4 TX Slots	20.30	20.91	20.18	21.80	-3.17	17.13	17.74	17.01	18.63

Ant3 GSM 1900 Receiver off/Hotspot Off										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	28.36	28.61	28.46	28.90	-9.19	19.17	19.42	19.27	19.71
GPRS (GMSK)	1 TX Slot	28.66	28.73	28.38	28.90	-9.19	19.47	16.15	19.19	19.71
	2 TX Slots	25.34	25.62	25.36	25.90	-6.18	19.16	19.44	19.18	19.72
	3 TX Slots	23.12	23.61	23.42	24.10	-4.42	18.70	19.19	18.70	19.68
	4 TX Slots	21.95	22.15	22.04	22.90	-3.17	18.78	18.98	18.87	19.73
EDGE (GMSK)	1 TX Slot	28.73	28.82	28.49	28.90	-9.19	19.54	16.33	19.30	19.71
	2 TX Slots	25.52	25.71	25.47	25.90	-6.18	19.34	19.53	19.29	19.72
	3 TX Slots	23.24	23.71	23.54	24.10	-4.42	18.82	19.29	18.82	19.68
	4 TX Slots	22.09	22.27	22.16	22.90	-3.17	18.92	19.10	18.99	19.73
EGPRS(8PSK)	1 TX Slot	25.39	25.68	25.48	25.90	-9.19	16.20	16.49	16.29	16.71
	2 TX Slots	22.53	22.72	22.47	22.90	-6.18	16.35	16.54	16.29	16.72
	3 TX Slots	20.86	20.91	20.82	21.10	-4.42	16.44	16.49	16.40	16.68
	4 TX Slots	19.65	19.69	19.68	19.90	-3.17	16.48	16.52	16.51	16.73
Ant3 GSM 1900 Receiver on/Hotspot On										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	26.33	26.58	26.13	26.80	-9.19	17.14	17.39	16.94	17.61
GPRS (GMSK)	1 TX Slot	26.38	26.77	26.43	26.80	-9.19	17.19	17.58	17.24	17.61
	2 TX Slots	23.18	23.61	23.21	23.80	-6.18	17.00	17.43	17.00	17.62
	3 TX Slots	21.23	21.66	21.44	22.00	-4.42	16.81	17.24	16.81	17.58
	4 TX Slots	19.80	20.18	19.91	20.80	-3.17	16.63	17.01	16.74	17.63
EDGE (GMSK)	1 TX Slot	26.49	26.88	26.54	26.80	-9.19	17.30	17.69	17.35	17.61
	2 TX Slots	23.24	23.67	23.27	23.80	-6.18	17.06	17.49	17.06	17.62
	3 TX Slots	21.29	21.72	21.50	22.00	-4.42	16.87	17.30	16.87	17.58
	4 TX Slots	19.85	20.23	19.96	20.80	-3.17	16.68	17.06	16.79	17.63
EGPRS(8PSK)	1 TX Slot	23.59	23.68	23.56	23.80	-9.19	14.40	14.49	14.37	14.61
	2 TX Slots	20.99	20.86	20.78	20.80	-6.18	14.81	14.68	14.60	14.62
	3 TX Slots	18.94	19.02	18.87	19.00	-4.42	14.52	14.60	14.45	14.58
	4 TX Slots	17.29	17.63	17.65	17.80	-3.17	14.12	14.46	14.48	14.63

Note:

1）. For GSM SAR the time based average power is relevant. The difference in between depends on the duty cycle of the TDMA signal::

No. of timeslots	1	2	3	4
Duty Cycle	1:8.3	1:4.15	1:2.77	1:2.075
Time based avg. power compared to slotted avg. power	-9.19	-6.18	-4.42	-3.17

2）. 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

3）. 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

8.1.2 Conducted Power of WCDMA

Ant1 WCDMA Band II Receiver on/Hotspot off					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	22.75	23.45	22.84	24.40
	12.2kbps AMR	22.71	23.39	22.75	24.40
HSDPA	Subtest 1	21.73	22.38	21.90	23.40
	Subtest 2	21.65	22.43	21.66	23.40
	Subtest 3	21.34	22.01	21.24	22.90
	Subtest 4	21.19	21.90	21.15	22.90
DC-HSDPA	Subtest 1	21.76	22.42	21.92	23.40
	Subtest 2	21.71	22.47	21.79	23.40
	Subtest 3	21.16	21.94	21.31	22.90
	Subtest 4	21.28	21.96	21.20	22.90
HSUPA	Subtest 1	21.70	22.48	21.83	23.40
	Subtest 2	19.84	20.48	19.88	21.40
	Subtest 3	20.72	21.36	20.75	22.40
	Subtest 4	19.76	20.40	19.82	21.40
	Subtest 5	21.75	22.49	21.69	23.40
Ant1 WCDMA Band II Receiver off/Hotspot on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	21.93	22.37	22.14	23.40
	12.2kbps AMR	21.84	22.31	22.10	23.40
HSDPA	Subtest 1	20.95	21.38	21.21	22.40
	Subtest 2	20.81	21.31	21.15	22.40
	Subtest 3	20.45	20.84	20.55	21.90
	Subtest 4	20.31	20.86	20.54	21.90
DC-HSDPA	Subtest 1	20.98	21.45	21.22	22.40
	Subtest 2	20.80	21.30	21.15	22.40
	Subtest 3	20.37	20.85	20.69	21.90
	Subtest 4	20.30	20.84	20.59	21.90
HSUPA	Subtest 1	20.77	21.21	21.04	22.40
	Subtest 2	18.97	19.42	19.09	20.40
	Subtest 3	19.98	20.41	20.21	21.40
	Subtest 4	18.90	19.27	19.17	20.40
	Subtest 5	20.88	21.36	21.05	22.40

Ant3 WCDMA Band II Receiver off/Hotspot off					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	19.24	19.61	19.34	20.00
	12.2kbps AMR	19.15	19.57	19.22	20.00
HSDPA	Subtest 1	18.31	18.56	18.26	19.00
	Subtest 2	18.11	18.61	18.32	19.00
	Subtest 3	17.67	18.21	17.87	18.50
	Subtest 4	17.73	18.09	17.80	18.50
DC-HSDPA	Subtest 1	18.29	18.53	18.29	19.00
	Subtest 2	18.05	18.49	18.17	19.00
	Subtest 3	17.84	18.13	17.81	18.50
	Subtest 4	17.75	17.97	17.73	18.50
HSUPA	Subtest 1	18.11	18.47	18.32	19.00
	Subtest 2	16.30	16.69	16.37	17.00
	Subtest 3	17.31	17.55	17.35	18.00
	Subtest 4	16.23	16.51	16.31	17.00
	Subtest 5	18.09	18.48	18.25	19.00
Ant3 WCDMA Band II Receiver on/Hotspot on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	15.99	16.33	16.05	17.20
	12.2kbps AMR	15.56	15.87	15.22	17.20
HSDPA	Subtest 1	15.51	15.76	15.46	16.20
	Subtest 2	15.31	15.81	15.52	16.20
	Subtest 3	14.87	15.41	15.07	15.70
	Subtest 4	14.93	15.29	15.00	15.70
DC-HSDPA	Subtest 1	15.49	15.73	15.49	16.20
	Subtest 2	15.25	15.69	15.37	16.20
	Subtest 3	15.04	15.33	15.01	15.70
	Subtest 4	14.95	15.17	14.93	15.70
HSUPA	Subtest 1	15.31	15.67	15.52	16.20
	Subtest 2	13.50	13.89	13.57	14.20
	Subtest 3	14.51	14.75	14.55	15.20
	Subtest 4	13.43	13.71	13.51	14.20
	Subtest 5	15.29	15.68	15.45	16.20

Ant1 WCDMA Band IV Receiver on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	23.21	23.47	23.41	24.40
	12.2kbps AMR	23.12	23.42	23.34	24.40
HSDPA	Subtest 1	22.30	22.49	22.43	23.40
	Subtest 2	22.07	22.51	22.44	23.40
	Subtest 3	21.81	22.00	21.95	22.90
	Subtest 4	21.60	21.89	21.77	22.90
DC-HSDPA	Subtest 1	22.27	22.37	22.51	23.40
	Subtest 2	22.03	22.35	22.33	23.40
	Subtest 3	21.66	22.02	21.87	22.90
	Subtest 4	21.72	22.01	21.76	22.90
HSUPA	Subtest 1	22.22	22.46	22.39	23.40
	Subtest 2	20.17	20.44	20.42	21.40
	Subtest 3	21.20	21.43	21.41	22.40
	Subtest 4	20.05	20.34	20.27	21.40
	Subtest 5	22.08	22.37	22.34	23.40
Ant1 WCDMA Band IV Receiver off/Hotspot Off					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	21.58	21.67	21.55	22.90
	12.2kbps AMR	21.55	21.59	21.54	22.90
HSDPA	Subtest 1	20.51	20.69	20.64	21.90
	Subtest 2	20.54	20.64	20.60	21.90
	Subtest 3	20.14	20.15	20.14	21.40
	Subtest 4	20.02	20.11	20.03	21.40
DC-HSDPA	Subtest 1	20.63	20.66	20.65	21.90
	Subtest 2	20.53	20.61	20.56	21.90
	Subtest 3	20.11	20.13	20.06	21.40
	Subtest 4	20.11	20.00	20.07	21.40
HSUPA	Subtest 1	20.47	20.59	20.51	21.90
	Subtest 2	18.59	18.59	18.55	19.90
	Subtest 3	19.67	19.68	19.56	20.90
	Subtest 4	18.58	18.59	18.48	19.90
	Subtest 5	20.48	20.49	20.52	21.90

Ant1 WCDMA Band IV Hotspot On					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	20.34	20.48	20.46	21.60
	12.2kbps AMR	20.25	20.41	20.31	21.60
HSDPA	Subtest 1	19.25	19.55	19.22	20.60
	Subtest 2	19.18	19.48	19.42	20.60
	Subtest 3	18.98	18.78	18.85	20.10
	Subtest 4	18.67	18.91	18.91	20.10
DC-HSDPA	Subtest 1	19.28	19.19	19.56	20.60
	Subtest 2	19.11	19.28	19.54	20.60
	Subtest 3	18.72	18.72	18.66	20.10
	Subtest 4	18.58	18.64	18.56	20.10
HSUPA	Subtest 1	19.05	19.15	19.15	20.60
	Subtest 2	17.11	17.22	17.35	18.60
	Subtest 3	18.28	18.31	18.41	19.60
	Subtest 4	17.15	17.22	17.22	18.60
	Subtest 5	19.09	19.28	19.31	20.60

Ant3 WCDMA Band IV Receiver off/Hotspot off					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	20.69	20.77	20.75	21.40
	12.2kbps AMR	20.66	20.76	19.69	21.40
HSDPA	Subtest 1	19.67	19.84	19.77	20.40
	Subtest 2	19.67	19.82	18.65	20.40
	Subtest 3	19.12	19.27	19.18	19.90
	Subtest 4	19.09	19.25	18.25	19.90
DC-HSDPA	Subtest 1	19.79	19.73	19.85	20.40
	Subtest 2	19.66	19.70	18.60	20.40
	Subtest 3	19.18	19.36	19.21	19.90
	Subtest 4	19.11	19.35	18.21	19.90
HSUPA	Subtest 1	19.72	19.68	18.69	20.40
	Subtest 2	17.67	17.76	17.67	18.40
	Subtest 3	18.62	18.87	18.72	19.40
	Subtest 4	17.61	17.67	17.81	18.40
	Subtest 5	19.69	19.86	18.65	20.40

Ant3 WCDMA Band IV Receiver on/Hotspot on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	20.01	20.09	20.06	20.70
	12.2kbps AMR	19.98	20.08	20.01	20.70
HSDPA	Subtest 1	18.91	19.15	19.03	19.70
	Subtest 2	18.89	19.10	18.02	19.70
	Subtest 3	18.44	18.55	18.53	19.20
	Subtest 4	18.39	18.62	17.53	19.20
DC-HSDPA	Subtest 1	18.99	19.06	19.10	19.70
	Subtest 2	18.92	18.98	17.84	19.70
	Subtest 3	18.40	18.76	18.53	19.20
	Subtest 4	18.39	18.70	17.58	19.20
HSUPA	Subtest 1	18.92	18.92	17.94	19.70
	Subtest 2	16.87	17.04	16.87	17.70
	Subtest 3	17.98	18.22	17.93	18.70
	Subtest 4	16.87	16.94	17.09	17.70
	Subtest 5	19.03	19.07	17.88	19.70
Ant0 WCDMA Band V					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.95	23.98	23.91	25.00
	12.2kbps AMR	23.89	23.91	23.84	25.00
DC-HSDPA	Subtest 1	22.96	23.01	22.98	24.00
	Subtest 2	22.95	22.89	22.93	24.00
	Subtest 3	22.49	22.41	22.47	23.50
	Subtest 4	22.33	22.37	22.34	23.50
HSDPA	Subtest 1	23.05	22.90	22.99	24.00
	Subtest 2	22.79	22.98	22.86	24.00
	Subtest 3	22.55	22.44	22.49	23.50
	Subtest 4	22.32	22.48	22.30	23.50
HSUPA	Subtest 1	22.97	22.96	22.92	24.00
	Subtest 2	20.86	20.95	20.87	22.00
	Subtest 3	21.86	22.07	21.93	23.00
	Subtest 4	20.96	21.07	20.95	22.00
	Subtest 5	22.95	23.01	22.87	24.00

Ant3 WCDMA Band V					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.88	23.95	23.85	25.00
	12.2kbps AMR	23.79	23.88	23.84	25.00
HSDPA	Subtest 1	22.97	23.00	22.80	24.00
	Subtest 2	22.75	22.89	22.85	24.00
	Subtest 3	22.31	22.43	22.27	23.50
	Subtest 4	22.39	22.34	22.26	23.50
DC-HSDPA	Subtest 1	22.93	23.03	22.81	24.00
	Subtest 2	22.80	22.90	22.89	24.00
	Subtest 3	22.44	22.39	22.34	23.50
	Subtest 4	22.35	22.41	22.30	23.50
HSUPA	Subtest 1	22.78	22.93	22.80	24.00
	Subtest 2	20.94	20.89	20.94	22.00
	Subtest 3	21.94	21.93	21.91	23.00
	Subtest 4	20.78	20.95	20.75	22.00
	Subtest 5	22.80	22.91	22.77	24.00

Note:
1) 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.

8.1.3 Conducted Power of LTE

Ant1 LTE Band 2 Receiver off/Hotspot Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	21.49	21.85	21.47	23.40
		1	2	21.6	21.92	21.55	23.40
		1	5	21.45	21.94	21.45	23.40
		3	0	21.46	21.89	21.45	23.40
		3	2	21.43	21.94	21.44	23.40
		3	3	21.47	21.89	21.52	23.40
		6	0	21.55	22.02	21.59	23.40
	16QAM	1	0	21.77	22.13	21.61	23.40
		1	2	21.6	22.42	21.88	23.40
		1	5	21.56	22.1	21.99	23.40
		3	0	21.53	22.07	21.55	23.40
		3	2	21.52	22.09	21.66	23.40
		3	3	21.41	22.07	21.53	23.40
		6	0	20.58	20.72	20.52	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18615	18900	19185	
3MHz	QPSK	1	0	21.58	22.05	21.69	23.40
		1	7	21.65	22.05	21.63	23.40
		1	14	21.51	21.74	21.4	23.40
		8	0	21.45	21.93	21.61	23.40
		8	4	21.45	21.97	21.61	23.40
		8	7	21.49	21.97	21.56	23.40
		15	0	21.45	21.9	21.52	23.40
	16QAM	1	0	21.62	22.03	21.92	23.40
		1	7	21.57	21.77	21.89	23.40
		1	14	21.51	21.87	21.76	23.40
		8	0	20.84	21.25	20.58	22.40
		8	4	20.88	21.12	20.64	22.40
		8	7	21.07	20.91	20.67	22.40
		15	0	20.79	21.2	20.84	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	

5MHz	QPSK	1	0	21.44	21.98	21.68	23.40
		1	13	21.46	21.84	21.42	23.40
		1	24	21.73	21.75	21.46	23.40
		12	0	21.45	21.88	21.56	23.40
		12	6	21.48	21.88	21.61	23.40
		12	13	21.65	21.89	21.55	23.40
		25	0	21.4	21.92	21.54	23.40
	16QAM	1	0	21.49	21.8	21.47	23.40
		1	13	21.45	21.61	21.55	23.40
		1	24	21.62	22.36	21.66	23.40
		12	0	20.67	21.26	20.85	22.40
		12	6	20.82	21.14	20.85	22.40
		12	13	20.54	21.21	20.8	22.40
		25	0	20.84	21.1	20.75	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	21.65	21.94	21.57	23.40
		1	25	21.6	22.13	21.79	23.40
		1	49	21.55	21.63	21.42	23.40
		25	0	21.52	21.89	21.64	23.40
		25	13	21.42	21.96	21.51	23.40
		25	25	21.44	21.87	21.52	23.40
		50	0	21.48	21.92	21.53	23.40
	16QAM	1	0	21.68	22.03	21.7	23.40
		1	25	21.72	22.05	21.69	23.40
		1	49	21.55	21.78	21.48	23.40
		25	0	20.59	21.25	20.57	22.40
		25	13	20.56	21.01	20.8	22.40
		25	25	20.75	21.08	20.57	22.40
		50	0	20.58	21.07	20.58	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	21.58	21.42	21.63	23.40
		1	38	21.55	21.41	21.54	23.40
		1	74	21.67	21.5	21.42	23.40
		36	0	21.69	21.42	21.49	23.40
		36	18	21.57	21.65	21.53	23.40
		36	39	21.57	21.64	21.63	23.40
		75	0	21.5	21.57	21.56	23.40

		1	0	21.52	21.47	21.62	23.40
		1	38	21.52	21.4	21.59	23.40
		1	74	21.45	21.57	21.76	23.40
	16QAM	36	0	20.79	20.71	20.82	22.40
		36	18	20.8	20.67	20.66	22.40
		36	39	20.72	20.55	20.71	22.40
		75	0	20.9	20.56	20.85	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	21.76	21.77	21.59	23.40
		1	50	21.45	21.43	21.43	23.40
		1	99	21.69	21.62	21.69	23.40
		50	0	21.58	21.68	21.55	23.40
		50	25	21.55	21.41	21.49	23.40
		50	50	21.48	21.56	21.49	23.40
		100	0	21.56	21.62	21.49	23.40
	16QAM	1	0	21.74	21.4	21.52	23.40
		1	50	21.63	21.65	21.44	23.40
		1	99	21.72	21.48	21.59	23.40
		50	0	21.19	20.93	21.17	22.40
		50	25	21.19	20.93	21.06	22.40
		50	50	20.95	20.68	21.02	22.40
		100	0	21.14	20.96	20.99	22.40

Ant1 LTE Band 2 Receiver on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	22.48	22.90	22.53	24.40
		1	2	22.52	22.85	22.61	24.40
		1	5	22.44	23.03	22.44	24.40
		3	0	22.58	23.29	22.92	24.40
		3	2	22.63	23.26	23.08	24.40
		3	3	22.70	23.25	23.02	24.40
		6	0	21.75	22.20	21.85	23.40
	16QAM	1	0	21.70	22.26	21.62	23.40
		1	2	21.40	22.05	21.56	23.40
		1	5	21.84	22.03	22.14	23.40
		3	0	21.77	22.09	21.60	23.40

		3	2	21.77	22.17	22.06	23.40
		3	3	21.63	22.11	21.73	23.40
		6	0	20.54	21.04	20.95	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18615	18900	19185	
3MHz	QPSK	1	0	22.58	22.8	22.91	24.40
		1	7	22.76	23.48	23.14	24.40
		1	14	22.48	22.96	22.92	24.40
		8	0	21.74	22.21	21.8	23.40
		8	4	21.81	22.25	21.89	23.40
		8	7	21.76	22.27	21.85	23.40
		15	0	21.72	22.19	21.81	23.40
	16QAM	1	0	21.63	22.26	22.17	23.40
		1	7	21.83	22.05	21.7	23.40
		1	14	21.82	22.34	21.88	23.40
		8	0	20.73	20.95	20.61	22.40
		8	4	20.67	21.13	20.58	22.40
		8	7	20.77	21.05	20.53	22.40
		15	0	20.58	21.19	20.86	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	22.53	22.74	22.52	24.40
		1	13	22.71	23.06	22.73	24.40
		1	24	22.6	23.1	22.63	24.40
		12	0	21.78	22.25	21.91	23.40
		12	6	21.78	22.29	21.94	23.40
		12	13	21.66	22.18	21.8	23.40
		25	0	21.8	22.22	21.89	23.40
	16QAM	1	0	21.79	22.39	21.59	23.40
		1	13	22.2	22.64	21.93	23.40
		1	24	21.69	22.61	21.85	23.40
		12	0	20.78	21.17	20.89	22.40
		12	6	20.83	21.07	20.83	22.40
		12	13	20.78	21.01	20.78	22.40
		25	0	20.63	21.34	20.79	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	22.4	23.14	22.64	24.40
		1	25	22.7	23.4	22.97	24.40

		1	49	22.51	23.14	22.81	24.40
		25	0	21.45	21.95	21.63	23.40
		25	13	21.49	21.94	21.57	23.40
		25	25	21.46	21.96	21.51	23.40
		50	0	21.55	21.91	21.61	23.40
	16QAM	1	0	21.43	21.65	21.7	23.40
		1	25	21.75	22	22.08	23.40
		1	49	21.57	21.79	21.84	23.40
		25	0	21.07	21.53	20.96	22.40
		25	13	20.75	21.29	21.02	22.40
		25	25	20.56	21.59	20.69	22.40
		50	0	20.67	21.27	20.79	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	22.51	22.91	22.67	24.40
		1	38	22.4	22.93	22.61	24.40
		1	74	22.52	22.85	22.53	24.40
		36	0	21.5	22.02	21.68	23.40
		36	18	21.49	21.99	21.73	23.40
		36	39	21.54	21.96	21.56	23.40
		75	0	21.46	21.96	21.72	23.40
	16QAM	1	0	21.63	21.87	21.43	23.40
		1	38	21.53	21.61	21.41	23.40
		1	74	21.41	22.03	21.66	23.40
		36	0	20.52	20.86	20.54	22.40
		36	18	20.43	20.94	20.62	22.40
		36	39	20.5	21.07	20.58	22.40
		75	0	20.53	21.06	20.72	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	22.53	23.15	22.9	24.40
		1	50	22.52	23.01	22.68	24.40
		1	99	22.49	23.13	22.82	24.40
		50	0	21.91	22.29	22.15	23.40
		50	25	21.82	22.22	22	23.40
		50	50	21.95	22.26	21.85	23.40
		100	0	21.89	22.24	21.97	23.40
	16QAM	1	0	21.58	21.74	22.43	23.40
		1	50	21.61	22.42	21.82	23.40

		1	99	21.82	21.98	21.56	23.40
		50	0	20.55	20.95	20.88	22.40
		50	25	20.52	21.06	20.65	22.40
		50	50	20.64	20.99	20.68	22.40
		100	0	20.65	21.05	20.58	22.40

Ant1 LTE Band 2 Hotspot On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	21.15	21.78	21.44	22.10
		1	2	21.43	21.97	21.33	22.10
		1	5	21.12	21.85	21.21	22.10
		3	0	21.50	21.72	21.50	22.10
		3	2	21.34	21.92	21.42	22.10
		3	3	21.45	21.90	21.46	22.10
		6	0	21.34	21.91	21.46	22.10
	16QAM	1	0	21.18	21.71	21.51	22.10
		1	2	21.56	21.92	21.18	22.10
		1	5	21.77	21.97	21.68	22.10
		3	0	21.44	21.73	21.80	22.10
		3	2	21.63	22.03	21.75	22.10
		3	3	21.38	21.86	21.64	22.10
		6	0	20.14	20.63	20.60	22.10
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	21.08	21.55	21.61	22.10
		1	7	21.39	21.93	21.76	22.10
		1	14	21.13	21.51	21.32	22.10
		8	0	21.49	21.9	21.65	22.10
		8	4	21.36	21.94	21.52	22.10
		8	7	21.5	21.87	21.45	22.10
		15	0	21.43	21.88	21.51	22.10
	16QAM	1	0	21.31	21.75	21.28	22.10
		1	7	21.02	21.65	22.08	22.10
		1	14	20.73	21.91	21.14	22.10
		8	0	20.45	20.59	20.14	22.10
		8	4	20.49	20.64	20.36	22.10

		8	7	20.28	20.53	20.75	22.10
		15	0	20.34	20.83	20.43	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	20.89	21.5	21.46	22.10
		1	13	21.35	21.85	21.45	22.10
		1	24	20.97	21.53	21.12	22.10
		12	0	21.41	21.92	21.52	22.10
		12	6	21.5	21.96	21.56	22.10
		12	13	21.38	21.85	21.43	22.10
		25	0	21.41	21.86	21.5	22.10
	16QAM	1	0	20.95	21.84	20.89	22.10
		1	13	20.91	21.94	21.57	22.10
		1	24	21.19	21.91	21.24	22.10
		12	0	20.44	20.75	20.5	22.10
		12	6	20.43	20.83	20.47	22.10
		12	13	20.43	20.51	20.39	22.10
		25	0	20.41	20.71	20.38	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	21.27	21.76	21.38	22.10
		1	25	21.41	21.97	21.76	22.10
		1	49	21.2	21.57	21.3	22.10
		25	0	21.45	21.82	21.56	22.10
		25	13	21.47	21.82	21.46	22.10
		25	25	21.42	21.84	21.48	22.10
		50	0	21.52	21.89	21.56	22.10
	16QAM	1	0	21.27	21.64	21.5	22.10
		1	25	21.63	21.6	21.28	22.10
		1	49	21.25	21.94	21.02	22.10
		25	0	20.6	20.79	20.64	22.10
		25	13	20.63	21.04	20.8	22.10
		25	25	20.57	20.67	20.73	22.10
		50	0	20.31	20.84	20.48	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	21.38	21.92	21.73	22.10
		1	38	21.44	21.81	21.47	22.10
		1	74	21.54	21.73	21.44	22.10

		36	0	21.42	21.86	21.6	22.10
		36	18	21.39	21.82	21.62	22.10
		36	39	21.43	21.83	21.49	22.10
		75	0	21.47	21.88	21.61	22.10
	16QAM	1	0	21.66	21.95	21.72	22.10
		1	38	21.41	21.44	21.72	22.10
		1	74	21.05	21.74	21.22	22.10
		36	0	20.34	20.8	20.55	22.10
		36	18	20.3	20.78	20.62	22.10
		36	39	20.45	20.78	20.47	22.10
		75	0	20.52	20.76	20.59	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	21.88	21.95	21.79	22.10
		1	50	21.43	21.57	21.75	22.10
		1	99	21.44	21.69	21.39	22.10
		50	0	21.48	21.86	21.73	22.10
		50	25	21.45	21.83	21.57	22.10
		50	50	21.61	21.85	21.52	22.10
		100	0	21.51	21.81	21.66	22.10
	16QAM	1	0	21.26	21.74	21.31	22.10
		1	50	21.61	21.83	21.36	22.10
		1	99	21.27	21.5	21.6	22.10
		50	0	20.46	20.88	20.77	22.10
		50	25	20.43	20.77	20.62	22.10
		50	50	20.53	20.8	20.54	22.10
		100	0	20.48	20.85	20.62	22.10

Ant3 LTE Band 2 Receiver off/Hotspot off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18607	18900	19193	
1.4MHz	QPSK	1	0	19.54	19.98	19.64	20.90
		1	2	19.54	20	19.65	20.90
		1	5	19.62	19.74	19.5	20.90
		3	0	19.64	19.9	19.65	20.90
		3	2	19.54	19.94	19.56	20.90
		3	3	19.49	19.96	19.54	20.90
		6	0	19.5	20.12	19.54	20.90

	16QAM	1	0	19.13	19.15	19.72	20.90
		1	2	19.59	20.04	19.21	20.90
		1	5	19.11	19.95	19.41	20.90
		3	0	19.66	20.15	19.57	20.90
		3	2	19.66	20.07	19.72	20.90
		3	3	19.51	20.01	19.54	20.90
		6	0	19.4	19.81	19.42	20.90
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18615	18900	19185	
3MHz	QPSK	1	0	19.51	19.6	19.48	20.90
		1	7	19.36	19.74	19.67	20.90
		1	14	19.29	19.62	19.38	20.90
		8	0	19.48	20.05	19.38	20.90
		8	4	19.5	19.86	19.44	20.90
		8	7	19.51	19.85	19.37	20.90
		15	0	19.48	19.9	19.37	20.90
	16QAM	1	0	19.03	19.64	19.26	20.90
		1	7	19.44	19.87	19.49	20.90
		1	14	19.34	19.65	19.65	20.90
		8	0	19.43	19.68	19.12	20.90
		8	4	19.42	19.6	19.23	20.90
		8	7	19.6	19.59	19.18	20.90
		15	0	19.33	19.41	19.41	20.90
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	19.2	19.78	19.33	20.90
		1	13	19.41	19.74	19.49	20.90
		1	24	19.31	19.52	19.27	20.90
		12	0	19.56	19.99	19.48	20.90
		12	6	19.54	19.95	19.57	20.90
		12	13	19.56	19.93	19.45	20.90
		25	0	19.57	19.92	19.52	20.90
	16QAM	1	0	19.65	19.51	19.62	20.90
		1	13	19.43	19.65	19.47	20.90
		1	24	19.36	19.88	19.05	20.90
		12	0	19.45	19.88	19.38	20.90
		12	6	19.64	20	19.28	20.90
		12	13	19.52	20.04	19.37	20.90
		25	0	19.61	20.06	19.65	20.90

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	19.33	19.79	19.39	20.90
		1	25	19.69	20.05	19.71	20.90
		1	49	19.65	19.58	19.51	20.90
		25	0	19.54	20.01	19.59	20.90
		25	13	19.61	19.96	19.59	20.90
		25	25	19.51	19.93	19.48	20.90
		50	0	19.48	19.98	19.47	20.90
	16QAM	1	0	19.38	19.8	19.15	20.90
		1	25	19.66	19.94	19.78	20.90
		1	49	19.26	20.07	19.37	20.90
		25	0	19.54	19.91	19.65	20.90
		25	13	19.6	20.13	19.51	20.90
		25	25	19.52	20.04	19.43	20.90
		50	0	19.65	20.06	19.54	20.90
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	19.58	19.89	19.74	20.90
		1	38	19.65	20.11	19.55	20.90
		1	74	19.65	19.9	19.56	20.90
		36	0	19.54	19.99	19.68	20.90
		36	18	19.48	19.99	19.64	20.90
		36	39	19.58	19.88	19.57	20.90
		75	0	19.55	20.02	19.65	20.90
	16QAM	1	0	19.5	19.77	18.95	20.90
		1	38	19.07	19.45	19.26	20.90
		1	74	19.06	19.64	19.35	20.90
		36	0	19.59	19.91	19.66	20.90
		36	18	19.59	20.02	19.61	20.90
		36	39	19.62	19.92	19.58	20.90
		75	0	19.59	20.03	19.63	20.90
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	19.34	20.18	19.58	20.90
		1	50	19.62	20.1	19.65	20.90
		1	99	19.74	19.5	19.63	20.90
		50	0	19.67	20.16	19.89	20.90
		50	25	19.56	19.99	19.65	20.90

		50	50	19.74	19.88	19.56	20.90
		100	0	19.7	19.95	19.73	20.90
	16QAM	1	0	19.21	19.34	19.81	20.90
		1	50	19.28	19.29	19.43	20.90
		1	99	19.72	19.8	18.91	20.90
		50	0	19.72	20	19.89	20.90
		50	25	19.61	20.09	19.76	20.90
		50	50	19.82	19.94	19.61	20.90
		100	0	19.64	20.02	19.7	20.90

Ant3 LTE Band 2 Receiver on/Hotspot on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	16.44	16.78	16.31	17.80
		1	2	16.51	16.92	16.25	17.80
		1	5	16.55	16.77	16.19	17.80
		3	0	16.51	16.66	16.4	17.80
		3	2	16.48	16.8	16.37	17.80
		3	3	16.44	16.53	16.44	17.80
		6	0	16.46	16.45	16.43	17.80
	16QAM	1	0	16.12	16.43	15.99	17.80
		1	2	16.58	16.37	16.33	17.80
		1	5	15.99	16.35	16.36	17.80
		3	0	16.63	16.79	16.51	17.80
		3	2	16.81	16.97	16.83	17.80
		3	3	16.66	16.65	16.7	17.80
		6	0	16.46	16.84	16.12	17.80
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	16.37	16.71	16.43	17.80
		1	7	16.39	16.97	16.49	17.80
		1	14	16.29	16.64	16.14	17.80
		8	0	16.53	16.79	16.37	17.80
		8	4	16.52	16.53	16.41	17.80
		8	7	16.46	16.46	16.43	17.80
		15	0	16.53	16.51	16.44	17.80
	16QAM	1	0	16.1	16.46	16.43	17.80

		1	7	16.21	16.44	16.37	17.80
		1	14	16.33	16.4	16.52	17.80
		8	0	16.44	16.57	16.85	17.80
		8	4	16.39	16.68	16.81	17.80
		8	7	16.55	16.53	16.84	17.80
		15	0	16.61	16.73	16.42	17.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	16.2	16.63	16.39	17.80
		1	13	16.45	16.75	16.46	17.80
		1	24	15.93	16.41	15.84	17.80
		12	0	16.32	16.77	16.36	17.80
		12	6	16.41	16.45	16.45	17.80
		12	13	16.33	16.72	16.35	17.80
		25	0	16.4	16.35	16.39	17.80
	16QAM	1	0	16.24	16.25	16.21	17.80
		1	13	15.93	16.39	16.2	17.80
		1	24	16.25	16.29	15.9	17.80
		12	0	16.43	16.62	16.24	17.80
		12	6	16.36	16.81	16.38	17.80
		12	13	16.49	16.78	16.5	17.80
		25	0	16.6	16.82	16.1	17.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	16.2	16.59	16.27	17.80
		1	25	16.48	17.06	16.67	17.80
		1	49	16.38	16.48	16.06	17.80
		25	0	16.48	16.52	16.48	17.80
		25	13	16.37	16.8	16.38	17.80
		25	25	16.31	16.74	16.4	17.80
		50	0	16.44	16.51	16.41	17.80
	16QAM	1	0	16.12	16.4	16.65	17.80
		1	25	16.41	16.45	16.64	17.80
		1	49	15.94	16.54	16.4	17.80
		25	0	16.41	16.88	16.43	17.80
		25	13	16.59	16.65	16.4	17.80
		25	25	16.38	16.86	16.47	17.80
		50	0	16.44	17.01	16.43	17.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up

				18675	18900	19125	
15MHz	QPSK	1	0	16.38	16.81	16.5	17.80
		1	38	16.36	16.74	16.37	17.80
		1	74	16.46	16.78	16.11	17.80
		36	0	16.43	16.41	16.43	17.80
		36	18	16.41	16.71	16.51	17.80
		36	39	16.41	16.71	16.34	17.80
		75	0	16.37	16.51	16.43	17.80
	16QAM	1	0	16.42	16.5	16.27	17.80
		1	38	16.38	16.72	16.12	17.80
		1	74	16.4	16.39	16.07	17.80
		36	0	16.54	16.8	16.43	17.80
		36	18	16.42	16.74	16.44	17.80
		36	39	16.31	16.75	16.51	17.80
		75	0	16.42	16.77	16.45	17.80
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	16.74	16.94	16.81	17.80
		1	50	16.6	16.87	16.61	17.80
		1	99	16.54	16.32	16.34	17.80
		50	0	16.58	16.77	16.59	17.80
		50	25	16.48	16.5	16.56	17.80
		50	50	16.56	16.74	16.35	17.80
		100	0	16.53	16.7	16.53	17.80
	16QAM	1	0	16.04	16.2	16.73	17.80
		1	50	16.59	16.58	16.27	17.80
		1	99	16.87	16.42	16	17.80
		50	0	16.53	16.86	16.49	17.80
		50	25	16.47	16.7	16.56	17.80
		50	50	16.53	16.87	16.46	17.80
		100	0	16.46	16.85	16.55	17.80

LTE Band 4 Receiver off/Hotspot Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	21.79	22.15	21.77	23.10
		1	2	21.9	22.22	21.85	23.10
		1	5	21.75	22.24	21.75	23.10
		3	0	21.76	22.19	21.75	23.10
		3	2	21.73	22.24	21.74	23.10
		3	3	21.77	22.19	21.82	23.10
		6	0	21.85	22.32	21.89	23.10
	16QAM	1	0	22.07	22.14	21.91	23.10
		1	2	21.9	22.22	22.18	23.10
		1	5	21.86	22.1	22.29	23.10
		3	0	21.83	22.17	21.85	23.10
		3	2	21.82	22.19	21.96	23.10
		3	3	21.71	22.17	21.83	23.10
		6	0	20.88	21.02	20.82	22.40
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	21.58	22.05	21.69	23.10
		1	7	21.65	22.05	21.63	23.10
		1	14	21.81	22.04	21.7	23.10
		8	0	21.75	22.23	21.91	23.10
		8	4	21.75	22.27	21.91	23.10
		8	7	21.79	22.27	21.86	23.10
		15	0	21.75	22.2	21.82	23.10
	16QAM	1	0	21.62	22.33	22.22	23.10
		1	7	21.57	22.07	22.19	23.10
		1	14	21.51	22.17	22.06	23.10
		8	0	21.14	21.55	20.88	22.40
		8	4	21.18	21.42	20.94	22.40
		8	7	21.37	21.21	20.97	22.40
		15	0	21.09	21.5	21.14	22.40
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	21.44	21.98	21.68	23.10
		1	13	21.76	22.14	21.72	23.10
		1	24	21.73	21.75	21.46	23.10

		12	0	21.75	22.18	21.86	23.10
		12	6	21.78	22.18	21.91	23.10
		12	13	21.65	22.19	21.85	23.10
		25	0	21.7	22.22	21.84	23.10
	16QAM	1	0	21.49	22.1	21.47	23.10
		1	13	21.45	21.91	21.55	23.10
		1	24	21.62	22.36	21.66	23.10
		12	0	20.97	21.56	21.15	22.40
		12	6	21.12	21.44	21.15	22.40
		12	13	20.84	21.51	21.1	22.40
		25	0	21.14	21.4	21.05	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	21.65	22.24	21.87	23.10
		1	25	21.9	22.33	22.09	23.10
		1	49	21.55	21.93	21.72	23.10
		25	0	21.82	22.19	21.94	23.10
		25	13	21.72	22.26	21.81	23.10
		25	25	21.74	22.17	21.82	23.10
		50	0	21.78	22.22	21.83	23.10
	16QAM	1	0	21.68	22.33	22	23.10
		1	25	22.02	22.35	21.99	23.10
		1	49	21.55	22.08	21.48	23.10
		25	0	20.89	21.55	20.87	22.40
		25	13	20.86	21.31	21.1	22.40
		25	25	21.05	21.38	20.87	22.40
		50	0	20.88	21.37	20.88	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	21.88	21.72	21.93	23.10
		1	38	21.85	21.71	21.84	23.10
		1	74	21.97	21.5	21.72	23.10
		36	0	21.99	21.72	21.79	23.10
		36	18	21.87	21.65	21.83	23.10
		36	39	21.87	21.64	21.93	23.10
		75	0	21.8	21.57	21.86	23.10
	16QAM	1	0	21.52	21.77	21.92	23.10
		1	38	21.82	21.7	21.89	23.10
		1	74	21.45	21.57	22.06	23.10

		36	0	21.09	21.01	21.12	22.40
		36	18	21.1	20.97	20.96	22.40
		36	39	21.02	20.85	21.01	22.40
		75	0	21.2	20.86	21.15	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	22.31	22.35	22.33	23.10
		1	50	21.69	21.62	21.69	23.10
		1	99	21.82	21.88	21.85	23.10
		50	0	21.85	22.11	21.79	23.10
		50	25	21.78	21.56	21.79	23.10
		50	50	21.86	21.62	21.79	23.10
		100	0	22.04	22.20	21.52	23.10
	16QAM	1	0	21.93	21.95	21.74	23.10
		1	50	22.02	21.78	21.59	23.10
		1	99	21.49	21.23	21.47	23.10
		50	0	21.49	21.23	21.36	22.40
		50	25	21.25	20.98	21.32	22.40
		50	50	21.44	21.26	21.29	22.40
		100	0	21.14	20.96	20.99	22.40

LTE Band 4 Receiver on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	22.92	22.75	22.81	24.40
		1	2	23.02	22.73	22.8	24.40
		1	5	22.98	22.55	22.79	24.40
		3	0	23.06	22.78	22.6	24.40
		3	2	22.99	22.74	22.77	24.40
		3	3	22.92	22.73	22.74	24.40
		6	0	21.82	21.65	21.73	23.40
	16QAM	1	0	21.67	21.46	21.58	23.40
		1	2	21.59	21.85	21.43	23.40
		1	5	21.63	21.46	21.41	23.40
		3	0	21.91	21.63	21.88	23.40
		3	2	21.5	21.62	22.01	23.40
		3	3	21.47	21.75	21.84	23.40
		6	0	20.54	20.52	20.85	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19965	20175	20385	

3MHz	QPSK	1	0	22.81	22.81	22.55	24.40
		1	7	22.85	22.59	22.75	24.40
		1	14	22.69	22.62	22.8	24.40
		8	0	21.96	21.68	21.8	23.40
		8	4	21.89	21.66	21.82	23.40
		8	7	21.75	21.63	21.82	23.40
		15	0	21.79	21.74	21.74	23.40
	16QAM	1	0	21.51	21.88	21.48	23.40
		1	7	21.53	21.49	21.78	23.40
		1	14	21.47	21.84	21.4	23.40
		8	0	20.43	20.41	20.83	22.40
		8	4	20.65	20.43	20.85	22.40
		8	7	20.75	20.42	20.73	22.40
		15	0	20.48	20.51	20.73	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	22.94	22.88	22.94	24.40
		1	13	22.95	22.92	22.93	24.40
		1	24	22.99	22.46	22.82	24.40
		12	0	22.2	21.93	22.09	23.40
		12	6	22.16	21.93	22.19	23.40
		12	13	22.14	21.87	22.12	23.40
		25	0	22.18	21.92	22.13	23.40
	16QAM	1	0	21.96	21.52	21.74	23.40
		1	13	22.11	22.05	21.9	23.40
		1	24	21.68	21.51	22.27	23.40
		12	0	21.02	20.83	21.04	22.40
		12	6	20.79	20.86	21.05	22.40
		12	13	20.84	20.73	21.09	22.40
		25	0	21.17	20.76	21	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	22.78	22.46	22.54	24.40
		1	25	22.84	22.82	22.87	24.40
		1	49	22.95	22.43	22.55	24.40
		25	0	22.11	21.94	22.09	23.40
		25	13	22.12	21.9	22.17	23.40
		25	25	22.12	21.87	22.12	23.40
		50	0	22.15	21.95	21.94	23.40

		1	0	22.2	22.09	21.62	23.40
		1	25	21.88	22.26	22.02	23.40
		1	49	21.76	21.49	21.77	23.40
	16QAM	25	0	20.97	20.79	20.95	22.40
		25	13	20.96	21.02	21.1	22.40
		25	25	21.02	20.83	21.03	22.40
		50	0	21.08	20.96	21.12	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	23.05	22.77	22.8	24.40
		1	38	22.93	22.45	22.84	24.40
		1	74	22.79	22.47	22.92	24.40
		36	0	22.17	22.03	21.97	23.40
		36	18	22.09	22.03	22.05	23.40
		36	39	22.11	21.86	22.08	23.40
		75	0	22.15	21.94	21.99	23.40
	16QAM	1	0	22.28	22.02	22.26	23.40
		1	38	21.64	22.01	22.08	23.40
		1	74	21.66	21.9	21.88	23.40
		36	0	20.97	20.84	20.95	22.40
		36	18	21	21	21.03	22.40
		36	39	20.92	20.82	21.01	22.40
		75	0	21.12	20.68	20.84	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	23.04	23.09	23.04	24.40
		1	50	22.94	22.99	22.99	24.40
		1	99	22.93	22.69	23.03	24.40
		50	0	22.2	22.25	22.23	23.40
		50	25	22.2	22.08	22.04	23.40
		50	50	22.04	21.82	22.06	23.40
		100	0	22.11	21.89	21.97	23.40
	16QAM	1	0	21.84	22.39	22.05	23.40
		1	50	22.37	21.86	21.76	23.40
		1	99	21.56	21.61	21.93	23.40
		50	0	21.24	20.9	21.05	22.40
		50	25	21.17	20.83	20.92	22.40
		50	50	21.08	20.96	20.85	22.40
		100	0	21.17	20.91	21.05	22.40

LTE Band 4 Hotspot On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	20.96	20.62	20.79	22.10
		1	2	21.29	20.64	20.71	22.10
		1	5	20.89	20.62	20.87	22.10
		3	0	21.09	20.71	20.8	22.10
		3	2	21.02	20.75	20.78	22.10
		3	3	21.03	20.73	20.75	22.10
		6	0	20.87	20.7	20.77	22.10
	16QAM	1	0	20.79	20.71	20.78	22.10
		1	2	20.66	20.69	20.62	22.10
		1	5	20.88	20.67	20.7	22.10
		3	0	20.99	20.68	20.6	22.10
		3	2	20.98	20.67	20.97	22.10
		3	3	20.95	20.61	20.8	22.10
		6	0	20.87	20.69	20.86	22.10
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	20.82	21.14	21.01	22.10
		1	7	21.01	21.07	21.01	22.10
		1	14	20.8	20.61	20.96	22.10
		8	0	21.12	21	21.17	22.10
		8	4	21.25	21.01	21.18	22.10
		8	7	21.21	20.99	21.11	22.10
		15	0	21.15	21.05	21.16	22.10
	16QAM	1	0	21.17	21.35	20.97	22.10
		1	7	20.8	21.21	20.87	22.10
		1	14	21.02	20.96	21.18	22.10
		8	0	21.1	20.69	21.32	22.10
		8	4	21.01	21.01	21.29	22.10
		8	7	20.88	20.89	21.16	22.10
		15	0	20.76	21.03	21.17	22.10
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	20.9	20.6	20.84	22.10
		1	13	21.22	20.8	21.36	22.10

		1	24	21.16	20.6	21.06	22.10
		12	0	21.22	21.08	21.2	22.10
		12	6	21.16	21.1	21.25	22.10
		12	13	21.06	21.06	21.21	22.10
		25	0	21.11	20.99	21.13	22.10
	16QAM	1	0	21.08	21.15	20.94	22.10
		1	13	20.81	20.98	20.84	22.10
		1	24	20.98	20.74	21.23	22.10
		12	0	21.25	21.13	21.27	22.10
		12	6	21.16	20.84	21.15	22.10
		12	13	20.87	20.92	21.27	22.10
		25	0	21.09	21.14	21.28	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	20.95	20.86	20.85	22.10
		1	25	21.19	20.95	21.29	22.10
		1	49	21.09	20.6	20.95	22.10
		25	0	21.2	21.08	21.15	22.10
		25	13	21.22	21.07	21.19	22.10
		25	25	21.12	20.89	21.13	22.10
		50	0	21.24	20.98	21.18	22.10
	16QAM	1	0	21.11	20.82	20.68	22.10
		1	25	21.4	21.31	21.4	22.10
		1	49	20.88	20.8	21.32	22.10
		25	0	21.06	20.9	20.98	22.10
		25	13	21.33	21.29	20.98	22.10
		25	25	21.1	21.11	21.42	22.10
		50	0	21.19	20.92	21.25	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	20.98	20.74	20.81	22.10
		1	38	20.79	20.82	20.77	22.10
		1	74	20.71	20.83	21.14	22.10
		36	0	20.83	21.37	21.02	22.10
		36	18	20.85	21.38	21.07	22.10
		36	39	20.76	21.18	21.1	22.10
		75	0	20.73	21.28	21.08	22.10
	16QAM	1	0	20.82	21.1	20.9	22.10
		1	38	20.78	20.83	20.81	22.10

		1	74	20.63	20.79	20.76	22.10
		36	0	20.86	20.96	21.05	22.10
		36	18	20.75	20.91	21.15	22.10
		36	39	20.77	20.85	21.12	22.10
		75	0	20.85	20.98	21.23	22.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	20.99	21.56	20.95	22.10
		1	50	20.97	20.87	21.11	22.10
		1	99	21	20.94	21.08	22.10
		50	0	21.22	21.55	21.14	22.10
		50	25	21.1	21.03	20.94	22.10
		50	50	21.13	20.89	20.96	22.10
		100	0	21.15	21.19	21.16	22.10
	16QAM	1	0	20.89	20.79	20.65	22.10
		1	50	21.24	20.77	21.09	22.10
		1	99	20.7	20.97	21.17	22.10
		50	0	21.25	20.96	21.28	22.10
		50	25	21.25	21.04	21.04	22.10
		50	50	21.11	20.97	20.99	22.10
		100	0	20.89	21.01	21.15	22.10

Ant3 LTE Band 4 Receiver off/ Hotspot off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	20.7	20.61	20.58	21.30
		1	2	20.52	20.54	20.74	21.30
		1	5	20.83	20.7	20.65	21.30
		3	0	20.43	20.35	20.61	21.30
		3	2	20.54	20.53	20.51	21.30
		3	3	20.62	20.51	20.57	21.30
		6	0	20.67	20.39	20.57	21.30
	16QAM	1	0	20.1	20.3	20.9	21.30
		1	2	20.36	20.09	20.74	21.30
		1	5	19.97	20.45	20.82	21.30
		3	0	20.32	20.46	20.35	21.30
		3	2	20.44	20.28	20.33	21.30
		3	3	20.36	20.17	20.32	21.30
		6	0	20.4	20.36	20.31	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up

				19965	20175	20385	
3MHz	QPSK	1	0	20.68	20.60	20.57	22.50
		1	7	20.52	20.59	20.79	21.30
		1	14	20.86	20.66	20.54	21.30
		8	0	20.59	20.29	20.63	21.30
		8	4	20.49	20.34	20.44	21.30
		8	7	20.45	20.3	20.45	21.30
		15	0	20.51	20.36	20.49	21.30
	16QAM	1	0	20.42	20.53	20.29	21.30
		1	7	20.27	20.08	20.22	21.30
		1	14	19.92	20.5	20.06	21.30
		8	0	20.42	20.44	20.27	21.30
		8	4	20.45	20.33	20.27	21.30
		8	7	20.43	20.19	20.44	21.30
		15	0	20.29	20.28	20.48	21.30
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	20.7	20.54	20.59	21.30
		1	13	20.52	20.62	20.75	21.30
		1	24	20.85	20.74	20.74	21.30
		12	0	20.65	20.38	20.54	21.30
		12	6	20.59	20.46	20.54	21.30
		12	13	20.51	20.38	20.6	21.30
		25	0	20.52	20.39	20.48	21.30
	16QAM	1	0	20.67	19.87	20.01	21.30
		1	13	20.22	20.05	19.99	21.30
		1	24	20.29	20.04	20.07	21.30
		12	0	20.37	20.34	20.4	21.30
		12	6	20.45	20.36	20.44	21.30
		12	13	20.43	20.15	20.31	21.30
		25	0	20.49	20.43	20.47	21.30
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	20.56	20.61	20.6	21.30
		1	25	20.67	20.6	20.72	21.30
		1	49	20.78	20.64	20.5	21.30
		25	0	20.6	20.51	20.44	21.30
		25	13	20.53	20.43	20.56	21.30
		25	25	20.56	20.28	20.57	21.30

		50	0	20.58	20.41	20.52	21.30
	16QAM	1	0	20.42	20.43	20.55	21.30
		1	25	20.14	20.05	20.57	21.30
		1	49	20.1	20.03	20.66	21.30
		25	0	20.4	20.34	20.31	21.30
		25	13	20.45	20.37	20.25	21.30
		25	25	20.31	20.2	20.38	21.30
		50	0	20.49	20.28	20.4	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	20.6	20.51	20.59	21.30
		1	38	20.61	20.63	20.69	21.30
		1	74	20.78	20.69	20.51	21.30
		36	0	20.57	20.39	20.31	21.30
		36	18	20.52	20.28	20.38	21.30
		36	39	20.55	20.22	20.41	21.30
		75	0	20.52	20.27	20.45	21.30
	16QAM	1	0	20.44	19.83	20.29	21.30
		1	38	20.06	20.24	19.99	21.30
		1	74	20.75	19.72	20.52	21.30
		36	0	20.41	20.43	20.34	21.30
		36	18	20.48	20.32	20.35	21.30
		36	39	20.39	20.15	20.4	21.30
		75	0	20.5	20.34	20.49	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	20.74	20.89	20.58	21.30
		1	50	20.63	20.81	20.79	21.30
		1	99	20.54	20.51	20.56	21.30
		50	0	20.59	20.60	20.52	21.30
		50	25	20.58	20.38	20.37	21.30
		50	50	20.57	20.16	20.33	21.30
		100	0	20.52	20.58	20.44	21.30
	16QAM	1	0	20.31	20.37	20.33	21.30
		1	50	20.17	19.84	20.45	21.30
		1	99	20.65	20.36	20.56	21.30
		50	0	20.43	20.37	20.39	21.30
		50	25	20.41	20.42	20.41	21.30
		50	50	20.49	20.26	20.38	21.30

		100	0	20.49	20.25	20.47	21.30

Ant3 LTE Band 4 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	20.53	20.28	20.37	21.20
		1	2	20.66	20.39	20.61	21.20
		1	5	20.51	20.33	20.33	21.20
		3	0	20.51	20.37	20.41	21.20
		3	2	20.45	20.23	20.45	21.20
		3	3	20.53	20.29	20.55	21.20
		6	0	20.48	20.28	20.49	21.20
	16QAM	1	0	20.11	19.82	20.94	21.20
		1	2	20.6	20.17	20.41	21.20
		1	5	20	20.35	20.31	21.20
		3	0	20.62	20.45	20.4	21.20
		3	2	20.48	20.53	20.5	21.20
		3	3	20.66	20.57	20.32	21.20
		6	0	20.55	20.32	20.57	21.20
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	20.27	20.46	20.21	21.20
		1	7	20.77	20.61	20.84	21.20
		1	14	20.54	20.3	20.52	21.20
		8	0	20.63	20.29	20.43	21.20
		8	4	20.43	20.34	20.47	21.20
		8	7	20.4	20.32	20.48	21.20
		15	0	20.46	20.36	20.5	21.20
	16QAM	1	0	20.96	20.49	20.58	21.20
		1	7	20.48	20.08	20.5	21.20
		1	14	19.97	20.41	20.12	21.20
		8	0	20.65	20.06	20.14	21.20
		8	4	20.5	20.2	20.17	21.20
		8	7	20.54	20.06	20.2	21.20
		15	0	20.45	20.25	20.5	21.20
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	19.86	19.92	20.08	21.20

		1	13	20.26	20.26	20.18	21.20
		1	24	20.16	20.05	20.15	21.20
		12	0	20.34	20.26	20.44	21.20
		12	6	20.3	20.34	20.43	21.20
		12	13	20.21	20.28	20.51	21.20
		25	0	20.26	20.29	20.38	21.20
	16QAM	1	0	19.99	20.34	20.57	21.20
		1	13	19.83	19.82	20.15	21.20
		1	24	19.88	19.76	20.22	21.20
		12	0	20.49	20.18	20.44	21.20
		12	6	20.44	20.25	20.49	21.20
		12	13	20.4	20.15	20.35	21.20
		25	0	20.56	20.29	20.5	21.20
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	19.92	19.84	20.01	21.20
		1	25	20.48	20.47	20.38	21.20
		1	49	20.22	19.72	20.11	21.20
		25	0	20.32	20.36	20.41	21.20
		25	13	20.29	20.29	20.42	21.20
		25	25	20.26	20.12	20.45	21.20
		50	0	20.29	20.27	20.27	21.20
	16QAM	1	0	20.49	20.34	20.07	21.20
		1	25	20.44	20.23	20.34	21.20
		1	49	20.15	19.99	20.32	21.20
		25	0	20.48	20.37	20.55	21.20
		25	13	20.51	20.33	20.49	21.20
		25	25	20.22	20.42	20.46	21.20
		50	0	20.46	20.22	20.41	21.20
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	20.43	20.34	20.36	21.20
		1	38	20.54	20.28	20.37	21.20
		1	74	20.24	19.92	20.57	21.20
		36	0	20.49	20.37	20.29	21.20
		36	18	20.45	20.38	20.37	21.20
		36	39	20.37	20.2	20.5	21.20
		75	0	20.44	20.26	20.44	21.20
	16QAM	1	0	20.73	19.98	20.34	21.20

		1	38	20.07	21.16	20.41	21.20
		1	74	19.61	20.14	20.26	21.20
		36	0	20.39	20.36	20.38	21.20
		36	18	20.32	20.31	20.51	21.20
		36	39	20.39	20.18	20.49	21.20
		75	0	20.55	20.22	20.34	21.20
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	20.36	20.57	20.36	21.20
		1	50	20.46	20.52	20.44	21.20
		1	99	20.28	20.11	20.23	21.20
		50	0	20.49	20.5	20.47	21.20
		50	25	20.49	20.25	20.35	21.20
		50	50	20.35	20.15	20.4	21.20
		100	0	20.42	20.45	20.4	21.20
	16QAM	1	0	20.55	20.43	20.28	21.20
		1	50	20.73	19.92	20.28	21.20
		1	99	20.34	19.61	20.27	21.20
		50	0	20.57	20.5	20.32	21.20
		50	25	20.67	20.26	20.38	21.20
		50	50	20.42	20.24	20.46	21.20
		100	0	20.49	20.2	20.42	21.20

Ant3 LTE Band 4 Hotspot on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	19.68	19.41	19.6	20.80
		1	2	19.68	19.43	19.65	20.80
		1	5	19.68	19.46	19.58	20.80
		3	0	19.6	19.53	19.5	20.80
		3	2	19.67	19.48	19.68	20.80
		3	3	19.65	19.45	19.69	20.80
		6	0	19.72	19.58	19.61	20.80
	16QAM	1	0	19.63	19.65	19.5	20.80
		1	2	19.54	19.99	19.73	20.80
		1	5	19.26	19.96	19.21	20.80
		3	0	19.85	19.62	19.67	20.80

		3	2	20.08	19.64	19.69	20.80
		3	3	19.81	19.45	19.75	20.80
		6	0	19.76	19.38	19.64	20.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19965	20175	20385	
3MHz	QPSK	1	0	19.66	19.33	19.13	20.80
		1	7	19.76	19.5	19.7	20.80
		1	14	19.36	19.57	19.28	20.80
		8	0	19.73	19.68	19.66	20.80
		8	4	19.66	19.61	19.7	20.80
		8	7	19.62	19.59	19.6	20.80
		15	0	19.67	19.52	19.63	20.80
	16QAM	1	0	19.02	19.52	19.05	20.80
		1	7	19.45	19.02	19.3	20.80
		1	14	19.18	19.4	19.43	20.80
		8	0	19.8	19.41	19.5	20.80
		8	4	19.48	19.79	19.45	20.80
		8	7	19.75	19.58	19.22	20.80
		15	0	19.64	19.32	19.59	20.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	19.35	19.37	19.37	20.80
		1	13	19.68	19.44	19.8	20.80
		1	24	19.51	19.23	19.37	20.80
		12	0	19.76	19.59	19.73	20.80
		12	6	19.7	19.56	19.74	20.80
		12	13	19.58	19.51	19.8	20.80
		25	0	19.61	19.5	19.66	20.80
	16QAM	1	0	19.61	19.32	19.69	20.80
		1	13	19.62	19.13	19.82	20.80
		1	24	19.21	19.22	19.36	20.80
		12	0	19.7	19.56	19.69	20.80
		12	6	19.57	19.48	19.71	20.80
		12	13	19.68	19.55	19.79	20.80
		25	0	19.63	19.66	19.76	20.80
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	19.63	19.24	19.28	20.80
		1	25	19.71	19.63	19.87	20.80

		1	49	19.61	19.01	19.53	20.80
		25	0	19.65	19.61	19.62	20.80
		25	13	19.69	19.52	19.73	20.80
		25	25	19.65	19.47	19.64	20.80
		50	0	19.74	19.59	19.6	20.80
	16QAM	1	0	19.66	19.09	19.33	20.80
		1	25	19.25	19.75	20.1	20.80
		1	49	19.2	19.06	19.79	20.80
		25	0	19.97	19.51	19.63	20.80
		25	13	19.71	19.65	19.96	20.80
		25	25	19.67	19.62	19.94	20.80
		50	0	19.78	19.61	19.76	20.80
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	19.54	19.47	19.43	20.80
		1	38	19.64	19.76	19.71	20.80
		1	74	19.48	19.38	19.67	20.80
		36	0	19.73	19.57	19.59	20.80
		36	18	19.69	19.58	19.65	20.80
		36	39	19.63	19.41	19.7	20.80
		75	0	19.7	19.46	19.61	20.80
	16QAM	1	0	19.45	19.61	19.73	20.80
		1	38	19.23	18.93	19.7	20.80
		1	74	19.29	19.29	19.41	20.80
		36	0	19.66	19.56	19.65	20.80
		36	18	19.69	19.61	19.64	20.80
		36	39	19.62	19.43	19.73	20.80
		75	0	19.64	19.49	19.73	20.80
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	19.51	19.78	19.55	20.80
		1	50	19.77	19.56	19.63	20.80
		1	99	19.49	19.18	19.57	20.80
		50	0	19.61	19.74	19.7	20.80
		50	25	19.69	19.58	19.54	20.80
		50	50	19.69	19.47	19.62	20.80
		100	0	19.58	19.66	19.61	20.80
	16QAM	1	0	19.69	19.09	19.4	20.80
		1	50	19.6	19.71	19.74	20.80

		1	99	19.16	19.1	19.71	20.80
		50	0	19.7	19.68	19.74	20.80
		50	25	19.74	19.56	19.64	20.80
		50	50	19.73	19.49	19.73	20.80
		100	0	19.55	19.53	19.73	20.80

Ant0 LTE Band 5				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	23.64	23.74	23.93	25.00
		1	2	23.85	24.23	24.21	25.00
		1	5	23.66	24.02	23.35	25.00
		3	0	22.85	22.79	23.02	24.00
		3	2	22.86	22.81	22.58	24.00
		3	3	22.75	22.61	22.62	24.00
		6	0	22.72	22.82	22.83	24.00
	16QAM	1	0	22.35	22.26	22.03	24.00
		1	2	23.05	22.75	22.58	24.00
		1	5	22.88	22.65	22.28	24.00
		3	0	22.07	21.89	21.92	23.00
		3	2	21.86	22.08	22.04	23.00
		3	3	21.69	21.66	21.86	23.00
		6	0	22.05	21.88	21.8	23.00
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.7	23.91	23.85	25.00
		1	7	24.09	24.04	24.16	25.00
		1	14	23.46	23.71	23.4	25.00
		8	0	22.54	22.98	22.86	24.00
		8	4	22.67	22.69	22.55	24.00
		8	7	22.75	22.7	22.5	24.00
		15	0	22.99	22.76	22.92	24.00
	16QAM	1	0	22.32	22.44	22.19	24.00
		1	7	23.01	22.86	22.48	24.00
		1	14	22.63	22.75	22.28	24.00
		8	0	21.93	22.08	21.94	23.00
		8	4	21.92	22.19	22.17	23.00

		8	7	21.88	21.68	21.81	23.00
		15	0	22	21.89	22.06	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20425	20525	20625	
5MHz	QPSK	1	0	23.61	23.75	23.32	25.00
		1	13	23.99	23.95	23.89	25.00
		1	24	23.29	23.56	23.63	25.00
		12	0	22.87	22.72	22.59	24.00
		12	6	22.81	22.77	22.68	24.00
		12	13	22.66	22.69	22.6	24.00
		25	0	22.67	22.73	22.61	24.00
	16QAM	1	0	22.25	22.64	22.01	24.00
		1	13	22.29	23.03	22.62	24.00
		1	24	22.19	22.66	22.54	24.00
		12	0	21.75	22.22	21.52	23.00
		12	6	21.65	21.91	21.73	23.00
		12	13	21.78	21.85	21.66	23.00
		25	0	21.87	21.77	21.63	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20450	20525	20600	
10MHz	QPSK	1	0	24.21	24.29	24.19	25.00
		1	25	24	24.18	24.11	25.00
		1	49	23.83	24.05	24.06	25.00
		25	0	22.87	22.99	22.85	24.00
		25	13	22.73	22.89	22.58	24.00
		25	25	22.83	22.82	22.71	24.00
		50	0	22.75	22.97	22.82	24.00
	16QAM	1	0	22.71	22.98	22.47	24.00
		1	25	23.21	22.7	22.71	24.00
		1	49	22.7	23.23	22.51	24.00
		25	0	22.05	22.09	21.82	23.00
		25	13	21.73	22.23	21.94	23.00
		25	25	21.91	21.91	21.63	23.00
		50	0	21.76	21.95	21.95	23.00

Ant3 LTE Band 5				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	23.78	23.9	24.13	25.00
		1	2	24.03	24.35	24.41	25.00
		1	5	23.85	24.12	23.51	25.00
		3	0	22.99	22.9	23.14	24.00
		3	2	22.98	22.97	22.73	24.00
		3	3	22.89	22.81	22.77	24.00
		6	0	22.87	22.95	22.99	24.00
	16QAM	1	0	22.5	22.58	22.69	24.00
		1	2	23.19	22.93	22.77	24.00
		1	5	22.98	22.82	22.78	24.00
		3	0	22.17	22.04	22.02	23.00
		3	2	21.98	22.22	22.2	23.00
		3	3	21.81	21.8	21.97	23.00
		6	0	22.16	22.05	21.91	23.00
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.88	24.05	24.05	25.00
		1	7	24.19	24.17	24.31	25.00
		1	14	23.58	23.89	23.5	25.00
		8	0	22.7	23.14	23.04	24.00
		8	4	22.79	22.86	22.65	24.00
		8	7	22.88	22.88	22.69	24.00
		15	0	23.09	22.96	23.03	24.00
	16QAM	1	0	22.54	22.59	22.88	24.00
		1	7	23.12	22.97	22.66	24.00
		1	14	22.77	22.85	22.65	24.00
		8	0	22.03	22.21	22.14	23.00
		8	4	22.07	22.32	22.32	23.00
		8	7	21.98	21.86	21.91	23.00
		15	0	22.18	22.08	22.2	23.00
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	23.89	23.88	23.99	25.00
		1	13	24.13	24.19	24.34	25.00

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		1	24	23.74	23.98	23.49	25.00
		12	0	22.81	22.94	23.05	24.00
		12	6	22.7	22.9	22.71	24.00
		12	13	22.96	22.95	22.66	24.00
		25	0	22.89	22.87	22.88	24.00
	16QAM	1	0	22.66	22.59	22.89	24.00
		1	13	23.16	22.97	22.61	24.00
		1	24	22.89	22.86	22.5	24.00
		12	0	22.23	21.99	22.11	23.00
		12	6	22.02	22.33	22.1	23.00
		12	13	21.81	21.79	22.1	23.00
		25	0	22.16	21.96	21.98	23.00

Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	23.95	24.23	24.12	25.00
		1	25	23.7	23.9	23.98	25.00
		1	49	23.84	23.97	23.68	25.00
		25	0	22.93	23.00	22.79	24.00
		25	13	22.87	22.87	22.91	24.00
		25	25	22.95	22.99	22.82	24.00
		50	0	23.00	22.97	22.81	24.00
	16QAM	1	0	22.56	22.59	22.68	24.00
		1	25	23.24	22.75	22.73	24.00
		1	49	23.01	22.80	22.77	24.00
		25	0	22.17	22.11	22.09	23.00
		25	13	22.10	22.29	22.24	23.00
		25	25	21.93	21.85	21.96	23.00
		50	0	22.11	22.16	22.08	23.00

Ant1 LTE Band 7 Receiver off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	21.42	21.65	21.53	22.40
		1	13	21.39	21.81	21.71	22.40
		1	24	21.32	21.87	21.62	22.40
		12	0	21.66	21.73	21.72	22.40
		12	6	21.71	21.83	21.69	22.40

		12	13	21.64	21.77	21.71	22.40
		25	0	21.57	21.76	21.66	22.40
	16QAM	1	0	22.01	21.59	21.95	22.40
		1	13	22.36	21.65	21.88	22.40
		1	24	22.02	21.14	21.47	22.40
		12	0	21.42	21.76	21.75	22.40
		12	6	21.34	21.69	21.67	22.40
		12	13	21.33	21.74	21.77	22.40
		25	0	21.49	21.69	21.86	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20800	21100	21400	
10MHz	QPSK	1	0	22.11	22.19	22.02	22.40
		1	25	21.96	21.91	21.86	22.40
		1	49	21.89	21.96	21.89	22.40
		25	0	21.64	21.77	21.62	22.40
		25	13	21.86	21.93	21.77	22.40
		25	25	21.77	21.81	21.71	22.40
		50	0	21.72	21.83	21.79	22.40
	16QAM	1	0	22.03	22.34	21.97	22.40
		1	25	21.92	22.11	21.93	22.40
		1	49	21.97	22.09	22.01	22.40
		25	0	21.65	21.77	21.55	22.40
		25	13	21.71	21.95	21.73	22.40
		25	25	21.67	21.67	21.39	22.40
		50	0	21.73	21.86	21.9	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	21.89	21.94	21.71	22.40
		1	38	21.63	21.77	21.58	22.40
		1	74	21.55	21.63	21.47	22.40
		36	0	21.42	21.67	21.61	22.40
		36	18	21.69	21.78	21.7	22.40
		36	39	21.63	21.72	21.71	22.40
		75	0	21.51	21.77	21.83	22.40
	16QAM	1	0	22.22	22.38	22.02	22.40
		1	38	22.17	22.31	21.92	22.40
		1	74	22.29	22.29	21.96	22.40
		36	0	21.62	21.66	21.49	22.40
		36	18	21.52	21.8	21.53	22.40

		36	39	21.65	21.63	21.53	22.40
		75	0	21.79	21.87	21.69	22.40

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20850	21100	21350	
20MHz	QPSK	1	0	22.12	22.38	22.25	22.40
		1	50	22.06	22.22	21.58	22.40
		1	99	22.01	21.92	21.85	22.40
		50	0	22.09	22.16	21.99	22.40
		50	25	21.64	22.11	21.73	22.40
		50	50	21.62	22.15	21.82	22.40
		100	0	21.51	22.07	21.78	22.40
	16QAM	1	0	21.9	22.01	22.08	22.40
		1	50	22.02	21.74	21.98	22.40
		1	99	21.82	21.66	22.1	22.40
		50	0	21.59	21.82	21.62	22.40
		50	25	21.71	21.88	21.72	22.40
		50	50	21.64	21.91	21.62	22.40
		100	0	21.56	21.92	21.89	22.40

Ant1 LTE Band 7 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	23.69	24.12	23.85	24.50
		1	13	23.79	24.04	24.08	24.50
		1	24	23.81	23.72	23.98	24.50
		12	0	22.64	23.07	23.01	23.50
		12	6	22.7	23.14	23.15	23.50
		12	13	22.79	23.02	23.24	23.50
		25	0	22.87	23.03	22.75	23.50
	16QAM	1	0	22.08	23.5	22.72	23.50
		1	13	22.53	23.41	23.17	23.50
		1	24	22.13	23.21	23.09	23.50
		12	0	21.65	21.87	21.9	22.50
		12	6	21.57	21.95	21.91	22.50
		12	13	21.52	21.89	21.95	22.50
		25	0	21.49	21.75	21.72	22.50

Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	23.93	23.98	23.92	24.50
		1	25	24.02	24.3	24.11	24.50
		1	49	23.92	23.81	23.91	24.50
		25	0	22.76	23.1	22.84	23.50
		25	13	22.81	23.17	23.15	23.50
		25	25	22.89	23.04	23.22	23.50
		50	0	23.04	23.14	22.96	23.50
	16QAM	1	0	23.13	23.26	23.17	23.50
		1	25	23.36	23.38	23.08	23.50
		1	49	23.22	22.07	23.18	23.50
		25	0	21.9	22.25	22.09	22.50
		25	13	21.65	22.11	22.4	22.50
		25	25	21.61	21.88	21.95	22.50
		50	0	21.53	21.89	21.72	22.50

Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	23.87	23.89	23.77	24.50
		1	38	23.81	24.07	23.92	24.50
		1	74	23.89	24.03	24.2	24.50
		36	0	22.7	23.13	23.03	23.50
		36	18	22.68	23.03	22.95	23.50
		36	39	22.95	23.12	23.21	23.50
		75	0	22.95	23.17	22.99	23.50
	16QAM	1	0	23.21	23.21	23.08	23.50
		1	38	23.17	23.14	23.01	23.50
		1	74	23.22	22.47	22.98	23.50
		36	0	21.8	22.14	22.07	22.50
		36	18	21.59	21.95	22.01	22.50
		36	39	21.7	21.95	22.08	22.50
		75	0	21.87	22.03	22.14	22.50

Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	23.95	24.35	24.24	24.50
		1	50	23.92	24.26	23.89	24.50
		1	99	23.81	24.19	24.28	24.50
		50	0	22.87	23.22	23.11	23.50
		50	25	22.81	23.12	23.02	23.50

		50	50	22.99	23.15	23.12	23.50
		100	0	23.14	23.23	23.06	23.50
	16QAM	1	0	23.17	23.29	22.82	23.50
		1	50	23.29	23.39	23.02	23.50
		1	99	22.91	22.76	23.32	23.50
		50	0	21.95	22.17	22.01	22.50
		50	25	21.87	22.03	22.08	22.50
		50	50	21.98	21.99	22.1	22.50
		100	0	21.79	21.93	22.05	22.50

Ant3 LTE Band 7 Receiver off/Hotspot Off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	19.75	20.02	19.72	20.50
		1	13	19.86	20.11	19.32	20.50
		1	24	19.42	19.73	19.83	20.50
		12	0	19.18	19.46	19.12	20.50
		12	6	19.18	19.49	19	20.50
		12	13	19.14	19.4	19.05	20.50
		25	0	19.15	19.49	18.5	20.50
	16QAM	1	0	18.59	18.87	18.7	20.50
		1	13	18.86	19.13	18.76	20.50
		1	24	18.9	19.23	19.08	20.50
		12	0	19.12	19.47	18.99	20.50
		12	6	19.1	19.44	19.04	20.50
		12	13	19.12	19.45	18.98	20.50
		25	0	19.1	19.39	19.47	20.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20800	21100	21400	
10MHz	QPSK	1	0	19.77	19.95	19.36	20.50
		1	25	19.93	20.13	19.57	20.50
		1	49	19.93	20.06	19.46	20.50
		25	0	19.64	19.82	19.27	20.50
		25	13	19.77	19.9	19.36	20.50
		25	25	19.78	19.91	19.33	20.50
		50	0	19.75	19.98	19.44	20.50
	16QAM	1	0	19.37	19.53	19.49	20.50
		1	25	19.73	19.91	19.28	20.50

		1	49	19.61	19.8	19.19	20.50
		25	0	19.81	19.97	19.35	20.50
		25	13	19.7	19.86	19.24	20.50
		25	25	19.64	19.79	19.18	20.50
		50	0	19.65	19.85	19.26	20.50
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	19.71	20.01	19.66	20.50
		1	38	19.6	19.86	19.48	20.50
		1	74	19.73	20.04	19.64	20.50
		36	0	19.57	19.84	19.47	20.50
		36	18	19.6	19.87	19.56	20.50
		36	39	19.51	19.85	19.46	20.50
		75	0	19.67	19.92	19.57	20.50
	16QAM	1	0	19.42	19.76	19.45	20.50
		1	38	19.31	19.61	19.22	20.50
		1	74	19.27	19.53	19.17	20.50
		36	0	19.31	19.57	19.23	20.50
		36	18	19.35	19.61	19.22	20.50
		36	39	19.35	19.65	19.31	20.50
		75	0	19.49	19.81	19.45	20.50
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	20.2	20.23	19.99	20.50
		1	50	19.93	19.92	19.7	20.50
		1	99	19.82	19.83	19.61	20.50
		50	0	19.76	19.81	19.54	20.50
		50	25	19.74	19.69	19.52	20.50
		50	50	19.72	19.66	19.42	20.50
		100	0	19.74	19.75	19.55	20.50
	16QAM	1	0	19.26	19.27	19.06	20.50
		1	50	19.84	19.84	19.64	20.50
		1	99	19.78	19.74	19.54	20.50
		50	0	19.83	19.81	19.61	20.50
		50	25	19.83	19.8	19.63	20.50
		50	50	19.59	19.57	19.39	20.50
		100	0	19.59	19.56	19.36	20.50

Ant3 LTE Band 7 Receiver on/Hotspot On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20775	21100	21425	
5MHz	QPSK	1	0	18.13	18.19	18.21	19.10
		1	13	18.37	18.44	18.47	19.10
		1	24	18.1	18.19	18.2	19.10
		12	0	18.21	18.25	18.31	19.10
		12	6	18.21	18.28	18.33	19.10
		12	13	18.2	18.29	18.32	19.10
		25	0	18.11	18.15	18.16	19.10
	16QAM	1	0	18	18.01	18.1	19.10
		1	13	17.87	17.89	17.95	19.10
		1	24	18.13	18.21	18.24	19.10
		12	0	18.11	18.13	18.16	19.10
		12	6	18.18	18.26	18.34	19.10
		12	13	18.24	18.25	18.29	19.10
		25	0	18.24	18.25	18.3	19.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20800	21100	21400	
10MHz	QPSK	1	0	18.12	18.44	18.38	19.10
		1	25	18.01	18.37	18.33	19.10
		1	49	18.02	18.29	18.24	19.10
		25	0	17.95	18.25	18.15	19.10
		25	13	17.94	18.23	18.16	19.10
		25	25	17.88	18.25	18.16	19.10
		50	0	17.96	18.31	18.27	19.10
	16QAM	1	0	18.09	18.43	18.38	19.10
		1	25	17.95	18.3	18.28	19.10
		1	49	17.77	18.13	18.04	19.10
		25	0	17.94	18.25	18.19	19.10
		25	13	17.92	18.27	18.18	19.10
		25	25	17.87	18.16	18.13	19.10
		50	0	17.98	18.28	18.26	19.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20825	21100	21375	
15MHz	QPSK	1	0	18.21	18.42	18.22	19.10
		1	38	18.38	18.54	18.36	19.10
		1	74	18.1	18.36	18.2	19.10

		36	0	18.08	18.24	18.01	19.10
		36	18	18.01	18.27	18.06	19.10
		36	39	18.07	18.26	18.08	19.10
		75	0	18.07	18.31	18.07	19.10
	16QAM	1	0	17.68	17.94	17.73	19.10
		1	38	17.81	17.99	17.79	19.10
		1	74	18.07	18.32	18.12	19.10
		36	0	17.98	18.16	17.94	19.10
		36	18	18	18.21	18.02	19.10
		36	39	17.94	18.19	18.03	19.10
		75	0	17.86	18.07	17.92	19.10
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20850	21100	21350	
20MHz	QPSK	1	0	18.67	18.73	18.65	19.10
		1	50	18.17	18.39	18.35	19.10
		1	99	18.23	18.44	18.43	19.10
		50	0	18.09	18.35	18.27	19.10
		50	25	18.04	18.26	18.2	19.10
		50	50	18.1	18.27	18.25	19.10
		100	0	18.05	18.3	18.26	19.10
	16QAM	1	0	18.06	18.23	18.14	19.10
		1	50	18.17	18.36	18.28	19.10
		1	99	18.11	18.28	18.23	19.10
		50	0	17.84	18.07	17.99	19.10
		50	25	17.96	18.16	18.08	19.10
		50	50	17.95	18.12	18.1	19.10
		100	0	17.92	18.15	18.13	19.10

Ant0 LTE Band 13				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23205	23230	23255	
5MHz	QPSK	1	0	23.48	23.74	23.48	24.50
		1	13	23.67	23.34	23.52	24.50
		1	24	23.22	23.36	23.43	24.50
		12	0	22.74	22.63	22.52	23.50
		12	6	22.69	22.71	22.61	23.50
		12	13	22.6	22.54	22.58	23.50
		25	0	22.65	22.64	22.61	23.50
	16QAM	1	0	21.96	22.42	22.68	23.50
		1	13	22.19	22.24	22.1	23.50
		1	24	22.19	22.32	22.26	23.50
		12	0	21.54	21.53	21.55	22.50
		12	6	21.67	21.57	21.42	22.50
		12	13	21.67	21.33	21.57	22.50
		25	0	21.74	21.79	21.51	22.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				/	23230	/	
10MHz	QPSK	1	0	/	24.25	/	24.50
		1	25	/	24.18	/	24.50
		1	49	/	24.12	/	24.50
		25	0	/	22.99	/	23.50
		25	13	/	22.86	/	23.50
		25	25	/	22.88	/	23.50
		50	0	/	22.82	/	23.50
	16QAM	1	0	/	22.98	/	23.50
		1	25	/	22.86	/	23.50
		1	49	/	22.46	/	23.50
		25	0	/	22.06	/	22.50
		25	13	/	22	/	22.50
		25	25	/	21.83	/	22.50
		50	0	/	21.85	/	22.50

Ant3 LTE Band 13				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23205	23230	23255	
5MHz	QPSK	1	0	23.79	23.59	23.88	24.50
		1	25	23.99	23.95	23.92	24.50
		1	49	23.67	23.59	23.58	24.50
		25	0	22.85	22.7	22.85	23.50
		25	13	22.86	22.88	22.54	23.50

		25	25	22.75	22.68	22.77	23.50
		50	0	22.83	22.84	22.79	23.50
		1	0	22.5	22.85	22.38	23.50
		1	25	22.72	22.59	23.1	23.50
		1	49	22.54	22.56	22.66	23.50
	16QAM	25	0	21.63	21.87	21.69	22.50
		25	13	21.74	21.86	21.86	22.50
		25	25	21.84	21.76	21.63	22.50
		50	0	21.89	21.84	21.6	22.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23205	23230	23255	
10MHz	QPSK	1	0	23.91	23.99	23.98	24.50
		1	25	23.81	23.79	23.83	24.50
		1	49	23.87	23.6	23.49	24.50
		25	0	22.81	22.98	22.75	23.50
		25	13	22.97	22.96	22.49	23.50
		25	25	22.68	22.68	22.69	23.50
		50	0	22.83	22.52	22.79	23.50
	16QAM	1	0	22.27	22.98	22.41	23.50
		1	25	22.52	22.51	22.98	23.50
		1	49	22.61	22.52	22.76	23.50
		25	0	21.59	21.73	21.73	22.50
		25	13	21.75	21.73	21.68	22.50
		25	25	21.82	21.58	21.73	22.50
		50	0	21.81	21.61	21.68	22.50

Ant0 LTE Band 26				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26697	26865	27033	
1.4MHz	QPSK	1	0	23.68	23.94	23.40	25.00
		1	2	23.78	24.00	23.60	25.00
		1	5	23.57	23.46	23.81	25.00
		3	0	22.93	23.02	22.74	24.00
		3	2	22.94	22.94	22.78	24.00
		3	3	23.00	22.79	22.81	24.00
		6	0	22.90	22.73	22.69	24.00
	16QAM	1	0	22.98	23.06	22.08	24.00

		1	2	22.79	22.85	22.52	24.00
		1	5	22.83	22.62	22.77	24.00
		3	0	22.02	22.10	21.66	23.00
		3	2	22.09	22.03	21.72	23.00
		3	3	22.12	21.78	21.70	23.00
		6	0	22.15	21.88	21.73	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26705	26865	27025	
3MHz	QPSK	1	0	23.74	23.83	23.53	25.00
		1	7	23.84	23.94	23.78	25.00
		1	14	23.52	23.62	23.73	25.00
		8	0	23.00	22.98	22.64	24.00
		8	4	22.98	22.97	22.75	24.00
		8	7	22.92	22.88	22.69	24.00
		15	0	22.96	22.73	22.62	24.00
	16QAM	1	0	23.07	22.91	22.59	24.00
		1	7	22.86	22.85	22.59	24.00
		1	14	22.74	22.59	22.72	24.00
		8	0	22.10	21.95	21.82	23.00
		8	4	22.12	22.02	21.69	23.00
		8	7	22.07	21.93	21.64	23.00
		15	0	22.24	21.88	21.70	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26715	26865	27015	
5MHz	QPSK	1	0	23.67	23.86	23.48	25.00
		1	13	23.88	23.99	23.70	25.00
		1	24	23.59	23.52	23.77	25.00
		12	0	22.91	22.94	22.68	24.00
		12	6	22.96	22.87	22.70	24.00
		12	13	22.92	22.82	22.71	24.00
		25	0	22.98	22.78	22.69	24.00
	16QAM	1	0	23.04	22.98	22.05	24.00
		1	13	22.79	22.95	22.54	24.00
		1	24	22.76	22.66	22.69	24.00
		12	0	22.12	22.04	21.73	23.00
		12	6	22.14	22.08	21.78	23.00
		12	13	22.04	21.85	21.67	23.00
		25	0	22.17	21.81	21.65	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26750	26865	26990	
10MHz	QPSK	1	0	24.08	24.17	23.97	25.00
		1	25	24.34	24.03	23.98	25.00
		1	49	24.20	23.62	23.45	25.00

		25	0	23.21	22.96	22.79	24.00
		25	13	23.13	23.03	22.70	24.00
		25	25	23.13	22.90	22.80	24.00
		50	0	23.15	23.01	22.91	24.00
	16QAM	1	0	22.99	23.21	22.61	24.00
		1	25	22.81	23.12	22.61	24.00
		1	49	23.03	22.90	22.68	24.00
		25	0	22.14	22.28	21.78	23.00
		25	13	22.28	21.96	22.01	23.00
		25	25	22.15	22.16	21.81	23.00
		50	0	22.16	22.07	21.67	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26775	26865	26965	
15MHz	QPSK	1	0	24.21	24.33	24.1	25.00
		1	38	24.31	24.09	23.97	25.00
		1	74	24.17	24.01	23.78	25.00
		36	0	23.27	23.39	22.99	24.00
		36	18	23.26	23.12	22.89	24.00
		36	39	23.21	23.07	22.93	24.00
		75	0	23.22	23.1	23.01	24.00
	16QAM	1	0	22.98	22.95	23.05	24.00
		1	38	23.06	23.11	22.67	24.00
		1	74	23.16	22.67	22.23	24.00
		36	0	22.27	22.07	21.96	23.00
		36	18	22.28	22.1	22.04	23.00
		36	39	22.24	21.99	21.84	23.00
		75	0	22.25	21.99	21.93	23.00

Ant3 LTE Band 26				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26697	26865	27033	
1.4MHz	QPSK	1	0	24.27	23.9	23.69	25.00
		1	2	24.17	24.02	23.74	25.00
		1	5	24.1	23.96	23.87	25.00
		3	0	23.55	23.38	23.63	24.00
		3	2	23.54	23.99	23.61	24.00
		3	3	23.87	23.88	23.53	24.00
		6	0	23.12	22.82	22.59	24.00
	16QAM	1	0	23.34	22.8	22.54	24.00
		1	2	22.58	22.43	22.37	24.00
		1	5	23.1	23.08	22.5	24.00
		3	0	22.75	22.64	22.72	23.00

		3	2	22.56	22.35	22.66	23.00
		3	3	22.67	22.75	22.62	23.00
		6	0	21.99	21.95	21.51	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26705	26865	27025	
3MHz	QPSK	1	0	23.89	23.86	24.08	25.00
		1	7	23.83	23.8	23.87	25.00
		1	14	23.73	23.4	23.68	25.00
		8	0	23.05	22.92	22.84	24.00
		8	4	22.9	22.85	22.81	24.00
		8	7	22.98	22.81	22.82	24.00
		15	0	23.06	22.8	22.92	24.00
	16QAM	1	0	22.99	22.27	22.81	24.00
		1	7	22.84	22.5	22.54	24.00
		1	14	22.76	22.41	22.48	24.00
		8	0	21.97	21.88	21.76	23.00
		8	4	21.91	21.94	21.76	23.00
		8	7	21.93	21.74	21.7	23.00
		15	0	22.06	21.92	21.84	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26715	26865	27015	
5MHz	QPSK	1	0	23.98	23.92	23.98	25.00
		1	13	23.92	23.77	23.81	25.00
		1	24	23.74	23.58	23.72	25.00
		12	0	22.96	22.93	22.69	24.00
		12	6	23.05	22.86	22.7	24.00
		12	13	22.89	22.85	22.72	24.00
		25	0	23.12	22.8	22.63	24.00
	16QAM	1	0	23.12	22.18	22.78	24.00
		1	13	22.87	22.37	22.56	24.00
		1	24	22.94	22.28	22.47	24.00
		12	0	22.07	21.69	21.85	23.00
		12	6	21.97	22.03	21.8	23.00
		12	13	21.82	21.88	21.83	23.00
		25	0	21.96	21.79	21.87	23.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26750	26865	26990	
10MHz	QPSK	1	0	23.73	23.8	23.8	25.00
		1	25	23.84	23.79	23.93	25.00

		1	49	23.73	23.43	23.5	25.00
		25	0	22.86	22.89	22.69	24.00
		25	13	22.77	22.82	22.84	24.00
		25	25	22.87	22.85	22.78	24.00
		50	0	23.01	22.9	22.91	24.00
	16QAM	1	0	22.92	22.18	22.68	24.00
		1	25	22.86	22.45	22.63	24.00
		1	49	22.87	22.47	22.49	24.00
		25	0	22	21.77	21.86	23.00
		25	13	22.04	21.97	21.69	23.00
		25	25	21.81	21.79	21.63	23.00
		50	0	22.07	21.75	21.85	23.00

Bandwidth	Modulation	RB size	RB offset	Channel 26775	Channel 26865	Channel 26965	Tune up
15MHz	QPSK	1	0	23.78	24.05	24.01	25.00
		1	38	23.73	23.63	23.78	25.00
		1	74	23.89	23.54	23.56	25.00
		36	0	23.1	23.19	22.71	24.00
		36	18	22.81	22.83	22.67	24.00
		36	39	23.06	22.78	22.71	24.00
		75	0	23.01	22.75	22.78	24.00
	16QAM	1	0	23.18	22.26	22.81	24.00
		1	38	22.77	22.46	22.64	24.00
		1	74	22.83	22.4	22.51	24.00
		36	0	22	21.91	21.9	23.00
		36	18	21.9	21.84	21.92	23.00
		36	39	21.76	21.84	21.67	23.00
		75	0	22.1	21.94	21.9	23.00

Ant1 LTE Band 38				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	22.25	22.2	22.29	24.20
		1	13	22.38	22.59	22.4	24.20
		1	24	22.3	22.32	22.3	24.20
		12	0	21.54	21.47	21.47	23.20
		12	6	21.59	21.49	21.46	23.20
		12	13	21.56	21.44	21.42	23.20
		25	0	21.48	21.47	21.46	23.20

	16QAM	1	0	21.37	21.35	21.21	23.20
		1	13	21.39	21.38	21.3	23.20
		1	24	21.35	21.38	21.33	23.20
		12	0	20.35	20.38	20.27	22.20
		12	6	20.47	20.38	20.26	22.20
		12	13	20.55	20.43	20.3	22.20
		25	0	20.72	20.42	20.59	22.20
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	22.32	22.28	22.44	24.20
		1	25	22.53	22.58	22.49	24.20
		1	49	22.51	22.37	22.52	24.20
		25	0	21.48	21.55	21.56	23.20
		25	13	21.65	21.55	21.54	23.20
		25	25	21.65	21.47	21.56	23.20
		50	0	21.6	21.52	21.5	23.20
	16QAM	1	0	21.49	21.51	21.47	23.20
		1	25	21.42	21.53	21.37	23.20
		1	49	21.4	21.51	21.32	23.20
		25	0	20.33	20.56	20.58	22.20
		25	13	20.62	20.86	20.57	22.20
		25	25	20.72	20.76	20.79	22.20
		50	0	20.49	20.44	20.45	22.20
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	22.39	22.42	22.35	24.20
		1	38	22.57	22.57	22.39	24.20
		1	74	22.22	22.6	22.45	24.20
		36	0	21.59	21.71	21.61	23.20
		36	18	21.6	21.7	21.6	23.20
		36	39	21.65	21.64	21.59	23.20
		75	0	21.62	21.72	21.6	23.20
	16QAM	1	0	21.43	21.35	21.33	23.20
		1	38	21.44	21.55	21.35	23.20
		1	74	21.41	21.52	21.37	23.20
		36	0	20.48	20.38	20.42	22.20
		36	18	20.62	20.55	20.43	22.20
		36	39	20.46	20.59	20.54	22.20
		75	0	20.61	20.72	20.49	22.20
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	22.67	22.69	22.51	24.20
		1	50	22.46	22.57	22.46	24.20
		1	99	22.37	22.57	22.55	24.20
		50	0	21.43	21.6	21.44	23.20
		50	25	21.54	21.58	21.39	23.20
		50	50	21.5	21.5	21.41	23.20
		100	0	21.54	21.58	21.4	23.20

		1	0	21.54	21.55	21.37	23.20
		1	50	21.39	21.4	21.38	23.20
		1	99	21.23	21.21	21.35	23.20
	16QAM	50	0	20.25	20.57	20.21	22.20
		50	25	20.51	20.44	20.29	22.20
		50	50	20.48	20.5	20.3	22.20
		100	0	20.42	20.49	20.3	22.20

Ant3 LTE Band 38 Receiver off/Hotspot off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	20.86	21.1	20.79	21.50
		1	13	20.88	20.87	20.94	21.50
		1	24	20.91	20.86	20.86	21.50
		12	0	20.74	20.95	21.12	21.50
		12	6	20.7	20.99	21.08	21.50
		12	13	20.66	21.07	21.11	21.50
		25	0	20.73	21.08	21.06	21.50
	16QAM	1	0	20.63	20.95	20.62	21.50
		1	13	20.73	21.15	20.66	21.50
		1	24	20.58	20.99	20.57	21.50
		12	0	20.85	20.86	20.87	21.50
		12	6	20.89	20.95	20.64	21.50
		12	13	21.06	20.98	20.54	21.50
		25	0	21.03	20.86	20.45	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	20.78	20.88	21	21.50
		1	25	21.02	21.07	21.1	21.50
		1	49	20.73	21	21.17	21.50
		25	0	20.78	21.01	21.14	21.50
		25	13	20.74	21.12	21.13	21.50
		25	25	20.83	21.12	21.19	21.50
		50	0	20.73	21.13	21.11	21.50
	16QAM	1	0	20.54	20.9	20.99	21.50
		1	25	20.74	21.13	21.13	21.50
		1	49	20.7	20.9	20.98	21.50
		25	0	21	21.27	21.29	21.50
		25	13	20.81	20.75	20.76	21.50

		25	25	20.82	20.73	20.79	21.50
		50	0	20.42	20.48	20.66	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	20.75	20.85	21.03	21.50
		1	38	20.92	21.01	21.02	21.50
		1	74	20.97	21.04	21.07	21.50
		36	0	20.73	20.98	21.11	21.50
		36	18	20.8	21.01	21.13	21.50
		36	39	20.88	20.96	21.1	21.50
		75	0	20.86	21	21.14	21.50
	16QAM	1	0	20.57	20.69	21.04	21.50
		1	38	20.76	20.81	20.82	21.50
		1	74	20.65	20.88	20.9	21.50
		36	0	20.77	20.95	21.1	21.50
		36	18	20.7	20.78	20.85	21.50
		36	39	20.71	20.97	20.93	21.50
		75	0	20.54	20.52	20.45	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	21.1	21.16	20.83	21.50
		1	50	20.92	21.11	21	21.50
		1	99	20.71	20.74	20.91	21.50
		50	0	20.79	21.15	21.07	21.50
		50	25	20.98	21.08	21.12	21.50
		50	50	20.9	21.14	21.09	21.50
		100	0	20.91	21.05	21.04	21.50
	16QAM	1	0	20.95	21.01	20.9	21.50
		1	50	20.69	20.83	20.82	21.50
		1	99	20.84	20.88	21.09	21.50
		50	0	20.54	20.58	20.79	21.50
		50	25	20.61	20.69	20.66	21.50
		50	50	20.64	20.56	20.52	21.50
		100	0	20.54	20.67	20.69	21.50

Ant3 LTE Band 38 Receiver on/Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	18.88	19.02	18.99	19.70
		1	13	18.81	19.2	19.06	19.70
		1	24	18.82	19.03	19.09	19.70
		12	0	18.93	19.19	19.38	19.70
		12	6	18.99	19.21	19.29	19.70
		12	13	18.93	19.3	19.3	19.70
		25	0	18.99	19.31	19.39	19.70
	16QAM	1	0	18.78	18.78	19.05	19.70
		1	13	18.87	19.08	19.17	19.70
		1	24	18.79	19.14	19.15	19.70
		12	0	19.05	19.14	19.38	19.70
		12	6	19.12	19.35	19.22	19.70
		12	13	19.05	19.35	19.11	19.70
		25	0	19.25	19.57	19.21	19.70
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	19.01	19.16	19.36	19.70
		1	25	18.97	19.18	19.34	19.70
		1	49	18.97	19.1	19.36	19.70
		25	0	19.08	19.37	19.27	19.70
		25	13	19	19.4	19.25	19.70
		25	25	19.2	19.39	19.39	19.70
		50	0	19.08	19.26	19.23	19.70
	16QAM	1	0	18.81	18.77	18.86	19.70
		1	25	19.07	19.6	18.95	19.70
		1	49	18.94	18.79	18.73	19.70
		25	0	19.1	19.5	19.39	19.70
		25	13	19.14	19.43	19.58	19.70
		25	25	19.38	19.52	19.6	19.70
		50	0	18.9	19.17	19.33	19.70
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	18.98	19.25	19.36	19.70
		1	38	18.93	19.25	19.28	19.70
		1	74	19.1	19.38	19.3	19.70

		36	0	18.99	19.23	19.29	19.70
		36	18	19.03	19.24	19.29	19.70
		36	39	19.03	19.24	19.27	19.70
		75	0	19	19.27	19.3	19.70
	16QAM	1	0	19.05	19.16	18.88	19.70
		1	38	19.09	19.27	18.78	19.70
		1	74	19.1	19.37	18.81	19.70
		36	0	19.04	19.12	19.27	19.70
		36	18	19.03	19.13	19.29	19.70
		36	39	18.95	19.26	19.15	19.70
		75	0	19.06	19.2	19.31	19.70
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	19.19	19.43	19.31	19.70
		1	50	19.00	19.18	19.21	19.70
		1	99	18.86	19.03	19.18	19.70
		50	0	19.08	19.30	19.30	19.70
		50	25	19.07	19.27	19.23	19.70
		50	50	19.10	19.28	19.30	19.70
		100	0	19.10	19.36	19.26	19.70
	16QAM	1	0	18.93	18.74	18.85	19.70
		1	50	18.76	18.71	18.78	19.70
		1	99	19.14	18.72	19.16	19.70
		50	0	19.00	19.28	19.13	19.70
		50	25	19.00	19.09	19.27	19.70
		50	50	19.14	19.22	19.14	19.70
		100	0	19.01	19.21	19.19	19.70

Ant1 LTE Band 66 Receiver off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 131997	Channel 132322	Channel 132647	Tune up
1.4MHz	QPSK	1	0	21.37	21.67	21.49	23.10
		1	2	21.33	21.63	21.44	23.10
		1	5	21.47	21.47	21.4	23.10
		3	0	21.57	21.53	21.46	23.10
		3	1	21.33	21.59	21.52	23.10
		3	3	21.31	21.61	21.54	23.10
		6	0	21.44	21.44	21.37	23.10
	16QAM	1	0	21.38	21.39	21.32	23.10
		1	2	21.57	21.86	21.79	23.10
		1	5	21.57	21.57	21.5	23.10
		3	0	21.11	21.41	21.34	22.40
		3	1	21.06	21.31	21.54	22.40
		3	3	20.99	21.23	21.46	22.40
		6	0	20.68	20.88	20.81	22.40
Bandwidth	Modulation	RB size	RB offset	Channel 131987	Channel 132322	Channel 132657	Tune up
3MHz	QPSK	1	0	21.41	21.55	21.32	23.10
		1	7	21.59	21.35	21.61	23.10
		1	14	21.38	21.43	21.42	23.10
		8	0	21.49	21.54	21.58	23.10
		8	4	21.41	21.51	21.51	23.10
		8	7	21.55	21.58	21.42	23.10
		15	0	21.41	21.52	21.38	23.10
	16QAM	1	0	21.32	21.42	21.59	23.10
		1	7	21.47	21.53	21.59	23.10
		1	14	21.33	21.39	21.32	23.10
		8	0	20.82	20.96	21.25	22.40
		8	4	20.87	20.93	21.03	22.40
		8	7	20.81	20.86	21.12	22.40
		15	0	20.66	20.72	21.05	22.40
Bandwidth	Modulation	RB size	RB offset	Channel 131997	Channel 132322	Channel 132647	Tune up
5MHz	QPSK	1	0	21.51	21.51	21.47	23.10
		1	13	21.67	21.65	21.59	23.10
		1	24	21.46	21.37	21.32	23.10

		12	0	21.55	21.53	21.48	23.10
		12	6	21.59	21.58	21.53	23.10
		12	13	21.48	21.43	21.36	23.10
		25	0	21.49	21.47	21.42	23.10
	16QAM	1	0	21.55	21.53	21.72	23.10
		1	13	21.31	21.35	21.53	23.10
		1	24	21.55	21.59	21.49	23.10
		12	0	20.72	20.88	21.15	22.40
		12	6	20.78	20.62	20.81	22.40
		12	13	20.67	20.75	20.78	22.40
		25	0	20.63	20.72	20.72	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132022	132322	132622	
10MHz	QPSK	1	0	21.48	21.42	21.5	23.10
		1	25	21.3	21.56	21.62	23.10
		1	49	21.56	21.49	21.32	23.10
		25	0	21.59	21.51	21.56	23.10
		25	13	21.57	21.56	21.38	23.10
		25	25	21.67	21.31	21.36	23.10
		50	0	21.58	21.52	21.34	23.10
	16QAM	1	0	21.53	21.43	21.53	23.10
		1	25	21.53	21.47	21.5	23.10
		1	49	21.45	21.42	21.45	23.10
		25	0	20.63	20.62	20.73	22.40
		25	13	20.73	20.68	20.81	22.40
		25	25	20.6	20.82	20.91	22.40
		50	0	20.77	20.79	20.86	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	21.59	21.43	21.36	23.10
		1	38	21.44	21.61	21.37	23.10
		1	74	21.53	21.42	21.48	23.10
		36	0	21.46	21.58	21.31	23.10
		36	18	21.41	21.53	21.33	23.10
		36	39	21.52	21.4	21.44	23.10
		75	0	21.58	21.42	21.48	23.10
	16QAM	1	0	21.58	21.41	21.49	23.10
		1	38	21.5	21.34	21.37	23.10
		1	74	21.58	21.48	21.41	23.10

		36	0	20.77	20.67	20.71	22.40
		36	18	20.76	20.63	20.68	22.40
		36	39	20.73	20.71	20.8	22.40
		75	0	20.64	20.75	20.78	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	21.66	21.79	21.75	23.10
		1	50	21.50	21.38	21.72	23.10
		1	99	21.53	21.77	21.47	23.10
		50	0	21.50	21.73	21.72	23.10
		50	25	21.59	21.49	21.72	23.10
		50	50	21.36	21.32	21.48	23.10
		100	0	21.38	21.51	21.72	23.10
	16QAM	1	0	21.68	21.61	21.62	23.10
		1	50	21.57	21.61	21.75	23.10
		1	99	21.46	21.32	21.58	23.10
		50	0	21.34	20.71	21.08	22.40
		50	25	20.75	20.65	21.01	22.40
		50	50	20.65	20.95	20.80	22.40
		100	0	20.65	20.95	20.87	22.40

Ant1 LTE Band 66 Receiver on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131997	132322	132647	
1.4MHz	QPSK	1	0	22.79	22.72	22.78	24.40
		1	2	22.67	22.82	22.73	24.40
		1	5	22.66	22.75	22.82	24.40
		3	0	21.88	22.06	22.08	23.40
		3	1	21.87	21.99	22.04	23.40
		3	3	21.7	21.88	21.96	23.40
		6	0	21.64	21.82	21.91	23.40
	16QAM	1	0	22.15	22.28	22.38	23.40
		1	2	21.71	21.89	21.97	23.40
		1	5	21.56	21.68	21.75	23.40
		3	0	20.91	21.01	21.09	22.40
		3	1	20.84	20.98	20.99	22.40
		3	3	20.81	20.95	20.98	22.40

		6	0	20.97	21.06	21.13	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131987	132322	132657	
3MHz	QPSK	1	0	22.4	22.78	22.53	24.40
		1	7	22.53	22.58	22.69	24.40
		1	14	22.69	22.61	22.65	24.40
		8	0	21.6	21.72	21.65	23.40
		8	4	21.61	21.67	21.65	23.40
		8	7	21.6	21.71	21.62	23.40
		15	0	21.5	21.58	21.68	23.40
	16QAM	1	0	21.58	21.62	21.57	23.40
		1	7	21.53	21.58	21.58	23.40
		1	14	21.68	21.52	21.66	23.40
		8	0	20.61	20.71	20.68	22.40
		8	4	20.5	20.63	20.58	22.40
		8	7	20.65	20.58	20.5	22.40
		15	0	20.58	20.69	20.65	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131997	132322	132647	
5MHz	QPSK	1	0	22.69	22.81	22.73	24.40
		1	13	22.54	22.69	22.61	24.40
		1	24	22.51	22.62	22.59	24.40
		12	0	21.83	21.96	21.87	23.40
		12	6	21.77	21.92	21.8	23.40
		12	13	21.85	21.94	21.84	23.40
		25	0	21.76	21.89	21.84	23.40
	16QAM	1	0	22.07	22.14	22.08	23.40
		1	13	21.98	22.1	21.97	23.40
		1	24	21.66	21.78	21.72	23.40
		12	0	20.96	21.03	20.95	22.40
		12	6	20.82	20.98	20.87	22.40
		12	13	20.83	20.92	20.86	22.40
		25	0	20.99	21.09	21.06	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132022	132322	132622	
10MHz	QPSK	1	0	22.61	22.79	22.57	24.40
		1	25	22.57	22.72	22.53	24.40
		1	49	22.55	22.54	22.49	24.40
		25	0	21.55	21.57	21.52	23.40

		25	13	21.47	21.75	21.72	23.40
		25	25	21.63	21.62	21.57	23.40
		50	0	21.41	21.69	21.52	23.40
	16QAM	1	0	21.43	21.76	21.58	23.40
		1	25	21.63	21.94	21.81	23.40
		1	49	21.53	21.78	21.59	23.40
		25	0	20.4	20.72	20.81	22.40
		25	13	20.76	21.05	20.85	22.40
		25	25	20.58	20.52	20.48	22.40
		50	0	20.68	20.62	20.53	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	22.63	22.54	22.44	24.40
		1	38	22.51	22.44	22.42	24.40
		1	74	22.5	22.77	22.73	24.40
		36	0	22.5	22.42	22.37	23.40
		36	18	21.93	21.89	21.82	23.40
		36	39	21.88	21.82	21.78	23.40
		75	0	21.65	21.51	22.35	23.40
	16QAM	1	0	22.19	22.55	21.52	23.40
		1	38	21.83	21.73	21.63	23.40
		1	74	21.73	21.67	21.61	23.40
		36	0	20.55	20.46	20.82	22.40
		36	18	20.52	20.47	20.83	22.40
		36	39	20.52	20.41	20.71	22.40
		75	0	20.74	20.63	20.51	22.40
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	22.57	22.79	22.67	24.40
		1	50	22.78	22.56	22.47	24.40
		1	99	22.49	22.63	22.59	24.40
		50	0	21.72	21.89	21.57	23.40
		50	25	21.82	21.77	21.53	23.40
		50	50	21.88	21.74	21.59	23.40
		100	0	21.61	21.68	21.51	23.40
	16QAM	1	0	21.69	21.86	22.28	23.40
		1	50	21.78	22.49	22.42	23.40
		1	99	21.55	22.38	22.09	23.40
		50	0	20.76	20.94	20.65	22.40

		50	25	20.62	20.79	20.61	22.40
		50	50	20.57	20.76	20.58	22.40
		100	0	20.63	20.86	20.45	22.40

Ant3 LTE Band 66 Receiver off/Hotspot Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131979	132322	132665	
1.4MHz	QPSK	1	0	21.03	21.13	21.05	22.60
		1	2	21.11	21.00	21.13	22.60
		1	5	21.14	21.13	21.03	22.60
		3	0	21.08	21.01	21.11	22.60
		3	1	21.07	21.04	21.04	22.60
		3	3	21.14	21.09	21.01	22.60
		6	0	21.11	21.05	21.05	22.60
	16QAM	1	0	21.04	21.03	21.03	22.60
		1	2	21.03	21.12	21.14	22.60
		1	5	21.14	21.00	21.04	22.60
		3	0	21.09	21.00	21.02	22.60
		3	1	21.06	21.13	21.11	22.60
		3	3	21.04	21.04	21.15	22.60
		6	0	21.03	21.12	21.02	22.60
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131987	132322	132657	
3MHz	QPSK	1	0	21.03	21.15	21.13	22.60
		1	7	21.02	21.00	21.11	22.60
		1	14	21.07	21.13	21.13	22.60
		8	0	21.03	21.02	21.13	22.60
		8	4	21.07	21.11	21.08	22.60
		8	7	21.09	21.06	21.04	22.60
		15	0	21.07	21.02	21.05	22.60
	16QAM	1	0	21.05	21.02	21.11	22.60
		1	7	21.12	21.09	21.09	22.60
		1	14	21.10	21.09	21.07	22.60
		8	0	21.00	21.14	21.03	22.60
		8	4	21.13	21.10	21.13	22.60
		8	7	21.05	21.08	21.07	22.60
		15	0	21.10	21.06	21.03	22.60
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131997	132322	132647	

5MHz	QPSK	1	0	21.04	21.13	21.12	22.60
		1	13	21.10	21.09	21.09	22.60
		1	24	21.06	21.11	21.12	22.60
		12	0	21.06	21.12	21.03	22.60
		12	6	21.02	21.06	21.08	22.60
		12	13	21.00	21.05	21.08	22.60
		25	0	21.11	21.12	21.14	22.60
	16QAM	1	0	21.00	21.01	21.09	22.60
		1	13	21.11	21.12	21.03	22.60
		1	24	21.12	21.07	21.04	22.60
		12	0	21.14	21.07	21.04	22.60
		12	6	21.05	21.12	21.08	22.60
		12	13	21.12	21.10	21.04	22.60
		25	0	21.11	21.04	21.08	22.60

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132022	132322	132622	
10MHz	QPSK	1	0	21.10	21.05	21.04	22.60
		1	25	21.14	21.10	21.10	22.60
		1	49	21.05	21.03	21.04	22.60
		25	0	21.15	21.07	21.02	22.60
		25	13	21.04	21.08	21.13	22.60
		25	25	21.06	21.02	21.12	22.60
		50	0	21.10	21.14	21.01	22.60
	16QAM	1	0	21.10	21.05	21.13	22.60
		1	25	21.04	21.01	21.14	22.60
		1	49	21.02	21.10	21.11	22.60
		25	0	21.11	21.09	21.07	22.60
		25	13	21.11	21.02	21.03	22.60
		25	25	21.05	21.02	21.07	22.60
		50	0	21.02	21.10	21.03	22.60

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	21.07	21.09	21.13	22.60
		1	38	21.13	21.01	21.06	22.60
		1	74	21.09	21.14	21.10	22.60
		36	0	21.10	21.10	21.07	22.60
		36	18	21.05	21.02	21.15	22.60
		36	39	21.09	21.06	21.07	22.60
		75	0	21.06	21.13	21.11	22.60
	16QAM	1	0	21.13	21.14	21.03	22.60
		1	38	21.10	21.08	21.03	22.60

		1	74	21.13	21.15	21.13	22.60
		36	0	21.03	21.07	21.10	22.60
		36	18	21.02	21.12	21.11	22.60
		36	39	21.08	21.04	21.02	22.60
		75	0	21.03	21.07	21.04	22.60
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	21.37	21.53	21.42	22.60
		1	50	20.99	21.30	21.52	22.60
		1	99	21.19	21.04	20.90	22.60
		50	0	20.28	21.54	21.32	22.60
		50	25	20.81	21.43	21.26	22.60
		50	50	21.18	21.22	20.86	22.60
		100	0	20.82	21.30	20.88	22.60
	16QAM	1	0	21.37	20.96	21.38	22.60
		1	50	20.95	21.46	21.44	22.60
		1	99	21.48	21.02	21.41	22.60
		50	0	20.96	21.08	20.95	22.60
		50	25	21.37	21.45	21.39	22.60
		50	50	20.72	21.08	20.95	22.60
		100	0	21.00	21.10	21.03	22.60

Ant3 LTE Band 66 Receiver on/Hotspot On				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131979	132322	132665	
1.4MHz	QPSK	1	0	20.05	20.06	20.02	21.30
		1	2	20.07	20.09	20.05	21.30
		1	5	20.11	20.06	20.03	21.30
		3	0	20.10	20.15	20.05	21.30
		3	1	20.08	20.02	20.06	21.30
		3	3	20.09	20.01	20.07	21.30
		6	0	20.07	20.12	20.14	21.30
	16QAM	1	0	20.12	20.00	20.05	21.30
		1	2	20.03	20.12	20.03	21.30
		1	5	20.01	20.09	20.02	21.30
		3	0	20.05	20.08	20.11	21.30
		3	1	20.14	20.07	20.11	21.30
		3	3	20.12	20.04	20.02	21.30

		6	0	20.10	20.03	20.05	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131987	132322	132657	
3MHz	QPSK	1	0	20.14	20.03	20.06	21.30
		1	7	20.06	20.04	20.15	21.30
		1	14	20.11	20.05	20.10	21.30
		8	0	20.10	20.12	20.12	21.30
		8	4	20.06	20.06	20.03	21.30
		8	7	20.04	20.05	20.08	21.30
		15	0	20.09	20.06	20.10	21.30
	16QAM	1	0	20.01	20.10	20.04	21.30
		1	7	20.03	20.10	20.03	21.30
		1	14	20.05	20.11	20.09	21.30
		8	0	20.04	20.13	20.02	21.30
		8	4	20.05	20.04	20.05	21.30
		8	7	20.10	20.08	20.08	21.30
		15	0	20.07	20.02	20.15	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				131997	132322	132647	
5MHz	QPSK	1	0	20.12	20.02	20.13	21.30
		1	13	20.01	20.03	20.02	21.30
		1	24	20.09	20.06	20.08	21.30
		12	0	20.10	20.05	20.15	21.30
		12	6	20.01	20.13	20.01	21.30
		12	13	20.06	20.08	20.05	21.30
		25	0	20.07	20.09	20.12	21.30
	16QAM	1	0	20.07	20.01	20.09	21.30
		1	13	20.07	20.06	20.14	21.30
		1	24	20.07	20.11	20.12	21.30
		12	0	20.05	20.01	20.13	21.30
		12	6	20.08	20.12	20.14	21.30
		12	13	20.12	20.03	20.03	21.30
		25	0	20.14	20.11	20.08	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132022	132322	132622	
10MHz	QPSK	1	0	20.04	20.13	20.13	21.30
		1	25	20.02	20.05	20.01	21.30
		1	49	20.06	20.10	20.01	21.30
		25	0	20.09	20.08	20.07	21.30
		25	13	20.10	20.04	20.12	21.30
		25	25	20.03	20.03	20.05	21.30

		50	0	20.12	20.07	20.02	21.30
	16QAM	1	0	20.13	20.10	20.08	21.30
		1	25	20.14	20.09	20.02	21.30
		1	49	20.03	20.01	20.06	21.30
		25	0	20.00	20.14	20.02	21.30
		25	13	20.04	20.02	20.11	21.30
		25	25	20.02	20.12	20.05	21.30
		50	0	20.10	20.09	20.14	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	20.01	20.03	20.14	21.30
		1	38	20.05	20.13	20.08	21.30
		1	74	20.04	20.01	20.05	21.30
		36	0	20.07	20.08	20.09	21.30
		36	18	20.01	20.03	20.05	21.30
		36	39	20.01	20.10	20.03	21.30
		75	0	20.12	20.02	20.14	21.30
	16QAM	1	0	20.04	20.11	20.10	21.30
		1	38	20.15	20.05	20.12	21.30
		1	74	20.07	20.06	20.04	21.30
		36	0	20.07	20.11	20.13	21.30
		36	18	20.02	20.05	20.10	21.30
		36	39	20.15	20.08	20.14	21.30
		75	0	20.12	20.13	20.06	21.30
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	20.09	20.19	20.11	21.30
		1	50	19.92	20.02	20.03	21.30
		1	99	19.88	19.94	19.96	21.30
		50	0	19.87	19.98	19.78	21.30
		50	25	19.86	19.97	19.97	21.30
		50	50	19.33	19.44	19.46	21.30
		100	0	19.50	19.89	19.58	21.30
	16QAM	1	0	19.96	20.03	20.06	21.30
		1	50	20.16	20.13	20.18	21.30
		1	99	19.82	19.87	19.87	21.30
		50	0	19.78	19.89	19.89	21.30
		50	25	20.06	20.16	20.18	21.30
		50	50	19.92	20.02	20.06	21.30
		100	0	19.95	19.99	20.03	21.30

8.1.4 Conducted Power of WIFI and BT

WIFI 2.4GHz Receiver Off					
Mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11b	1	2412	1	18.50	19.50
	6	2437		18.35	19.50
	11	2462		18.23	19.50
802.11g	1	2412	6	17.47	19.00
	6	2437		18.48	20.00
	11	2462		15.42	17.00
802.11n HT20	1	2412	6.5	15.34	17.00
	6	2437		18.48	20.00
	11	2462		12.28	14.00
802.11n HT40	3	2422	13.5	12.03	14.00
	6	2437		14.43	16.00
	9	2452		11.20	13.00
WIFI 2.4GHz Receiver On					
Mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11b	1	2412	1	15.12	16.00
	6	2437		14.94	16.00
	11	2462		14.88	16.00
802.11g	1	2412	6	14.51	16.00
	6	2437		14.50	16.00
	11	2462		14.44	16.00
802.11n HT20	1	2412	6.5	14.34	16.00
	6	2437		14.62	16.00
	11	2462		12.28	14.00
802.11n HT40	3	2422	13.5	12.03	14.00
	6	2437		14.43	16.00
	9	2452		11.20	13.00

WIFI 5GHz Receiver Off						
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11a	U-NII-1	36	5180	6	15.56	16.00
		40	5200		18.52	19.00
		44	5220		18.54	19.00
		48	5240		18.61	19.00
	U-NII-2A	52	5260		18.55	19.00
		56	5280		18.52	19.00
		60	5300		18.48	19.00
		64	5320		13.58	14.00
	U-NII-2C	100	5500		13.62	14.00
		116	5580		18.59	19.00
		124	5620		18.55	19.00
		132	5660		18.52	19.00
		140	5700		16.48	17.00
		144	5720		18.49	19.00
	U-NII-3	149	5745		18.78	19.00
		157	5785		18.92	19.00
		165	5825		18.69	19.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT20	U-NII-1	36	5180	MCS0	15.51	17.00
		40	5200		17.53	19.00
		44	5220		17.69	19.00
		48	5240		17.72	19.00
	U-NII-2A	52	5260		17.48	19.00
		56	5280		17.52	19.00
		60	5300		17.49	19.00
		64	5320		12.49	14.00
	U-NII-2C	100	5500		12.71	14.00
		116	5580		17.48	19.00
		124	5620		17.48	19.00
		132	5660		17.48	19.00
		140	5700		13.61	15.00
		144	5720		17.52	19.00
	U-NII-3	149	5745		17.48	19.00
		157	5785		17.59	19.00
		165	5825		17.52	19.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT40	U-NII-1	38	5190	MCS0	10.48	12.00
		46	5230		16.71	18.00
	U-NII-2A	54	5270		16.70	18.00
		62	5310		9.70	11.00
	U-NII-2C	102	5510		11.25	12.50
		110	5550		16.63	18.00

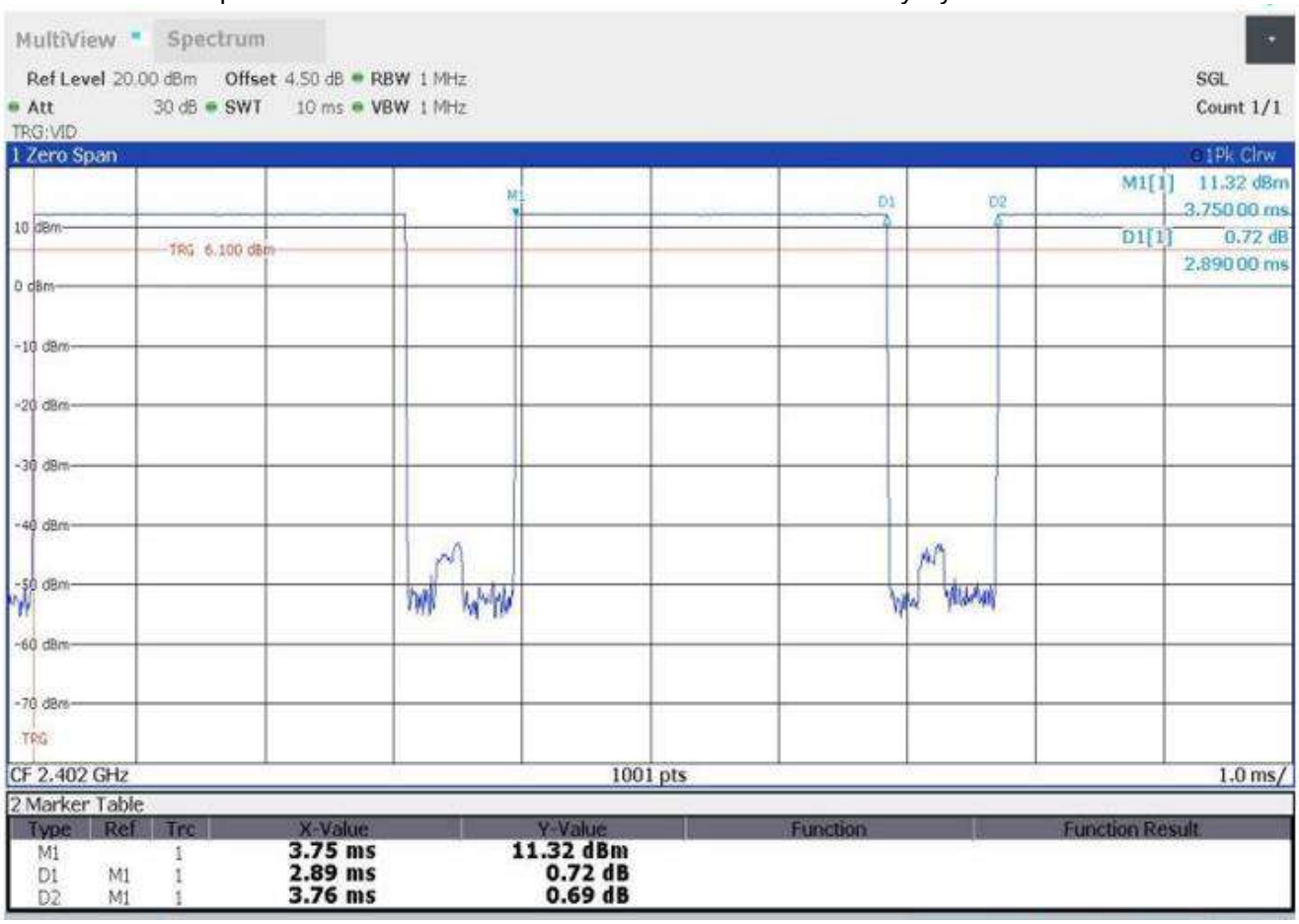
		126	5630		16.58	18.00
		134	5670		16.60	18.00
		142	5710		16.66	18.00
	U-NII-3	151	5755		16.59	18.00
		159	5795		16.61	18.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-20	U-NII-1	36	5180	MCS0	15.53	17.00
		40	5200		17.54	19.00
		44	5220		17.71	19.00
		48	5240		17.75	19.00
	U-NII-2A	52	5260		17.50	19.00
		56	5280		17.54	19.00
		60	5300		17.52	19.00
		64	5320		12.53	14.00
	U-NII-2C	100	5500		12.74	14.00
		116	5580		17.51	19.00
		124	5620		17.48	19.00
		132	5660		17.32	19.00
		140	5700		13.64	15.00
		144	5720		17.55	19.00
	U-NII-3	149	5745		17.51	19.00
		157	5785		17.59	19.00
		165	5825		17.55	19.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-40	U-NII-1	38	5190	MCS0	10.52	12.00
		46	5230		16.73	18.00
	U-NII-2A	54	5270		16.68	18.00
		62	5310		9.72	11.00
	U-NII-2C	102	5510		11.27	12.50
		110	5550		16.67	18.00
		126	5630		16.38	18.00
		134	5670		16.59	18.00
		142	5710		16.63	18.00
	U-NII-3	151	5755		16.61	18.00
		159	5795		16.67	18.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 80M	U-NII-1	42	5210	MCS0	9.39	11.00
	U-NII-2A	58	5290		8.71	10.00
	U-NII-2C	106	5530		8.73	10.00
		122	5610		15.95	17.50
		138	5690		16.01	17.50
	U-NII-3	155	5775		16.21	17.50

WIFI 5GHz Receiver On						
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11a	U-NII-1	36	5180	6	13.59	15.00
		40	5200		14.09	15.00
		44	5220		14.01	15.00
		48	5240		14.16	15.00
	U-NII-2A	52	5260		14.11	15.00
		56	5280		14.02	15.00
		60	5300		14.02	15.00
		64	5320		13.61	14.00
	U-NII-2C	100	5500		13.64	14.00
		116	5580		14.09	15.00
		124	5620		14.02	15.00
		132	5660		14.01	15.00
		140	5700		13.98	15.00
		144	5720		13.99	15.00
	U-NII-3	149	5745		14.08	15.00
		157	5785		14.12	15.00
		165	5825		14.09	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT20	U-NII-1	36	5180	MCS0	13.49	15.00
		40	5200		13.46	15.00
		44	5220		13.66	15.00
		48	5240		13.70	15.00
	U-NII-2A	52	5260		13.52	15.00
		56	5280		13.52	15.00
		60	5300		13.47	15.00
		64	5320		12.47	14.00
	U-NII-2C	100	5500		12.73	14.00
		116	5580		13.48	15.00
		124	5620		13.44	15.00
		132	5660		13.56	15.00
		140	5700		13.62	15.00
		144	5720		13.54	15.00
	U-NII-3	149	5745		13.48	15.00
		157	5785		13.56	15.00
		165	5825		13.50	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT40	U-NII-1	38	5190	MCS0	10.52	12.00
		46	5230		13.67	15.00
	U-NII-2A	54	5270		13.68	15.00
		62	5310		9.72	11.00
	U-NII-2C	102	5510		11.27	12.50
		110	5550		13.71	15.00

		126	5630		13.55	15.00
		134	5670		13.65	15.00
		142	5710		13.68	15.00
	U-NII-3	151	5755		13.65	15.00
		159	5795		13.64	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-20	U-NII-1	36	5180	MCS0	13.52	15.00
		40	5200		13.56	15.00
		44	5220		13.69	15.00
		48	5240		13.77	15.00
	U-NII-2A	52	5260		13.51	15.00
		56	5280		13.52	15.00
		60	5300		13.56	15.00
		64	5320		12.57	14.00
	U-NII-2C	100	5500		12.79	14.00
		116	5580		13.52	15.00
		124	5620		13.51	15.00
		132	5660		13.34	15.00
		140	5700		13.62	15.00
		144	5720		13.49	15.00
	U-NII-3	149	5745		13.57	15.00
		157	5785		13.61	15.00
		165	5825		13.57	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-40	U-NII-1	38	5190	MCS0	10.54	12.00
		46	5230		13.77	15.00
	U-NII-2A	54	5270		13.67	15.00
		62	5310		9.69	11.00
	U-NII-2C	102	5510		11.31	12.50
		110	5550		13.64	15.00
		126	5630		13.41	15.00
		134	5670		13.56	15.00
		142	5710		13.66	15.00
	U-NII-3	151	5755		16.57	15.00
		159	5795		13.69	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 80M	U-NII-1	42	5210	MCS0	9.41	11.00
	U-NII-2A	58	5290		8.74	10.00
	U-NII-2C	106	5530		8.75	10.00
		122	5610		13.47	15.00
		138	5690		13.54	15.00
	U-NII-3	155	5775		13.69	15.00

BT		Average Conducted Power(dBm)			Tune up
Band	Channel	0	39	78	
BT	GFSK	13.01	13.45	13.28	15.00
	π/4DQPSK	9.37	10.10	10.00	12.50
	8DPSK	9.35	10.02	9.98	12.50
Band	Channel	0	19	39	Tune up
BLE	GFSK	6.21	7.37	8.34	11.50

Note:
1）. The conducted power of BT is measured with RMS detector. BT DH5 Duty Cycle=2.89/3.76=76.86%



8.2 Measurement of SAR Data

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.

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:

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

WiFi 2.4G:

1) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ⩽ 1.2 W/kg, SAR test for the other 802.11 modes are not required.

WiFi 5G:

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. As 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.
2) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) bands does not support hotspot function.
3) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ⩽ 1.2 W/kg, SAR test for the other 802.11 modes are not required.

8.2.1 SAR Result of GSM850

Ant 0 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	GSM	190/836.6	1:8.3	0.155	0.07	32.58	33.80	1.324	0.205	21.9
Left tilted	GSM	190/836.6	1:8.3	0.085	0.05	32.58	33.80	1.324	0.112	21.9
Right cheek	GSM	190/836.6	1:8.3	0.192	0.01	32.58	33.80	1.324	**0.254**	21.9
Right tilted	GSM	190/836.6	1:8.3	0.088	0.02	32.58	33.80	1.324	0.116	21.9
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.226	0.10	32.58	33.80	1.324	0.299	21.9
Back side	GSM	190/836.6	1:8.3	0.266	0.14	32.58	33.80	1.324	**0.352**	21.9
Back side with Battery 2#	GSM	190/836.6	1:8.3	0.257	0.04	32.58	33.80	1.324	0.340	21.9
Back side with Battery 3#	GSM	190/836.6	1:8.3	0.251	0.01	32.58	33.80	1.324	0.332	21.9
Back side with Battery 4#	GSM	190/836.6	1:8.3	0.254	0.09	32.58	33.80	1.324	0.336	21.9
Back side with Battery 5#	GSM	190/836.6	1:8.3	0.263	0.05	32.58	33.80	1.324	0.348	21.9
Back side with Battery 6#	GSM	190/836.6	1:8.3	0.260	0.19	32.58	33.80	1.324	0.344	21.9
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.275	0.18	25.74	27.80	1.607	0.442	21.9
Back side	GPRS 4TS	190/836.6	1:2.075	0.360	0.06	25.74	27.80	1.607	**0.578**	21.9
Left side	GPRS 4TS	190/836.6	1:2.075	0.137	0.01	25.74	27.80	1.607	0.220	21.9
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.005	-0.01	25.74	27.80	1.607	0.008	21.9
Back side with Battery 2#	GPRS 4TS	190/836.6	1:2.075	0.358	0.16	25.74	27.80	1.607	0.575	21.9
Back side with Battery 3#	GPRS 4TS	190/836.6	1:2.075	0.338	0.19	25.74	27.80	1.607	0.543	21.9
Back side with Battery 4#	GPRS 4TS	190/836.6	1:2.075	0.342	0.08	25.74	27.80	1.607	0.550	21.9
Back side with Battery 5#	GPRS 4TS	190/836.6	1:2.075	0.354	0.11	25.74	27.80	1.607	0.569	21.9
Back side with Battery 6#	GPRS 4TS	190/836.6	1:2.075	0.346	0.15	25.74	27.80	1.607	0.556	21.9
Ant 3 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	GSM	190/836.6	1:8.3	0.431	0.03	32.80	33.80	1.259	0.543	21.9
Left tilted	GSM	190/836.6	1:8.3	0.185	0.12	32.80	33.80	1.259	0.233	21.9
Right cheek	GSM	190/836.6	1:8.3	0.529	0.18	32.80	33.80	1.259	**0.666**	21.9
Right tilted	GSM	190/836.6	1:8.3	0.347	0.06	32.80	33.80	1.259	0.437	21.9
Right cheek with Battery 2#	GSM	190/836.6	1:8.3	0.493	0.12	32.80	33.80	1.259	0.621	21.9
Right cheek with Battery 3#	GSM	190/836.6	1:8.3	0.499	0.09	32.80	33.80	1.259	0.628	21.9
Right cheek with Battery 4#	GSM	190/836.6	1:8.3	0.511	0.18	32.80	33.80	1.259	0.643	21.9
Right cheek with Battery 5#	GSM	190/836.6	1:8.3	0.487	0.17	32.80	33.80	1.259	0.613	21.9
Right cheek with Battery 6#	GSM	190/836.6	1:8.3	0.523	0.03	32.80	33.80	1.259	0.658	21.9
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.103	0.15	32.80	33.80	1.259	0.130	21.9
Back side	GSM	190/836.6	1:8.3	0.182	-0.01	32.80	33.80	1.259	**0.229**	21.9
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.131	0.07	26.33	27.80	1.403	0.184	21.9
Back side	GPRS 4TS	190/836.6	1:2.075	0.232	0.03	26.33	27.80	1.403	**0.325**	21.9
Right Side	GPRS 4TS	190/836.6	1:2.075	0.183	0.01	26.33	27.80	1.403	0.257	21.9
Top side	GPRS 4TS	190/836.6	1:2.075	0.071	0.02	26.33	27.80	1.403	0.100	21.9

Table 11： SAR of GSM850 for Head and Body

8.2.2 SAR Result of GSM1900

Ant 1 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	GSM	661/1880	1:8.3	0.100	0.09	30.07	30.80	1.183	**0.118**	22.1
Left tilted	GSM	661/1880	1:8.3	0.036	0.03	30.07	30.80	1.183	0.042	22.1
Right cheek	GSM	661/1880	1:8.3	0.067	0.07	30.07	30.80	1.183	0.080	22.1
Right tilted	GSM	661/1880	1:8.3	0.030	0.01	30.07	30.80	1.183	0.036	22.1
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.196	0.11	30.07	30.80	1.183	0.232	22.1
Back side	GSM	661/1880	1:8.3	0.467	0.05	30.07	30.80	1.183	**0.552**	22.1
Back side with Battery 2#	GSM	661/1880	1:8.3	0.460	-0.02	30.07	30.80	1.183	0.544	22.1
Back side with Battery 3#	GSM	661/1880	1:8.3	0.443	-0.09	30.07	30.80	1.183	0.524	22.1
Back side with Battery 4#	GSM	661/1880	1:8.3	0.436	0.19	30.07	30.80	1.183	0.516	22.1
Back side with Battery 5#	GSM	661/1880	1:8.3	0.453	0.05	30.07	30.80	1.183	0.536	22.1
Back side with Battery 6#	GSM	661/1880	1:8.3	0.460	0.18	30.07	30.80	1.183	0.544	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.333	0.19	23.79	24.80	1.262	0.420	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.662	0.02	23.79	24.80	1.262	0.835	22.1
Back side	GPRS 4TS	512/1850.2	1:2.075	0.578	0.17	23.18	24.80	1.452	0.839	22.1
Back side	GPRS 4TS	810/1909.8	1:2.075	0.739	0.17	23.15	24.80	1.462	**1.081**	22.1
Right side	GPRS 4TS	661/1880	1:2.075	0.097	0.09	23.79	24.80	1.262	0.122	22.1
Bottom side	GPRS 4TS	661/1880	1:2.075	0.514	0.07	23.79	24.80	1.262	0.649	22.1
Back side with Battery 2#	GPRS 4TS	810/1909.8	1:2.075	0.713	0.12	23.15	24.80	1.462	1.043	22.1
Back side with Battery 3#	GPRS 4TS	810/1909.8	1:2.075	0.682	0.12	23.15	24.80	1.462	0.997	22.1
Back side with Battery 4#	GPRS 4TS	810/1909.8	1:2.075	0.687	-0.09	23.15	24.80	1.462	1.005	22.1
Back side with Battery 5#	GPRS 4TS	810/1909.8	1:2.075	0.697	0.08	23.15	24.80	1.462	1.019	22.1
Back side with Battery 6#	GPRS 4TS	810/1909.8	1:2.075	0.724	0.05	23.15	24.80	1.462	1.059	22.1
Ant 3 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	GSM	661/1880	1:8.3	0.710	0.06	26.58	26.80	1.052	0.747	22.1
Left tilted	GSM	661/1880	1:8.3	0.720	0.08	26.58	26.80	1.052	0.757	22.1
Right cheek	GSM	661/1880	1:8.3	0.757	0.01	26.58	26.80	1.052	0.796	22.1
Right tilted	GSM	661/1880	1:8.3	0.775	-0.07	26.58	26.80	1.052	0.815	22.1
Right tilted	GSM	512/1850.2	1:8.3	0.576	0.03	26.33	26.80	1.114	0.642	22.1
Right tilted	GSM	810/1909.8	1:8.3	0.844	-0.01	26.33	26.80	1.114	**0.940**	22.1
Right tilted repeat	GSM	810/1909.8	1:8.3	0.821	0.05	26.33	26.80	1.114	0.915	22.1
Right cheek with Battery 2#	GSM	810/1909.8	1:8.3	0.785	0.01	26.33	26.80	1.114	0.875	22.1
Right cheek with Battery 3#	GSM	810/1909.8	1:8.3	0.827	0.03	26.33	26.80	1.114	0.922	22.1
Right cheek with Battery 4#	GSM	810/1909.8	1:8.3	0.797	-0.04	26.33	26.80	1.114	0.888	22.1
Right cheek with Battery 5#	GSM	810/1909.8	1:8.3	0.767	0.19	26.33	26.80	1.114	0.855	22.1
Right cheek with Battery 6#	GSM	810/1909.8	1:8.3	0.832	0.11	26.33	26.80	1.114	0.927	22.1
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.180	0.01	26.58	26.80	1.052	0.189	22.1
Back side	GSM	661/1880	1:8.3	0.340	0.02	26.58	26.80	1.052	**0.358**	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.253	0.01	20.18	20.80	1.153	0.292	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.560	0.17	20.18	20.80	1.153	0.646	22.1
Left side	GPRS 4TS	661/1880	1:2.075	0.209	0.11	20.18	20.80	1.153	0.241	22.1
Top side	GPRS 4TS	661/1880	1:2.075	0.654	0.13	20.18	20.80	1.153	**0.754**	22.1

Test position	BW.	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Product specific 10g SAR Test data(Separate 0mm)										
Top side	GSM	661/1880	1:8.3	1.570	0.06	26.58	26.80	1.052	**1.652**	22.1

Table 12： SAR of GSM1900 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right tilted	810/1909.8	0.844	0.821	1.028	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.3 SAR Result of WCDMA Band II

Ant 1 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.077	0.08	23.45	24.40	1.245	0.096	22.1
Left tilted	RMC	9400/1880	1:1	0.057	0.07	23.45	24.40	1.245	0.071	22.1
Right cheek	RMC	9400/1880	1:1	0.081	0.01	23.45	24.40	1.245	**0.100**	22.1
Right tilted	RMC	9400/1880	1:1	0.052	0.19	23.45	24.40	1.245	0.064	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.136	0.07	22.37	23.40	1.268	0.172	22.1
Back side	RMC	9400/1880	1:1	0.332	0.14	22.37	23.40	1.268	**0.421**	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.224	0.02	22.37	23.40	1.268	0.284	22.1
Back side	RMC	9400/1880	1:1	0.686	0.03	22.37	23.40	1.268	**0.870**	22.1
Back side	RMC	9262/1852.4	1:1	0.523	0.02	21.93	23.40	1.403	0.734	22.1
Back side	RMC	9538/1907.6	1:1	0.577	0.07	22.14	23.40	1.337	0.771	22.1
Right side	RMC	9400/1880	1:1	0.170	0.07	22.37	23.40	1.268	0.216	22.1
Bottom side	RMC	9400/1880	1:1	0.583	0.03	22.37	23.40	1.268	0.739	22.1
Back side with Battery 2#	RMC	9400/1880	1:1	0.661	0.06	22.37	23.40	1.268	0.838	22.1
Back side with Battery 3#	RMC	9400/1880	1:1	0.681	0.03	22.37	23.40	1.268	0.863	22.1
Back side with Battery 4#	RMC	9400/1880	1:1	0.651	0.05	22.37	23.40	1.268	0.825	22.1
Back side with Battery 5#	RMC	9400/1880	1:1	0.636	0.09	22.37	23.40	1.268	0.806	22.1
Back side with Battery 6#	RMC	9400/1880	1:1	0.646	0.11	22.37	23.40	1.268	0.819	22.1
Ant 3 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.590	0.09	16.33	17.20	1.222	0.721	22.1
Left tilted	RMC	9400/1880	1:1	0.724	0.07	16.33	17.20	1.222	0.885	22.1
Left tilted	RMC	9262/1852.4	1:1	0.543	0.03	15.99	17.20	1.321	0.717	22.1
Left tilted	RMC	9538/1907.6	1:1	0.685	0.05	16.05	17.20	1.303	0.893	22.1
Right cheek	RMC	9400/1880	1:1	0.693	0.03	16.33	17.20	1.222	0.847	22.1
Right cheek	RMC	9262/1852.4	1:1	0.561	0.01	15.99	17.20	1.321	0.741	22.1
Right cheek	RMC	9538/1907.6	1:1	0.635	0.06	16.05	17.20	1.303	0.828	22.1
Right tilted	RMC	9400/1880	1:1	0.885	0.01	16.33	17.20	1.222	**1.081**	22.1
Right tilted -Repeat	RMC	9400/1880	1:1	0.862	-0.13	16.33	17.20	1.222	1.053	22.1
Right tilted	RMC	9262/1852.4	1:1	0.605	0.05	15.99	17.20	1.321	0.799	22.1
Right tilted	RMC	9538/1907.6	1:1	0.782	0.02	16.05	17.20	1.303	1.019	22.1
Right tilted with Battery 2#	RMC	9400/1880	1:1	0.821	0.06	16.33	17.20	1.222	1.003	22.1
Right tilted with Battery 3#	RMC	9400/1880	1:1	0.833	0.19	16.33	17.20	1.222	1.018	22.1
Right tilted with Battery 4#	RMC	9400/1880	1:1	0.846	0.08	16.33	17.20	1.222	1.034	22.1
Right tilted with Battery 5#	RMC	9400/1880	1:1	0.859	0.06	16.33	17.20	1.222	1.050	22.1
Right tilted with Battery 6#	RMC	9400/1880	1:1	0.840	0.05	16.33	17.20	1.222	1.026	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.260	0.04	19.61	20.00	1.094	0.284	22.1
Back side	RMC	9400/1880	1:1	0.530	0.15	19.61	20.00	1.094	**0.580**	22.1
Back side with Battery 2#	RMC	9400/1880	1:1	0.523	0.01	19.61	20.00	1.094	0.572	22.1
Back side with Battery 3#	RMC	9400/1880	1:1	0.515	0.08	19.61	20.00	1.094	0.563	22.1
Back side with Battery 4#	RMC	9400/1880	1:1	0.507	0.09	19.61	20.00	1.094	0.555	22.1
Back side with Battery 5#	RMC	9400/1880	1:1	0.503	0.07	19.61	20.00	1.094	0.550	22.1
Back side with Battery 6#	RMC	9400/1880	1:1	0.499	0.02	19.61	20.00	1.094	0.546	22.1
Hotspot Test data(Separate 10mm)										

Front side	RMC	9400/1880	1:1	0.205	0.05	16.33	17.20	1.222	0.250	22.1
Back side	RMC	9400/1880	1:1	0.441	0.01	16.33	17.20	1.222	0.539	22.1
Left side	RMC	9400/1880	1:1	0.068	0.02	16.33	17.20	1.222	0.083	22.1
Top side	RMC	9400/1880	1:1	0.465	0.04	16.33	17.20	1.222	**0.568**	22.1

Table 13： SAR of WCDMA Band II for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right tilted	9400/1880	0.885	0.862	1.027	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.4 SAR Result of WCDMA Band IV

Ant 1 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.179	0.08	23.47	24.40	1.239	**0.222**	21.6
Left tilted	RMC	1412/1732.4	1:1	0.086	0.11	23.47	24.40	1.239	0.106	21.6
Right cheek	RMC	1412/1732.4	1:1	0.121	0.04	23.47	24.40	1.239	0.150	21.6
Right tilted	RMC	1412/1732.4	1:1	0.080	0.09	23.47	24.40	1.239	0.098	21.6
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.269	0.07	21.67	22.90	1.327	0.357	21.6
Back side	RMC	1412/1732.4	1:1	0.593	0.01	21.67	22.90	1.327	**0.787**	21.6
Back side with Battery 2#	RMC	1412/1732.4	1:1	0.591	0.11	21.67	22.90	1.327	0.784	21.6
Back side with Battery 3#	RMC	1412/1732.4	1:1	0.580	0.19	21.67	22.90	1.327	0.770	21.6
Back side with Battery 4#	RMC	1412/1732.4	1:1	0.577	0.06	21.67	22.90	1.327	0.766	21.6
Back side with Battery 5#	RMC	1412/1732.4	1:1	0.588	0.05	21.67	22.90	1.327	0.781	21.6
Back side with Battery 6#	RMC	1412/1732.4	1:1	0.590	0.13	21.67	22.90	1.327	0.783	21.6
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.298	0.08	20.48	21.60	1.294	0.386	21.6
Back side	RMC	1412/1732.4	1:1	0.795	0.03	20.48	21.60	1.294	**1.029**	21.6
Back side	RMC	1312/1712.4	1:1	0.630	0.03	20.34	21.60	1.337	0.842	21.6
Back side	RMC	1513/1752.6	1:1	0.687	0.07	20.46	21.60	1.300	0.893	21.6
Right side	RMC	1412/1732.4	1:1	0.190	0.11	20.48	21.60	1.294	0.246	21.6
Bottom side	RMC	1412/1732.4	1:1	0.676	0.08	20.48	21.60	1.294	0.875	21.6
Bottom side	RMC	1312/1712.4	1:1	0.636	0.07	20.34	21.60	1.337	0.850	21.6
Bottom side	RMC	1513/1752.6	1:1	0.709	0.07	20.46	21.60	1.300	0.922	21.6
Back side with Battery 2#	RMC	1412/1732.4	1:1	0.791	0.05	20.48	21.60	1.294	1.024	21.6
Back side with Battery 3#	RMC	1412/1732.4	1:1	0.784	0.15	20.48	21.60	1.294	1.015	21.6
Back side with Battery 4#	RMC	1412/1732.4	1:1	0.777	0.19	20.48	21.60	1.294	1.006	21.6
Back side with Battery 5#	RMC	1412/1732.4	1:1	0.770	0.13	20.48	21.60	1.294	0.997	21.6
Back side with Battery 6#	RMC	1412/1732.4	1:1	0.766	0.15	20.48	21.60	1.294	0.991	21.6
Test position	**BW.**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm)										
Back side	RMC	1412/1732.4	1:1	2.180	-0.03	21.67	22.90	1.327	**2.894**	21.6
Back side repeat	RMC	1412/1732.4	1:1	2.160	0.09	21.67	22.90	1.327	2.867	21.6
Back side	RMC	1312/1712.4	1:1	2.120	-0.05	21.58	22.90	1.355	2.873	21.6
Back side	RMC	1513/1752.6	1:1	2.100	0.01	21.55	22.90	1.365	2.866	21.6
Bottom side	RMC	1412/1732.4	1:1	1.980	0.06	21.67	22.90	1.327	2.628	21.6
Bottom side	RMC	1312/1712.4	1:1	1.730	-0.05	21.58	22.90	1.355	2.344	21.6
Bottom side	RMC	1513/1752.6	1:1	1.870	0.01	21.55	22.90	1.365	2.552	21.6
Ant 3 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.498	0.08	20.09	20.70	1.151	0.573	21.6
Left tilted	RMC	1412/1732.4	1:1	0.682	0.02	20.09	20.70	1.151	0.785	21.6
Left tilted	RMC	1312/1712.4	1:1	0.585	0.05	20.01	20.70	1.172	0.686	21.6
Left tilted	RMC	1513/1752.6	1:1	0.760	0.06	20.06	20.70	1.159	0.881	21.6
Right cheek	RMC	1412/1732.4	1:1	0.627	-0.04	20.09	20.70	1.151	0.722	21.6
Right tilted	RMC	1412/1732.4	1:1	0.783	0.03	20.09	20.70	1.151	0.901	21.6
Right tilted	RMC	1312/1712.4	1:1	0.611	0.01	20.01	20.70	1.172	0.716	21.6
Right tilted	RMC	1513/1752.6	1:1	0.918	-0.02	20.06	20.70	1.159	**1.064**	21.6
Right tilted-Repeat	RMC	1513/1752.6	1:1	0.912	0.03	20.06	20.70	1.159	1.057	21.6
Right tilted with Battery 2#	RMC	1513/1752.6	1:1	0.904	0.18	20.06	20.70	1.159	1.048	21.6

Right tilted with Battery 3#	RMC	1513/1752.6	1:1	0.876	0.05	20.06	20.70	1.159	1.015	21.6
Right tilted with Battery 4#	RMC	1513/1752.6	1:1	0.890	0.16	20.06	20.70	1.159	1.031	21.6
Right tilted with Battery 5#	RMC	1513/1752.6	1:1	0.876	0.02	20.06	20.70	1.159	1.015	21.6
Right tilted with Battery 6#	RMC	1513/1752.6	1:1	0.856	0.18	20.06	20.70	1.159	0.992	21.6
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.148	0.08	20.77	21.40	1.156	0.171	21.6
Back side	RMC	1412/1732.4	1:1	0.292	0.10	20.77	21.40	1.156	**0.338**	21.6
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.204	0.04	20.09	20.70	1.151	0.235	21.6
Back side	RMC	1412/1732.4	1:1	0.491	0.13	20.09	20.70	1.151	**0.565**	21.6
Left side	RMC	1412/1732.4	1:1	0.125	0.06	20.09	20.70	1.151	0.144	21.6
Top side	RMC	1412/1732.4	1:1	0.479	0.09	20.09	20.70	1.151	0.551	21.6

Table 14：SAR of WCDMA Band IV for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right tilted	1513/1752.6	0.918	0.912	1.007	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	Channel/ Frequency (MHz)	Measured SAR (10g)	1st Repeated SAR (10g)	Ratio	2nd Repeated SAR (10g)	3rd Repeated SAR (10g)
Back side	1412/1732.4	2.18	2.16	1.009	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 3.0 or when the original or repeated measurement was ≥ 3.625 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 3.75 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 3.0.						
4) Repeated measurements are not required when the original highest measured SAR is < 2.0 W/kg						

8.2.5 SAR Result of WCDMA Band V

Ant 0 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.170	0.02	23.98	25.00	1.265	0.215	21.9
Left tilted	RMC	4182/836.4	1:1	0.071	-0.01	23.98	25.00	1.265	0.090	21.9
Right cheek	RMC	4182/836.4	1:1	0.191	-0.17	23.98	25.00	1.265	**0.242**	21.9
Right tilted	RMC	4182/836.4	1:1	0.093	0.10	23.98	25.00	1.265	0.117	21.9
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.235	-0.04	23.98	25.00	1.265	0.297	21.9
Back side	RMC	4182/836.4	1:1	0.291	0.07	23.98	25.00	1.265	**0.368**	21.9
Back side with Battery 2#	RMC	4182/836.4	1:1	0.287	0.16	23.98	25.00	1.265	0.363	21.9
Back side with Battery 3#	RMC	4182/836.4	1:1	0.286	0.01	23.98	25.00	1.265	0.362	21.9
Back side with Battery 4#	RMC	4182/836.4	1:1	0.290	0.05	23.98	25.00	1.265	0.367	21.9
Back side with Battery 5#	RMC	4182/836.4	1:1	0.283	0.13	23.98	25.00	1.265	0.358	21.9
Back side with Battery 6#	RMC	4182/836.4	1:1	0.280	0.19	23.98	25.00	1.265	0.354	21.9
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.330	-0.04	23.98	25.00	1.265	0.417	21.9
Back side	RMC	4182/836.4	1:1	0.518	-0.17	23.98	25.00	1.265	**0.655**	21.9
Left side	RMC	4182/836.4	1:1	0.331	0.09	23.98	25.00	1.265	0.419	21.9
Bottom side	RMC	4182/836.4	1:1	0.013	0.07	23.98	25.00	1.265	0.016	21.9
Back side with Battery 2#	RMC	4182/836.4	1:1	0.513	0.09	23.98	25.00	1.265	0.649	21.9
Back side with Battery 3#	RMC	4182/836.4	1:1	0.511	0.05	23.98	25.00	1.265	0.646	21.9
Back side with Battery 4#	RMC	4182/836.4	1:1	0.504	0.02	23.98	25.00	1.265	0.637	21.9
Back side with Battery 5#	RMC	4182/836.4	1:1	0.509	0.05	23.98	25.00	1.265	0.644	21.9
Back side with Battery 6#	RMC	4182/836.4	1:1	0.502	0.19	23.98	25.00	1.265	0.635	21.9
Ant 3 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.382	0.01	23.95	25.00	1.274	0.486	21.9
Left tilted	RMC	4182/836.4	1:1	0.268	0.05	23.95	25.00	1.274	0.341	21.9
Right cheek	RMC	4182/836.4	1:1	0.724	0.05	23.95	25.00	1.274	0.922	21.9
Right cheek	RMC	4132/826.4	1:1	0.557	-0.03	23.88	25.00	1.294	0.721	21.9
Right cheek	RMC	4233/846.6	1:1	0.811	0.06	23.85	25.00	1.303	**1.057**	21.9
Right cheek-Repeat	RMC	4233/846.6	1:1	0.775	0.14	23.85	25.00	1.303	1.010	21.9
Right tilted	RMC	4182/836.4	1:1	0.376	0.10	23.95	25.00	1.274	0.479	21.9
Right cheek with Battery 2#	RMC	4233/846.6	1:1	0.739	0.05	23.85	25.00	1.303	0.963	21.9
Right cheek with Battery 3#	RMC	4233/846.6	1:1	0.757	0.18	23.85	25.00	1.303	0.986	21.9
Right cheek with Battery 4#	RMC	4233/846.6	1:1	0.739	0.05	23.85	25.00	1.303	0.963	21.9
Right cheek with Battery 5#	RMC	4233/846.6	1:1	0.775	0.06	23.85	25.00	1.303	1.010	21.9
Right cheek with Battery 6#	RMC	4233/846.6	1:1	0.784	0.02	23.85	25.00	1.303	1.022	21.9
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.148	0.02	23.95	25.00	1.274	0.188	21.9
Back side	RMC	4182/836.4	1:1	0.243	-0.01	23.95	25.00	1.274	**0.309**	21.9
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.268	0.06	23.95	25.00	1.274	0.341	21.9
Back side	RMC	4182/836.4	1:1	0.452	-0.03	23.95	25.00	1.274	**0.576**	21.9
Left side	RMC	4182/836.4	1:1	0.334	0.09	23.95	25.00	1.274	0.425	21.9
Top side	RMC	4182/836.4	1:1	0.002	0.10	23.95	25.00	1.274	0.003	21.9

Table 15： SAR of WCDMA Band V for Head and Body.

8.2.6 SAR Result of LTE Band 2

Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	18900/1880	1:1	0.094	0.07	23.15	24.40	1.334	**0.125**	22.2
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.038	0.11	23.15	24.40	1.334	0.050	22.2
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.065	0.01	23.15	24.40	1.334	0.087	22.2
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.055	0.07	23.15	24.40	1.334	0.074	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	18900/1880	1:1	0.077	0.19	22.29	23.40	1.291	0.099	22.2
Left tilted	20	QPSK 50_0	18900/1880	1:1	0.034	0.08	22.29	23.40	1.291	0.044	22.2
Right cheek	20	QPSK 50_0	18900/1880	1:1	0.057	0.02	22.29	23.40	1.291	0.074	22.2
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.045	0.06	22.29	23.40	1.291	0.059	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.130	0.09	21.77	23.40	1.455	0.189	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.316	0.08	21.77	23.40	1.455	**0.460**	22.2
Back side with Battery 2#	20	QPSK 1_0	18900/1880	1:1	0.310	0.13	21.77	23.40	1.455	0.451	22.2
Back side with Battery 3#	20	QPSK 1_0	18900/1880	1:1	0.303	0.15	21.77	23.40	1.455	0.441	22.2
Back side with Battery 4#	20	QPSK 1_0	18900/1880	1:1	0.314	0.16	21.77	23.40	1.455	0.457	22.2
Back side with Battery 5#	20	QPSK 1_0	18900/1880	1:1	0.310	0.17	21.77	23.40	1.455	0.451	22.2
Back side with Battery 6#	20	QPSK 1_0	18900/1880	1:1	0.300	0.05	21.77	23.40	1.455	0.437	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.118	0.05	21.68	23.40	1.486	0.175	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.279	0.07	21.68	23.40	1.486	0.415	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.220	0.11	21.77	23.40	1.455	0.320	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.636	0.08	21.77	23.40	1.455	**0.926**	22.2
Back side	20	QPSK 1_0	18700/1860	1:1	0.617	0.07	21.76	23.40	1.459	0.900	22.2
Back side	20	QPSK 1_0	19100/1900	1:1	0.589	0.06	21.59	23.40	1.517	0.894	22.2
Right side	20	QPSK 1_0	18900/1880	1:1	0.153	0.09	21.77	23.40	1.455	0.223	22.2
Bottom side	20	QPSK 1_0	18900/1880	1:1	0.547	0.13	21.77	23.40	1.455	0.796	22.2
Back side with Battery 2#	20	QPSK 1_0	18900/1880	1:1	0.608	0.00	21.77	23.40	1.455	0.885	22.2
Back side with Battery 3#	20	QPSK 1_0	18900/1880	1:1	0.599	0.06	21.77	23.40	1.455	0.872	22.2
Back side with Battery 4#	20	QPSK 1_0	18900/1880	1:1	0.631	0.01	21.77	23.40	1.455	0.918	22.2
Back side with Battery 5#	20	QPSK 1_0	18900/1880	1:1	0.627	0.05	21.77	23.40	1.455	0.913	22.2
Back side with Battery 6#	20	QPSK 1_0	18900/1880	1:1	0.613	0.02	21.77	23.40	1.455	0.892	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.219	0.08	21.68	23.40	1.486	0.325	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.616	0.02	21.68	23.40	1.486	0.915	22.2
Back side	20	QPSK 50_0	18700/1860	1:1	0.599	0.08	21.58	23.40	1.521	0.911	22.2
Back side	20	QPSK 50_0	19100/1900	1:1	0.602	0.12	21.55	23.40	1.531	0.922	22.2
Rightt side	20	QPSK 50_0	18900/1880	1:1	0.148	0.12	21.68	23.40	1.486	0.220	22.2
Bottom side	20	QPSK 50_0	18900/1880	1:1	0.532	0.11	21.68	23.40	1.486	0.791	22.2
Hotspot Test data(Separate 10mm 100%RB)											
Back side	20	QPSK 100_0	18900/1880	1:1	0.584	0.09	21.62	23.40	1.507	0.880	
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	18900/1880	1:1	0.588	-0.01	16.94	17.80	1.219	0.717	22.2
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.595	0.05	16.94	17.80	1.219	0.725	22.2
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.663	-0.06	16.94	17.80	1.219	0.808	22.2
Right cheek	20	QPSK 1_0	18700/1860	1:1	0.594	0.08	16.74	17.80	1.276	0.758	22.2
Right cheek	20	QPSK 1_0	19100/1900	1:1	0.697	0.09	16.81	17.80	1.256	0.875	22.2
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.790	0.04	16.94	17.80	1.219	0.963	22.2
Right tilted	20	QPSK 1_0	18700/1860	1:1	0.685	0.05	16.74	17.80	1.276	0.874	22.2
Right tilted	20	QPSK 1_0	19100/1900	1:1	0.798	0.09	16.81	17.80	1.256	1.002	22.2
Head Test Data(50%RB)											

Left cheek	20	QPSK 50_0	18900/1880	1:1	0.620	0.15	16.77	17.80	1.268	0.786	22.2
Left tilted	20	QPSK 50_0	18900/1880	1:1	0.713	0.05	16.77	17.80	1.268	0.904	22.2
Left tilted	20	QPSK 50_0	18700/1860	1:1	0.638	0.09	16.58	17.80	1.324	0.845	22.2
Left tilted	20	QPSK 50_0	19100/1900	1:1	0.720	0.05	16.59	17.80	1.321	0.951	22.2
Right cheek	20	QPSK 50_0	18900/1880	1:1	0.681	0.17	16.77	17.80	1.268	0.863	22.2
Right cheek	20	QPSK 50_0	18700/1860	1:1	0.627	0.08	16.58	17.80	1.324	0.830	22.2
Right cheek	20	QPSK 50_0	19100/1900	1:1	0.686	0.06	16.59	17.80	1.321	0.906	22.2
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.862	0.04	16.77	17.80	1.268	**1.093**	22.2
Right tilted -repeat	20	QPSK 50_0	18900/1880	1:1	0.843	0.09	16.77	17.80	1.268	1.069	22.2
Right tilted	20	QPSK 50_0	18700/1860	1:1	0.695	0.06	16.58	17.80	1.324	0.920	22.2
Right tilted	20	QPSK 50_0	19100/1900	1:1	0.788	0.07	16.59	17.80	1.321	1.041	22.2
Right tilted with Battery 2#	20	QPSK 50_0	18900/1880	1:1	0.812	0.15	16.77	17.80	1.268	1.029	22.2
Right tilted with Battery 3#	20	QPSK 50_0	18900/1880	1:1	0.843	0.02	16.77	17.80	1.268	1.069	22.2
Right tilted with Battery 4#	20	QPSK 50_0	18900/1880	1:1	0.849	0.04	16.77	17.80	1.268	1.076	22.2
Right tilted with Battery 5#	20	QPSK 50_0	18900/1880	1:1	0.824	0.14	16.77	17.80	1.268	1.045	22.2
Right tilted with Battery 6#	20	QPSK 50_0	18900/1880	1:1	0.830	0.18	16.77	17.80	1.268	1.052	22.2
Head Test Data(100%RB)											
Left tilted	20	QPSK 100_0	18900/1880	1:1	0.681	0.01	16.70	17.80	1.288	0.877	22.2
Right cheek	20	QPSK 100_0	18900/1880	1:1	0.691	0.01	16.70	17.80	1.288	0.890	22.2
Right tilted	20	QPSK 100_0	18900/1880	1:1	0.778	0.08	16.70	17.80	1.288	1.002	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.139	0.09	20.18	20.90	1.180	0.164	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.258	0.16	20.18	20.90	1.180	0.305	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.143	0.18	20.16	20.90	1.186	0.170	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.259	0.06	20.16	20.90	1.186	**0.307**	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.217	0.07	16.94	17.80	1.219	0.265	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.489	0.01	16.94	17.80	1.219	0.596	22.2
Left side	20	QPSK 1_0	18900/1880	1:1	0.090	0.03	16.94	17.80	1.219	0.110	22.2
Top side	20	QPSK 1_0	18900/1880	1:1	0.447	0.18	16.94	17.80	1.219	0.545	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.220	0.02	16.77	17.80	1.268	0.279	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.503	0.05	16.77	17.80	1.268	**0.638**	22.2
Left side	20	QPSK 50_0	18900/1880	1:1	0.102	0.02	16.77	17.80	1.268	0.129	22.2
Top side	20	QPSK 50_0	18900/1880	1:1	0.427	0.09	16.77	17.80	1.268	0.541	22.2
Test position	**BW.**	**Test mode**	**Test Ch./Freq.**	**Duty Cycle**	**SAR (W/kg)10-g**	**Power Drift(dB)**	**Conducted power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data(Separate 0mm 1RB)											
Back side	20	QPSK 1_0	18900/1880	1:1	1.640	0.01	20.18	20.90	1.180	1.936	22.2
Product specific 10g SAR Test data (Separate 0mm 50%RB)											
Back side	20	QPSK 50_0	18900/1880	1:1	1.680	-0.03	20.16	20.90	1.186	**1.992**	22.2

Table 16：SAR of LTE Band 2 for Head and Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right tilted	18900/1880	0.862	0.843	1.023	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.1 SAR Result of LTE Band 4

Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	20175/1732.5	1:1	0.175	0.09	23.09	24.40	1.352	**0.237**	21.8
Left tilted	20	QPSK 1_0	20175/1732.5	1:1	0.040	0.16	23.09	24.40	1.352	0.054	21.8
Right cheek	20	QPSK 1_0	20175/1732.5	1:1	0.126	-0.03	23.09	24.40	1.352	0.170	21.8
Right tilted	20	QPSK 1_0	20175/1732.5	1:1	0.050	0.11	23.09	24.40	1.352	0.068	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.130	0.16	22.25	23.40	1.303	0.169	21.8
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.035	0.09	22.25	23.40	1.303	0.046	21.8
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.108	0.01	22.25	23.40	1.303	0.141	21.8
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.039	0.07	22.25	23.40	1.303	0.050	21.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.263	0.05	22.35	23.10	1.189	0.313	21.8
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.540	0.01	22.35	23.10	1.189	0.642	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.264	0.08	22.11	23.10	1.256	0.332	21.8
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.567	-0.01	22.11	23.10	1.256	0.712	21.8
Back side with Battery 2#	20	QPSK 50_0	20175/1732.5	1:1	0.546	0.08	22.11	23.10	1.256	0.686	21.8
Back side with Battery 3#	20	QPSK 50_0	20175/1732.5	1:1	0.536	0.19	22.11	23.10	1.256	0.673	21.8
Back side with Battery 4#	20	QPSK 50_0	20175/1732.5	1:1	0.527	0.02	22.11	23.10	1.256	0.662	21.8
Back side with Battery 5#	20	QPSK 50_0	20175/1732.5	1:1	0.525	-0.08	22.11	23.10	1.256	0.659	21.8
Back side with Battery 6#	20	QPSK 50_0	20175/1732.5	1:1	0.515	0.00	22.11	23.10	1.256	0.647	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.351	0.05	21.56	22.10	1.132	0.397	21.8
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.946	0.06	21.56	22.10	1.132	**1.071**	21.8
Back side-Repeat	20	QPSK 1_0	20175/1732.5	1:1	0.932	0.09	21.56	22.10	1.132	1.055	21.8
Right side	20	QPSK 1_0	20175/1732.5	1:1	0.202	0.15	21.56	22.10	1.132	0.229	21.8
Bottom side	20	QPSK 1_0	20175/1732.5	1:1	0.909	0.03	21.56	22.10	1.132	1.029	21.8
Back side with Battery 2#	20	QPSK 1_0	20175/1732.5	1:1	0.789	0.12	21.56	22.10	1.132	0.893	21.8
Back side with Battery 3#	20	QPSK 1_0	20175/1732.5	1:1	0.774	0.16	21.56	22.10	1.132	0.876	21.8
Back side with Battery 4#	20	QPSK 1_0	20175/1732.5	1:1	0.759	-0.19	21.56	22.10	1.132	0.859	21.8
Back side with Battery 5#	20	QPSK 1_0	20175/1732.5	1:1	0.795	0.20	21.56	22.10	1.132	0.900	21.8
Back side with Battery 6#	20	QPSK 1_0	20175/1732.5	1:1	0.805	0.18	21.56	22.10	1.132	0.912	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.362	0.05	21.55	22.10	1.135	0.411	21.8
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.820	0.03	21.55	22.10	1.135	0.931	21.8
Right side	20	QPSK 50_0	20175/1732.5	1:1	0.202	0.04	21.55	22.10	1.135	0.229	21.8
Bottom side	20	QPSK 50_0	20175/1732.5	1:1	0.711	0.15	21.55	22.10	1.135	0.807	21.8
Hotspot Test data(Separate 10mm 100%RB)											
Back side	20	QPSK 100_0	20175/1732.5	1:1	0.770	0.04	21.19	22.10	1.233	0.949	21.8
Bottom Side	20	QPSK 100_0	20175/1732.5	1:1	0.667	-0.01	21.19	22.10	1.233	0.822	21.8
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)10-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled 10-g SAR(W/kg)	Liquid Temp.
Product specific 10g SAR Test data(Separate 0mm 1RB)											
Back side	20	QPSK 1_0	20175/1732.5	1:1	2.240	0.03	22.35	23.10	1.189	**2.662**	21.8
Bottom side	20	QPSK 1_0	20175/1732.5	1:1	2.170	0.05	22.35	23.10	1.189	2.579	21.8
Product specific 10g SAR Test data(Separate 0mm 50RB)											
Back side	20	QPSK 50_0	20175/1732.5	1:1	2.110	0.03	22.11	23.10	1.256	2.650	21.8
Bottom side	20	QPSK 50_0	20175/1732.5	1:1	2.010	0.05	22.11	23.10	1.256	2.525	21.8
Product specific 10g SAR Test data(Separate 0mm 100RB)											
Back side	20	QPSK 50_0	20175/1732.5	1:1	2.030	0.03	22.11	23.10	1.256	2.550	21.8
Bottom side	20	QPSK 50_0	20175/1732.5	1:1	1.880	0.05	22.11	23.10	1.256	2.361	21.8
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)

Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	20175/1732.5	1:1	0.504	0.06	20.57	21.20	1.156	0.583	21.8
Left tilted	20	QPSK 1_0	20175/1732.5	1:1	0.735	0.04	20.57	21.20	1.156	0.850	21.8
Right cheek	20	QPSK 1_0	20175/1732.5	1:1	0.640	-0.11	20.57	21.20	1.156	0.740	21.8
Right tilted	20	QPSK 1_0	20175/1732.5	1:1	0.738	-0.02	20.57	21.20	1.156	0.853	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.556	0.07	20.50	21.20	1.175	0.653	21.8
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.751	-0.10	20.50	21.20	1.175	0.882	21.8
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.554	-0.10	20.50	21.20	1.175	0.651	21.8
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.805	-0.04	20.50	21.20	1.175	**0.946**	21.8
Right tilted -Repeat	20	QPSK 50_0	20175/1732.5	1:1	0.801	0.06	20.50	21.20	1.175	0.941	21.8
Right tilted with Battery 2#	20	QPSK 50_0	20175/1732.5	1:1	0.760	0.02	20.50	21.20	1.175	0.893	21.8
Right tilted with Battery 3#	20	QPSK 50_0	20175/1732.5	1:1	0.781	0.07	20.50	21.20	1.175	0.918	21.8
Right tilted with Battery 4#	20	QPSK 50_0	20175/1732.5	1:1	0.790	0.19	20.50	21.20	1.175	0.928	21.8
Right tilted with Battery 5#	20	QPSK 50_0	20175/1732.5	1:1	0.745	-0.07	20.50	21.20	1.175	0.875	21.8
Right tilted with Battery 6#	20	QPSK 50_0	20175/1732.5	1:1	0.775	0.03	20.50	21.20	1.175	0.911	21.8
Head Test Data(100%RB)											
Left tilted	20	QPSK 100_0	20175/1732.5	1:1	0.723	0.04	20.45	21.20	1.189	0.859	21.8
Right tilted	20	QPSK 100_0	20175/1732.5	1:1	0.775	-0.02	20.45	21.20	1.189	0.921	21.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	20175/1732.5	1:1	0.129	0.06	20.89	21.30	1.099	0.142	21.8
Back side	20	QPSK 1_50	20175/1732.5	1:1	0.258	0.05	20.89	21.30	1.099	0.284	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.124	0.13	20.60	21.30	1.175	0.146	21.8
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.252	-0.20	20.60	21.30	1.175	**0.296**	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	20050/1720	1:1	0.199	-0.08	19.78	20.80	1.265	0.252	21.8
Back side	20	QPSK 1_50	20050/1720	1:1	0.423	0.10	19.78	20.80	1.265	**0.535**	21.8
Left side	20	QPSK 1_50	20050/1720	1:1	0.112	0.06	19.78	20.80	1.265	0.142	21.8
Top side	20	QPSK 1_50	20050/1720	1:1	0.412	0.12	19.78	20.80	1.265	0.521	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20050/1720	1:1	0.217	0.09	19.74	20.80	1.276	0.277	21.8
Back side	20	QPSK 50_0	20050/1720	1:1	0.404	0.11	19.74	20.80	1.276	0.516	21.8
Left side	20	QPSK 50_0	20050/1720	1:1	0.111	0.09	19.74	20.80	1.276	0.142	21.8
Top side	20	QPSK 50_0	20050/1720	1:1	0.392	-0.09	19.74	20.80	1.276	0.500	21.8

Table 17：SAR of LTE Band 4 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back side	20175/1732.5	0.946	0.932	1.015	N/A	N/A
Right tilted	20175/1732.5	0.805	0.801	1.005	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.2 SAR Result of LTE Band 5

Ant 0 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	20525/836.5	1:1	0.115	0.01	24.29	25.00	1.178	0.135	22.0
Left tilted	10	QPSK 1_0	20525/836.5	1:1	0.054	0.05	24.29	25.00	1.178	0.063	22.0
Right cheek	10	QPSK 1_0	20525/836.5	1:1	0.181	0.05	24.29	25.00	1.178	**0.213**	22.0
Right tilted	10	QPSK 1_0	20525/836.5	1:1	0.081	0.16	24.29	25.00	1.178	0.095	22.0
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	20525/836.5	1:1	0.107	0.03	22.99	24.00	1.262	0.135	22.0
Left tilted	10	QPSK 25_0	20525/836.5	1:1	0.071	0.09	22.99	24.00	1.262	0.090	22.0
Right cheek	10	QPSK 25_0	20525/836.5	1:1	0.137	0.08	22.99	24.00	1.262	0.173	22.0
Right tilted	10	QPSK 25_0	20525/836.5	1:1	0.064	0.09	22.99	24.00	1.262	0.081	22.0
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.139	-0.06	24.29	25.00	1.178	0.164	22.0
Back side	10	QPSK 1_0	20525/836.5	1:1	0.167	-0.05	24.29	25.00	1.178	0.197	22.0
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.138	0.02	22.99	24.00	1.262	0.174	22.0
Back side	10	QPSK 25_0	20525/836.5	1:1	0.173	-0.04	22.99	24.00	1.262	**0.218**	22.0
Back side with Battery 2#	10	QPSK 25_0	20525/836.5	1:1	0.165	0.16	22.99	24.00	1.262	0.208	22.0
Back side with Battery 3#	10	QPSK 25_0	20525/836.5	1:1	0.168	0.08	22.99	24.00	1.262	0.212	22.0
Back side with Battery 4#	10	QPSK 25_0	20525/836.5	1:1	0.170	0.03	22.99	24.00	1.262	0.215	22.0
Back side with Battery 5#	10	QPSK 25_0	20525/836.5	1:1	0.167	0.15	22.99	24.00	1.262	0.211	22.0
Back side with Battery 6#	10	QPSK 25_0	20525/836.5	1:1	0.166	0.07	22.99	24.00	1.262	0.209	22.0
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.240	0.05	24.29	25.00	1.178	0.283	22.0
Back side	10	QPSK 1_0	20525/836.5	1:1	0.290	-0.04	24.29	25.00	1.178	0.342	22.0
Left side	10	QPSK 1_0	20525/836.5	1:1	0.097	0.08	24.29	25.00	1.178	0.114	22.0
Bottom side	10	QPSK 1_0	20525/836.5	1:1	0.121	-0.02	24.29	25.00	1.178	0.142	22.0
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.242	0.12	22.99	24.00	1.262	0.305	22.0
Back side	10	QPSK 25_0	20525/836.5	1:1	0.298	-0.03	22.99	24.00	1.262	**0.376**	22.0
Left side	10	QPSK 25_0	20525/836.5	1:1	0.106	0.08	22.99	24.00	1.262	0.134	22.0
Bottom side	10	QPSK 25_0	20525/836.5	1:1	0.131	0.05	22.99	24.00	1.262	0.165	22.0
Back side with Battery 2#	10	QPSK 25_0	20525/836.5	1:1	0.285	0.12	22.99	24.00	1.262	0.360	22.0
Back side with Battery 3#	10	QPSK 25_0	20525/836.5	1:1	0.290	0.15	22.99	24.00	1.262	0.366	22.0
Back side with Battery 4#	10	QPSK 25_0	20525/836.5	1:1	0.293	0.19	22.99	24.00	1.262	0.370	22.0
Back side with Battery 5#	10	QPSK 25_0	20525/836.5	1:1	0.291	0.02	22.99	24.00	1.262	0.367	22.0
Back side with Battery 6#	10	QPSK 25_0	20525/836.5	1:1	0.283	0.15	22.99	24.00	1.262	0.357	22.0
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	20525/836.5	1:1	0.227	0.07	24.23	25.00	1.194	0.271	22.0
Left tilted	10	QPSK 1_0	20525/836.5	1:1	0.149	0.07	24.23	25.00	1.194	0.178	22.0
Right cheek	10	QPSK 1_0	20525/836.5	1:1	0.450	0.02	24.23	25.00	1.194	0.537	22.0
Right tilted	10	QPSK 1_0	20525/836.5	1:1	0.263	0.13	24.23	25.00	1.194	0.314	22.0
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	20525/836.5	1:1	0.242	-0.02	23.00	24.00	1.259	0.305	22.0
Left tilted	10	QPSK 25_0	20525/836.5	1:1	0.164	0.07	23.00	24.00	1.259	0.206	22.0
Right cheek	10	QPSK 25_0	20525/836.5	1:1	0.571	0.13	23.00	24.00	1.259	**0.719**	22.0
Right tilted	10	QPSK 25_0	20525/836.5	1:1	0.286	0.11	23.00	24.00	1.259	0.360	22.0
Right cheek with Battery 2#	10	QPSK 25_0	20525/836.5	1:1	0.53	0.18	23.00	24.00	1.259	0.667	22.0
Right cheek with Battery 3#	10	QPSK 25_0	20525/836.5	1:1	0.540	0.11	23.00	24.00	1.259	0.680	22.0
Right cheek with Battery 4#	10	QPSK 25_0	20525/836.5	1:1	0.546	0.19	23.00	24.00	1.259	0.687	22.0
Right cheek with Battery 5#	10	QPSK 25_0	20525/836.5	1:1	0.559	0.07	23.00	24.00	1.259	0.704	22.0
Right cheek with Battery 6#	10	QPSK 25_0	20525/836.5	1:1	0.562	0.16	23.00	24.00	1.259	0.708	22.0
Body worn Test data(Separate 15mm 1RB)											

Front side	10	QPSK 1_0	20525/836.5	1:1	0.079	0.19	24.23	25.00	1.194	0.094	22.0
Back side	10	QPSK 1_0	20525/836.5	1:1	0.160	0.02	24.23	25.00	1.194	0.191	22.0
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.083	0.16	23.00	24.00	1.259	0.105	22.0
Back side	10	QPSK 25_0	20525/836.5	1:1	0.170	0.07	23.00	24.00	1.259	**0.214**	22.0
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.133	0.16	24.23	25.00	1.194	0.159	22.0
Back side	10	QPSK 1_0	20525/836.5	1:1	0.268	0.04	24.23	25.00	1.194	0.320	22.0
Left side	10	QPSK 1_0	20525/836.5	1:1	0.238	0.10	24.23	25.00	1.194	0.284	22.0
Top side	10	QPSK 1_0	20525/836.5	1:1	0.111	0.11	24.23	25.00	1.194	0.133	22.0
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.147	0.02	23.00	24.00	1.259	0.185	22.0
Back side	10	QPSK 25_0	20525/836.5	1:1	0.293	0.07	23.00	24.00	1.259	**0.369**	22.0
Left side	10	QPSK 25_0	20525/836.5	1:1	0.238	0.04	23.00	24.00	1.259	0.300	22.0
Top side	10	QPSK 25_0	20525/836.5	1:1	0.103	0.13	23.00	24.00	1.259	0.130	22.0

Table 18：SAR of LTE Band 5 for Head and Body.

8.2.3 SAR Result of LTE Band 7

Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.098	0.07	24.35	24.50	1.035	0.101	22.5
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.111	0.02	24.35	24.50	1.035	0.115	22.5
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.195	0.05	24.35	24.50	1.035	**0.202**	22.5
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.081	0.09	24.35	24.50	1.035	0.084	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.092	0.01	23.22	23.50	1.067	0.098	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.105	0.03	23.22	23.50	1.067	0.112	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.187	0.09	23.22	23.50	1.067	0.199	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.077	0.01	23.22	23.50	1.067	0.082	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.108	0.09	22.38	22.40	1.005	0.108	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.312	0.08	22.38	22.40	1.005	0.313	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.107	0.11	22.16	22.40	1.057	0.113	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.321	0.08	22.16	22.40	1.057	**0.339**	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.213	0.06	22.38	22.40	1.005	0.214	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.692	0.09	22.38	22.40	1.005	0.695	22.5
Left side	20	QPSK 1_0	21100/2535	1:1	0.041	0.06	22.38	22.40	1.005	0.041	22.5
Right side	20	QPSK 1_0	21100/2535	1:1	0.419	0.02	22.38	22.40	1.005	0.421	22.5
Bottom side	20	QPSK 1_0	21100/2535	1:1	0.570	0.03	22.38	22.40	1.005	0.573	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.212	0.03	22.16	22.40	1.057	0.224	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.690	0.02	22.16	22.40	1.057	**0.729**	22.5
Left side	20	QPSK 50_0	21100/2535	1:1	0.038	0.06	22.16	22.40	1.057	0.040	22.5
Right side	20	QPSK 50_0	21100/2535	1:1	0.404	0.08	22.16	22.40	1.057	0.427	22.5
Bottom side	20	QPSK 50_0	21100/2535	1:1	0.585	0.11	22.16	22.40	1.057	0.618	22.5
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.803	0.02	18.73	19.10	1.089	0.874	22.5
Left cheek	20	QPSK 1_0	20850/2510	1:1	0.787	0.09	18.67	19.10	1.104	0.869	22.5
Left cheek	20	QPSK 1_0	21350/2560	1:1	0.762	0.06	18.65	19.10	1.109	0.845	22.5
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.792	0.09	18.73	19.10	1.089	0.862	22.5
Left tilted	20	QPSK 1_0	20850/2510	1:1	0.764	0.04	18.67	19.10	1.104	0.844	22.5
Left tilted	20	QPSK 1_0	21350/2560	1:1	0.824	0.11	18.65	19.10	1.109	0.914	22.5
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.761	0.02	18.73	19.10	1.089	0.829	22.5
Right cheek	20	QPSK 1_0	20850/2510	1:1	0.720	-0.04	18.67	19.10	1.104	0.795	22.5
Right cheek	20	QPSK 1_0	21350/2560	1:1	0.687	0.03	18.65	19.10	1.109	0.762	22.5
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.878	0.04	18.73	19.10	1.089	0.956	22.5
Right tilted	20	QPSK 1_0	20850/2510	1:1	0.830	0.13	18.67	19.10	1.104	0.916	22.5
Right tilted	20	QPSK 1_0	21350/2560	1:1	0.835	-0.05	18.65	19.10	1.109	0.926	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.766	0.03	18.35	19.10	1.189	0.910	22.5
Left cheek	20	QPSK 1_0	20850/2510	1:1	0.760	0.12	18.09	19.10	1.262	0.959	22.5
Left cheek	20	QPSK 50_0	21350/2560	1:1	0.776	-0.07	18.27	19.10	1.211	0.939	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.810	0.06	18.35	19.10	1.189	0.963	22.5
Left tilted	20	QPSK 50_0	20850/2510	1:1	0.791	0.07	18.09	19.10	1.262	0.998	22.5
Left tilted	20	QPSK 50_0	21350/2560	1:1	0.812	0.09	18.27	19.10	1.211	0.983	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.745	-0.08	18.35	19.10	1.189	0.885	22.5
Right cheek	20	QPSK 50_0	20850/2510	1:1	0.751	0.01	18.09	19.10	1.262	0.948	22.5

Right cheek	20	QPSK 50_0	21350/2560	1:1	0.753	-0.03	18.27	19.10	1.211	0.912	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.879	0.05	18.35	19.10	1.189	1.045	22.5
Right tilted	20	QPSK 50_0	20850/2510	1:1	0.821	0.12	18.09	19.10	1.262	1.036	22.5
Right tilted	20	QPSK 50_0	21350/2560	1:1	0.847	0.09	18.27	19.10	1.211	1.025	22.5
Right tilted with Battery 2#	20	QPSK 50_0	21100/2535	1:1	0.860	0.01	18.35	19.10	1.189	1.022	22.5
Right tilted with Battery 3#	20	QPSK 50_0	21100/2535	1:1	0.842	0.03	18.35	19.10	1.189	1.001	22.5
Right tilted with Battery 4#	20	QPSK 50_0	21100/2535	1:1	0.865	0.17	18.35	19.10	1.189	1.028	22.5
Right tilted with Battery 5#	20	QPSK 50_0	21100/2535	1:1	0.832	0.03	18.35	19.10	1.189	0.989	22.5
Right tilted with Battery 6#	20	QPSK 50_0	21100/2535	1:1	0.851	-0.09	18.35	19.10	1.189	1.011	22.5
Head Test Data(100%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.817	0.11	18.30	19.10	1.202	0.982	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.824	0.04	18.30	19.10	1.202	0.991	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.758	0.08	18.30	19.10	1.202	0.911	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.894	0.05	18.30	19.10	1.202	**1.075**	22.5
Right tilted -Repeat	20	QPSK 50_0	21100/2535	1:1	0.891	0.01	18.30	19.10	1.202	1.071	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.219	0.07	20.23	20.50	1.064	0.233	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.354	-0.04	20.23	20.50	1.064	0.377	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.219	0.11	19.81	20.50	1.172	0.257	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.362	-0.04	19.81	20.50	1.172	**0.424**	22.5
Back side with Battery 2#	20	QPSK 50_0	21100/2535	1:1	0.355	0.09	19.81	20.50	1.172	0.416	22.5
Back side with Battery 3#	20	QPSK 50_0	21100/2535	1:1	0.345	0.18	19.81	20.50	1.172	0.404	22.5
Back side with Battery 4#	20	QPSK 50_0	21100/2535	1:1	0.343	-0.01	19.81	20.50	1.172	0.402	22.5
Back side with Battery 5#	20	QPSK 50_0	21100/2535	1:1	0.341	0.00	19.81	20.50	1.172	0.400	22.5
Back side with Battery 6#	20	QPSK 50_0	21100/2535	1:1	0.359	0.15	19.81	20.50	1.172	0.421	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.176	0.06	18.73	19.10	1.089	0.192	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.629	0.05	18.73	19.10	1.089	0.685	22.5
Left side	20	QPSK 1_0	21100/2535	1:1	0.263	0.01	18.73	19.10	1.089	0.286	22.5
Right side	20	QPSK 1_0	21100/2535	1:1	0.011	0.15	18.73	19.10	1.089	0.012	22.5
Top side	20	QPSK 1_0	21100/2535	1:1	0.753	0.03	18.73	19.10	1.089	0.820	22.5
Top side	20	QPSK 1_0	20850/2510	1:1	0.747	0.06	18.67	19.10	1.104	0.825	22.5
Top side	20	QPSK 1_0	21350/2560	1:1	0.839	0.03	18.65	19.10	1.109	0.931	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.176	0.02	18.35	19.10	1.189	0.209	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.622	0.07	18.35	19.10	1.189	0.739	22.5
Left side	20	QPSK 50_0	21100/2535	1:1	0.278	0.06	18.35	19.10	1.189	0.330	22.5
Right side	20	QPSK 50_0	21100/2535	1:1	0.011	0.02	18.35	19.10	1.189	0.012	22.5
Top side	20	QPSK 50_0	21100/2535	1:1	0.784	0.01	18.35	19.10	1.189	0.932	22.5
Top side	20	QPSK 50_0	20850/2510	1:1	0.785	0.02	18.09	19.10	1.262	0.991	22.5
Top side	20	QPSK 50_0	21350/2560	1:1	0.852	0.04	18.27	19.10	1.211	**1.031**	22.5
Top side-Repeat	20	QPSK 50_0	21350/2560	1:1	0.848	0.09	18.27	19.10	1.211	1.027	22.5
Top side with Battery 2#	20	QPSK 50_0	21350/2560	1:1	0.843	0.02	18.27	19.10	1.211	1.021	22.5
Top side with Battery 3#	20	QPSK 50_0	21350/2560	1:1	0.839	0.05	18.27	19.10	1.211	1.016	22.5
Top side with Battery 4#	20	QPSK 50_0	21350/2560	1:1	0.830	0.11	18.27	19.10	1.211	1.005	22.5
Top side with Battery 5#	20	QPSK 50_0	21350/2560	1:1	0.821	0.18	18.27	19.10	1.211	0.994	22.5
Top side with Battery 6#	20	QPSK 50_0	21350/2560	1:1	0.847	0.20	18.27	19.10	1.211	1.025	22.5
Hotspot Test data(Separate 10mm 100%RB)											
Top side	20	QPSK 50_0	21100/2535	1:1	0.841	0.01	18.30	19.10	1.202	1.011	22.5
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**SAR (W/kg) 10-g**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB)											
Top side	20	QPSK 1_0	21100/2535	1:1	1.860	0.05	20.23	20.50	1.064	1.979	22.5
Product specific 10g SAR Test data(Separate 0mm 50RB)											
Top side	20	QPSK 50_0	21100/2535	1:1	1.930	0.03	19.81	20.50	1.172	**2.262**	22.5
Top side	20	QPSK 50_0	20850/2510	1:1	1.440	0.07	19.76	20.50	1.186	1.708	22.5
Top side	20	QPSK 50_0	21350/2560	1:1	1.530	0.09	19.54	20.50	1.247	1.908	22.5
Product specific 10g SAR Test data(Separate 0mm 100RB)											
Top side	20	QPSK 100_0	21100/2535	1:1	1.470	0.02	19.75	20.50	1.189	1.747	22.5

Table 19：SAR of LTE Band 7 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right tilted	21100/2535	0.894	0.891	1.003	N/A	N/A
Top side	21350/2560	0.852	0.848	1.005	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.4 SAR Result of LTE Band 13

Ant 0 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	23230/782	1:1	0.129	0.10	24.25	24.50	1.059	0.137	21.7
Left tilted	10	QPSK 1_0	23230/782	1:1	0.073	0.16	24.25	24.50	1.059	0.077	21.7
Right cheek	10	QPSK 1_0	23230/782	1:1	0.162	-0.06	24.25	24.50	1.059	**0.172**	21.7
Right tilted	10	QPSK 1_0	23230/782	1:1	0.076	0.03	24.25	24.50	1.059	0.080	21.7
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	23230/782	1:1	0.103	0.01	22.99	23.50	1.125	0.116	21.7
Left tilted	10	QPSK 25_0	23230/782	1:1	0.059	0.06	22.99	23.50	1.125	0.066	21.7
Right cheek	10	QPSK 25_0	23230/782	1:1	0.126	0.07	22.99	23.50	1.125	0.142	21.7
Right tilted	10	QPSK 25_0	23230/782	1:1	0.062	0.08	22.99	23.50	1.125	0.070	21.7
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.129	-0.05	24.25	24.50	1.059	0.137	21.7
Back side	10	QPSK 1_0	23230/782	1:1	0.153	-0.01	24.25	24.50	1.059	**0.162**	21.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.118	0.09	22.99	23.50	1.125	0.133	21.7
Back side	10	QPSK 25_0	23230/782	1:1	0.143	0.07	22.99	23.50	1.125	0.161	21.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.196	0.08	24.25	24.50	1.059	0.208	21.7
Back side	10	QPSK 1_0	23230/782	1:1	0.246	0.07	24.25	24.50	1.059	0.261	21.7
Left side	10	QPSK 1_0	23230/782	1:1	0.116	0.08	24.25	24.50	1.059	0.123	21.7
Bottom side	10	QPSK 1_0	23230/782	1:1	0.097	0.06	24.25	24.50	1.059	0.103	21.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.183	0.10	22.99	23.50	1.125	0.206	21.7
Back side	10	QPSK 25_0	23230/782	1:1	0.245	0.11	22.99	23.50	1.125	**0.276**	21.7
Left side	10	QPSK 25_0	23230/782	1:1	0.106	0.08	22.99	23.50	1.125	0.119	21.7
Bottom side	10	QPSK 25_0	23230/782	1:1	0.095	-0.02	22.99	23.50	1.125	0.107	21.7
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	23230/782	1:1	0.283	0.09	23.99	24.50	1.125	0.318	21.7
Left tilted	10	QPSK 1_0	23230/782	1:1	0.165	0.10	23.99	24.50	1.125	0.186	21.7
Right cheek	10	QPSK 1_0	23230/782	1:1	0.410	0.17	23.99	24.50	1.125	**0.461**	21.7
Right tilted	10	QPSK 1_0	23230/782	1:1	0.360	0.13	23.99	24.50	1.125	0.405	21.7
Right cheek with Battery 2#	10	QPSK 1_0	23230/782	1:1	0.358	0.15	23.99	24.50	1.125	0.403	21.7
Right cheek with Battery 3#	10	QPSK 1_0	23230/782	1:1	0.388	0.18	23.99	24.50	1.125	0.436	21.7
Right cheek with Battery 4#	10	QPSK 1_0	23230/782	1:1	0.401	0.06	23.99	24.50	1.125	0.451	21.7
Right cheek with Battery 5#	10	QPSK 1_0	23230/782	1:1	0.397	0.17	23.99	24.50	1.125	0.446	21.7
Right cheek with Battery 6#	10	QPSK 1_0	23230/782	1:1	0.383	0.09	23.99	24.50	1.125	0.431	21.7
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	23230/782	1:1	0.265	0.09	22.98	23.50	1.127	0.299	21.7
Left tilted	10	QPSK 25_0	23230/782	1:1	0.162	0.11	22.98	23.50	1.127	0.183	21.7
Right cheek	10	QPSK 25_0	23230/782	1:1	0.408	-0.19	22.98	23.50	1.127	0.460	21.7
Right tilted	10	QPSK 25_0	23230/782	1:1	0.361	0.13	22.98	23.50	1.127	0.407	21.7
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.118	0.05	23.99	24.50	1.125	0.133	21.7
Back side	10	QPSK 1_0	23230/782	1:1	0.211	-0.01	23.99	24.50	1.125	**0.237**	21.7
Back side with Battery 2#	10	QPSK 1_0	23230/782	1:1	0.190	0.08	23.99	24.50	1.125	0.214	21.7
Back side with Battery 3#	10	QPSK 1_0	23230/782	1:1	0.195	0.12	23.99	24.50	1.125	0.219	21.7
Back side with Battery 4#	10	QPSK 1_0	23230/782	1:1	0.200	0.03	23.99	24.50	1.125	0.225	21.7
Back side with Battery 5#	10	QPSK 1_0	23230/782	1:1	0.204	0.01	23.99	24.50	1.125	0.229	21.7
Back side with Battery 6#	10	QPSK 1_0	23230/782	1:1	0.190	0.06	23.99	24.50	1.125	0.214	21.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.107	0.09	22.98	23.50	1.127	0.121	21.7
Back side	10	QPSK 25_0	23230/782	1:1	0.209	-0.01	22.98	23.50	1.127	0.236	21.7

Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.170	0.09	23.99	24.50	1.125	0.191	21.7
Back side	10	QPSK 1_0	23230/782	1:1	0.355	0.07	23.99	24.50	1.125	**0.399**	21.7
Left side	10	QPSK 1_0	23230/782	1:1	0.318	0.10	23.99	24.50	1.125	0.358	21.7
Top side	10	QPSK 1_0	23230/782	1:1	0.154	0.10	23.99	24.50	1.125	0.173	21.7
Back side with Battery 2#	10	QPSK 1_0	23230/782	1:1	0.310	0.15	23.99	24.50	1.125	0.349	21.7
Back side with Battery 3#	10	QPSK 1_0	23230/782	1:1	0.336	0.08	23.99	24.50	1.125	0.378	21.7
Back side with Battery 4#	10	QPSK 1_0	23230/782	1:1	0.351	0.19	23.99	24.50	1.125	0.395	21.7
Back side with Battery 5#	10	QPSK 1_0	23230/782	1:1	0.343	0.15	23.99	24.50	1.125	0.386	21.7
Back side with Battery 6#	10	QPSK 1_0	23230/782	1:1	0.336	0.12	23.99	24.50	1.125	0.378	21.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.165	0.19	22.98	23.50	1.127	0.186	21.7
Back side	10	QPSK 25_0	23230/782	1:1	0.327	0.17	22.98	23.50	1.127	0.369	21.7
Left side	10	QPSK 25_0	23230/782	1:1	0.284	0.14	22.98	23.50	1.127	0.320	21.7
Top side	10	QPSK 25_0	23230/782	1:1	0.153	0.09	22.98	23.50	1.127	0.172	21.7

Table 20：SAR of LTE Band 13 for Head and Body.

8.2.5 SAR Result of LTE Band 26

Ant 0 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.151	0.01	24.33	25.00	1.167	0.176	22.3
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.072	0.13	24.33	25.00	1.167	0.084	22.3
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.164	-0.06	24.33	25.00	1.167	**0.191**	22.3
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.080	0.11	24.33	25.00	1.167	0.093	22.3
Head Test Data(50%RB)											
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.107	0.06	23.39	24.00	1.151	0.123	22.3
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.056	0.19	23.39	24.00	1.151	0.064	22.3
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.130	0.09	23.39	24.00	1.151	0.150	22.3
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.063	0.08	23.39	24.00	1.151	0.072	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.135	-0.03	24.33	25.00	1.167	0.158	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.180	-0.09	24.33	25.00	1.167	**0.210**	22.3
Back side with Battery 2#	15	QPSK 1_0	26865/831.5	1:1	0.162	0.09	24.33	25.00	1.167	0.189	22.3
Back side with Battery 3#	15	QPSK 1_0	26865/831.5	1:1	0.167	0.15	24.33	25.00	1.167	0.195	22.3
Back side with Battery 4#	15	QPSK 1_0	26865/831.5	1:1	0.169	0.11	24.33	25.00	1.167	0.197	22.3
Back side with Battery 5#	15	QPSK 1_0	26865/831.5	1:1	0.163	0.00	24.33	25.00	1.167	0.190	22.3
Back side with Battery 6#	15	QPSK 1_0	26865/831.5	1:1	0.168	0.06	24.33	25.00	1.167	0.196	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.139	-0.02	23.39	24.00	1.151	0.160	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.167	0.07	23.39	24.00	1.151	0.192	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.255	0.14	24.33	25.00	1.167	0.298	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.304	0.06	24.33	25.00	1.167	**0.355**	22.3
Left side	15	QPSK 1_0	26865/831.5	1:1	0.095	-0.01	24.33	25.00	1.167	0.110	22.3
Bottom side	15	QPSK 1_0	26865/831.5	1:1	0.126	-0.03	24.33	25.00	1.167	0.147	22.3
Back side with Battery 2#	15	QPSK 1_0	26865/831.5	1:1	0.277	0.12	24.33	25.00	1.167	0.323	22.3
Back side with Battery 3#	15	QPSK 1_0	26865/831.5	1:1	0.280	0.06	24.33	25.00	1.167	0.327	22.3
Back side with Battery 4#	15	QPSK 1_0	26865/831.5	1:1	0.283	0.07	24.33	25.00	1.167	0.330	22.3
Back side with Battery 5#	15	QPSK 1_0	26865/831.5	1:1	0.286	0.04	24.33	25.00	1.167	0.334	22.3
Back side with Battery 6#	15	QPSK 1_0	26865/831.5	1:1	0.275	0.05	24.33	25.00	1.167	0.321	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.246	0.06	23.39	24.00	1.151	0.283	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.287	0.20	23.39	24.00	1.151	0.330	22.3
Left side	15	QPSK 36_0	26865/831.5	1:1	0.098	0.10	23.39	24.00	1.151	0.113	22.3
Bottom side	15	QPSK 36_0	26865/831.5	1:1	0.132	0.06	23.39	24.00	1.151	0.152	22.3
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.350	0.07	24.05	25.00	1.245	0.436	22.3
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.215	0.08	24.05	25.00	1.245	0.268	22.3
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.462	-0.19	24.05	25.00	1.245	0.575	22.3
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.192	0.01	24.05	25.00	1.245	0.239	22.3
Head Test Data(50%RB)											
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.355	0.12	23.19	24.00	1.205	0.428	22.3
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.228	0.09	23.19	24.00	1.205	0.275	22.3
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.487	0.08	23.19	24.00	1.205	**0.587**	22.3
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.212	0.08	23.19	24.00	1.205	0.255	22.3
Right cheek with Battery 2#	15	QPSK 36_0	26865/831.5	1:1	0.462	0.15	23.19	24.00	1.205	0.557	22.3
Right cheek with Battery 3#	15	QPSK 36_0	26865/831.5	1:1	0.468	0.09	23.19	24.00	1.205	0.564	22.3
Right cheek with Battery 4#	15	QPSK 36_0	26865/831.5	1:1	0.476	0.09	23.19	24.00	1.205	0.574	22.3
Right cheek with Battery 5#	15	QPSK 36_0	26865/831.5	1:1	0.481	0.06	23.19	24.00	1.205	0.580	22.3

Right cheek with Battery 6#	15	QPSK 36_0	26865/831.5	1:1	0.484	0.00	23.19	24.00	1.205	0.583	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.067	0.05	24.05	25.00	1.245	0.084	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.125	0.02	24.05	25.00	1.245	0.156	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.073	0.05	23.19	24.00	1.205	0.088	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.131	0.12	23.19	24.00	1.205	**0.158**	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.110	0.04	24.05	25.00	1.245	0.137	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.225	0.16	24.05	25.00	1.245	0.280	22.3
Left side	15	QPSK 1_0	26865/831.5	1:1	0.207	0.10	24.05	25.00	1.245	0.258	22.3
Top side	15	QPSK 1_0	26865/831.5	1:1	0.087	0.03	24.05	25.00	1.245	0.109	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.126	0.08	23.19	24.00	1.205	0.152	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.243	0.06	23.19	24.00	1.205	**0.293**	22.3
Left side	15	QPSK 36_0	26865/831.5	1:1	0.215	0.17	23.19	24.00	1.205	0.259	22.3
Top side	15	QPSK 36_0	26865/831.5	1:1	0.093	0.02	23.19	24.00	1.205	0.112	22.3

Table 21：SAR of LTE Band 26 for Head and Body.

8.2.1 SAR Result of LTE Band 38

Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	38000/2595	1:1.58	0.053	0.11	22.69	24.20	1.416	0.075	22.3
Left tilted	20	QPSK 1_0	38000/2595	1:1.58	0.060	0.20	22.69	24.20	1.416	0.085	22.3
Right cheek	20	QPSK 1_0	38000/2595	1:1.58	0.094	0.02	22.69	24.20	1.416	**0.133**	22.3
Right tilted	20	QPSK 1_0	38000/2595	1:1.58	0.040	0.09	22.69	24.20	1.416	0.056	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	38000/2595	1:1.58	0.046	0.13	21.60	23.20	1.445	0.066	22.3
Left tilted	20	QPSK 50_0	38000/2595	1:1.58	0.050	0.01	21.60	23.20	1.445	0.072	22.3
Right cheek	20	QPSK 50_0	38000/2595	1:1.58	0.076	0.01	21.60	23.20	1.445	0.110	22.3
Right tilted	20	QPSK 50_0	38000/2595	1:1.58	0.034	0.02	21.60	23.20	1.445	0.049	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.067	0.07	22.69	24.20	1.416	0.094	22.3
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.238	0.09	22.69	24.20	1.416	**0.337**	22.3
Back side with Battery 2#	20	QPSK 1_0	38000/2595	1:1.58	0.226	0.01	22.69	24.20	1.416	0.320	22.3
Back side with Battery 3#	20	QPSK 1_0	38000/2595	1:1.58	0.230	0.06	22.69	24.20	1.416	0.326	22.3
Back side with Battery 4#	20	QPSK 1_0	38000/2595	1:1.58	0.231	0.01	22.69	24.20	1.416	0.327	22.3
Back side with Battery 5#	20	QPSK 1_0	38000/2595	1:1.58	0.219	0.08	22.69	24.20	1.416	0.310	22.3
Back side with Battery 6#	20	QPSK 1_0	38000/2595	1:1.58	0.218	0.06	22.69	24.20	1.416	0.309	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.055	0.06	21.60	23.20	1.445	0.079	22.3
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.209	0.11	21.60	23.20	1.445	0.302	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.133	0.02	22.69	24.20	1.416	0.188	22.3
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.470	0.00	22.69	24.20	1.416	**0.665**	22.3
Right Side	20	QPSK 1_0	38000/2595	1:1.58	0.195	0.07	22.69	24.20	1.416	0.276	22.3
Bottom side	20	QPSK 1_0	38000/2595	1:1.58	0.435	0.05	22.69	24.20	1.416	0.616	22.3
Back side with Battery 2#	20	QPSK 1_0	38000/2595	1:1.58	0.446	0.08	22.69	24.20	1.416	0.631	22.3
Back side with Battery 3#	20	QPSK 1_0	38000/2595	1:1.58	0.453	0.03	22.69	24.20	1.416	0.641	22.3
Back side with Battery 4#	20	QPSK 1_0	38000/2595	1:1.58	0.460	0.05	22.69	24.20	1.416	0.651	22.3
Back side with Battery 5#	20	QPSK 1_0	38000/2595	1:1.58	0.427	0.15	22.69	24.20	1.416	0.605	22.3
Back side with Battery 6#	20	QPSK 1_0	38000/2595	1:1.58	0.429	0.00	22.69	24.20	1.416	0.607	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.111	0.08	21.60	23.20	1.445	0.160	22.3
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.441	0.06	21.60	23.20	1.445	0.637	22.3
Right Side	20	QPSK 50_0	38000/2595	1:1.58	0.163	0.02	21.60	23.20	1.445	0.236	22.3
Bottom side	20	QPSK 50_0	38000/2595	1:1.58	0.366	0.07	21.60	23.20	1.445	0.529	22.3
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	38000/2595	1:1.58	0.719	0.01	19.43	19.70	1.064	0.765	22.3
Left tilted	20	QPSK 1_0	38000/2595	1:1.58	0.913	0.18	19.43	19.70	1.064	0.972	22.3
Right cheek	20	QPSK 1_0	38000/2595	1:1.58	0.732	0.03	19.43	19.70	1.064	0.779	22.3
Right tilted	20	QPSK 1_0	38000/2595	1:1.58	0.848	0.06	19.43	19.70	1.064	0.902	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	38000/2595	1:1.58	0.699	0.05	19.30	19.70	1.096	0.766	22.3
Left tilted	20	QPSK 50_0	38000/2595	1:1.58	0.944	0.06	19.30	19.70	1.096	**1.035**	22.3
Left tilted -Repeat	20	QPSK 50_0	38000/2595	1:1.58	0.938	-0.02	19.30	19.70	1.096	1.028	22.3
Right cheek	20	QPSK 50_0	38000/2595	1:1.58	0.735	0.08	19.30	19.70	1.096	0.806	22.3
Right tilted	20	QPSK 50_0	38000/2595	1:1.58	0.829	0.07	19.30	19.70	1.096	0.909	22.3
Left tilted with Battery 2#	20	QPSK 50_0	38000/2595	1:1.58	0.896	0.10	19.30	19.70	1.096	0.982	22.3
Left tilted with Battery 3#	20	QPSK 50_0	38000/2595	1:1.58	0.915	0.16	19.30	19.70	1.096	1.003	22.3
Left tilted with Battery 4#	20	QPSK 50_0	38000/2595	1:1.58	0.867	0.02	19.30	19.70	1.096	0.951	22.3
Left tilted with Battery 5#	20	QPSK 50_0	38000/2595	1:1.58	0.929	0.06	19.30	19.70	1.096	1.019	22.3
Left tilted with Battery 6#	20	QPSK 50_0	38000/2595	1:1.58	0.920	0.03	19.30	19.70	1.096	1.009	22.3

Head Test Data(100%RB)											
Left tilted	20	QPSK 100_0	38000/2595	1:1.58	0.922	0.02	19.36	19.70	1.081	0.997	22.3
Right cheek	20	QPSK 100_0	38000/2595	1:1.58	0.739	0.09	19.36	19.70	1.081	0.799	22.3
Right tilted	20	QPSK 100_0	38000/2595	1:1.58	0.856	0.06	19.36	19.70	1.081	0.926	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.105	0.08	21.16	21.50	1.081	0.114	22.3
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.260	0.06	21.16	21.50	1.081	0.281	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.104	0.02	21.15	21.50	1.084	0.113	22.3
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.267	0.04	21.15	21.50	1.084	**0.289**	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.139	0.06	19.43	19.70	1.064	0.148	22.3
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.293	0.06	19.43	19.70	1.064	0.312	22.3
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.115	0.13	19.43	19.70	1.064	0.122	22.3
Top side	20	QPSK 1_0	38000/2595	1:1.58	0.417	0.08	19.43	19.70	1.064	**0.444**	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.131	0.08	19.30	19.70	1.096	0.144	22.3
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.295	0.02	19.30	19.70	1.096	0.323	22.3
Left side	20	QPSK 50_0	38000/2595	1:1.58	0.114	0.11	19.30	19.70	1.096	0.125	22.3
Top side	20	QPSK 50_0	38000/2595	1:1.58	0.368	0.07	19.30	19.70	1.096	0.404	22.3

Table 22：SAR of LTE Band 38 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left tilted	38000/2595	0.944	0.938	1.006	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.2 SAR Result of LTE Band 66

Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.201	0.06	22.79	24.40	1.449	**0.291**	21.8
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.050	0.08	22.79	24.40	1.449	0.072	21.8
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.144	0.05	22.79	24.40	1.449	0.209	21.8
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.071	0.06	22.79	24.40	1.449	0.103	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.145	0.19	21.89	23.40	1.416	0.205	21.8
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.043	0.08	21.89	23.40	1.416	0.061	21.8
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.120	0.11	21.89	23.40	1.416	0.170	21.8
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.064	0.01	21.89	23.40	1.416	0.090	21.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.282	0.02	21.79	23.10	1.352	0.381	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.634	0.06	21.79	23.10	1.352	**0.857**	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.581	0.01	21.66	23.10	1.393	0.809	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.602	0.09	21.75	23.10	1.365	0.821	21.8
Back side with Battery 2#	20	QPSK 1_0	132322/1745	1:1	0.629	0.14	21.79	23.10	1.352	0.850	21.8
Back side with Battery 3#	20	QPSK 1_0	132322/1745	1:1	0.622	0.06	21.79	23.10	1.352	0.841	21.8
Back side with Battery 4#	20	QPSK 1_0	132322/1745	1:1	0.624	0.10	21.79	23.10	1.352	0.844	21.8
Back side with Battery 5#	20	QPSK 1_0	132322/1745	1:1	0.594	-0.08	21.79	23.10	1.352	0.803	21.8
Back side with Battery 6#	20	QPSK 1_0	132322/1745	1:1	0.608	-0.05	21.79	23.10	1.352	0.822	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.257	0.03	21.73	23.10	1.371	0.352	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.549	0.11	21.73	23.10	1.371	0.753	21.8
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 50_0	132322/1745	1:1	0.535	0.11	21.51	23.10	1.442	0.772	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.357	0.08	21.79	23.10	1.352	0.483	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.797	-0.01	21.79	23.10	1.352	**1.078**	21.8
Back side	20	QPSK 1_0	132072/1720	1:1	0.765	-0.05	21.66	23.10	1.393	1.066	21.8
Back side	20	QPSK 1_0	132572/1770	1:1	0.771	-0.10	21.75	23.10	1.365	1.052	21.8
Right side	20	QPSK 1_0	132322/1745	1:1	0.194	0.20	21.79	23.10	1.352	0.262	21.8
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.670	0.02	21.79	23.10	1.352	0.906	21.8
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.623	0.02	21.79	23.10	1.352	0.842	21.8
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.634	0.02	21.79	23.10	1.352	0.857	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.344	0.02	21.73	23.10	1.371	0.472	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.683	0.12	21.73	23.10	1.371	0.936	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.632	0.12	21.73	23.10	1.371	0.866	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.644	0.12	21.50	23.10	1.445	0.931	21.8
Right side	20	QPSK 50_0	132322/1745	1:1	0.194	0.02	21.72	23.10	1.374	0.267	21.8
Bottom side	20	QPSK 50_0	132322/1745	1:1	0.659	0.02	21.73	23.10	1.371	0.903	21.8
Bottom side	20	QPSK 50_0	132322/1745	1:1	0.631	0.02	21.50	23.10	1.445	0.912	21.8
Bottom side	20	QPSK 50_0	132322/1745	1:1	0.627	0.02	21.72	23.10	1.374	0.862	21.8
Back side with Battery 2#	20	QPSK 50_0	132322/1745	1:1	0.762	0.08	21.73	23.10	1.371	1.045	21.8
Back side with Battery 3#	20	QPSK 50_0	132322/1745	1:1	0.739	0.03	21.73	23.10	1.371	1.013	21.8
Back side with Battery 4#	20	QPSK 50_0	132322/1745	1:1	0.703	0.12	21.73	23.10	1.371	0.964	21.8
Back side with Battery 5#	20	QPSK 50_0	132322/1745	1:1	0.739	0.14	21.73	23.10	1.371	1.013	21.8
Back side with Battery 6#	20	QPSK 50_0	132322/1745	1:1	0.756	0.17	21.73	23.10	1.371	1.036	21.8
Hotspot Test Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	132572/1770	1:1	0.702	-0.03	21.51	23.10	1.442	1.012	21.8
Bottom side	20	QPSK 100_0	132572/1770	1:1	0.611	-0.03	21.51	23.10	1.442	0.881	21.8
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											

Left cheek	20	QPSK 1_0	132322/1745	1:1	0.396	0.10	20.19	21.30	1.291	0.511	21.8
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.562	0.04	20.19	21.30	1.291	0.726	21.8
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.532	0.12	20.19	21.30	1.291	0.687	21.8
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.660	0.17	20.19	21.30	1.291	**0.852**	21.8
Right tilted	20	QPSK 1_0	132072/1720	1:1	0.630	0.17	20.09	21.30	1.321	0.832	21.8
Right tilted	20	QPSK 1_0	132572/1770	1:1	0.635	0.17	20.11	21.30	1.315	0.835	21.8
Right tilted with Battery 2#	20	QPSK 1_0	132322/1745	1:1	0.645	0.09	20.19	21.30	1.291	0.833	21.8
Right tilted with Battery 3#	20	QPSK 1_0	132322/1745	1:1	0.630	0.05	20.19	21.30	1.291	0.813	21.8
Right tilted with Battery 4#	20	QPSK 1_0	132322/1745	1:1	0.611	0.08	20.19	21.30	1.291	0.789	21.8
Right tilted with Battery 5#	20	QPSK 1_0	132322/1745	1:1	0.601	0.13	20.19	21.30	1.291	0.776	21.8
Right tilted with Battery 6#	20	QPSK 1_0	132322/1745	1:1	0.594	0.11	20.19	21.30	1.291	0.767	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.411	0.10	19.98	21.30	1.355	0.557	21.8
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.524	0.07	19.98	21.30	1.355	0.710	21.8
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.530	0.09	19.98	21.30	1.355	0.718	21.8
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.624	0.01	19.98	21.30	1.355	0.846	21.8
Right tilted	20	QPSK 50_0	132072/1720	1:1	0.612	0.01	19.87	21.30	1.390	0.851	21.8
Right tilted	20	QPSK 50_0	132572/1770	1:1	0.594	0.01	19.78	21.30	1.419	0.843	21.8
Head Test Data(100%RB)											
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.603	0.01	19.89	21.30	1.384	0.834	21.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.157	0.09	21.53	22.60	1.279	0.201	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.290	0.01	21.53	22.60	1.279	0.371	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.158	0.15	21.54	22.60	1.276	0.202	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.299	0.02	21.54	22.60	1.276	**0.382**	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.245	0.05	20.19	21.30	1.291	0.316	21.8
Back side	20	QPSK 1_0	132322/1745	1:1	0.584	0.19	20.19	21.30	1.291	0.754	21.8
Left side	20	QPSK 1_0	132322/1745	1:1	0.145	0.02	20.19	21.30	1.291	0.187	21.8
Top side	20	QPSK 1_0	132322/1745	1:1	0.540	0.04	20.19	21.30	1.291	0.697	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.250	0.02	19.98	21.30	1.355	0.339	21.8
Back side	20	QPSK 50_0	132322/1745	1:1	0.579	0.06	19.98	21.30	1.355	**0.785**	21.8
Left side	20	QPSK 50_0	132322/1745	1:1	0.103	0.03	19.98	21.30	1.355	0.140	21.8
Top side	20	QPSK 50_0	132322/1745	1:1	0.530	0.03	19.98	21.30	1.355	0.718	21.8

Table 23：SAR of LTE Band 66 for Head and Body.

8.2.3 SAR Result of WIFI 2.4G

Ant9 Test Record chain0											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data											
Left cheek	802.11b	1/2412	98.73%	1.013	0.161	-0.11	15.12	16.00	1.225	**0.197**	22.2
Left tilted	802.11b	1/2412	98.73%	1.013	0.070	0.07	15.12	16.00	1.225	0.085	22.2
Right cheek	802.11b	1/2412	98.73%	1.013	0.052	0.06	15.12	16.00	1.225	0.064	22.2
Right tilted	802.11b	1/2412	98.73%	1.013	0.040	0.02	15.12	16.00	1.225	0.049	22.2
Left cheek with Battery 2#	802.11b	1/2412	98.73%	1.013	0.152	0.19	15.12	16.00	1.225	0.189	22.2
Left cheek with Battery 3#	802.11b	1/2412	98.73%	1.013	0.148	0.03	15.12	16.00	1.225	0.184	22.2
Left cheek with Battery 4#	802.11b	1/2412	98.73%	1.013	0.158	0.08	15.12	16.00	1.225	0.196	22.2
Left cheek with Battery 5#	802.11b	1/2412	98.73%	1.013	0.154	-0.05	15.12	16.00	1.225	0.191	22.2
Left cheek with Battery 6#	802.11b	1/2412	98.73%	1.013	0.152	0.09	15.12	16.00	1.225	0.189	22.2
Body worn Test data(Separate 15mm)											
Front side	802.11b	1/2412	98.73%	1.013	0.143	-0.05	18.50	19.50	1.259	0.180	22.2
Back side	802.11b	1/2412	98.73%	1.013	0.217	0.07	18.50	19.50	1.259	**0.273**	22.2
Back side with Battery 2#	802.11b	1/2412	98.73%	1.013	0.174	0.12	18.50	19.50	1.259	0.222	22.2
Back side with Battery 3#	802.11b	1/2412	98.73%	1.013	0.171	0.02	18.50	19.50	1.259	0.218	22.2
Back side with Battery 4#	802.11b	1/2412	98.73%	1.013	0.166	0.05	18.50	19.50	1.259	0.212	22.2
Back side with Battery 5#	802.11b	1/2412	98.73%	1.013	0.170	-0.07	18.50	19.50	1.259	0.217	22.2
Back side with Battery 6#	802.11b	1/2412	98.73%	1.013	0.162	0.08	18.50	19.50	1.259	0.207	22.2
Hotspot Test data (Separate 10mm)											
Front side	802.11b	1/2412	98.73%	1.013	0.268	0.04	18.50	19.50	1.259	0.337	22.2
Back side	802.11b	1/2412	98.73%	1.013	0.287	0.11	18.50	19.50	1.259	0.361	22.2
Right side	802.11b	1/2412	98.73%	1.013	0.321	0.01	18.50	19.50	1.259	**0.404**	22.2
Right side with Battery 2#	802.11b	1/2412	98.73%	1.013	0.316	0.06	18.50	19.50	1.259	0.398	22.2
Right side with Battery 3#	802.11b	1/2412	98.73%	1.013	0.310	-0.13	18.50	19.50	1.259	0.395	22.2
Right side with Battery 4#	802.11b	1/2412	98.73%	1.013	0.312	0.01	18.50	19.50	1.259	0.398	22.2
Right side with Battery 5#	802.11b	1/2412	98.73%	1.013	0.301	-0.02	18.50	19.50	1.259	0.384	22.2
Right side with Battery 6#	802.11b	1/2412	98.73%	1.013	0.307	0.09	18.50	19.50	1.259	0.391	22.2

Table 24：SAR of WIFI 2.4G for Head and Body.

Note:

1) As the adjusted SAR is ≤ 1.2 W/kg for other 802.11 modes, SAR test for the other 802.11 modes are not required.

Mode	Tune-up (dBm)	Tune-up (mw)	Hightest Reported SAR1-g(W/kg)	Adjusted SAR1-g(W/kg)	SAR test
Head					
802.11b	16.00	39.81	0.197	/	
802.11g	16.00	39.81	/	0.197	No
802.1n 20M	16.00	39.81	/	0.197	No
802.1n 40M	16.00	39.81	/	0.197	No
Body worn Test data(Separate 15mm)					
802.11b	19.50	89.13	0.273	/	
802.11g	20.00	100.00	/	0.306	No
802.1n 20M	20.00	100.00	/	0.306	No
802.1n 40M	16.00	39.81	/	0.122	No
Hotspot Test data (Separate 10mm)					
802.11b	19.50	89.13	0.404	/	
802.11g	20.00	100.00	/	0.453	No
802.1n 20M	20.00	100.00	/	0.453	No
802.1n 40M	16.00	39.81	/	0.180	No

8.2.1 SAR Result of WIFI 5G

Ant11 Test Record chain0											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data of U-NII-2A											
Left cheek	802.11n-HT40	54/5270	95.96%	1.042	0.210	0.07	13.68	15.00	1.355	**0.297**	22.2
Left tilted	802.11n-HT40	54/5270	95.96%	1.042	0.195	0.05	13.68	15.00	1.355	0.275	22.2
Right cheek	802.11n-HT40	54/5270	95.96%	1.042	0.092	0.05	13.68	15.00	1.355	0.130	22.2
Right tilted	802.11n-HT40	54/5270	95.96%	1.042	0.087	0.03	13.68	15.00	1.355	0.123	22.2
Head Test data of U-NII-2C											
Left cheek	802.11n-HT40	110/5550	95.96%	1.042	0.256	-0.06	13.71	15.00	1.346	**0.359**	22.4
Left tilted	802.11n-HT40	110/5550	95.96%	1.042	0.253	-0.05	13.71	15.00	1.346	0.355	22.4
Right cheek	802.11n-HT40	110/5550	95.96%	1.042	0.133	0.03	13.71	15.00	1.346	0.187	22.4
Right tilted	802.11n-HT40	110/5550	95.96%	1.042	0.082	-0.07	13.71	15.00	1.346	0.115	22.4
Head Test data of U-NII-3											
Left cheek	802.11n-HT40	151/5755	95.96%	1.042	0.383	-0.04	13.65	15.00	1.365	**0.545**	22.3
Left tilted	802.11n-HT40	151/5755	95.96%	1.042	0.246	0.02	13.65	15.00	1.365	0.350	22.3
Right cheek	802.11n-HT40	151/5755	95.96%	1.042	0.108	0.11	13.65	15.00	1.365	0.154	22.3
Right tilted	802.11n-HT40	151/5755	95.96%	1.042	0.208	-0.08	13.65	15.00	1.365	0.296	22.3
Left cheek with Battery 2#	802.11n-HT40	151/5755	95.96%	1.042	0.379	0.05	13.65	15.00	1.365	0.539	22.3
Left cheek with Battery 3#	802.11n-HT40	151/5755	95.96%	1.042	0.367	0.09	13.65	15.00	1.365	0.522	22.3
Left cheek with Battery 4#	802.11n-HT40	151/5755	95.96%	1.042	0.359	0.02	13.65	15.00	1.365	0.511	22.3
Left cheek with Battery 5#	802.11n-HT40	151/5755	95.96%	1.042	0.366	-0.01	13.65	15.00	1.365	0.520	22.3
Left cheek with Battery 6#	802.11n-HT40	151/5755	95.96%	1.042	0.357	0.06	13.65	15.00	1.365	0.508	22.3
Body worn Test data of U-NII-2A (Separate 15mm)											
Front side	802.11a	52/5260	98.10%	1.019	0.110	0.05	18.55	19.00	1.109	0.124	22.2
Back side	802.11a	52/5260	98.10%	1.019	0.239	-0.01	18.55	19.00	1.109	**0.270**	22.2
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11a	116/5580	98.10%	1.019	0.135	-0.11	18.59	19.00	1.099	0.151	22.4
Back side	802.11a	116/5580	98.10%	1.019	0.270	-0.03	18.59	19.00	1.099	**0.302**	22.4
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11a	157/5785	98.10%	1.019	0.094	0.05	18.92	19.00	1.019	0.098	22.3
Back side	802.11a	157/5785	98.10%	1.019	0.327	0.19	18.92	19.00	1.019	**0.340**	22.3
Back side with Battery 2#	802.11a	157/5785	98.10%	1.019	0.325	0.02	18.92	19.00	1.019	0.337	22.3
Back side with Battery 3#	802.11a	157/5785	98.10%	1.019	0.318	-0.06	18.92	19.00	1.019	0.330	22.3
Back side with Battery 4#	802.11a	157/5785	98.10%	1.019	0.326	0.05	18.92	19.00	1.019	0.338	22.3
Back side with Battery 5#	802.11a	157/5785	98.10%	1.019	0.309	0.07	18.92	19.00	1.019	0.321	22.3
Back side with Battery 6#	802.11a	157/5785	98.10%	1.019	0.318	-0.14	18.92	19.00	1.019	0.330	22.3
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	48/5240	98.10%	1.019	0.212	0.03	18.61	19.00	1.094	0.236	22.2
Back side	802.11a	48/5240	98.10%	1.019	0.379	0.09	18.61	19.00	1.094	**0.423**	22.2
Right side	802.11a	48/5240	98.10%	1.019	0.268	-0.01	18.61	19.00	1.094	0.299	22.2

Top side	802.11a	48/5240	98.10%	1.019	0.170	0.02	18.61	19.00	1.094	0.190	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	157/5785	98.10%	1.019	0.119	0.03	18.92	19.00	1.019	0.124	22.3
Back side	802.11a	157/5785	98.10%	1.019	0.453	0.04	18.92	19.00	1.019	0.470	22.3
Right side	802.11a	157/5785	98.10%	1.019	0.696	-0.03	18.92	19.00	1.019	**0.723**	22.3
Top side	802.11a	157/5785	98.10%	1.019	0.281	0.03	18.92	19.00	1.019	0.292	22.3
Right side with Battery 2#	802.11a	157/5785	98.10%	1.019	0.585	0.08	18.92	19.00	1.019	0.607	22.3
Right side with Battery 3#	802.11a	157/5785	98.10%	1.019	0.573	-0.04	18.92	19.00	1.019	0.595	22.3
Right side with Battery 4#	802.11a	157/5785	98.10%	1.019	0.562	0.02	18.92	19.00	1.019	0.584	22.3
Right side with Battery 5#	802.11a	157/5785	98.10%	1.019	0.597	0.09	18.92	19.00	1.019	0.620	22.3
Right side with Battery 6#	802.11a	157/5785	98.10%	1.019	0.544	0.01	18.92	19.00	1.019	0.565	22.3
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**Duty Cycle Scaled factor**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10gSAR Test data of U-NII-2A(Separate 0mm)											
Front side	802.11a	52/5260	98.10%	1.019	0.233	-0.09	18.55	19.00	1.109	0.263	22.2
Back side	802.11a	52/5260	98.10%	1.019	0.570	-0.06	18.55	19.00	1.109	**0.644**	22.2
Right side	802.11a	52/5260	98.10%	1.019	0.468	-0.09	18.55	19.00	1.109	0.529	22.2
Top side	802.11a	52/5260	98.10%	1.019	0.211	0.06	18.55	19.00	1.109	0.239	22.2
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11a	116/5580	98.10%	1.019	0.324	-0.01	18.59	19.00	1.099	0.363	22.4
Back side	802.11a	116/5580	98.10%	1.019	0.730	0.02	18.59	19.00	1.099	0.818	22.4
Right side	802.11a	116/5580	98.10%	1.019	1.050	-0.08	18.59	19.00	1.099	**1.176**	22.4
Top side	802.11a	116/5580	98.10%	1.019	0.213	0.12	18.59	19.00	1.099	0.239	22.4
Right side with Battery 2#	802.11a	116/5580	98.10%	1.019	0.950	0.02	18.59	19.00	1.099	1.064	22.4
Right side with Battery 3#	802.11a	116/5580	98.10%	1.019	0.912	0.03	18.59	19.00	1.099	1.022	22.4
Right side with Battery 4#	802.11a	116/5580	98.10%	1.019	0.930	-0.05	18.59	19.00	1.099	1.042	22.4
Right side with Battery 5#	802.11a	116/5580	98.10%	1.019	0.917	0.08	18.59	19.00	1.099	1.028	22.4
Right side with Battery 6#	802.11a	116/5580	98.10%	1.019	0.901	0.07	18.59	19.00	1.099	1.009	22.4

Table 25：SAR of WIFI 5G for Head and Body.

Note:

1) As the highest reported SAR is smaller than 1.2 W/kg, and the tune-up of the other 802.11 modes are not higher than SAR test select, therefore the adjusted SAR is ≤ 1.2 W/kg for other 802.11 modes, SAR test for the other 802.11 modes are not required. For Product specific 10gSAR the highest reported SAR is smaller than 3.0 W/kg, SAR test for the other 802.11 modes are also not required.

8.2.2 SAR Result of BT

Ant9 Test Record											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data											
Left cheek	DH5	39/2441	76.86%	1.301	0.090	-0.04	13.45	15.00	1.429	**0.168**	22.2
Left tilted	DH5	39/2441	76.86%	1.301	0.043	0.07	13.45	15.00	1.429	0.081	22.2
Right cheek	DH5	39/2441	76.86%	1.301	0.085	0.02	13.45	15.00	1.429	0.159	22.2
Right tilted	DH5	39/2441	76.86%	1.301	0.019	0.04	13.45	15.00	1.429	0.035	22.2
Left cheek with Battery 2#	DH5	39/2441	76.86%	1.301	0.087	0.06	13.45	15.00	1.429	0.162	22.2
Left cheek with Battery 3#	DH5	39/2441	76.86%	1.301	0.086	0.04	13.45	15.00	1.429	0.159	22.2
Left cheek with Battery 4#	DH5	39/2441	76.86%	1.301	0.083	0.08	13.45	15.00	1.429	0.154	22.2
Left cheek with Battery 5#	DH5	39/2441	76.86%	1.301	0.084	-0.05	13.45	15.00	1.429	0.157	22.2
Left cheek with Battery 6#	DH5	39/2441	76.86%	1.301	0.086	0.10	13.45	15.00	1.429	0.160	22.2
Body worn Test data(Separate 15mm)											
Front side	DH5	39/2441	76.86%	1.301	0.031	0.03	13.45	15.00	1.429	0.058	22.2
Back side	DH5	39/2441	76.86%	1.301	0.049	0.02	13.45	15.00	1.429	**0.092**	22.2
Back side with Battery 2#	DH5	39/2441	76.86%	1.301	0.048	0.09	13.45	15.00	1.429	0.090	22.2
Back side with Battery 3#	DH5	39/2441	76.86%	1.301	0.048	-0.05	13.45	15.00	1.429	0.089	22.2
Back side with Battery 4#	DH5	39/2441	76.86%	1.301	0.047	-0.12	13.45	15.00	1.429	0.087	22.2
Back side with Battery 5#	DH5	39/2441	76.86%	1.301	0.046	0.03	13.45	15.00	1.429	0.085	22.2
Back side with Battery 6#	DH5	39/2441	76.86%	1.301	0.045	0.07	13.45	15.00	1.429	0.083	22.2
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	76.86%	1.301	0.066	0.07	13.45	15.00	1.429	0.122	22.2
Back side	DH5	39/2441	76.86%	1.301	0.101	-0.14	13.45	15.00	1.429	**0.188**	22.2
Right side	DH5	39/2441	76.86%	1.301	0.087	0.03	13.45	15.00	1.429	0.162	22.2
Back side with Battery 2#	DH5	39/2441	76.86%	1.301	0.099	-0.08	13.45	15.00	1.429	0.183	22.2
Back side with Battery 3#	DH5	39/2441	76.86%	1.301	0.096	0.09	13.45	15.00	1.429	0.178	22.2
Back side with Battery 4#	DH5	39/2441	76.86%	1.301	0.094	0.02	13.45	15.00	1.429	0.175	22.2
Back side with Battery 5#	DH5	39/2441	76.86%	1.301	0.096	-0.04	13.45	15.00	1.429	0.178	22.2
Back side with Battery 6#	DH5	39/2441	76.86%	1.301	0.091	0.05	13.45	15.00	1.429	0.169	22.2

Table 26：SAR of BT for Head and Body.

8.3 Multiple Transmitter Evaluation

8.3.1 Simultaneous SAR SAR test evaluation

- **Simultaneous Transmission Possibilities**

NO	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g (0mm)
1	WWAN+BT	Y	Y	Y	Y
2	WWAN+WIFI 2.4G	Y	Y	Y	Y
3	WWAN+WIFI 5G	Y	Y	Y	Y
4	WWAN+BT+WIFI 5G	N	N	N	N
5	BT+WIFI 5G	N	N	N	N
6	WIFI 2.4G+WIFI 5G	N	N	N	N
7	WIFI 2.4G+BT	N	N	N	N

Note:

1) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) band do not support hotspot function.
2) The device does not support DTM.

8.3.2 Simultaneous Transmission SAR Summation Scenario

Simultaneous Transmission SAR Summation Scenario for WLAN Head:

Test position		SARmax (W/kg)				Summed SAR		
		Main Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant0	Left cheek	0.205	0.197	0.545	0.168	0.402	0.750	0.373
	Left tilted	0.112	0.085	0.355	0.081	0.197	0.467	0.193
	Right cheek	0.254	0.064	0.187	0.159	0.318	0.441	0.413
	Right tilted	0.116	0.049	0.296	0.035	0.165	0.412	0.151
GSM1900 Ant1	Left cheek	0.118	0.197	0.545	0.168	0.315	0.663	0.286
	Left tilted	0.042	0.085	0.355	0.081	0.127	0.397	0.123
	Right cheek	0.080	0.064	0.187	0.159	0.144	0.267	0.239
	Right tilted	0.036	0.049	0.296	0.035	0.085	0.332	0.071
WCDMA II Ant1	Left cheek	0.096	0.197	0.545	0.168	0.293	0.641	0.264
	Left tilted	0.071	0.085	0.355	0.081	0.156	0.426	0.152
	Right cheek	0.100	0.064	0.187	0.159	0.164	0.287	0.259
	Right tilted	0.064	0.049	0.296	0.035	0.113	0.360	0.099
WCDMA IV Ant1	Left cheek	0.222	0.197	0.545	0.168	0.419	0.767	0.390
	Left tilted	0.106	0.085	0.355	0.081	0.191	0.461	0.187
	Right cheek	0.150	0.064	0.187	0.159	0.214	0.337	0.309
	Right tilted	0.098	0.049	0.296	0.035	0.147	0.394	0.133
WCDMA V Ant0	Left cheek	0.215	0.197	0.545	0.168	0.412	0.760	0.383
	Left tilted	0.090	0.085	0.355	0.081	0.175	0.445	0.171
	Right cheek	0.242	0.064	0.187	0.159	0.306	0.429	0.401
	Right tilted	0.117	0.049	0.296	0.035	0.166	0.413	0.152
LTE Band2 Ant1	Left cheek	0.125	0.197	0.545	0.168	0.322	0.670	0.293
	Left tilted	0.050	0.085	0.355	0.081	0.135	0.405	0.131
	Right cheek	0.087	0.064	0.187	0.159	0.151	0.274	0.246
	Right tilted	0.074	0.049	0.296	0.035	0.123	0.370	0.109
LTE Band4 Ant1	Left cheek	0.237	0.197	0.545	0.168	0.434	0.782	0.405
	Left tilted	0.054	0.085	0.355	0.081	0.139	0.409	0.135
	Right cheek	0.170	0.064	0.187	0.159	0.234	0.357	0.329
	Right tilted	0.068	0.049	0.296	0.035	0.117	0.364	0.103
LTE Band5 Ant0	Left cheek	0.135	0.197	0.545	0.168	0.332	0.680	0.303
	Left tilted	0.090	0.085	0.355	0.081	0.175	0.445	0.171
	Right cheek	0.213	0.064	0.187	0.159	0.277	0.400	0.372
	Right tilted	0.095	0.049	0.296	0.035	0.144	0.391	0.130
LTE Band7 Ant1	Left cheek	0.101	0.197	0.545	0.168	0.298	0.646	0.269
	Left tilted	0.115	0.085	0.355	0.081	0.200	0.470	0.196
	Right cheek	0.202	0.064	0.187	0.159	0.266	0.389	0.361
	Right tilted	0.084	0.049	0.296	0.035	0.133	0.380	0.119
LTE Band13 Ant0	Left cheek	0.137	0.197	0.545	0.168	0.334	0.682	0.305
	Left tilted	0.077	0.085	0.355	0.081	0.162	0.432	0.158
	Right cheek	0.172	0.064	0.187	0.159	0.236	0.359	0.331
	Right tilted	0.080	0.049	0.296	0.035	0.129	0.376	0.115
LTE Band26 Ant0	Left cheek	0.176	0.197	0.545	0.168	0.373	0.721	0.344
	Left tilted	0.084	0.085	0.355	0.081	0.169	0.439	0.165
	Right cheek	0.191	0.064	0.187	0.159	0.255	0.378	0.350
	Right tilted	0.093	0.049	0.296	0.035	0.142	0.389	0.128

LTE Band38 Ant1	Left cheek	0.075	0.197	0.545	0.168	0.272	0.620	0.243
	Left tilted	0.085	0.085	0.355	0.081	0.170	0.440	0.166
	Right cheek	0.133	0.064	0.187	0.159	0.197	0.320	0.292
	Right tilted	0.056	0.049	0.296	0.035	0.105	0.352	0.091
LTE Band66 Ant1	Left cheek	0.291	0.197	0.545	0.168	0.488	0.836	0.459
	Left tilted	0.072	0.085	0.355	0.081	0.157	0.427	0.153
	Right cheek	0.209	0.064	0.187	0.159	0.273	0.396	0.368
	Right tilted	0.103	0.049	0.296	0.035	0.152	0.399	0.138

Test position		SARmax (W/kg)				Summed SAR		
		UP Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant3	Left cheek	0.543	0.197	0.545	0.168	0.740	1.088	0.711
	Left tilted	0.233	0.085	0.355	0.081	0.318	0.588	0.314
	Right cheek	0.666	0.064	0.187	0.159	0.730	0.853	0.825
	Right tilted	0.437	0.049	0.296	0.035	0.486	0.733	0.472
GSM1900 Ant3	Left cheek	0.747	0.197	0.545	0.168	0.944	1.292	0.915
	Left tilted	0.757	0.085	0.355	0.081	0.842	1.112	0.838
	Right cheek	0.927	0.064	0.187	0.159	0.991	1.114	1.086
	Right tilted	0.940	0.049	0.296	0.035	0.989	1.236	0.975
WCDMA II Ant3	Left cheek	0.721	0.197	0.545	0.168	0.918	1.266	0.889
	Left tilted	0.893	0.085	0.355	0.081	0.978	1.248	0.974
	Right cheek	0.847	0.064	0.187	0.159	0.911	1.034	1.006
	Right tilted	1.081	0.049	0.296	0.035	1.130	1.377	1.116
WCDMA IV Ant3	Left cheek	0.573	0.197	0.545	0.168	0.770	1.118	0.741
	Left tilted	0.881	0.085	0.355	0.081	0.966	1.236	0.962
	Right cheek	0.722	0.064	0.187	0.159	0.786	0.909	0.881
	Right tilted	1.064	0.049	0.296	0.035	1.113	1.360	1.099
WCDMA V Ant3	Left cheek	0.486	0.197	0.545	0.168	0.683	1.031	0.654
	Left tilted	0.341	0.085	0.355	0.081	0.426	0.696	0.422
	Right cheek	1.057	0.064	0.187	0.159	1.121	1.244	1.216
	Right tilted	0.479	0.049	0.296	0.035	0.528	0.775	0.514
LTE Band2 Ant3	Left cheek	0.786	0.197	0.545	0.168	0.983	1.331	0.954
	Left tilted	0.951	0.085	0.355	0.081	1.036	1.306	1.032
	Right cheek	0.906	0.064	0.187	0.159	0.970	1.093	1.065
	Right tilted	1.093	0.049	0.296	0.035	1.142	1.389	1.128
LTE Band4 Ant3	Left cheek	0.653	0.197	0.545	0.168	0.850	1.198	0.821
	Left tilted	0.882	0.085	0.355	0.081	0.967	1.237	0.963
	Right cheek	0.740	0.064	0.187	0.159	0.804	0.927	0.899
	Right tilted	0.946	0.049	0.296	0.035	0.995	1.242	0.981
LTE Band5 Ant3	Left cheek	0.305	0.197	0.545	0.168	0.502	0.850	0.473
	Left tilted	0.206	0.085	0.355	0.081	0.291	0.561	0.287
	Right cheek	0.719	0.064	0.187	0.159	0.783	0.906	0.878
	Right tilted	0.360	0.049	0.296	0.035	0.409	0.656	0.395
LTE Band7 Ant3	Left cheek	0.982	0.197	0.545	0.168	1.179	1.527	1.150
	Left tilted	0.998	0.085	0.355	0.081	1.083	1.353	1.079
	Right cheek	0.948	0.064	0.187	0.159	1.012	1.135	1.107
	Right tilted	1.075	0.049	0.296	0.035	1.124	1.371	1.110
LTE Band13	Left cheek	0.318	0.197	0.545	0.168	0.515	0.863	0.486

Ant3	Left tilted	0.186	0.085	0.355	0.081	0.271	0.541	0.267
	Right cheek	0.461	0.064	0.187	0.159	0.525	0.648	0.620
	Right tilted	0.407	0.049	0.296	0.035	0.456	0.703	0.442
LTE Band26 Ant3	Left cheek	0.436	0.197	0.545	0.168	0.633	0.981	0.604
	Left tilted	0.275	0.085	0.355	0.081	0.360	0.630	0.356
	Right cheek	0.587	0.064	0.187	0.159	0.651	0.774	0.746
	Right tilted	0.255	0.049	0.296	0.035	0.304	0.551	0.290
LTE Band38 Ant3	Left cheek	0.766	0.197	0.545	0.168	0.963	1.311	0.934
	Left tilted	1.035	0.085	0.355	0.081	1.120	1.390	1.116
	Right cheek	0.806	0.064	0.187	0.159	0.870	0.993	0.965
	Right tilted	0.926	0.049	0.296	0.035	0.975	1.222	0.961
LTE Band66 Ant3	Left cheek	0.557	0.197	0.545	0.168	0.754	1.102	0.725
	Left tilted	0.726	0.085	0.355	0.081	0.811	1.081	0.807
	Right cheek	0.718	0.064	0.187	0.159	0.782	0.905	0.877
	Right tilted	0.000	0.049	0.296	0.035	0.049	0.296	0.035

Simultaneous Transmission SAR Summation Scenario for WLAN Body worn:

Test position		SARmax (W/kg)				Summed SAR		
		Main Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant0	Front side	0.299	0.180	0.151	0.058	0.479	0.450	0.357
	Back side	0.352	0.273	0.340	0.092	0.625	0.692	0.444
GSM1900 Ant1	Front side	0.232	0.180	0.151	0.058	0.412	0.383	0.290
	Back side	0.552	0.273	0.340	0.092	0.825	0.892	0.644
WCDMA II Ant1	Front side	0.172	0.180	0.151	0.058	0.352	0.323	0.230
	Back side	0.421	0.273	0.340	0.092	0.694	0.761	0.513
WCDMA IV Ant1	Front side	0.357	0.180	0.151	0.058	0.537	0.508	0.415
	Back side	0.787	0.273	0.340	0.092	1.060	1.127	0.879
WCDMA V Ant0	Front side	0.297	0.180	0.151	0.058	0.477	0.448	0.355
	Back side	0.368	0.273	0.340	0.092	0.641	0.708	0.460
LTE Band2 Ant1	Front side	0.189	0.180	0.151	0.058	0.369	0.340	0.247
	Back side	0.460	0.273	0.340	0.092	0.733	0.800	0.552
LTE Band4 Ant1	Front side	0.332	0.180	0.151	0.058	0.512	0.483	0.390
	Back side	0.712	0.273	0.340	0.092	0.985	1.052	0.804
LTE Band5 Ant0	Front side	0.174	0.180	0.151	0.058	0.354	0.325	0.232
	Back side	0.218	0.273	0.340	0.092	0.491	0.558	0.310
LTE Band7 Ant1	Front side	0.113	0.180	0.151	0.058	0.293	0.264	0.171
	Back side	0.339	0.273	0.340	0.092	0.612	0.679	0.431
LTE Band13 Ant0	Front side	0.137	0.180	0.151	0.058	0.317	0.288	0.195
	Back side	0.162	0.273	0.340	0.092	0.435	0.502	0.254
LTE Band26 Ant0	Front side	0.160	0.180	0.151	0.058	0.340	0.311	0.218
	Back side	0.210	0.273	0.340	0.092	0.483	0.550	0.302
LTE Band38 Ant1	Front side	0.094	0.180	0.151	0.058	0.274	0.245	0.152
	Back side	0.337	0.273	0.340	0.092	0.610	0.677	0.429
LTE Band66 Ant1	Front side	0.381	0.180	0.151	0.058	0.561	0.532	0.439
	Back side	0.857	0.273	0.340	0.092	1.130	1.197	0.949

Test position		SARmax (W/kg)				Summed SAR		
		UP Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant3	Front side	0.130	0.180	0.151	0.058	0.310	0.281	0.188
	Back side	0.229	0.273	0.340	0.092	0.502	0.569	0.321
GSM1900 Ant3	Front side	0.189	0.180	0.151	0.058	0.369	0.340	0.247
	Back side	0.358	0.273	0.340	0.092	0.631	0.698	0.450
WCDMA II Ant3	Front side	0.284	0.180	0.151	0.058	0.464	0.435	0.342
	Back side	0.580	0.273	0.340	0.092	0.853	0.920	0.672
WCDMA IV Ant3	Front side	0.171	0.180	0.151	0.058	0.351	0.322	0.229
	Back side	0.338	0.273	0.340	0.092	0.611	0.678	0.430
WCDMA V Ant3	Front side	0.188	0.180	0.151	0.058	0.368	0.339	0.246
	Back side	0.309	0.273	0.340	0.092	0.582	0.649	0.401
LTE Band2 Ant3	Front side	0.170	0.180	0.151	0.058	0.350	0.321	0.228
	Back side	0.307	0.273	0.340	0.092	0.580	0.647	0.399

LTE Band4 Ant3	Front side	0.146	0.180	0.151	0.058	0.326	0.297	0.204
	Back side	0.296	0.273	0.340	0.092	0.569	0.636	0.388
LTE Band5 Ant3	Front side	0.105	0.180	0.151	0.058	0.285	0.256	0.163
	Back side	0.214	0.273	0.340	0.092	0.487	0.554	0.306
LTE Band7 Ant3	Front side	0.257	0.180	0.151	0.058	0.437	0.408	0.315
	Back side	0.424	0.273	0.340	0.092	0.697	0.764	0.516
LTE Band13 Ant3	Front side	0.133	0.180	0.151	0.058	0.313	0.284	0.191
	Back side	0.237	0.273	0.340	0.092	0.510	0.577	0.329
LTE Band26 Ant3	Front side	0.088	0.180	0.151	0.058	0.268	0.239	0.146
	Back side	0.158	0.273	0.340	0.092	0.431	0.498	0.250
LTE Band38 Ant3	Front side	0.114	0.180	0.151	0.058	0.294	0.265	0.172
	Back side	0.289	0.273	0.340	0.092	0.562	0.629	0.381
LTE Band66 Ant3	Front side	0.202	0.180	0.151	0.058	0.382	0.353	0.260
	Back side	0.382	0.273	0.340	0.092	0.655	0.722	0.474

Simultaneous Transmission SAR Summation Scenario for WLAN Hotspot:

Test position		SARmax (W/kg)				Summed SAR		
		Main Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant0	Front side	0.442	0.337	0.236	0.122	0.779	0.678	0.564
	Back side	0.578	0.361	0.470	0.188	0.939	1.048	0.766
	Left side	0.220				0.220	0.220	0.220
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	
	Bottom side	0.008				0.008	0.008	0.008
GSM1900 Ant1	Front side	0.420	0.337	0.236	0.122	0.757	0.656	0.542
	Back side	1.081	0.361	0.470	0.188	1.442	1.551	1.269
	Left side							
	Right side	0.122	0.404	0.723	0.162	0.526	0.845	0.284
	Top side			0.292			0.292	
	Bottom side	0.649				0.649	0.649	0.649
WCDMA II Ant1	Front side	0.284	0.337	0.236	0.122	0.621	0.520	0.406
	Back side	0.870	0.361	0.470	0.188	1.231	1.340	1.058
	Left side							
	Right side	0.216	0.404	0.723	0.162	0.620	0.939	0.378
	Top side			0.292			0.292	
	Bottom side	0.739				0.739	0.739	0.739
WCDMA IV Ant1	Front side	0.386	0.337	0.236	0.122	0.723	0.622	0.508
	Back side	1.029	0.361	0.470	0.188	1.390	1.499	1.217
	Left side							
	Right side	0.246	0.404	0.723	0.162	0.650	0.969	0.408
	Top side			0.292			0.292	
	Bottom side	0.922				0.922	0.922	0.922
WCDMA V Ant0	Front side	0.417	0.337	0.236	0.122	0.754	0.653	0.539
	Back side	0.655	0.361	0.470	0.188	1.016	1.125	0.843
	Left side	0.419				0.419	0.419	0.419
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	

	Bottom side	0.016				0.016	0.016	0.016
LTE Band2 Ant1	Front side	0.325	0.337	0.236	0.122	0.662	0.561	0.447
	Back side	0.926	0.361	0.470	0.188	1.287	1.396	1.114
	Left side							
	Right side	0.223	0.404	0.723	0.162	0.627	0.946	0.385
	Top side			0.292			0.292	
	Bottom side	0.796				0.796	0.796	0.796
LTE Band4 Ant1	Front side	0.411	0.337	0.236	0.122	0.748	0.647	0.533
	Back side	1.071	0.361	0.470	0.188	1.432	1.541	1.259
	Left side							
	Right side	0.229	0.404	0.723	0.162	0.633	0.952	0.391
	Top side			0.292			0.292	
	Bottom side	1.029				1.029	1.029	1.029
LTE Band5 Ant0	Front side	0.305	0.337	0.236	0.122	0.642	0.541	0.427
	Back side	0.376	0.361	0.470	0.188	0.737	0.846	0.564
	Left side	0.134				0.134	0.134	0.134
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	
	Bottom side	0.165				0.165	0.165	0.165
LTE Band7 Ant1	Front side	0.224	0.337	0.236	0.122	0.561	0.460	0.346
	Back side	0.729	0.361	0.470	0.188	1.090	1.199	0.917
	Left side	0.041				0.041	0.041	0.041
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	
	Bottom side	0.618				0.618	0.618	0.618
LTE Band13 Ant0	Front side	0.208	0.337	0.236	0.122	0.545	0.444	0.330
	Back side	0.276	0.361	0.470	0.188	0.637	0.746	0.464
	Left side	0.123				0.123	0.123	0.123
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	
	Bottom side	0.107				0.107	0.107	0.107
LTE Band26 Ant0	Front side	0.298	0.337	0.236	0.122	0.635	0.534	0.420
	Back side	0.355	0.361	0.470	0.188	0.716	0.825	0.543
	Left side	0.113				0.113	0.113	0.113
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side			0.292			0.292	
	Bottom side	0.152				0.152	0.152	0.152
LTE Band38 Ant1	Front side	0.188	0.337	0.236	0.122	0.525	0.424	0.310
	Back side	0.665	0.361	0.470	0.188	1.026	1.135	0.853
	Left side							
	Right side	0.276	0.404	0.723	0.162	0.680	0.999	0.438
	Top side			0.292			0.292	
	Bottom side	0.616				0.616	0.616	0.616
LTE Band66 Ant1	Front side	0.483	0.337	0.236	0.122	0.820	0.719	0.605
	Back side	1.078	0.361	0.470	0.188	1.439	1.548	1.266
	Left side							
	Right side	0.267	0.404	0.723	0.162	0.671	0.990	0.429
	Top side			0.292			0.292	
	Bottom side	0.912				0.912	0.912	0.912

Test position		SARmax (W/kg)				Summed SAR		
		UP Ant	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM850 Ant3	Front side	0.184	0.337	0.236	0.122	0.521	0.420	0.306
	Back side	0.325	0.361	0.470	0.188	0.686	0.795	0.513
	Left side							
	Right side	0.257	0.404	0.723	0.162	0.661	0.980	0.419
	Top side	0.100		0.292		0.100	0.392	0.100
	Bottom side							
GSM1900 Ant3	Front side	0.292	0.337	0.236	0.122	0.629	0.528	0.414
	Back side	0.646	0.361	0.470	0.188	1.007	1.116	0.834
	Left side	0.241				0.241	0.241	0.241
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.754		0.292		0.754	1.046	0.754
	Bottom side							
WCDMA II Ant3	Front side	0.250	0.337	0.236	0.122	0.587	0.486	0.372
	Back side	0.539	0.361	0.470	0.188	0.900	1.009	0.727
	Left side	0.083				0.083	0.083	0.083
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.568		0.292		0.568	0.860	0.568
	Bottom side							
WCDMA IV Ant3	Front side	0.235	0.337	0.236	0.122	0.572	0.471	0.357
	Back side	0.565	0.361	0.470	0.188	0.926	1.035	0.753
	Left side	0.144				0.144	0.144	0.144
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.551		0.292		0.551	0.843	0.551
	Bottom side							
WCDMA V Ant3	Front side	0.341	0.337	0.236	0.122	0.678	0.577	0.463
	Back side	0.576	0.361	0.470	0.188	0.937	1.046	0.764
	Left side	0.425				0.425	0.425	0.425
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.003		0.292		0.003	0.295	0.003
	Bottom side							
LTE Band2 Ant3	Front side	0.279	0.337	0.236	0.122	0.616	0.515	0.401
	Back side	0.638	0.361	0.470	0.188	0.999	1.108	0.826
	Left side	0.129				0.129	0.129	0.129
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.545		0.292		0.545	0.837	0.545
	Bottom side							
LTE Band4 Ant3	Front side	0.277	0.337	0.236	0.122	0.614	0.513	0.399
	Back side	0.535	0.361	0.470	0.188	0.896	1.005	0.723
	Left side	0.142				0.142	0.142	0.142
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.521		0.292		0.521	0.813	0.521
	Bottom side							
LTE Band5 Ant3	Front side	0.185	0.337	0.236	0.122	0.522	0.421	0.307
	Back side	0.369	0.361	0.470	0.188	0.730	0.839	0.557

	Left side	0.300				0.300	0.300	0.300
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.133		0.292		0.133	0.425	0.133
	Bottom side							
LTE Band7 Ant3	Front side	0.209	0.337	0.236	0.122	0.546	0.445	0.331
	Back side	0.739	0.361	0.470	0.188	1.100	1.209	0.927
	Left side	0.330				0.330	0.330	0.330
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	1.031		0.292		1.031	1.323	1.031
	Bottom side							
LTE Band13 Ant3	Front side	0.191	0.337	0.236	0.122	0.528	0.427	0.313
	Back side	0.399	0.361	0.470	0.188	0.760	0.869	0.587
	Left side	0.358				0.358	0.358	0.358
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.173		0.292		0.173	0.465	0.173
	Bottom side							
LTE Band26 Ant3	Front side	0.152	0.337	0.236	0.122	0.489	0.388	0.274
	Back side	0.293	0.361	0.470	0.188	0.654	0.763	0.481
	Left side	0.259				0.259	0.259	0.259
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.112		0.292		0.112	0.404	0.112
	Bottom side							
LTE Band38 Ant3	Front side	0.148	0.337	0.236	0.122	0.485	0.384	0.270
	Back side	0.323	0.361	0.470	0.188	0.684	0.793	0.511
	Left side	0.125				0.125	0.125	0.125
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.444		0.292		0.444	0.736	0.444
	Bottom side							
LTE Band66 Ant3	Front side	0.339	0.337	0.236	0.122	0.676	0.575	0.461
	Back side	0.785	0.361	0.470	0.188	1.146	1.255	0.973
	Left side	0.187				0.187	0.187	0.187
	Right side		0.404	0.723	0.162	0.404	0.723	0.162
	Top side	0.718		0.292		0.718	1.010	0.718
	Bottom side							

Simultaneous Transmission SAR Summation Scenario for WLAN Product specific 10g SAR:

Test position		SARmax (W/kg)				Summed SAR		
		WWAN	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT			
		1	2	3	4	1+2	1+3	1+4
GSM1900 Ant3	Front side			0.363			0.363	
	Back side			0.818			0.818	
	Left side							
	Right side			1.176			1.176	
	Top side	1.652		0.239			1.891	
	Bottom side							
WCDMA IV Ant1	Front side			0.363			0.363	
	Back side	2.894		0.818		2.894	3.712	2.894
	Left side							
	Right side			1.176			1.176	
	Top side			0.239			0.239	
	Bottom side	2.628				2.628	2.628	2.628
LTE Band 2 Ant3	Front side			0.363			0.363	
	Back side	1.992		0.818		1.992	2.810	1.992
	Left side							
	Right side			1.176			1.176	
	Top side			0.239			0.239	
	Bottom side							
LTE Band 4 Ant1	Front side			0.363			0.363	
	Back side	2.662		0.818		2.662	3.480	2.662
	Left side							
	Right side			1.176			1.176	
	Top side			0.239			0.239	
	Bottom side	2.579				2.579	2.579	2.579
LTE Band 7 Ant3	Front side			0.363			0.363	
	Back side			0.818			0.818	
	Left side							
	Right side			1.176			1.176	
	Top side	2.262		0.239		2.262	2.501	2.262
	Bottom side							

9 Equipment list

Test Platform		SPEAG DASY Professional				
Description		SAR Test System				
Software Reference		DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)				
Hardware Reference						
Equipment		Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM2	1563	NCR	NCR
☒	Twin Phantom	SPEAG	SAM3	1770	NCR	NCR
☒	Twin Phantom	SPEAG	SAM5	1481	NCR	NCR
☒	Twin Phantom	SPEAG	SAM6	1824	NCR	NCR
☒	DAE	SPEAG	DAE4	1327	2021-11-05	2022-11-04
☒	DAE	SPEAG	DAE4	1324	2021-06-22	2022-06-21
☒	DAE	SPEAG	DAE4	1374	2021-11-05	2022-11-04
☒	DAE	SPEAG	DAE4	1428	2021-04-09	2022-04-08
☒	E-Field Probe	SPEAG	EX3DV4	3962	2021-04-26	2022-04-25
☒	E-Field Probe	SPEAG	EX3DV4	7620	2021-08-24	2022-08-23
☒	E-Field Probe	SPEAG	EX3DV4	3982	2021-12-29	2022-12-28
☒	E-Field Probe	SPEAG	EX3DV4	3789	2021-08-12	2022-08-11
☒	Validation Kits	SPEAG	D750V3	1210	2021-09-08	2024-09-07
☒	Validation Kits	SPEAG	D835V2	4d256	2020-04-15	2023-04-14
☒	Validation Kits	SPEAG	D1750V2	1105	2020-08-29	2023-08-28
☒	Validation Kits	SPEAG	D1900V2	5d114	2020-08-27	2023-08-26
☒	Validation Kits	SPEAG	D2450V2	1038	2020-04-08	2023-04-07
☒	Validation Kits	SPEAG	D2600V2	1180	2021-05-12	2024-05-11
☒	Validation Kits	SPEAG	D5GHzV2	1165	2019-12-20	2022-12-19
☒	Dielectric parameter probes	SPEAG	DAKS-3.5	0005	2021-07-15	2022-07-14
☒	Vector Network Analyzer and Vector Reflectometer	SPEAG	DAKS_VNA R140	0140913	2021-07-22	2022-07-21
☒	Universal Radio Communication Tester	R&S	CMW500	111637	2021-09-29	2022-09-28
☒	Radio Communication Analyzer	Anritsu	MT8820C	6201010267	2021-04-01	2022-03-31
☒	RF Bi-Directional	Agilent	86205-60001	MY31400031	NCR	NCR

	Coupler					
☒	Signal Generator	R&S	SMB100A	182393	2021-02-20	2022-02-19
					2022-02-15	2023-02-14
☒	Preamplifier	Qiji	YX28980933	202104001	NCR	NCR
☒	Power Meter	Aglient	E4419B	6843318103	2021-06-08	2022-06-07
☒	Power Sensor	Aglient	E9301A	MY41496508	2021-09-09	2022-09-08
☒	Power Sensor	Aglient	E9301H	MY41495605	2021-06-08	2022-06-07
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
☒	Coaxial low pass filter	Mini-Circuits	VLF-2500(+)	NA	NCR	NCR
☒	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
☒	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
☒	Speed reading thermometer	LKM	DTM3000	SUW201-30-01	2021-10-09	2022-10-08
☒	Humidity and Temperature Indicator	MingGao	MingGao	NA	2021-06-16	2022-06-15

Note: All the equipments are within the valid period when the tests are performed.

10 Calibration certificate

Please see the Appendix C

11 Photographs

Please see the Appendix D

Appendix A: Detailed System Check Results

Appendix B: Detailed Test Results

Appendix C: Calibration certificate

Appendix D: Photographs

Appendix E: DUT Antenna Locations

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