FCC SAR TEST REPORT

Report No:	ZR/2020/40002
Applicant:	vivo Mobile Communication Co., Ltd.
Manufacturer:	vivo Mobile Communication Co., Ltd.
Product Name:	Mobile Phone
Model No.(EUT):	vivo 1938
Trade Mark:	vivo
FCC ID:	2AUCY-V1938
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2020-04-22
Date of Test:	2020-05-06 to 2020-05-15
Date of Issue:	2020-05-18
Test conclusion:	**PASS ***

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

Authorized Signature:

Derek Yang

Derek Yang

Wireless Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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REVISION HISTORY

Report Number	Revision	Description	Issue Date
ZR/2020/4000207	01	Original	2020-05-18

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TEST SUMMARY

Frequency Band	Max Reported SARg(W/kg)			
	Head	Body worn	Hotspot	Product specific 10g SAR
GSM850	**1.18**	0.17	0.41	/
GSM1900	0.06	0.25	0.87	/
CDMA BC0	1.13	0.18	0.22	/
WCDMA Band II	0.87	**0.65**	**0.89**	1.90
WCDMA Band IV	0.86	0.41	0.80	2.11
WCDMA Band V	0.71	0.16	0.21	/
LTE Band 2	0.91	0.64	0.84	1.94
LTE Band 4	0.86	0.45	0.70	1.95
LTE Band 5	0.98	0.16	0.24	/
LTE Band 7	1.01	0.52	0.65	2.36
LTE Band 38	1.02	0.56	0.63	2.10
LTE Band 41	0.78	0.50	0.55	**2.46**
WI-FI (2.4GHz)	0.66	0.20	0.81	/
WI-FI (5GHz)	0.27	0.06	0.10	0.20
BT	0.17	/	/	/
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	1.33	0.85	1.38	2.62
SPLSR	N/A	N/A	N/A	N/A
SPLSR Limited	0.04			0.1

Approved & Released by

Simon Ling

SAR Manager

Tested by

Jackson Li

SAR Engineer

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1 General Information

1.1 Details of Client

Applicant:	vivo Mobile Communication Co., Ltd.
Address:	#283,BBK Road,Wusha,Chang'An，DongGuan City，China
Manufacturer:	vivo Mobile Communication Co., Ltd.
Address:	#283,BBK Road,Wusha,Chang'An，DongGuan City，China

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab
Address:	No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
Post code:	518057
Telephone:	+86 (0) 755 2601 2053
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1.3 Test Facility

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

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

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• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• Industry Canada (IC)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006

IC#: 4620C.

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1.4 General Description of EUT

Product Name:	Mobile Phone		
Model No.(EUT):	vivo 1938		
Trade Mark:	vivo		
FCC ID:	2AUCY-V1938		
Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
Product Phase:	Identical Prototype		
SN:	868834040000010/867565049997954/868834040000026		
Hardware Version:	MP_0.1		
Software Version:	PD1987F_EX_A_2.7.1		
Antenna Type:	Inner Antenna		
Device Operating Configurations :			
Modulation Mode:	**GSM:** GMSK, 8PSK; **WCDMA:** QPSK; **LTE:** QPSK,16QAM,64QAM **WIFI:** DSSS, OFDM; **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
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3,tested with power control Max Power(CDMA BC0)		
	3, tested with power control “all 1”(WCDMA Band II/IV/V)		
	3, tested with power control Max Power(LTE Band 2/4/5/7/38)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	CDMA BC0	824~849	869~894
	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 38	2570~2620	2570~2620
	LTE Band 41	2535-2655	2535-2655
	Bluetooth	2400~2483.5	2400~2483.5
	Wi-Fi 2.4G	2412~2462	2412~2462
	Wi-Fi 5G	5150~5250	5150~5250
		5250~5350	5250~5350
		5470~5725	5470~5725
		5725~5850	5725~5850

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Battery Information:	Model:	B-M3
	Normal Voltage:	+3.87V
	Rated capacity:	4880mAh
	Manufacturer:	Sunwoda Electronic CO., LTD.
Headset Information:	Model:	XE160
	Manufacturer:	vivo Communication technology Co., Ltd

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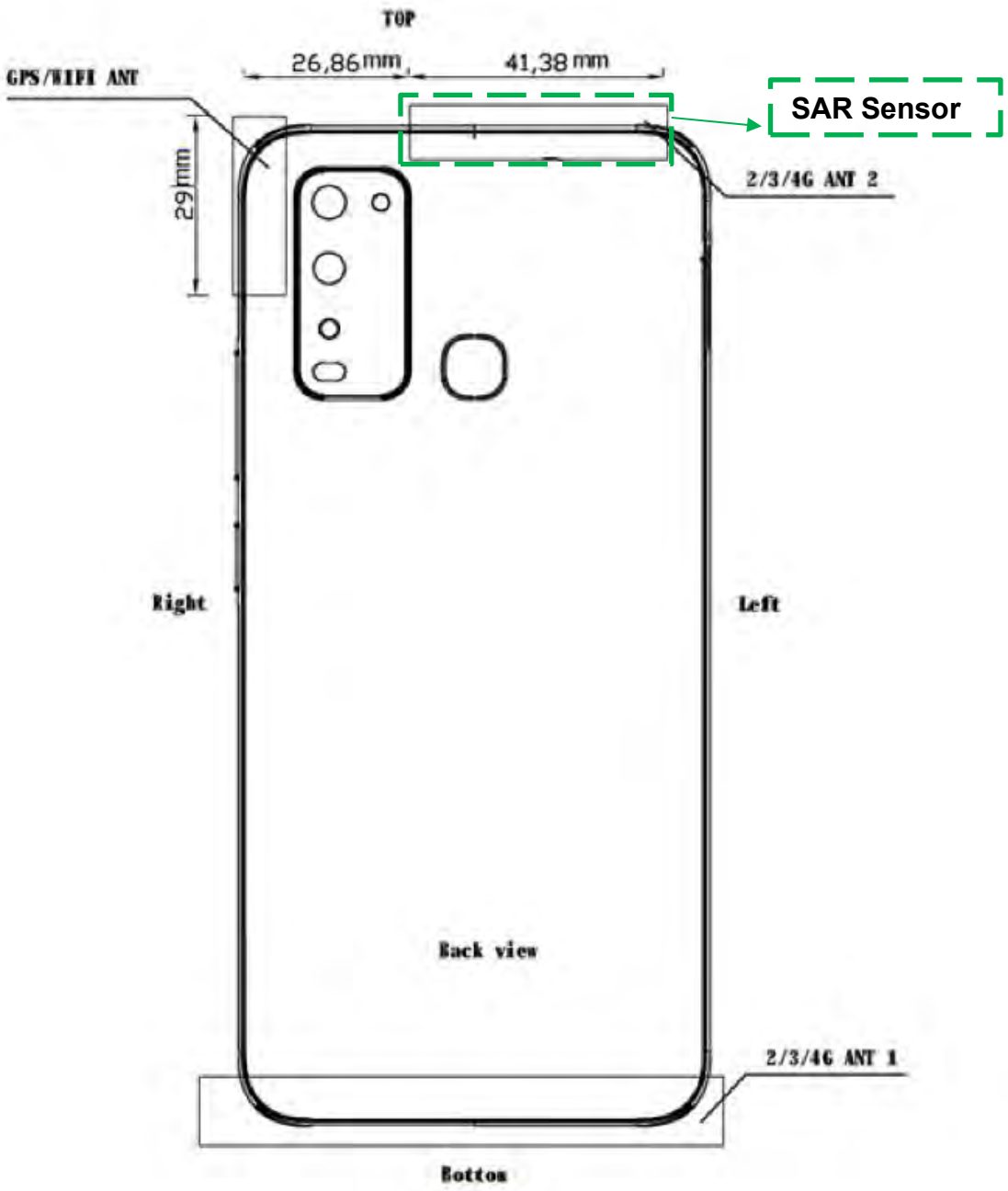
1.4.1 DUT Antenna Locations



Note:
1) SAR Proximity sensor location is same as Ant2.
2) Ant1: GSM850/1900, CDMA BC0, WCDMA Band II/IV/V, LTE Band 2/4/5/7/38/41;
   Ant2: GSM850, CDMA BC0, WCDMA Band II/IV/V, LTE Band 2/4/5/7/38/41;
3) The test device is a smart phone. The overall diagonal dimension of this device is 173 mm. Per KDB 648474 D04, because the diagonal distance of this device is ≥160mm, so it is a phablet.

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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
Ant1	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	Yes	No	Yes
Ant2	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
WIFI 2.4G/BT	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.

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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 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.

2) The proximity sensor is used to indicate when the device is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes of Bottom antenna to ensure SAR compliance (Refer to section 5.4 for detailed proximity Sensor information and validation data per KDB 616217).

3) A fixed level power reduction is applied for some frequency bands when simultaneously transmitting with the other antennas in certain simultaneous transmission conditions. The standalone SAR compliance still uses the standalone SAR results tested at the maximum output power level without any power reduction.

The following tables summarize the key power reduction information. The detailed full power which is the Max. power the state can use and reduced tune-up specifications and conducted power measurement results are provided in Section 8 of this report.

Ant2 Power Level(dBm)								
Power Reduction Scenario	GSM850	WCDMA Band II	WCDMA Band IV	LTE Band 2	LTE Band 4	LTE Band 7	LTE Band 38	LTE Band 41
Sensor off	33.2	24.5	24.5	24.0	24.0	24.0	24.5	24.5
Sensor on	32.7	21.5	21.5	21.0	21.0	21.0	23.5	23.5
Sensor on + WLAN	31.2	18.5	16.5	17.0	16.0	16.0	18.5	18.5

Ant2 Power Level(dBm)											
Power Reduction Scenario	GSM 850	CDMA BC0	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 38	LTE Band 41
Receiver off	33.2	24.5	24.5	24.5	24.5	24.0	24.0	24.5	24.0	24.5	24.5
Receiver on	32.7	23.5	16.5	18.0	23.5	16.0	17.0	23.5	17.0	18.5	18.0
Receiver on + WLAN	31.2	22.5	14.5	16.0	22.5	14.0	15.0	22.5	15.0	16.5	16.0
Receiver off + Hotspot on	31.2	24.5	18.50	16.5	24.5	17.0	16.0	24.5	16.0	18.5	18.5

WiFi Ant Power Level(dBm)			
Power Reduction Scenario	WiFi 2.4G 802.11b	WiFi 2.4G 802.11g	WiFi 2.4G 802.11n 20M
Receiver off	20.0	20.0	20.0
Receiver on	14.0	14.0	14.0

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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 D06	Hotspot Mode SAR v02r01
KDB 248227 D01	SAR Guidance for IEEE 802 11 Wi-Fi SAR v02r02
KDB 648474 D04	Handset SAR v01r03
KDB447498 D01	General RF Exposure Guidance v06
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

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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.)

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2 Laboratory Environment

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

Table 2： The Ambient Conditions

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3 SAR Measurements System Configuration

3.1 The SAR Measurement System

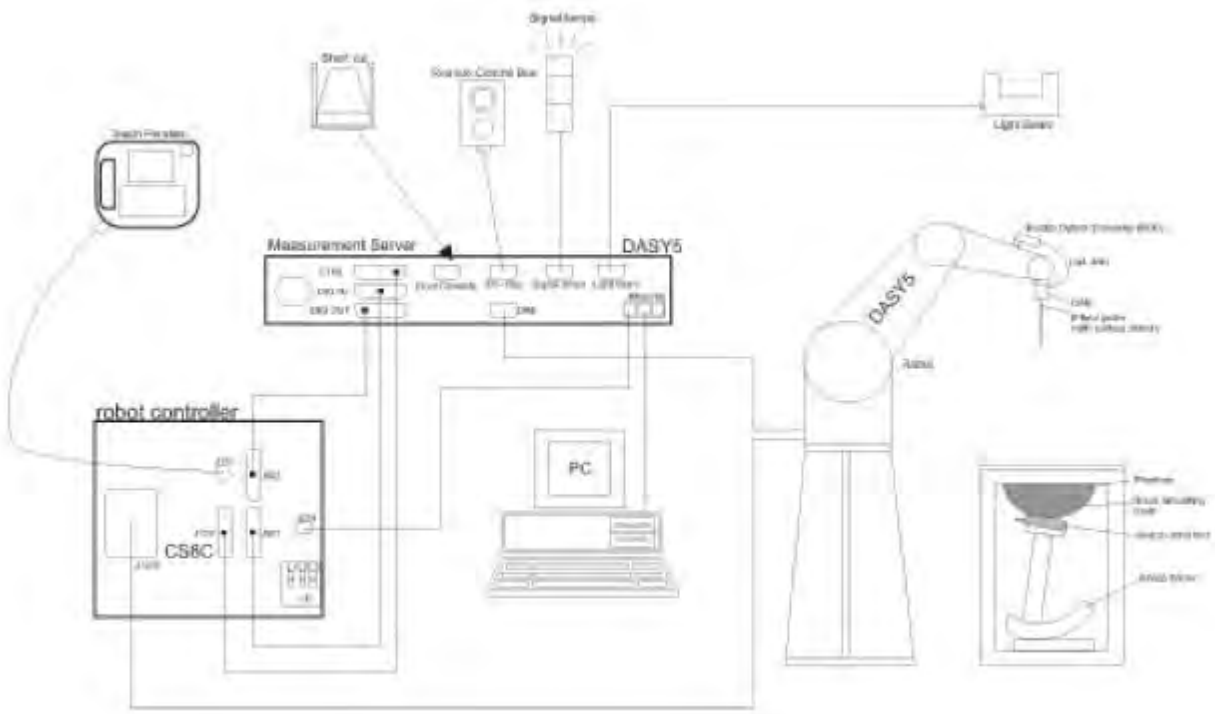
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY5 professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the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

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- 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

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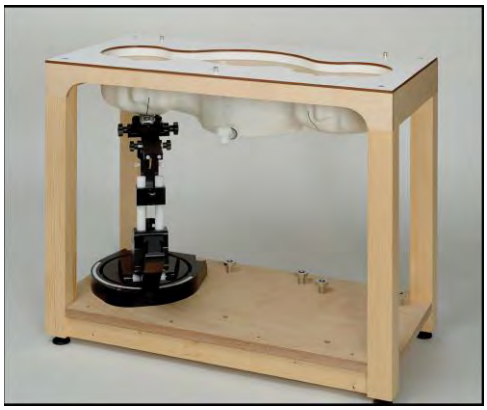
3.3 Data Acquisition Electronics (DAE)

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.

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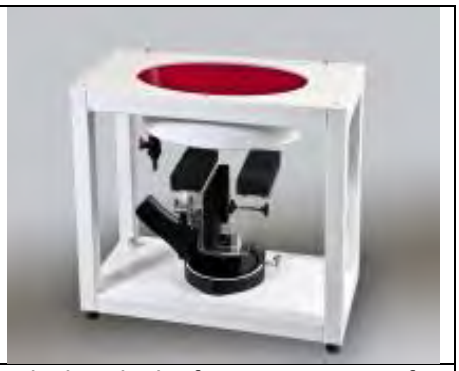
3.5 ELI Phantom

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.

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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.

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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.

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			≤ 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 %

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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:

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

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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.

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

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

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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.

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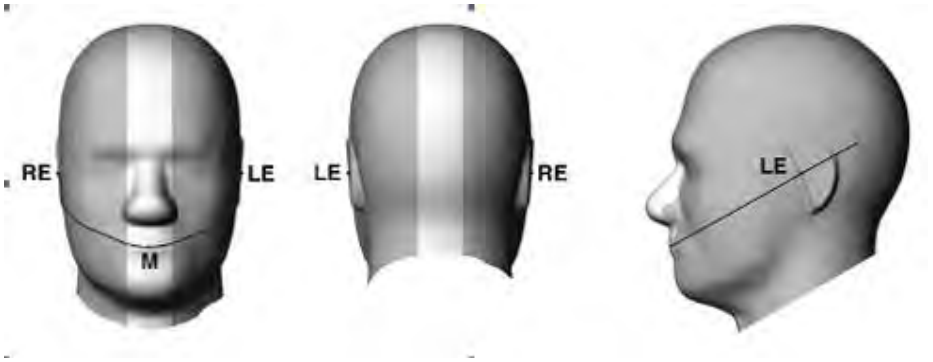
5 Description of Test Position

5.1 Head Exposure Condition

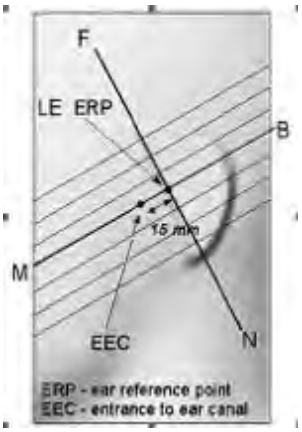
5.1.1 SAM Phantom Shape



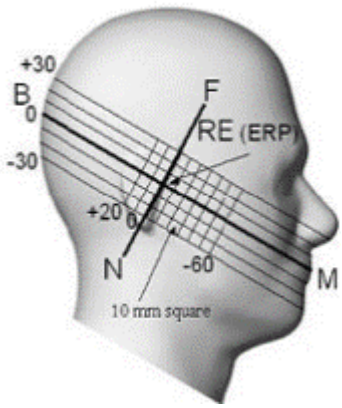
F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

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

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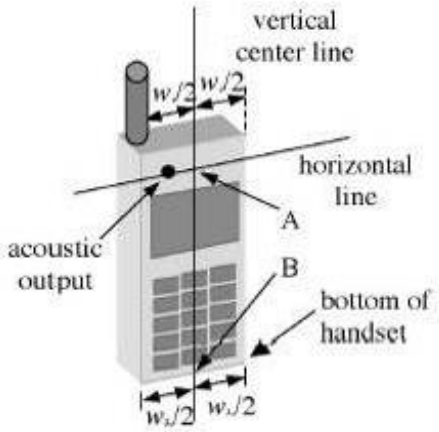
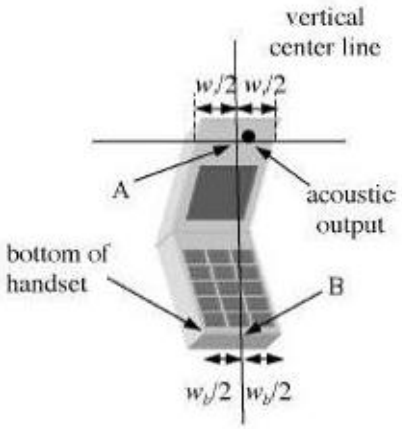
5.1.2 EUT constructions



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.

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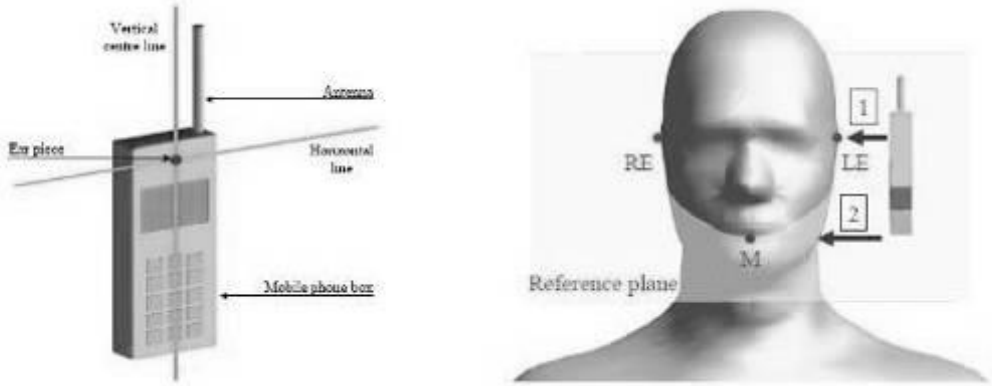
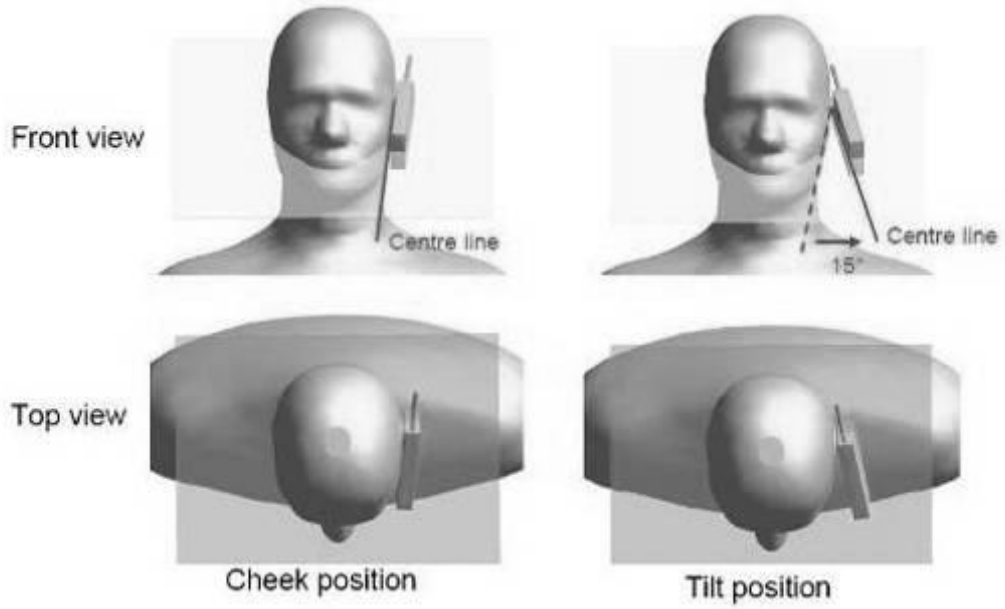
5.1.4 Definition of the "tilted" position

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**

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5.2 Body Exposure Condition

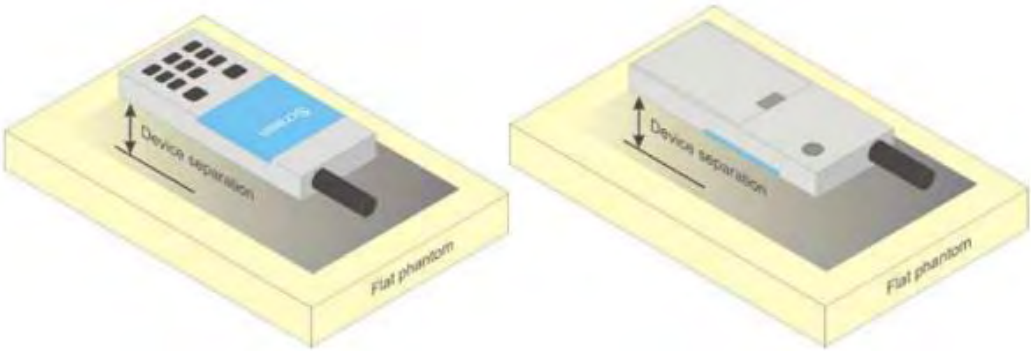
5.2.1 Body-worn accessory exposure conditions

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**

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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 648474D04, 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.

WCDMA Band II Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.205	-0.08	17.46	24.50	5.058	1.037	Yes
Back side	RMC	9400/1880	1:1	0.290	0.03	17.46	24.50	5.058	1.467	No
Left side	RMC	9400/1880	1:1	0.048	0.03	17.46	24.50	5.058	0.243	Yes
Top side	RMC	9400/1880	1:1	0.402	0.10	17.46	24.50	5.058	2.033	No

WCDMA Band IV Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.079	-0.05	15.35	24.50	8.222	0.650	Yes
Back side	RMC	1412/1732.4	1:1	0.100	0.16	15.35	24.50	8.222	0.822	Yes
Left side	RMC	1412/1732.4	1:1	0.047	0.04	15.35	24.50	8.222	0.386	Yes
Top side	RMC	1412/1732.4	1:1	0.147	0.05	15.35	24.50	8.222	1.209	No

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LTE Band 2 Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
	BW.	Modulation	RB Size_ RB offset									
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	19100/1900	1:1	0.164	0.14	16.51	24.00	5.610	0.920	Yes
Back side	20	QPSK	1_50	19100/1900	1:1	0.238	-0.05	16.51	24.00	5.610	1.335	No
Left side	20	QPSK	1_50	19100/1900	1:1	0.031	0.19	16.51	24.00	5.610	0.174	Yes
Top side	20	QPSK	1_50	19100/1900	1:1	0.329	0.05	16.51	24.00	5.610	1.846	No
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	19100/1900	1:1	0.181	0.15	16.69	23.00	4.276	0.774	Yes
Back side	20	QPSK	50_0	19100/1900	1:1	0.251	-0.08	16.69	23.00	4.276	1.073	Yes
Left side	20	QPSK	50_0	19100/1900	1:1	0.028	-0.05	16.69	23.00	4.276	0.120	Yes
Top side	20	QPSK	50_0	19100/1900	1:1	0.365	0.05	16.69	23.00	4.276	1.561	No

LTE Band 4 Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
	BW.	Modulation	RB Size_ RB offset									
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	20300/1745	1:1	0.094	-0.04	15.52	24.00	7.047	0.662	Yes
Back side	20	QPSK	1_50	20300/1745	1:1	0.114	-0.06	15.52	24.00	7.047	0.803	Yes
Left side	20	QPSK	1_50	20300/1745	1:1	0.000	0.01	15.52	24.00	7.047	0.000	Yes
Top side	20	QPSK	1_50	20300/1745	1:1	0.184	-0.04	15.52	24.00	7.047	1.297	No
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	20175/1732.5	1:1	0.084	0.10	15.62	23.00	5.470	0.459	Yes
Back side	20	QPSK	50_0	20175/1732.5	1:1	0.103	-0.19	15.62	23.00	5.470	0.563	Yes
Left side	20	QPSK	50_0	20175/1732.5	1:1	0.000	0.10	15.62	23.00	5.470	0.000	Yes
Top side	20	QPSK	50_0	20175/1732.5	1:1	0.150	-0.01	15.62	23.00	5.470	0.821	Yes

LTE Band 7 Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
	BW.	Modulation	RB Size_ RB offset									
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	21100/2535	1:1	0.089	0.00	15.73	24.00	6.714	0.598	Yes
Back side	20	QPSK	1_50	21100/2535	1:1	0.187	0.19	15.73	24.00	6.714	1.256	No
Left side	20	QPSK	1_50	21100/2535	1:1	0.034	-0.12	15.73	24.00	6.714	0.228	Yes
Top side	20	QPSK	1_50	21100/2535	1:1	0.312	0.08	15.73	24.00	6.714	2.095	No
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	21350/2560	1:1	0.111	0.07	15.71	23.00	5.358	0.595	Yes
Back side	20	QPSK	50_50	21350/2560	1:1	0.230	-0.12	15.71	23.00	5.358	1.232	No
Left side	20	QPSK	50_50	21350/2560	1:1	0.034	-0.10	15.71	23.00	5.358	0.182	Yes
Top side	20	QPSK	50_50	21350/2560	1:1	0.444	-0.01	15.71	23.00	5.358	2.379	No

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LTE Band 38 Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
	BW.	Modulation	RB Size_ RB offset									
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	37850/2580	1:1.58	0.084	0.09	17.94	24.50	4.529	0.380	Yes
Back side	20	QPSK	1_50	37850/2580	1:1.58	0.174	0.07	17.94	24.50	4.529	0.788	Yes
Left side	20	QPSK	1_50	37850/2580	1:1.58	0.032	0.08	17.94	24.50	4.529	0.145	Yes
Top side	20	QPSK	1_50	37850/2580	1:1.58	0.392	0.14	17.94	24.50	4.529	1.775	No
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	38150/2610	1:1.58	0.088	-0.05	17.94	23.50	3.597	0.317	Yes
Back side	20	QPSK	50_50	38150/2610	1:1.58	0.183	-0.09	17.94	23.50	3.597	0.658	Yes
Left side	20	QPSK	50_50	38150/2610	1:1.58	0.035	0.07	17.94	23.50	3.597	0.126	Yes
Top side	20	QPSK	50_50	38150/2610	1:1.58	0.550	0.02	17.94	23.50	3.597	1.979	No

LTE Band 41 Ant2:

Ant 2 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)	Product Specific 10-g SAR SAR Exclusion
	BW.	Modulation	RB Size_ RB offset									
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	40473/2578.3	1:1.58	0.077	0.05	18.01	24.50	4.457	0.343	Yes
Back side	20	QPSK	1_50	40473/2578.3	1:1.58	0.178	0.16	18.01	24.50	4.457	0.793	Yes
Left side	20	QPSK	1_50	40473/2578.3	1:1.58	0.031	0.11	18.01	24.50	4.457	0.138	Yes
Top side	20	QPSK	1_50	40473/2578.3	1:1.58	0.489	0.03	18.01	24.50	4.457	2.179	No
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	40140/2545	1:1.58	0.071	-0.12	18.01	23.50	3.540	0.251	Yes
Back side	20	QPSK	50_50	40140/2545	1:1.58	0.164	-0.09	18.01	23.50	3.540	0.581	Yes
Left side	20	QPSK	50_50	40140/2545	1:1.58	0.040	0.11	18.01	23.50	3.540	0.142	Yes
Top side	20	QPSK	50_50	40140/2545	1:1.58	0.340	-0.06	18.01	23.50	3.540	1.204	No

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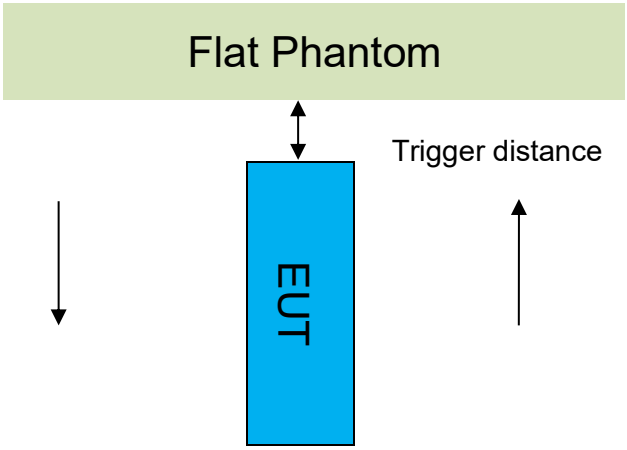
5.4 Proximity Sensor Triggering Test

1) Proximity sensor triggering distances：

The Proximity sensor triggering was applied to GSM850, WCDMA Band II/IV, LTE Band 2/4/7/38/41 with Second Antenna(Ant2). Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.



	Proximity Sensor Triggering Distance(mm)		
Position	Front side	Back side	Top side
Minimum	6	6	6
Required SAR Test	5	5	5

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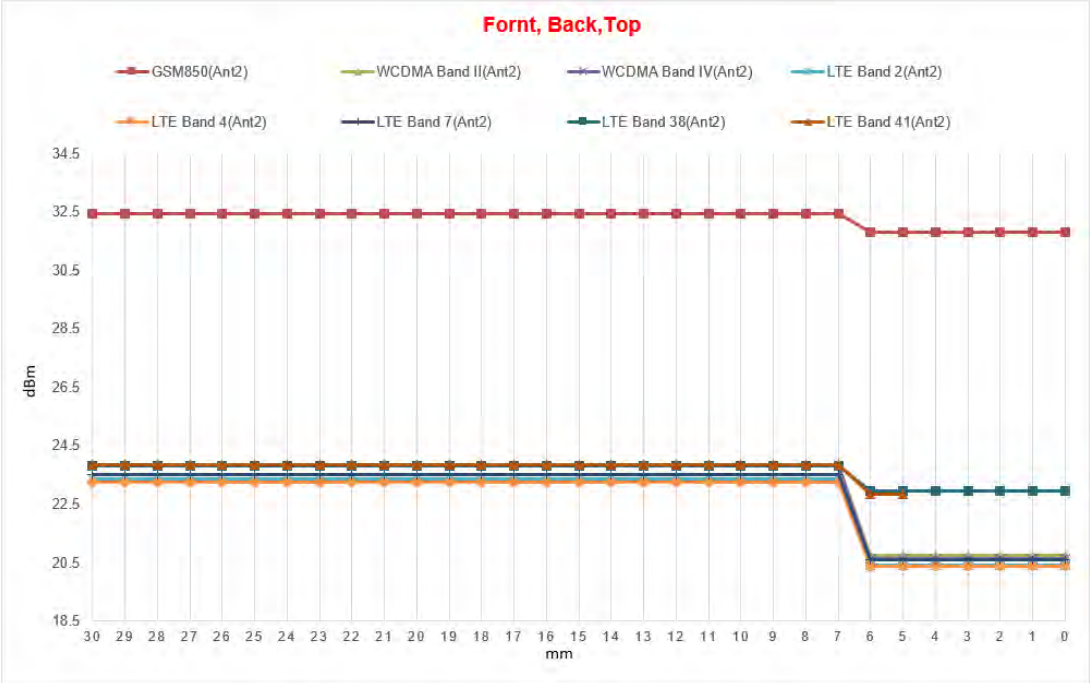
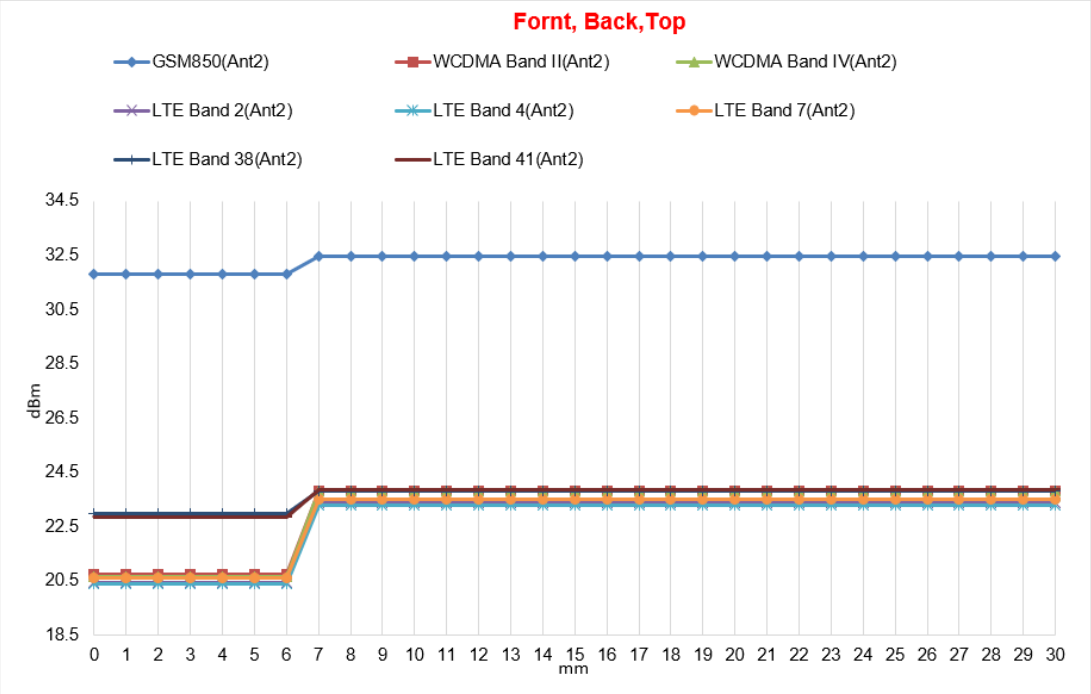
- DUT Moving Toward(Trigger)the Phantom



- DUT Moving Away(Release) from the Phantom



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2) Proximity sensor coverage

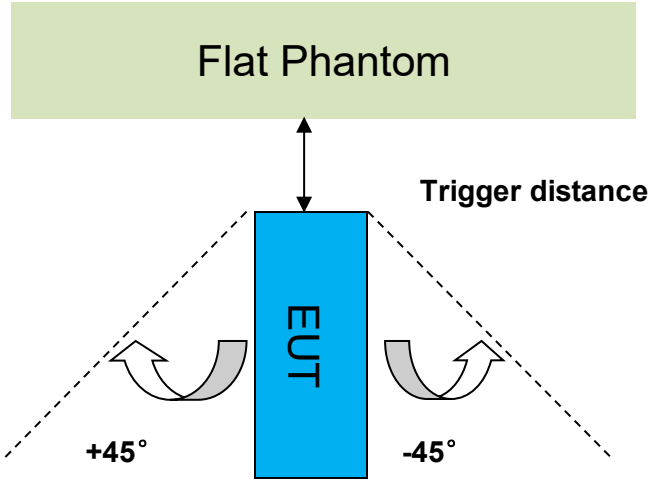
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

The proximity sensor and main antenna use same metallic electrode, so there is no spatial offset.

3) Device tilt angle influences to proximity sensor triggering

The influence of device tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 6mm separation.

Rotating the tablet around the edge next to the phantom in ≤ 10° increments until the tablet is ± 45° from the vertical position at 0°, and the maximum output power remains in the reduced mode.



Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering													
Band (MHz)	Minimum trigger distance Per KDB616217§6.2	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
GSM850 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA Band II (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA Band IV (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
LTE Band 2 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
LTE Band 4 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
LTE Band 7 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
LTE Band 38 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on
LTE Band 41 (Ant 2)	Top side:6mm	Top side:6mm	on	on	on	on	on	on	on	on	on	on	on

SAR test plan:
For front/back/top side, the worst trigger distance of proximity sensor is 6mm, thus we test front/back/top side SAR in 10mm or 15mm without power reduction and 0mm with power reduction.

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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

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6.1.2 Measurement for Tissue Simulate Liquid

The dielectric properties for this Tissue Simulate Liquids were measured by using the Agilent Model 85070E Dielectric Probe in conjunction with Agilent E5071C Network Analyzer (300 KHz-8500 MHz). 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)	(℃)	
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	43.127	0.888	22.1	2020/5/7
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	40.849	0.886	22.1	2020/5/9
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.949	1.347	22.2	2020/5/8
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	39.920	1.431	22.3	2020/5/9
2450 Head	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.177	1.803	22.0	2020/5/13
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	40.375	1.980	22.1	2020/5/6
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	39.389	1.993	22.1	2020/5/12
5250Head	5250	35.9 (34.11~37.70)	4.71 (4.47~4.95)	35.725	4.716	22.2	2020/5/15
5600 Head	5600	35.5 (33.73~37.28)	5.07 (4.82~5.32)	34.858	5.099	22.2	2020/5/15
5750 Head	5750	35.4 (33.63~37.17)	5.22 (4.96~5.48)	34.677	5.293	22.2	2020/5/15

Table 4： Measurement result of Tissue electric parameters

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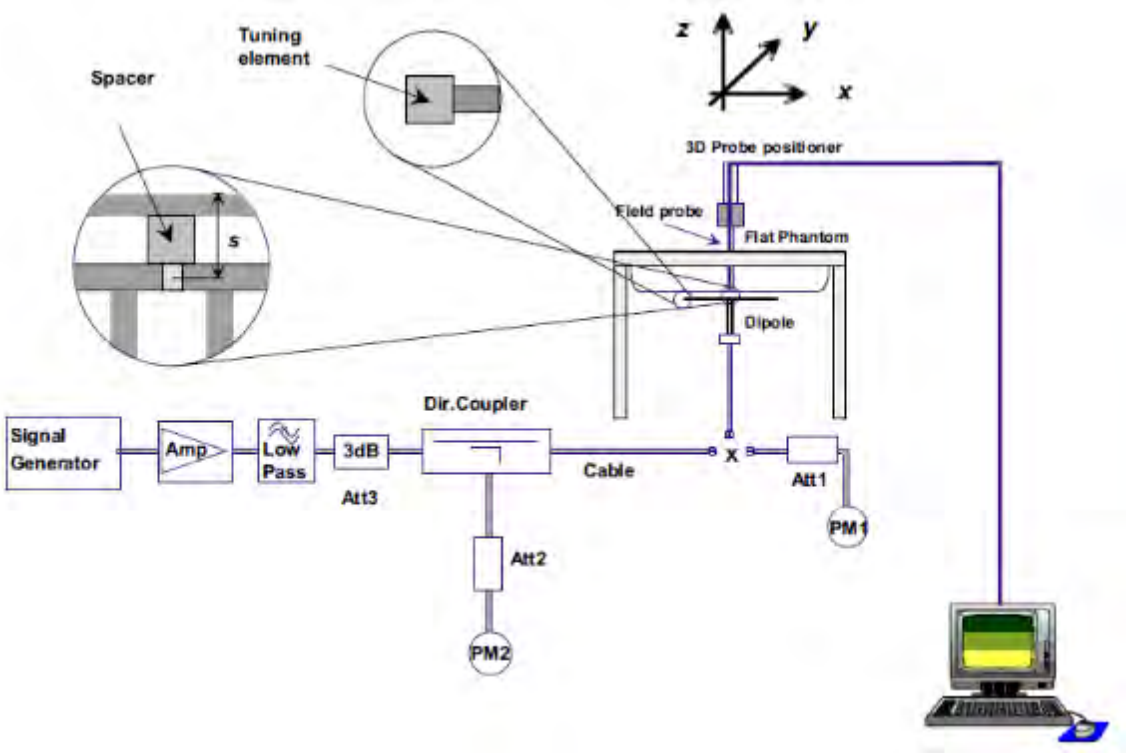
6.2 SAR System Check

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

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6.2.1 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)		
D835V2	Head	2.43	1.56	9.72	6.24	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2020/5/7
D835V2	Head	2.48	1.62	9.92	6.48	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2020/5/9
D1750V2	Head	9.71	5.08	38.84	20.32	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2020/5/8
D1900V2	Head	10.57	5.47	42.28	21.88	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2020/5/9
D2450V2	Head	13.00	6.08	52.00	24.32	51.9 (46.71~57.09)	23.8 (21.42~26.18)	22.0	2020/5/13
D2600V2	Head	14.00	6.19	56.00	24.76	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2020/5/6
D2600V2	Head	14.10	6.28	56.40	25.12	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2020/5/12
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 (5.25GHz)	6.88	2.01	68.80	20.10	75.2 (67.68~82.72)	21.5 (19.35~23.65)	22.2	2020/5/15
	Head (5.6GHz)	7.51	2.12	75.10	21.20	80 (72~88)	22.7 (20.43~24.97)	22.2	2020/5/15
	Head (5.75GHz)	7.74	2.21	77.40	22.10	78.7 (70.83~86.57)	22.3 (20.07~24.53)	22.2	2020/5/15

Table 5： SAR System Check Result

6.2.2 Detailed System Check Results

Please see the Appendix A

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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 CMU200 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 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5. The EGPRS class is 12 for this EUT, it has at most 4 timeslots in uplink, and at most 4 timeslots in downlink, the maximum total timeslot is 5.

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

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7.2.2 CDMA Test Configuration

1）. 1x RTT Handsets

The following procedures apply to CDMA 2000 Release 0 and Release A single carrier (1x RTT) handsets operating with Mobile Protocol Revision 6 or 7 (MOB_P_REV 6 or 7). The default test configuration is to measure SAR in RC3 with an established radio link between the handset and a communication test set. SAR in RC1 is selectively confirmed according to the 3G SAR test reduction procedure with RC3 as the primary mode. The forward and reverse links are configured with the same RC for SAR measurement. Maximum output power is verified by applying the procedures defined in 3GPP2 C. S0011 and TIA-98-E. SAR must be measured according to these maximum output conditions and requirements in KDB Publication 447498 D01.

2）. Output Power Verification

Maximum output power is verified on the high, middle and low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. Results for at least steps 3, 4 and 10 of the power measurement procedures are required in the SAR report. Steps 3 and 4 are measured using Loopback Service Option SO55 with power control bits in “All Up” condition. TDSO/SO32 may be used instead of SO55 for step 4. Step 10 is measured using TDSO/SO32 with power control bits in the “Bits Hold” condition (i.e. alternative Up/Down Bits). All power measurements defined in C.S0011/TIA-98-E that are inapplicable to the handset or cannot be measured due to technical or equipment limitations must be clearly identified in the test report.

3）. Head SAR

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

4）. Body-Worn Accessory SAR

Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 D01 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

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5）. Handsets with built-in Ev-Do

For handsets with Ev-Do capabilities, the 3G SAR test reduction procedure is applied to Ev-Do Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

The 3G SAR test reduction procedure is applied separately to Rev. A and Rev. B, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode. Otherwise, SAR is required for Rev. A or Rev. B, with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 and 3 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or RC3, as appropriate.

A Forward Traffic Channel data rate corresponding to the 2-slot version of 307.2 kbps with ACK Channel transmitting in all slots is configured in the downlink for Rev. 0, Rev. A and Rev. B

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7.2.3 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.

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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

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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) <u>HSUPA</u>

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.

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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

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7.2.4 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.

7.2.4.1 Duty cycle

1) Wi-Fi 2.4GHz 802.11b:

Duty cycle=(19.01-10.69)/(19.1-10.69)=98.93%

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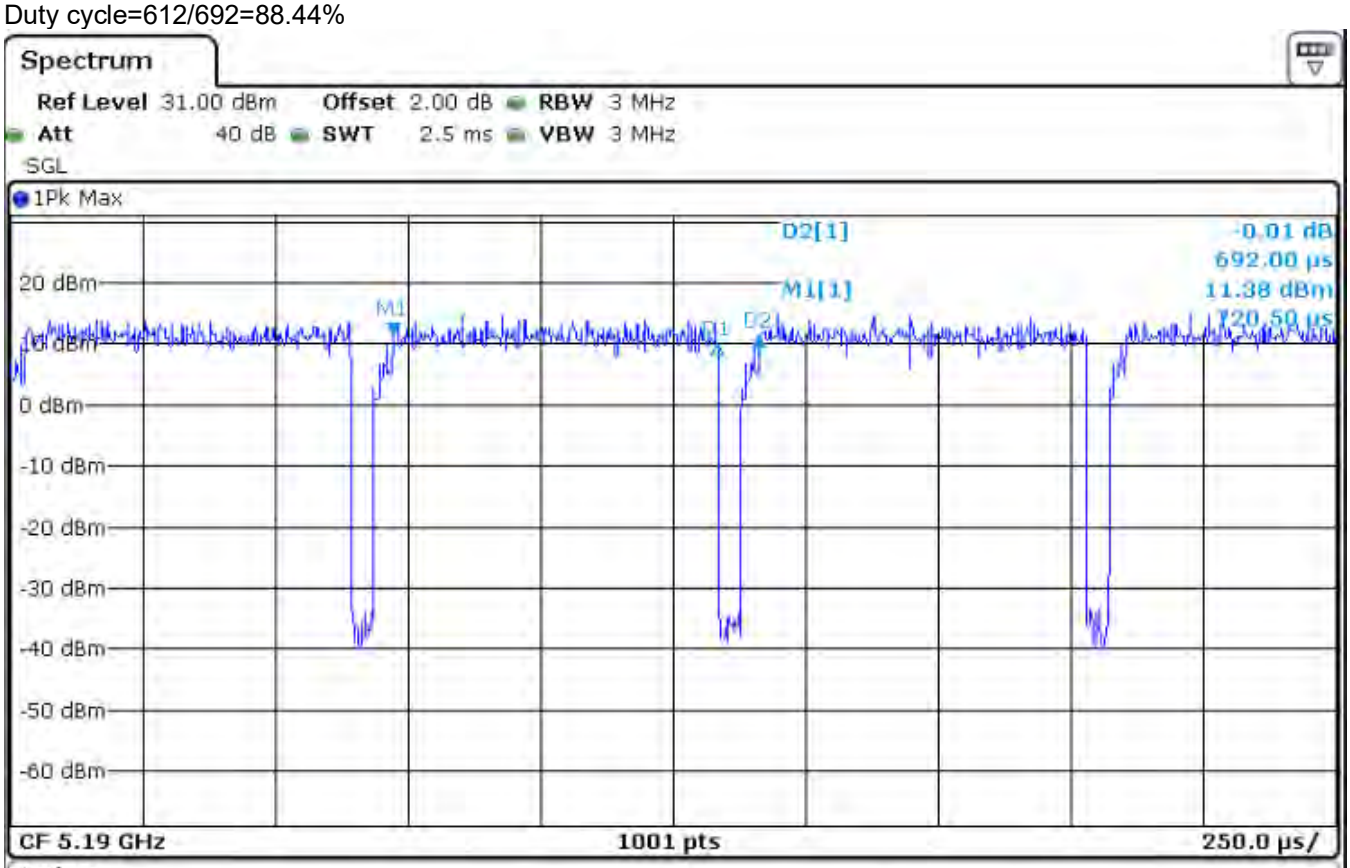
2) Wi-Fi 5GHz 802.11n 40M:
Duty cycle=612/692=88.44%



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	720.5 µs	11.38 dBm		
D1	M1	1	612.0 µs	-1.16 dB		
D2	M1	1	692.0 µs	-0.01 dB		

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7.2.4.2 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.

7.2.4.3 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.

7.2.4.4 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.

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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”

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7.2.4.5 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.

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7.2.4.6 5 GHz WiFi SAR Procedures

- **U-NII-1 and U-NII-2A Bands**
  For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following：

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.
2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR.
3) The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is > 1.2 W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channel is operating at a reduced maximum power and also qualifies for SAR test exclusion.

- **U-NII-2C and U-NII-3 Bands**
  The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. when Terminal Doppler Weather Radar (TDWR) restriction applies, all channels that operate at 5.60 – 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.

  When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels. When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

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- **OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements**
  The initial test configuration for 5 GHz OFDM transmission modes is determined by the 802.11 configuration with the highest maximum output power specified for production units, including tune-up tolerance, in each standalone and aggregated frequency band. SAR for the initial test configuration is measured using the highest maximum output power channel determined by the default power measurement procedures. When multiple configurations in a frequency band have the same specified maximum output power, the initial test configuration is determined according to the following steps applied sequentially.
  1) The largest channel bandwidth configuration is selected among the multiple configurations with the same specified maximum output power.
  2) If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
  3) If multiple configurations have the same specified maximum output power, largest channel bandwidth and lowest order modulation, the lowest data rate configuration among these configurations is selected.
  4) When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n. After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following. These channel selection procedures apply to both the initial test configuration and subsequent test configuration(s), with respect to the default power measurement procedures or additional power measurements required for further SAR test reduction. The same procedures also apply to subsequent highest output power channel(s) selection.
     a) The channel closest to mid-band frequency is selected for SAR measurement.
     b) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

- **SAR Test Requirements for OFDM configurations**

When SAR measurement is required for 802.11 a/n/ac OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. When the same transmitter and antenna(s) are used for U-NII-1 and U-NII-2A bands, additional SAR test reduction applies. When band gap channels between U-NII-2C band and 5.8 GHz U-NII-3 or §15.247 band are supported, the highest maximum output power transmission mode configuration and maximum output power channel across the bands must be used to determine SAR test reduction, according to the initial test configuration and subsequent test configuration requirements. 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.

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7.2.5 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 MT8821C 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.

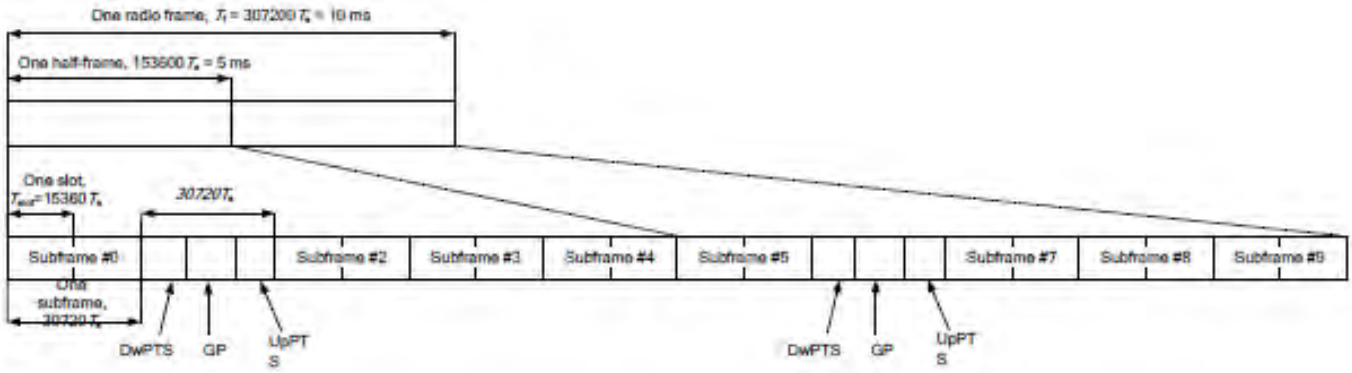
TDD LTE test consideration

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:



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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

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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.

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8 Test Result

8.1 Measurement of RF conducted Power

8.1.1 Conducted Power of Main Antenna(Ant1)

8.1.1.1 Conducted Power of GSM

GSM850										
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	32.71	**32.83**	32.80	33.20	-9.19	23.52	23.64	23.61	24.01
GPRS/EGPRS (GMSK)	1 TX Slot	32.72	32.82	32.80	33.20	-9.19	23.53	23.63	23.61	24.01
	2 TX Slots	32.03	32.17	32.13	33.00	-6.18	25.85	25.99	25.95	26.82
	3 TX Slots	30.25	30.37	30.31	31.00	-4.42	25.83	25.95	25.89	26.58
	4 TX Slots	29.25	**29.33**	29.28	30.00	-3.17	26.08	26.16	26.11	**26.83**
EGPRS(8PSK)	1 TX Slot	27.55	27.66	27.70	28.00	-9.19	18.36	18.47	18.51	18.81
	2 TX Slots	26.34	26.50	26.60	27.00	-6.18	20.16	20.32	20.42	20.82
	3 TX Slots	24.20	24.35	24.42	25.00	-4.42	19.78	19.93	20.00	20.58
	4 TX Slots	23.10	23.25	23.38	24.00	-3.17	19.93	20.08	20.21	20.83
GSM1900										
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	29.87	**29.95**	30.00	30.20	-9.19	20.68	20.76	20.81	21.01
GPRS/EGPRS (GMSK)	1 TX Slot	29.88	29.94	30.02	30.20	-9.19	20.69	20.75	20.83	21.01
	2 TX Slots	29.27	29.35	29.44	30.00	-6.18	23.09	23.17	23.26	23.82
	3 TX Slots	27.63	27.72	27.82	28.00	-4.42	23.21	23.30	23.40	23.58
	4 TX Slots	**26.50**	**26.63**	**26.75**	27.00	-3.17	23.33	23.46	23.58	**23.83**
EGPRS(8PSK)	1 TX Slot	27.10	27.18	27.33	28.00	-9.19	17.91	17.99	18.14	18.81
	2 TX Slots	26.09	26.17	26.30	27.00	-6.18	19.91	19.99	20.12	20.82
	3 TX Slots	24.00	24.01	24.21	25.00	-4.42	19.58	19.59	19.79	20.58
	4 TX Slots	23.00	23.01	23.12	24.00	-3.17	19.83	19.84	19.95	20.83

Table 10：Conducted Power of GSM

Note:

1）. CMU200 measures GSM peak and average output power for active timeslots. For 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

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8.1.1.2 Conducted Power of CDMA

CDMA BC0(850MHz)				
Average Conducted Power(dBm)				
Channel	1013	384	777	Tune up
1XRTT RC3 SO55	24.02	24.05	24.06	24.50
1XRTT RC1 SO55	24.12	24.15	24.09	24.50
1XRTT RC3 SO32 (+ F-SCH)	24.18	24.10	24.12	24.50
1XRTT RC3 SO32 (+ SCH)	24.05	24.05	24.12	24.50
1XEVDO RTAP 153.6Kbps	24.00	24.02	24.05	24.50
1XEVDO RETAP 4096Bits	24.05	24.10	24.10	24.50

Table 11：Conducted Power of CDMA

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8.1.1.3 Conducted Power of WCDMA

WCDMA Band II					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	**24.12**	**24.25**	**24.16**	24.50
	12.2kbps AMR	24.11	24.05	24.11	24.50
HSDPA	Subtest 1	22.63	22.77	22.69	23.50
	Subtest 2	22.61	22.73	22.65	23.50
	Subtest 3	22.13	22.22	22.12	23.00
	Subtest 4	22.19	22.19	22.13	23.00
HSUPA	Subtest 1	20.63	20.68	20.62	21.50
	Subtest 2	20.66	20.73	20.65	21.50
	Subtest 3	21.59	21.63	21.60	22.50
	Subtest 4	20.15	20.19	20.17	21.00
	Subtest 5	21.63	21.70	21.68	22.50
WCDMA Band IV sensor on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	**23.77**	**23.93**	**23.86**	24.50
	12.2kbps AMR	23.72	23.87	23.82	24.50
HSDPA	Subtest 1	22.32	22.47	22.50	23.50
	Subtest 2	22.28	22.45	22.46	23.50
	Subtest 3	21.89	22.03	22.01	23.00
	Subtest 4	21.84	21.88	21.95	23.00
HSUPA	Subtest 1	20.31	20.48	20.52	21.50
	Subtest 2	20.35	20.47	20.54	21.50
	Subtest 3	21.32	21.41	21.49	22.50
	Subtest 4	19.81	20.03	20.00	21.00
	Subtest 5	21.39	21.48	21.56	22.50
WCDMA Band V					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	24.27	**24.28**	24.20	24.50
	12.2kbps AMR	24.20	24.18	24.11	24.50
HSDPA	Subtest 1	22.83	22.84	22.82	23.50
	Subtest 2	22.77	22.79	22.76	23.50
	Subtest 3	22.29	22.29	22.30	23.00
	Subtest 4	22.28	22.27	22.31	23.00
HSUPA	Subtest 1	21.23	21.30	20.77	21.50
	Subtest 2	20.70	20.78	20.75	21.50
	Subtest 3	20.73	21.77	21.78	22.50
	Subtest 4	20.23	20.39	20.31	21.00
	Subtest 5	21.80	21.80	21.86	22.50

Table 12：Conducted Power of WCDMA

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.

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8.1.1.4 Conducted Power of LTE

LTE Band 2				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	23.67	23.55	23.56	24.00
		1	2	23.78	23.85	23.52	24.00
		1	5	23.61	23.70	23.47	24.00
		3	0	23.79	23.79	23.71	24.00
		3	2	23.70	23.72	23.68	24.00
		3	3	23.85	23.74	23.63	24.00
		6	0	22.71	22.92	22.69	23.00
	16QAM	1	0	22.70	22.75	22.81	23.00
		1	2	22.86	22.97	22.90	23.00
		1	5	22.90	22.75	22.61	23.00
		3	0	22.65	22.79	22.71	23.00
		3	2	22.67	22.94	22.69	23.00
		3	3	22.70	22.70	22.60	23.00
		6	0	21.75	21.91	21.83	22.00
	64QAM	1	0	21.69	21.71	21.80	22.00
		1	2	21.81	21.92	21.85	22.00
		1	5	21.89	21.70	21.57	22.00
		3	0	21.62	21.76	21.72	22.00
		3	2	21.66	21.89	21.68	22.00
		3	3	21.72	21.65	21.56	22.00
		6	0	20.71	20.92	20.85	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	23.63	23.64	23.61	24.00
		1	7	23.64	23.89	23.66	24.00
		1	14	23.52	23.85	23.59	24.00
		8	0	22.69	22.76	22.65	23.00
		8	4	22.84	22.89	22.68	23.00
		8	7	22.77	22.74	22.73	23.00
		15	0	22.71	22.87	22.78	23.00
	16QAM	1	0	22.92	22.92	22.84	23.00
		1	7	22.91	22.90	22.86	23.00
		1	14	22.71	22.85	22.91	23.00
		8	0	21.78	21.88	21.84	22.00
		8	4	21.73	21.87	21.69	22.00
		8	7	21.71	21.72	21.71	22.00
		15	0	21.65	21.89	21.70	22.00
	64QAM	1	0	21.94	21.90	21.79	22.00
		1	7	21.93	21.86	21.90	22.00
		1	14	21.73	21.80	21.91	22.00
		8	0	20.72	20.87	20.87	21.00
		8	4	20.72	20.87	20.66	21.00
		8	7	20.67	20.71	20.73	21.00
		15	0	20.65	20.88	20.67	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	23.55	23.57	23.54	24.00
		1	13	23.81	23.69	23.63	24.00
		1	24	23.53	23.65	23.50	24.00
		12	0	22.68	22.81	22.73	23.00
		12	6	22.81	22.86	22.78	23.00
		12	13	22.62	22.66	22.60	23.00
		25	0	22.72	22.82	22.65	23.00
	16QAM	1	0	22.26	22.94	22.71	23.00
		1	13	22.16	22.95	22.95	23.00
		1	24	22.65	22.69	22.81	23.00
		12	0	21.64	21.80	21.72	22.00
		12	6	21.68	21.89	21.80	22.00
		12	13	21.56	21.78	21.67	22.00
		25	0	21.76	21.84	21.69	22.00

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	64QAM	1	0	21.21	21.98	21.74	22.00
		1	13	21.16	21.94	21.97	22.00
		1	24	21.63	21.69	21.76	22.00
		12	0	20.58	20.76	20.69	21.00
		12	6	20.64	20.88	20.80	21.00
		12	13	20.55	20.77	20.67	21.00
		25	0	20.77	20.80	20.69	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	23.65	23.63	23.64	24.00
		1	25	23.67	23.75	23.73	24.00
		1	49	23.68	23.79	23.61	24.00
		25	0	22.77	22.84	22.78	23.00
		25	13	22.86	22.87	22.84	23.00
		25	25	22.77	22.90	22.69	23.00
		50	0	22.83	22.78	22.85	23.00
	16QAM	1	0	22.86	22.71	22.59	23.00
		1	25	22.88	22.93	22.91	23.00
		1	49	22.89	22.81	22.64	23.00
		25	0	21.86	21.80	21.81	22.00
		25	13	21.71	21.88	21.83	22.00
		25	25	21.62	21.95	21.67	22.00
		50	0	21.76	21.86	21.83	22.00
	64QAM	1	0	21.82	21.71	21.59	22.00
		1	25	21.89	21.90	21.91	22.00
		1	49	21.87	21.76	21.59	22.00
		25	0	20.89	20.75	20.80	21.00
		25	13	20.71	20.86	20.83	21.00
		25	25	20.58	20.96	20.62	21.00
		50	0	20.74	20.82	20.80	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	23.67	23.59	23.62	24.00
		1	38	23.69	23.77	23.68	24.00
		1	74	23.57	23.63	23.48	24.00
		36	0	22.87	22.92	22.86	23.00
		36	18	22.79	22.77	22.87	23.00
		36	39	22.74	22.79	22.84	23.00
		75	0	22.92	22.89	22.72	23.00
	16QAM	1	0	22.62	22.59	22.71	23.00
		1	38	22.30	22.60	22.81	23.00
		1	74	22.71	22.87	22.55	23.00
		36	0	21.87	21.83	21.84	22.00
		36	18	21.75	21.72	21.77	22.00
		36	39	21.70	21.77	21.75	22.00
		75	0	21.82	21.75	21.82	22.00
	64QAM	1	0	21.61	21.54	21.69	22.00
		1	38	21.32	21.60	21.83	22.00
		1	74	21.74	21.81	21.57	22.00
		36	0	20.83	20.86	20.84	21.00
		36	18	20.77	20.75	20.81	21.00
		36	39	20.70	20.74	20.70	21.00
		75	0	20.76	20.75	20.84	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	23.35	23.52	23.43	24.00
		1	50	23.54	23.55	23.61	24.00
		1	99	**23.85**	**23.90**	**23.74**	24.00
		50	0	22.86	**22.95**	22.94	23.00
		50	25	22.87	22.90	22.74	23.00
		50	50	22.86	22.86	22.80	23.00
		100	0	**22.93**	22.87	22.78	23.00
	16QAM	1	0	22.40	22.89	22.87	23.00
		1	50	22.82	22.89	22.80	23.00

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		1	99	22.95	22.86	22.23	23.00
		50	0	21.90	21.86	21.97	22.00
		50	25	21.76	21.78	21.92	22.00
		50	50	21.81	21.78	21.76	22.00
		100	0	21.91	21.85	21.91	22.00
	64QAM	1	0	21.54	21.90	21.70	22.00
		1	50	21.93	21.99	21.41	22.00
		1	99	21.90	21.73	21.38	22.00
		50	0	20.96	20.81	20.72	21.00
		50	25	20.77	20.89	20.83	21.00
		50	50	20.90	20.85	20.81	21.00
		100	0	20.88	20.79	20.96	21.00

LTE Band 4				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	23.49	23.47	23.48	24.00
		1	2	23.58	23.54	23.55	24.00
		1	5	23.44	23.43	23.51	24.00
		3	0	23.55	23.54	23.54	24.00
		3	2	23.55	23.54	23.56	24.00
		3	3	23.50	23.57	23.52	24.00
		6	0	22.57	22.45	22.53	23.00
	16QAM	1	0	22.62	22.72	22.89	23.00
		1	2	22.69	22.69	22.55	23.00
		1	5	22.62	22.30	22.61	23.00
		3	0	22.57	22.54	22.60	23.00
		3	2	22.54	22.60	22.48	23.00
		3	3	22.72	22.53	22.62	23.00
		6	0	21.63	21.61	21.75	22.00
	64QAM	1	0	21.56	21.73	21.90	22.00
		1	2	21.68	21.70	21.50	22.00
		1	5	21.64	21.26	21.60	22.00
		3	0	21.59	21.53	21.59	22.00
		3	2	21.53	21.61	21.52	22.00
		3	3	21.72	21.54	21.66	22.00
		6	0	20.61	20.63	20.79	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	23.44	23.54	23.55	24.00
		1	7	23.40	23.58	23.52	24.00
		1	14	23.40	23.49	23.44	24.00
		8	0	22.50	22.51	22.70	23.00
		8	4	22.60	22.56	22.56	23.00
		8	7	22.46	22.59	22.52	23.00
		15	0	22.43	22.64	22.56	23.00
	16QAM	1	0	22.52	22.88	22.83	23.00
		1	7	22.91	22.63	22.89	23.00
		1	14	22.66	22.81	22.92	23.00
		8	0	21.65	21.56	21.66	22.00
		8	4	21.46	21.67	21.60	22.00
		8	7	21.66	21.83	21.67	22.00
		15	0	21.68	21.52	21.65	22.00
	64QAM	1	0	21.48	21.87	21.86	22.00
		1	7	21.94	21.67	21.87	22.00
		1	14	21.69	21.77	21.87	22.00
		8	0	20.61	20.51	20.69	21.00
		8	4	20.47	20.65	20.56	21.00
		8	7	20.68	20.80	20.64	21.00
		15	0	20.64	20.55	20.60	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	23.46	23.46	23.45	24.00

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		1	13	23.34	23.56	23.59	24.00
		1	24	23.45	23.42	23.59	24.00
		12	0	22.46	22.63	22.60	23.00
		12	6	22.48	22.58	22.74	23.00
		12	13	22.56	22.59	22.53	23.00
		25	0	22.48	22.62	22.71	23.00
	16QAM	1	0	22.64	22.45	22.54	23.00
		1	13	22.73	22.63	22.15	23.00
		1	24	22.45	22.40	22.44	23.00
		12	0	21.41	21.60	21.60	22.00
		12	6	21.50	21.51	21.59	22.00
		12	13	21.58	21.55	21.51	22.00
		25	0	21.54	21.69	21.58	22.00
	64QAM	1	0	21.68	21.39	21.56	22.00
		1	13	21.71	21.67	21.19	22.00
		1	24	21.46	21.39	21.46	22.00
		12	0	20.44	20.61	20.60	21.00
		12	6	20.47	20.49	20.61	21.00
		12	13	20.62	20.57	20.52	21.00
		25	0	20.55	20.67	20.60	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	23.55	23.44	23.57	24.00
		1	25	23.47	23.52	23.54	24.00
		1	49	23.46	23.56	23.51	24.00
		25	0	22.48	22.72	22.57	23.00
		25	13	22.49	22.66	22.61	23.00
		25	25	22.71	22.67	22.71	23.00
		50	0	22.58	22.60	22.69	23.00
	16QAM	1	0	22.90	22.51	22.91	23.00
		1	25	22.75	22.91	22.92	23.00
		1	49	22.30	22.96	22.87	23.00
		25	0	21.60	21.65	21.60	22.00
		25	13	21.58	21.64	21.62	22.00
		25	25	21.74	21.67	21.69	22.00
		50	0	21.68	21.65	21.65	22.00
	64QAM	1	0	21.91	21.52	21.91	22.00
		1	25	21.72	21.89	21.95	22.00
		1	49	21.30	21.95	21.86	22.00
		25	0	20.63	20.62	20.63	21.00
		25	13	20.53	20.65	20.66	21.00
		25	25	20.70	20.69	20.71	21.00
		50	0	20.70	20.69	20.64	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	23.42	23.47	23.35	24.00
		1	38	23.48	23.58	23.51	24.00
		1	74	23.45	23.43	23.39	24.00
		36	0	22.53	22.69	22.65	23.00
		36	18	22.63	22.67	22.64	23.00
		36	39	22.65	22.61	22.79	23.00
		75	0	22.49	22.61	22.68	23.00
	16QAM	1	0	22.69	22.96	22.85	23.00
		1	38	22.99	22.56	22.51	23.00
		1	74	22.70	22.95	22.73	23.00
		36	0	21.41	21.68	21.50	22.00
		36	18	21.54	21.55	21.62	22.00
		36	39	21.41	21.58	21.70	22.00
		75	0	21.57	21.71	21.68	22.00
	64QAM	1	0	21.69	21.96	21.80	22.00
		1	38	21.93	21.53	21.48	22.00
		1	74	21.72	21.89	21.75	22.00
		36	0	20.40	20.63	20.45	21.00
		36	18	20.54	20.56	20.65	21.00

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		36	39	20.45	20.52	20.68	21.00
		75	0	20.54	20.70	20.69	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	23.40	23.16	23.25	24.00
		1	50	**23.52**	23.57	**23.57**	24.00
		1	99	23.10	**23.60**	23.35	24.00
		50	0	22.44	22.48	22.54	23.00
		50	25	22.47	22.55	**22.85**	23.00
		50	50	22.57	22.63	22.84	23.00
		100	0	22.45	22.48	22.68	23.00
	16QAM	1	0	22.83	22.82	22.50	23.00
		1	50	22.82	22.96	22.81	23.00
		1	99	22.21	22.12	22.82	23.00
		50	0	21.52	21.47	21.73	22.00
		50	25	21.57	21.55	21.57	22.00
		50	50	21.60	21.58	21.78	22.00
		100	0	21.43	21.45	21.72	22.00
	64QAM	1	0	21.53	21.34	21.34	22.00
		1	50	21.65	21.61	21.56	22.00
		1	99	21.39	21.37	21.47	22.00
		50	0	20.52	20.77	20.74	21.00
		50	25	20.69	20.74	20.73	21.00
		50	50	20.51	20.70	20.70	21.00
		100	0	20.53	20.81	20.81	21.00

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	23.52	23.59	23.44	24.50
		1	2	23.69	23.68	23.70	24.50
		1	5	23.48	23.48	23.68	24.50
		3	0	23.61	23.61	23.65	24.50
		3	2	23.77	23.53	23.76	24.50
		3	3	23.66	23.76	23.59	24.50
		6	0	22.70	22.61	22.71	23.50
	16QAM	1	0	22.93	22.25	22.74	23.50
		1	2	22.36	23.20	22.67	23.50
		1	5	22.83	22.55	22.47	23.50
		3	0	22.68	22.60	22.68	23.50
		3	2	22.63	22.67	22.69	23.50
		3	3	22.62	22.69	22.74	23.50
		6	0	21.78	21.73	21.65	22.50
	64QAM	1	0	21.89	21.25	21.74	22.50
		1	2	21.32	22.16	21.67	22.50
		1	5	21.81	21.58	21.49	22.50
		3	0	21.64	21.56	21.65	22.50
		3	2	21.60	21.68	21.71	22.50
		3	3	21.63	21.68	21.73	22.50
		6	0	20.81	20.72	20.61	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.55	23.66	23.70	24.50
		1	7	23.55	23.63	23.74	24.50
		1	14	23.72	23.65	23.67	24.50
		8	0	22.68	22.63	22.68	23.50
		8	4	22.71	22.81	22.72	23.50
		8	7	22.62	22.76	22.83	23.50
		15	0	22.72	22.73	22.78	23.50
	16QAM	1	0	22.33	22.99	22.55	23.50
		1	7	23.32	23.04	22.60	23.50
		1	14	22.84	22.71	23.09	23.50
		8	0	21.77	21.61	21.68	22.50

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		8	4	21.78	21.62	21.69	22.50
		8	7	21.52	21.61	21.80	22.50
		15	0	21.70	21.73	21.77	22.50
	64QAM	1	0	21.36	22.00	21.52	22.50
		1	7	22.35	22.05	21.62	22.50
		1	14	21.78	21.74	22.13	22.50
		8	0	20.75	20.61	20.67	21.50
		8	4	20.73	20.59	20.71	21.50
		8	7	20.51	20.61	20.79	21.50
		15	0	20.67	20.72	20.80	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	23.57	23.53	23.57	24.50
		1	13	23.62	23.51	23.65	24.50
		1	24	23.44	23.57	23.52	24.50
		12	0	22.62	22.73	22.67	23.50
		12	6	22.71	22.78	22.74	23.50
		12	13	22.62	22.72	22.62	23.50
		25	0	22.61	22.79	22.61	23.50
	16QAM	1	0	22.72	22.94	22.86	23.50
		1	13	22.71	22.33	22.62	23.50
		1	24	23.09	22.54	22.78	23.50
		12	0	21.64	21.75	21.59	22.50
		12	6	21.64	21.64	21.64	22.50
		12	13	21.66	21.66	21.58	22.50
		25	0	21.71	21.70	21.63	22.50
	64QAM	1	0	21.68	21.90	21.88	22.50
		1	13	21.66	21.29	21.66	22.50
		1	24	22.05	21.58	21.76	22.50
		12	0	20.67	20.79	20.63	21.50
		12	6	20.66	20.60	20.63	21.50
		12	13	20.66	20.69	20.58	21.50
		25	0	20.70	20.66	20.61	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	**23.79**	23.64	23.71	24.50
		1	25	23.72	23.71	23.76	24.50
		1	49	23.55	23.59	23.60	24.50
		25	0	**23.03**	22.84	23.02	23.50
		25	13	22.78	22.79	22.78	23.50
		25	25	22.80	22.70	22.83	23.50
		50	0	22.78	22.83	22.84	23.50
	16QAM	1	0	22.44	23.19	22.50	23.50
		1	25	22.97	22.93	22.82	23.50
		1	49	22.76	22.79	22.91	23.50
		25	0	21.79	21.79	21.70	22.50
		25	13	21.87	21.74	21.76	22.50
		25	25	21.79	21.72	21.64	22.50
		50	0	21.73	21.81	21.89	22.50
	64QAM	1	0	21.52	21.89	22.04	22.50
		1	25	21.94	21.59	21.97	22.50
		1	49	21.77	21.96	21.68	22.50
		25	0	20.72	20.86	20.68	21.50
		25	13	20.73	20.86	20.72	21.50
		25	25	20.84	20.83	20.72	21.50
		50	0	20.82	20.79	20.84	21.50

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LTE Band 7				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	23.64	23.12	23.41	24.00
		1	13	23.51	23.33	23.48	24.00
		1	24	23.31	23.16	23.40	24.00
		12	0	22.63	22.40	22.50	23.00
		12	6	22.61	22.48	22.63	23.00
		12	13	22.59	22.40	22.42	23.00
		25	0	22.59	22.33	22.47	23.00
	16QAM	1	0	22.48	22.56	22.61	23.00
		1	13	22.41	22.91	22.49	23.00
		1	24	22.51	22.95	22.52	23.00
		12	0	21.70	21.43	21.49	22.00
		12	6	21.79	21.50	21.60	22.00
		12	13	21.69	21.56	21.35	22.00
		25	0	21.63	21.47	21.53	22.00
	64QAM	1	0	21.45	21.60	21.55	22.00
		1	13	21.42	21.94	21.44	22.00
		1	24	21.45	21.92	21.46	22.00
		12	0	20.68	20.38	20.50	21.00
		12	6	20.78	20.47	20.64	21.00
		12	13	20.72	20.51	20.31	21.00
		25	0	20.63	20.50	20.53	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	23.51	23.46	23.37	24.00
		1	25	23.72	23.73	23.43	24.00
		1	49	23.54	23.22	23.31	24.00
		25	0	22.59	22.45	22.59	23.00
		25	13	22.61	22.41	22.47	23.00
		25	25	22.62	22.45	22.55	23.00
		50	0	22.75	22.52	22.46	23.00
	16QAM	1	0	22.66	22.27	22.51	23.00
		1	25	22.87	22.25	22.53	23.00
		1	49	22.83	22.68	22.33	23.00
		25	0	21.75	21.57	21.67	22.00
		25	13	21.73	21.50	21.62	22.00
		25	25	21.67	21.57	21.56	22.00
		50	0	21.78	21.60	21.59	22.00
	64QAM	1	0	21.63	21.22	21.55	22.00
		1	25	21.84	21.29	21.52	22.00
		1	49	21.77	21.63	21.34	22.00
		25	0	20.76	20.58	20.62	21.00
		25	13	20.72	20.44	20.64	21.00
		25	25	20.68	20.59	20.53	21.00
		50	0	20.79	20.54	20.59	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	23.51	23.27	23.33	24.00
		1	38	23.59	23.29	23.33	24.00
		1	74	23.49	23.17	23.36	24.00
		36	0	22.60	22.38	22.50	23.00
		36	18	22.63	22.36	22.45	23.00
		36	39	22.58	22.42	22.51	23.00
		75	0	22.57	22.43	22.50	23.00
	16QAM	1	0	22.69	22.88	22.83	23.00
		1	38	22.83	22.32	22.81	23.00
		1	74	22.53	22.44	22.54	23.00
		36	0	21.74	21.45	21.50	22.00
		36	18	21.73	21.47	21.48	22.00
		36	39	21.68	21.38	21.44	22.00
		75	0	21.63	21.49	21.56	22.00
	64QAM	1	0	21.73	21.83	21.79	22.00

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		1	38	21.86	21.31	21.82	22.00
		1	74	21.47	21.43	21.58	22.00
		36	0	20.70	20.46	20.53	21.00
		36	18	20.77	20.45	20.42	21.00
		36	39	20.71	20.36	20.45	21.00
		75	0	20.57	20.44	20.55	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	23.33	23.23	23.01	24.00
		1	50	23.75	23.35	23.45	24.00
		1	99	**23.76**	22.99	22.98	24.00
		50	0	22.59	22.51	22.63	23.00
		50	25	**22.64**	22.46	22.37	23.00
		50	50	22.62	22.34	22.35	23.00
		100	0	22.65	22.37	22.40	23.00
	16QAM	1	0	22.87	22.07	22.66	23.00
		1	50	22.99	22.68	22.57	23.00
		1	99	22.32	22.27	22.19	23.00
		50	0	21.68	21.53	21.53	22.00
		50	25	21.64	21.50	21.58	22.00
		50	50	21.72	21.44	21.47	22.00
		100	0	21.68	21.40	21.58	22.00
	64QAM	1	0	21.65	21.42	21.50	22.00
		1	50	21.78	21.89	21.79	22.00
		1	99	21.68	21.40	21.16	22.00
		50	0	20.67	20.53	20.56	21.00
		50	25	20.67	20.55	20.47	21.00
		50	50	20.61	20.51	20.40	21.00
		100	0	20.70	20.54	20.51	21.00

LTE Band 38				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	23.84	23.85	23.75	24.50
		1	13	23.98	23.95	23.82	24.50
		1	24	23.80	23.82	23.62	24.50
		12	0	22.97	22.99	22.81	23.50
		12	6	23.05	22.94	22.88	23.50
		12	13	22.99	22.97	22.90	23.50
		25	0	22.91	23.08	22.88	23.50
	16QAM	1	0	22.91	23.04	22.85	23.50
		1	13	23.01	23.05	22.90	23.50
		1	24	22.89	22.97	22.74	23.50
		12	0	21.93	21.89	21.75	22.50
		12	6	21.92	21.86	21.83	22.50
		12	13	21.86	21.85	21.75	22.50
		25	0	21.91	22.10	21.90	22.50
	64QAM	1	0	21.90	21.98	21.81	22.50
		1	13	22.05	22.01	21.93	22.50
		1	24	21.84	21.95	21.73	22.50
		12	0	20.95	20.91	20.71	21.50
		12	6	20.94	20.88	20.81	21.50
		12	13	20.80	20.83	20.69	21.50
		25	0	20.86	21.09	20.89	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	23.99	24.01	23.97	24.50
		1	25	23.86	23.88	23.82	24.50
		1	49	23.98	23.92	23.81	24.50
		25	0	22.98	23.02	22.90	23.50
		25	13	22.95	22.98	22.90	23.50
		25	25	23.01	22.96	22.94	23.50
		50	0	22.95	23.03	22.88	23.50

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	16QAM	1	0	23.06	23.06	23.01	23.50
		1	25	22.95	22.96	22.91	23.50
		1	49	23.06	22.98	22.87	23.50
		25	0	21.99	22.06	21.97	22.50
		25	13	21.95	21.82	21.83	22.50
		25	25	21.94	21.99	21.88	22.50
		50	0	22.00	22.03	22.01	22.50
	64QAM	1	0	22.05	22.10	21.96	22.50
		1	25	21.95	22.00	21.91	22.50
		1	49	22.05	22.00	21.89	22.50
		25	0	21.02	21.01	20.97	21.50
		25	13	20.95	20.82	20.79	21.50
		25	25	20.96	20.94	20.92	21.50
		50	0	20.94	21.05	20.96	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	23.88	23.94	23.80	24.50
		1	38	23.97	23.98	23.81	24.50
		1	74	23.86	23.82	23.69	24.50
		36	0	22.98	22.99	22.84	23.50
		36	18	22.97	23.00	22.87	23.50
		36	39	22.97	22.91	22.82	23.50
		75	0	22.95	23.01	22.83	23.50
	16QAM	1	0	22.93	22.99	23.01	23.50
		1	38	22.99	23.06	22.95	23.50
		1	74	22.88	22.87	22.71	23.50
		36	0	21.93	21.92	21.87	22.50
		36	18	21.98	21.98	21.81	22.50
		36	39	21.93	21.94	21.85	22.50
		75	0	22.00	22.02	21.87	22.50
	64QAM	1	0	21.95	21.98	22.01	22.50
		1	38	21.96	22.07	21.92	22.50
		1	74	21.84	21.82	21.68	22.50
		36	0	20.96	20.93	20.85	21.50
		36	18	20.97	20.97	20.78	21.50
		36	39	20.97	20.88	20.85	21.50
		75	0	20.99	20.99	20.89	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	23.70	23.80	23.70	24.50
		1	50	**24.03**	24.01	23.88	24.50
		1	99	23.64	23.63	23.51	24.50
		50	0	22.97	**22.98**	22.87	23.50
		50	25	22.87	22.90	22.97	23.50
		50	50	22.91	22.88	22.86	23.50
		100	0	23.02	22.98	22.86	23.50
	16QAM	1	0	22.78	22.86	22.79	23.50
		1	50	23.05	23.04	23.00	23.50
		1	99	22.73	22.66	22.57	23.50
		50	0	21.98	22.03	21.95	22.50
		50	25	21.95	22.03	22.05	22.50
		50	50	22.00	21.96	21.88	22.50
		100	0	21.94	21.99	21.91	22.50
	64QAM	1	0	21.34	21.40	21.39	22.50
		1	50	21.78	21.67	21.68	22.50
		1	99	21.28	21.27	21.14	22.50
		50	0	21.05	21.07	21.02	21.50
		50	25	21.01	21.08	21.00	21.50
		50	50	21.00	20.96	20.93	21.50
		100	0	21.08	20.99	20.99	21.50

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LTE Band 41				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	23.88	23.79	23.72	23.42	24.50
		1	13	23.94	23.91	23.86	23.52	24.50
		1	24	23.88	23.82	23.77	23.43	24.50
		12	0	23.00	22.96	22.87	22.62	23.50
		12	6	23.00	22.06	22.90	22.51	23.50
		12	13	22.97	22.95	22.86	22.57	23.50
		25	0	22.92	22.86	22.80	22.58	23.50
	16QAM	1	0	22.97	22.94	22.79	22.48	23.50
		1	13	23.02	23.00	22.95	22.53	23.50
		1	24	22.92	22.90	22.88	22.50	23.50
		12	0	21.90	21.90	21.67	21.47	22.50
		12	6	21.93	21.88	21.81	21.46	22.50
		12	13	21.89	21.89	21.63	21.42	22.50
		25	0	21.99	21.89	21.85	21.45	22.50
	64QAM	1	0	21.92	21.97	21.81	21.44	22.50
		1	13	22.04	21.95	21.89	21.49	22.50
		1	24	21.94	21.89	21.89	21.50	22.50
		12	0	20.94	20.84	20.63	20.51	21.50
		12	6	20.90	20.86	20.82	20.43	21.50
		12	13	20.85	20.92	20.61	20.46	21.50
		25	0	20.99	20.88	20.82	20.46	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	23.95	23.94	23.95	23.64	24.50
		1	25	23.83	23.87	23.87	23.55	24.50
		1	49	23.91	23.90	23.92	23.52	24.50
		25	0	23.04	22.98	22.98	22.66	23.50
		25	13	23.03	22.96	22.99	22.51	23.50
		25	25	22.95	23.06	22.98	22.58	23.50
		50	0	22.96	22.96	22.97	22.50	23.50
	16QAM	1	0	22.99	23.05	23.03	22.70	23.50
		1	25	22.92	22.93	22.98	22.53	23.50
		1	49	22.92	22.99	23.03	22.59	23.50
		25	0	22.10	21.97	21.97	21.68	22.50
		25	13	22.03	22.06	21.97	21.59	22.50
		25	25	21.99	22.02	21.96	21.63	22.50
		50	0	22.07	21.98	22.06	21.64	22.50
	64QAM	1	0	22.00	22.07	22.02	21.72	22.50
		1	25	21.89	21.93	21.97	21.50	22.50
		1	49	21.92	22.03	21.99	21.53	22.50
		25	0	21.05	20.93	20.96	20.64	21.50
		25	13	21.05	21.04	20.95	20.58	21.50
		25	25	21.02	20.99	20.94	20.57	21.50
		50	0	21.11	20.99	21.02	20.58	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40115	Channel 40465	Channel 40815	Channel 41165	Tune up
15MHz	QPSK	1	0	23.90	23.92	23.88	23.58	24.50
		1	38	23.92	24.01	23.88	23.62	24.50
		1	74	23.75	23.84	23.69	23.44	24.50
		36	0	22.96	23.06	22.87	22.62	23.50
		36	18	22.96	23.05	22.90	22.61	23.50
		36	39	22.96	23.04	22.80	22.58	23.50
		75	0	22.90	22.92	22.84	22.52	23.50
	16QAM	1	0	22.98	22.96	22.90	22.58	23.50
		1	38	22.99	22.98	22.90	22.65	23.50
		1	74	22.82	22.89	22.76	22.48	23.50
		36	0	21.92	21.92	21.84	21.52	22.50
		36	18	21.97	22.00	21.92	21.61	22.50
		36	39	21.86	21.90	21.80	21.57	22.50

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		75	0	22.03	21.96	21.94	21.62	22.50
	64QAM	1	0	22.00	21.93	21.87	21.57	22.50
		1	38	22.03	21.92	21.87	21.66	22.50
		1	74	21.81	21.84	21.70	21.45	22.50
		36	0	20.90	20.95	20.82	20.55	21.50
		36	18	20.95	20.99	20.93	20.56	21.50
		36	39	20.83	20.84	20.79	20.56	21.50
		75	0	21.04	20.91	20.91	20.61	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Tune up
				40140	40473	40807	41140	
20MHz	QPSK	1	0	23.68	23.69	23.73	23.36	24.50
		1	50	24.00	24.01	23.90	23.65	24.50
		1	99	**24.02**	23.61	23.47	23.29	24.50
		50	0	22.87	22.94	22.93	22.54	23.50
		50	25	**22.95**	22.91	22.86	22.54	23.50
		50	50	22.93	22.86	22.76	22.54	23.50
		100	0	22.90	22.94	22.85	22.62	23.50
	16QAM	1	0	22.79	22.78	22.81	22.46	23.50
		1	50	23.11	23.19	23.03	22.66	23.50
		1	99	22.64	22.65	22.51	22.30	23.50
		50	0	22.01	22.06	21.99	21.58	22.50
		50	25	22.02	22.06	21.96	21.60	22.50
		50	50	22.05	21.93	21.93	21.69	22.50
		100	0	22.03	21.92	21.90	21.67	22.50
	64QAM	1	0	21.43	21.36	21.39	21.05	22.50
		1	50	21.71	21.77	21.56	21.25	22.50
		1	99	21.21	21.28	21.16	20.88	22.50
		50	0	21.05	21.13	21.08	20.76	21.50
		50	25	21.08	21.10	20.99	20.71	21.50
		50	50	21.11	21.01	20.88	20.63	21.50
		100	0	21.06	21.10	20.99	20.70	21.50

Table 13：Conducted Power of LTE

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8.1.2 Conducted Power of Second Antenna(Ant2)

8.1.2.1 Conducted Power of GSM

GSM850 Receiver off/Sensor off/Full power										
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	32.29	**32.45**	32.58	33.20	-9.19	23.10	23.26	23.39	24.01
GPRS/ EGPRS (GMSK)	1 TX Slot	32.28	32.47	32.57	33.20	-9.19	23.09	23.28	23.38	24.01
	2 TX Slots	31.71	31.95	31.99	33.00	-6.18	25.53	25.77	25.81	26.82
	3 TX Slots	30.00	30.13	30.23	31.00	-4.42	25.58	25.71	25.81	26.58
	4 TX Slots	29.00	29.13	29.18	30.00	-3.17	25.83	25.96	26.01	**26.83**
EGPRS (8PSK)	1 TX Slot	27.56	27.67	27.64	28.00	-9.19	18.37	18.48	18.45	18.81
	2 TX Slots	26.42	26.53	26.55	27.00	-6.18	20.24	20.35	20.37	20.82
	3 TX Slots	24.35	24.44	24.31	25.00	-4.42	19.93	20.02	19.89	20.58
	4 TX Slots	23.03	23.20	23.40	24.00	-3.17	19.86	20.03	20.23	20.83
GSM850 Receiver on										
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	**31.60**	**31.87**	**32.08**	32.70	-9.19	22.37	22.68	22.89	23.51
GPRS/ EGPRS (GMSK)	1 TX Slot	31.58	31.89	31.11	32.70	-9.19	22.39	22.70	21.92	23.51
	2 TX Slots	29.83	30.04	30.12	31.50	-6.18	23.65	23.86	23.94	25.32
	3 TX Slots	28.04	28.19	28.24	29.50	-4.42	23.62	23.77	23.82	25.08
	4 TX Slots	26.62	26.68	26.68	28.50	-3.17	23.45	23.51	23.51	**25.33**
EGPRS (8PSK)	1 TX Slot	27.60	27.72	27.73	28.00	-9.19	18.41	18.53	18.54	18.81
	2 TX Slots	24.45	24.62	24.52	25.50	-6.18	18.27	18.44	18.34	19.32
	3 TX Slots	22.01	22.26	22.25	23.50	-4.42	17.59	17.84	17.83	19.08
	4 TX Slots	20.51	20.67	20.68	22.50	-3.17	17.34	17.50	17.51	19.33
GSM850 Sensor on										
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	31.48	31.82	31.99	32.70	-9.19	22.29	22.63	22.80	23.51
GPRS/ EGPRS (GMSK)	1 TX Slot	31.52	31.84	32.00	32.70	-9.19	22.33	22.65	22.81	23.51
	2 TX Slots	31.05	31.33	31.57	33.00	-6.18	24.87	25.15	25.39	26.82
	3 TX Slots	29.80	30.00	30.11	31.00	-4.42	25.38	25.58	25.69	26.58
	4 TX Slots	29.00	29.11	29.17	30.00	-3.17	25.83	25.94	26.00	**26.83**
EGPRS (8PSK)	1 TX Slot	27.62	27.73	27.76	28.00	-9.19	18.43	18.54	18.57	18.81
	2 TX Slots	26.42	26.53	26.62	27.00	-6.18	20.24	20.35	20.44	20.82
	3 TX Slots	24.33	24.46	24.33	25.00	-4.42	19.91	20.04	19.91	20.58
	4 TX Slots	23.03	23.24	23.22	24.00	-3.17	19.86	20.07	20.05	20.83

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GSM850 Sensor on+WLAN/Receiver off+Hotspot										
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	30.63	30.92	31.11	31.20	-9.19	21.44	21.73	21.92	22.01
GPRS/ EGPRS (GMSK)	1 TX Slot	30.64	30.91	31.10	31.20	-9.19	21.45	21.72	21.91	22.01
	2 TX Slots	30.63	30.92	31.08	31.20	-6.18	24.45	24.74	24.90	25.02
	3 TX Slots	29.91	30.13	30.21	31.00	-4.42	25.49	25.71	25.79	26.58
	4 TX Slots	29.03	**29.18**	29.22	30.00	-3.17	25.86	26.01	26.05	**26.83**
EGPRS (8PSK)	1 TX Slot	25.61	25.77	25.82	26.00	-9.19	16.42	16.58	16.63	16.81
	2 TX Slots	25.52	25.60	25.64	26.00	-6.18	19.34	19.42	19.46	19.82
	3 TX Slots	24.37	24.51	24.39	25.00	-4.42	19.95	20.09	19.97	20.58
	4 TX Slots	23.24	23.51	23.43	24.00	-3.17	20.07	20.34	20.26	20.83
GSM850 Receiver on+WLAN										
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	30.64	30.94	31.10	31.20	-9.19	21.45	21.75	21.91	22.01
GPRS/ EGPRS (GMSK)	1 TX Slot	30.64	30.93	31.11	31.20	-9.19	21.45	21.74	21.92	22.01
	2 TX Slots	28.12	28.29	28.28	29.50	-6.18	21.94	22.11	22.10	23.32
	3 TX Slots	26.11	26.21	26.23	27.50	-4.42	21.69	21.79	21.81	23.08
	4 TX Slots	24.55	24.71	24.66	26.50	-3.17	21.38	21.54	21.49	**23.33**
EGPRS (8PSK)	1 TX Slot	25.64	25.75	25.85	26.00	-9.19	16.45	16.56	16.66	16.81
	2 TX Slots	22.31	22.45	22.48	23.50	-6.18	16.13	16.27	16.30	17.32
	3 TX Slots	20.21	20.41	20.39	21.50	-4.42	15.79	15.99	15.97	17.08
	4 TX Slots	18.89	18.90	18.91	20.50	-3.17	15.72	15.73	15.74	17.33

Table 14：Conducted Power of GSM

Note:

1）. CMU200 measures GSM peak and average output power for active timeslots. For 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

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8.1.2.2 Conducted Power of CDMA

CDMA BC0(850MHz) Receiver off				
Average Conducted Power(dBm)				
Channel	1013	384	777	Tune up
1XRTT RC3 SO55	24.00	23.99	24.10	24.50
1XRTT RC1 SO55	23.95	24.05	24.01	24.50
1XRTT RC3 SO32 (+ F-SCH)	23.98	23.99	24.02	24.50
1XRTT RC3 SO32 (+ SCH)	24.12	24.08	24.05	24.50
1XEVDO RTAP 153.6Kbps	24.00	24.02	24.05	24.50
1XEVDO RETAP 4096Bits	24.05	24.06	24.00	24.50
CDMA BC0(850MHz) Receiver on				
Average Conducted Power(dBm)				
Channel	1013	384	777	Tune up
1XRTT RC3 SO55	23.00	22.98	23.15	23.50
1XRTT RC1 SO55	22.97	23.06	23.06	23.50
1XRTT RC3 SO32 (+ F-SCH)	22.99	23.01	23.06	23.50
1XRTT RC3 SO32 (+ SCH)	23.08	23.11	23.04	23.50
1XEVDO RTAP 153.6Kbps	22.98	23.04	23.05	23.50
1XEVDO RETAP 4096Bits	23.04	23.09	23.00	23.50
CDMA BC0(850MHz) Receiver on+WLAN				
Average Conducted Power(dBm)				
Channel	1013	384	777	Tune up
1XRTT RC3 SO55	22.02	22.03	22.11	22.50
1XRTT RC1 SO55	21.96	22.04	22.07	22.50
1XRTT RC3 SO32 (+ F-SCH)	22.00	21.96	22.01	22.50
1XRTT RC3 SO32 (+ SCH)	22.03	22.09	22.01	22.50
1XEVDO RTAP 153.6Kbps	21.99	22.05	22.03	22.50
1XEVDO RETAP 4096Bits	22.05	22.06	21.95	22.50

Table 15：Conducted Power of CDMA

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8.1.2.3 Conducted Power of WCDMA

WCDMA Band II Receiver off/Sensor off/Full power					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	23.90	23.80	23.83	24.50
	12.2kbps AMR	23.81	23.79	23.81	24.50
HSDPA	Subtest 1	22.39	22.47	22.26	23.50
	Subtest 2	22.38	22.40	22.21	23.50
	Subtest 3	21.83	21.80	21.76	23.00
	Subtest 4	21.90	21.85	21.78	23.00
HSUPA	Subtest 1	20.41	20.35	20.25	21.50
	Subtest 2	20.38	20.36	20.23	21.50
	Subtest 3	21.34	21.40	21.15	22.50
	Subtest 4	19.93	19.88	19.74	21.00
	Subtest 5	21.38	21.45	21.22	22.50
WCDMA Band II Receiver on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	15.76	15.66	15.63	16.50
	12.2kbps AMR	15.72	15.61	15.51	16.50
HSDPA	Subtest 1	14.48	14.51	14.30	15.50
	Subtest 2	14.43	14.46	14.20	15.50
	Subtest 3	13.79	13.75	13.76	15.00
	Subtest 4	13.87	13.81	13.75	15.00
HSUPA	Subtest 1	12.46	12.38	12.25	13.50
	Subtest 2	12.37	12.36	12.20	13.50
	Subtest 3	13.34	13.38	13.14	14.50
	Subtest 4	11.98	11.87	11.79	13.00
	Subtest 5	13.41	13.45	13.26	14.50
WCDMA Band II Sensor on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	20.86	20.75	20.71	21.50
	12.2kbps AMR	20.84	20.71	20.70	21.50
HSDPA	Subtest 1	19.44	19.31	19.26	20.50
	Subtest 2	19.41	19.52	19.18	20.50
	Subtest 3	18.82	18.75	18.81	20.00
	Subtest 4	18.85	18.85	18.80	20.00
HSUPA	Subtest 1	17.44	17.36	17.24	18.50
	Subtest 2	17.43	17.42	17.21	18.50
	Subtest 3	18.39	18.34	18.20	19.50
	Subtest 4	16.95	16.91	16.85	18.00
	Subtest 5	18.23	18.36	18.15	19.50

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WCDMA Band II Sensor on+WLAN/Hotspot on					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	17.47	17.46	17.42	18.50
	12.2kbps AMR	17.44	17.43	17.47	18.50
HSDPA	Subtest 1	16.41	16.42	16.29	17.50
	Subtest 2	16.35	16.38	16.16	17.50
	Subtest 3	15.78	15.74	15.84	17.00
	Subtest 4	15.83	15.84	15.74	17.00
HSUPA	Subtest 1	14.41	14.36	14.27	15.50
	Subtest 2	14.42	14.39	14.16	15.50
	Subtest 3	15.28	15.29	15.20	16.50
	Subtest 4	13.92	13.94	13.89	15.00
	Subtest 5	15.33	15.37	15.26	16.50
WCDMA Band II Receiver on+WLAN					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	13.41	13.47	13.49	14.50
	12.2kbps AMR	13.50	13.48	13.51	14.50
HSDPA	Subtest 1	12.39	12.38	12.25	13.50
	Subtest 2	12.31	12.35	12.17	13.50
	Subtest 3	11.82	11.71	11.83	13.00
	Subtest 4	11.84	11.78	11.78	13.00
HSUPA	Subtest 1	10.40	10.31	10.29	11.50
	Subtest 2	10.43	10.41	10.12	11.50
	Subtest 3	11.24	11.26	11.12	12.50
	Subtest 4	9.89	9.98	9.88	11.00
	Subtest 5	11.29	11.40	11.19	12.50

WCDMA Band IV Receiver off/Sensor off/Full power					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	23.85	23.82	**23.86**	24.50
	12.2kbps AMR	23.81	23.82	23.81	24.50
HSDPA	Subtest 1	22.03	22.24	22.31	23.50
	Subtest 2	21.99	22.14	22.27	23.50
	Subtest 3	21.54	21.69	21.74	23.00
	Subtest 4	21.55	21.67	21.70	23.00
HSUPA	Subtest 1	20.02	20.25	20.22	21.50
	Subtest 2	20.03	20.23	20.24	21.50
	Subtest 3	21.03	21.17	21.27	22.50
	Subtest 4	19.56	19.75	19.71	21.00
	Subtest 5	21.08	21.20	21.30	22.50

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WCDMA Band IV Receiver on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	**17.06**	**17.11**	**17.13**	18.00
	12.2kbps AMR	17.05	17.08	17.10	18.00
HSDPA	Subtest 1	15.58	15.76	15.85	17.00
	Subtest 2	15.51	15.68	15.74	17.00
	Subtest 3	15.08	15.17	15.23	16.50
	Subtest 4	15.02	15.12	15.17	16.50
HSUPA	Subtest 1	13.47	13.73	13.68	15.00
	Subtest 2	13.49	13.69	13.77	15.00
	Subtest 3	14.45	14.65	14.81	16.00
	Subtest 4	13.03	13.21	13.17	14.50
	Subtest 5	14.49	14.73	14.83	16.00
WCDMA Band IV sensor on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	20.52	20.53	20.64	21.50
	12.2kbps AMR	20.48	20.51	20.41	21.50
HSDPA	Subtest 1	19.05	19.25	19.32	20.50
	Subtest 2	18.94	19.09	19.25	20.50
	Subtest 3	18.50	18.71	18.76	20.00
	Subtest 4	18.51	18.71	18.68	20.00
HSUPA	Subtest 1	17.02	17.24	17.18	18.50
	Subtest 2	16.99	17.19	17.19	18.50
	Subtest 3	18.02	18.12	18.30	19.50
	Subtest 4	16.51	16.69	16.66	18.00
	Subtest 5	17.90	18.20	18.33	19.50
WCDMA Band IV Sensor on+WLAN/Hotspot on					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	15.31	15.35	15.39	16.50
	12.2kbps AMR	15.34	15.39	15.38	16.50
HSDPA	Subtest 1	14.08	14.24	14.28	15.50
	Subtest 2	13.91	14.07	14.22	15.50
	Subtest 3	13.47	13.68	13.75	15.00
	Subtest 4	13.51	13.67	13.62	15.00
HSUPA	Subtest 1	12.04	12.20	12.17	13.50
	Subtest 2	11.93	12.16	12.21	13.50
	Subtest 3	12.91	13.10	13.30	14.50
	Subtest 4	11.48	11.68	11.62	13.00
	Subtest 5	12.98	13.20	13.38	14.50

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WCDMA Band IV Receiver on+WLAN					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	14.84	14.83	14.72	16.00
	12.2kbps AMR	14.91	14.94	14.79	16.00
HSDPA	Subtest 1	13.60	13.74	13.78	15.00
	Subtest 2	13.45	13.54	13.71	15.00
	Subtest 3	12.93	13.22	13.22	14.50
	Subtest 4	12.96	13.20	13.16	14.50
HSUPA	Subtest 1	11.50	11.71	11.61	13.00
	Subtest 2	11.46	11.67	11.66	13.00
	Subtest 3	12.40	12.55	12.75	14.00
	Subtest 4	10.98	11.22	11.15	12.50
	Subtest 5	12.47	12.73	12.85	14.00

WCDMA Band V Receiver off					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	24.46	24.48	24.41	24.50
	12.2kbps AMR	24.42	24.41	24.40	24.50
HSDPA	Subtest 1	22.69	22.80	22.72	23.50
	Subtest 2	22.67	22.75	22.70	23.50
	Subtest 3	22.19	22.29	22.23	23.00
	Subtest 4	22.16	22.24	22.12	23.00
HSUPA	Subtest 1	20.71	20.71	20.68	21.50
	Subtest 2	20.76	20.72	20.71	21.50
	Subtest 3	21.63	21.73	21.61	22.50
	Subtest 4	20.16	20.23	20.17	21.00
	Subtest 5	21.72	21.79	21.68	22.50
WCDMA Band V Receiver on					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.41	23.45	23.40	23.50
	12.2kbps AMR	23.41	23.40	23.43	23.50
HSDPA	Subtest 1	21.69	21.77	21.69	22.50
	Subtest 2	21.66	21.72	21.64	22.50
	Subtest 3	21.23	21.27	21.20	22.00
	Subtest 4	21.19	21.19	21.15	22.00
HSUPA	Subtest 1	19.70	19.69	19.67	20.50
	Subtest 2	19.70	19.67	19.66	20.50
	Subtest 3	20.61	20.69	20.60	21.50
	Subtest 4	19.19	19.24	19.14	20.00
	Subtest 5	20.68	20.73	20.63	21.50

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WCDMA Band V Receiver on + WLAN					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	22.48	22.42	22.34	22.50
	12.2kbps AMR	22.45	22.41	22.40	22.50
HSDPA	Subtest 1	20.68	20.78	20.65	21.50
	Subtest 2	20.63	20.75	20.59	21.50
	Subtest 3	20.18	20.21	20.18	21.00
	Subtest 4	20.19	20.23	20.11	21.00
HSUPA	Subtest 1	18.64	18.73	18.70	19.50
	Subtest 2	18.72	18.70	18.61	19.50
	Subtest 3	19.64	19.74	19.64	20.50
	Subtest 4	18.21	18.27	18.14	19.00
	Subtest 5	19.69	19.81	19.68	20.50

Table 16：Conducted Power of WCDMA

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.

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8.1.2.4 Conducted Power of LTE

LTE Band 2 Receiver off/Sensor off/Full power				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	23.34	23.35	23.05	24.00
		1	2	23.37	23.45	23.14	24.00
		1	5	23.34	23.30	23.04	24.00
		3	0	23.54	23.39	23.15	24.00
		3	2	23.47	23.30	23.47	24.00
		3	3	23.31	23.36	23.19	24.00
		6	0	22.48	22.48	22.27	23.00
	16QAM	1	0	22.15	22.61	22.34	23.00
		1	2	22.13	22.46	22.72	23.00
		1	5	22.52	22.56	22.32	23.00
		3	0	22.31	22.51	22.21	23.00
		3	2	22.29	22.49	22.23	23.00
		3	3	22.35	22.43	22.19	23.00
		6	0	21.42	21.61	21.49	22.00
	64QAM	1	0	21.11	21.62	21.37	22.00
		1	2	21.17	21.43	21.69	22.00
		1	5	21.52	21.59	21.29	22.00
		3	0	21.30	21.53	21.18	22.00
		3	2	21.30	21.50	21.25	22.00
		3	3	21.30	21.38	21.21	22.00
		6	0	20.44	20.59	20.46	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	23.38	23.39	23.26	24.00
		1	7	23.58	23.53	23.23	24.00
		1	14	23.39	23.30	23.20	24.00
		8	0	22.46	22.47	22.36	23.00
		8	4	22.51	22.56	22.31	23.00
		8	7	22.47	22.56	22.33	23.00
		15	0	22.53	22.49	22.32	23.00
	16QAM	1	0	22.26	22.32	22.43	23.00
		1	7	22.67	22.61	22.62	23.00
		1	14	22.38	22.30	22.86	23.00
		8	0	21.39	21.54	21.54	22.00
		8	4	21.41	21.58	21.48	22.00
		8	7	21.51	21.70	21.31	22.00
		15	0	21.49	21.45	21.31	22.00
	64QAM	1	0	21.20	21.27	21.40	22.00
		1	7	21.68	21.62	21.66	22.00
		1	14	21.42	21.31	21.86	22.00
		8	0	20.41	20.54	20.49	21.00
		8	4	20.39	20.62	20.42	21.00
		8	7	20.49	20.64	20.33	21.00
		15	0	20.53	20.39	20.25	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	23.27	23.33	23.30	24.00
		1	13	23.42	23.44	23.36	24.00
		1	24	23.24	23.37	23.15	24.00
		12	0	22.44	22.46	22.31	23.00
		12	6	22.55	22.61	22.39	23.00
		12	13	22.28	22.53	22.26	23.00
		25	0	22.57	22.57	22.28	23.00
	16QAM	1	0	22.45	22.67	22.63	23.00
		1	13	22.24	22.74	22.47	23.00
		1	24	22.34	22.65	22.87	23.00
		12	0	21.41	21.45	21.32	22.00
		12	6	21.35	21.52	21.42	22.00

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		12	13	21.30	21.41	21.31	22.00
		25	0	21.35	21.52	21.38	22.00
	64QAM	1	0	21.49	21.69	21.63	22.00
		1	13	21.18	21.77	21.47	22.00
		1	24	21.35	21.62	21.87	22.00
		12	0	20.45	20.44	20.29	21.00
		12	6	20.33	20.49	20.42	21.00
		12	13	20.34	20.39	20.31	21.00
		25	0	20.29	20.48	20.42	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	23.25	23.29	23.37	24.00
		1	25	23.42	23.49	23.46	24.00
		1	49	23.41	23.36	23.30	24.00
		25	0	22.44	22.49	22.44	23.00
		25	13	22.58	22.53	22.34	23.00
		25	25	22.45	22.46	22.38	23.00
		50	0	22.57	22.65	22.44	23.00
	16QAM	1	0	22.52	22.68	22.61	23.00
		1	25	22.53	22.62	22.97	23.00
		1	49	22.49	22.52	22.39	23.00
		25	0	21.60	21.50	21.43	22.00
		25	13	21.56	21.49	21.43	22.00
		25	25	21.44	21.68	21.41	22.00
		50	0	21.51	21.47	21.38	22.00
	64QAM	1	0	21.52	21.71	21.62	22.00
		1	25	21.48	21.59	21.99	22.00
		1	49	21.50	21.55	21.39	22.00
		25	0	20.61	20.53	20.40	21.00
		25	13	20.56	20.45	20.41	21.00
		25	25	20.39	20.63	20.45	21.00
		50	0	20.47	20.47	20.32	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	23.35	23.29	23.21	24.00
		1	38	23.37	23.37	23.24	24.00
		1	74	23.38	23.29	23.09	24.00
		36	0	22.56	22.55	22.42	23.00
		36	18	22.55	22.41	22.44	23.00
		36	39	22.46	22.52	22.40	23.00
		75	0	22.57	22.48	22.47	23.00
	16QAM	1	0	22.33	22.78	22.47	23.00
		1	38	22.46	22.59	22.65	23.00
		1	74	22.40	22.58	22.33	23.00
		36	0	21.39	21.55	21.49	22.00
		36	18	21.53	21.52	21.43	22.00
		36	39	21.53	21.48	21.26	22.00
		75	0	21.49	21.50	21.38	22.00
	64QAM	1	0	21.33	21.77	21.48	22.00
		1	38	21.42	21.58	21.69	22.00
		1	74	21.44	21.56	21.30	22.00
		36	0	20.33	20.58	20.50	21.00
		36	18	20.53	20.49	20.40	21.00
		36	39	20.55	20.44	20.20	21.00
		75	0	20.47	20.54	20.36	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	23.18	23.20	23.03	24.00
		1	50	23.60	23.37	23.27	24.00
		1	99	23.09	23.06	22.90	24.00
		50	0	**22.78**	22.45	22.63	23.00
		50	25	22.56	22.46	22.44	23.00
		50	50	22.51	22.56	22.51	23.00
		100	0	22.54	22.55	22.60	23.00

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	16QAM	1	0	22.45	22.56	22.71	23.00
		1	50	22.77	22.74	22.60	23.00
		1	99	22.65	22.42	22.63	23.00
		50	0	21.79	21.39	21.66	22.00
		50	25	21.51	21.52	21.38	22.00
		50	50	21.47	21.49	21.54	22.00
		100	0	21.55	21.64	21.57	22.00
	64QAM	1	0	21.41	21.38	21.39	22.00
		1	50	21.69	21.57	21.60	22.00
		1	99	21.05	21.46	21.09	22.00
		50	0	20.66	20.55	20.71	21.00
		50	25	20.65	20.59	20.42	21.00
		50	50	20.61	20.58	20.53	21.00
		100	0	20.56	20.55	20.60	21.00

LTE Band 2 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	15.35	15.26	15.29	16.00
		1	2	15.36	15.31	15.35	16.00
		1	5	15.29	15.31	15.33	16.00
		3	0	15.28	15.59	15.37	16.00
		3	2	15.37	15.67	15.35	16.00
		3	3	15.41	15.37	15.45	16.00
		6	0	15.43	15.34	15.34	16.00
	16QAM	1	0	15.32	15.77	15.67	16.00
		1	2	15.52	15.86	15.45	16.00
		1	5	15.63	15.79	15.30	16.00
		3	0	15.38	15.34	15.22	16.00
		3	2	15.26	15.40	15.39	16.00
		3	3	15.38	15.34	15.24	16.00
		6	0	15.47	15.58	15.56	16.00
	64QAM	1	0	15.30	15.26	15.27	16.00
		1	2	15.39	15.35	15.32	16.00
		1	5	15.27	15.34	15.29	16.00
		3	0	15.30	15.54	15.33	16.00
		3	2	15.36	15.62	15.37	16.00
		3	3	15.44	15.35	15.47	16.00
		6	0	15.40	15.30	15.34	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	15.20	15.46	15.36	16.00
		1	7	15.60	15.75	15.56	16.00
		1	14	15.27	15.36	15.24	16.00
		8	0	15.46	15.31	15.38	16.00
		8	4	15.41	15.43	15.34	16.00
		8	7	15.47	15.41	15.31	16.00
		15	0	15.42	15.38	15.34	16.00
	16QAM	1	0	15.74	15.88	15.31	16.00
		1	7	15.69	15.86	15.88	16.00
		1	14	15.38	15.65	15.73	16.00
		8	0	15.35	15.52	15.49	16.00
		8	4	15.38	15.56	15.47	16.00
		8	7	15.39	15.54	15.32	16.00
		15	0	15.32	15.44	15.39	16.00
	64QAM	1	0	15.15	15.45	15.31	16.00
		1	7	15.64	15.74	15.57	16.00
		1	14	15.24	15.31	15.26	16.00
		8	0	15.48	15.35	15.33	16.00
		8	4	15.37	15.40	15.33	16.00
		8	7	15.51	15.46	15.36	16.00
		15	0	15.40	15.33	15.29	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up

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5MHz	QPSK	1	0	15.31	15.26	15.33	16.00
		1	13	15.48	15.36	15.41	16.00
		1	24	15.16	15.32	15.16	16.00
		12	0	15.36	15.41	15.41	16.00
		12	6	15.45	15.42	15.43	16.00
		12	13	15.30	15.44	15.26	16.00
		25	0	15.34	15.49	15.33	16.00
	16QAM	1	0	15.51	15.80	15.82	16.00
		1	13	15.56	15.77	15.82	16.00
		1	24	15.48	15.54	15.48	16.00
		12	0	15.28	15.25	15.40	16.00
		12	6	15.32	15.41	15.45	16.00
		12	13	15.24	15.38	15.30	16.00
		25	0	15.27	15.44	15.40	16.00
	64QAM	1	0	15.30	15.23	15.36	16.00
		1	13	15.48	15.32	15.39	16.00
		1	24	15.11	15.37	15.11	16.00
		12	0	15.40	15.40	15.39	16.00
		12	6	15.47	15.39	15.46	16.00
		12	13	15.29	15.42	15.27	16.00
		25	0	15.32	15.45	15.33	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	15.23	15.31	15.26	16.00
		1	25	15.35	15.37	15.35	16.00
		1	49	15.35	15.28	15.31	16.00
		25	0	15.40	15.47	15.37	16.00
		25	13	15.46	15.48	15.44	16.00
		25	25	15.33	15.44	15.33	16.00
		50	0	15.38	15.39	15.36	16.00
	16QAM	1	0	15.82	15.79	15.46	16.00
		1	25	15.64	15.65	15.71	16.00
		1	49	15.61	15.27	15.58	16.00
		25	0	15.33	15.48	15.39	16.00
		25	13	15.35	15.47	15.38	16.00
		25	25	15.37	15.44	15.25	16.00
		50	0	15.29	15.36	15.32	16.00
	64QAM	1	0	15.21	15.34	15.21	16.00
		1	25	15.36	15.42	15.32	16.00
		1	49	15.31	15.26	15.35	16.00
		25	0	15.39	15.42	15.34	16.00
		25	13	15.41	15.53	15.49	16.00
		25	25	15.37	15.41	15.34	16.00
		50	0	15.37	15.41	15.33	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	15.38	15.36	15.29	16.00
		1	38	15.41	15.60	15.30	16.00
		1	74	15.23	15.26	15.24	16.00
		36	0	15.46	15.38	15.41	16.00
		36	18	15.53	15.47	15.35	16.00
		36	39	15.33	15.45	15.31	16.00
		75	0	15.53	15.41	15.41	16.00
	16QAM	1	0	15.59	15.76	15.34	16.00
		1	38	15.50	15.59	15.44	16.00
		1	74	15.69	15.24	15.68	16.00
		36	0	15.39	15.33	15.31	16.00
		36	18	15.29	15.44	15.34	16.00
		36	39	15.29	15.34	15.33	16.00
		75	0	15.43	15.43	15.35	16.00
	64QAM	1	0	15.37	15.39	15.30	16.00
		1	38	15.41	15.59	15.34	16.00
		1	74	15.19	15.29	15.26	16.00
		36	0	15.49	15.34	15.38	16.00

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		36	18	15.48	15.44	15.36	16.00
		36	39	15.38	15.42	15.27	16.00
		75	0	15.50	15.43	15.45	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	15.27	15.19	15.09	16.00
		1	50	15.81	15.90	15.82	16.00
		1	99	15.25	15.02	15.00	16.00
		50	0	**15.56**	**15.47**	**15.59**	16.00
		50	25	15.38	15.37	15.38	16.00
		50	50	15.40	15.38	15.50	16.00
		100	0	15.50	15.48	**15.54**	16.00
	16QAM	1	0	15.53	15.77	15.54	16.00
		1	50	15.81	15.88	15.85	16.00
		1	99	15.71	15.58	15.43	16.00
		50	0	15.60	15.47	15.57	16.00
		50	25	15.48	15.53	15.43	16.00
		50	50	15.47	15.41	15.49	16.00
		100	0	15.48	15.40	15.50	16.00
	64QAM	1	0	15.25	15.21	15.14	16.00
		1	50	15.77	15.89	15.78	16.00
		1	99	15.20	15.04	14.99	16.00
		50	0	15.52	15.48	15.57	16.00
		50	25	15.36	15.37	15.43	16.00
		50	50	15.41	15.35	15.47	16.00
		100	0	15.52	15.43	15.50	16.00

LTE Band 2 sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	20.32	20.36	20.14	21.00
		1	2	20.40	20.56	20.39	21.00
		1	5	20.32	20.29	20.17	21.00
		3	0	20.37	20.40	20.28	21.00
		3	2	20.37	20.43	20.28	21.00
		3	3	20.47	20.37	20.36	21.00
		6	0	20.35	20.35	20.32	21.00
	16QAM	1	0	20.54	20.58	20.28	21.00
		1	2	20.61	20.65	20.51	21.00
		1	5	20.53	20.57	20.45	21.00
		3	0	20.39	20.47	20.34	21.00
		3	2	20.32	20.43	20.19	21.00
		3	3	20.34	20.36	20.08	21.00
		6	0	20.62	20.40	20.39	21.00
	64QAM	1	0	20.36	20.32	20.09	21.00
		1	2	20.43	20.57	20.36	21.00
		1	5	20.29	20.25	20.14	21.00
		3	0	20.42	20.43	20.32	21.00
		3	2	20.35	20.43	20.27	21.00
		3	3	20.43	20.32	20.38	21.00
		6	0	20.36	20.31	20.32	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	20.24	20.31	20.32	21.00
		1	7	20.43	20.27	20.60	21.00
		1	14	20.36	20.24	20.25	21.00
		8	0	20.26	20.42	20.41	21.00
		8	4	20.28	20.45	20.33	21.00
		8	7	20.33	20.26	20.27	21.00
		15	0	20.36	20.40	20.29	21.00
	16QAM	1	0	20.64	20.60	20.51	21.00
		1	7	20.60	20.64	20.63	21.00
		1	14	20.63	20.61	20.61	21.00
		8	0	20.37	20.49	20.38	21.00

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		8	4	20.46	20.45	20.55	21.00
		8	7	20.49	20.32	20.35	21.00
		15	0	20.31	20.40	20.27	21.00
	64QAM	1	0	20.29	20.29	20.37	21.00
		1	7	20.48	20.31	20.55	21.00
		1	14	20.34	20.22	20.27	21.00
		8	0	20.25	20.39	20.36	21.00
		8	4	20.29	20.43	20.34	21.00
		8	7	20.37	20.21	20.28	21.00
		15	0	20.41	20.38	20.28	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18625	18900	19175	
5MHz	QPSK	1	0	20.26	20.15	20.21	21.00
		1	13	20.37	20.30	20.34	21.00
		1	24	20.22	20.33	20.21	21.00
		12	0	20.34	20.29	20.34	21.00
		12	6	20.40	20.38	20.45	21.00
		12	13	20.32	20.43	20.16	21.00
		25	0	20.28	20.41	20.26	21.00
	16QAM	1	0	20.18	20.65	20.60	21.00
		1	13	20.27	20.16	20.64	21.00
		1	24	20.32	20.61	20.63	21.00
		12	0	20.42	20.39	20.44	21.00
		12	6	20.29	20.49	20.51	21.00
		12	13	20.35	20.38	20.16	21.00
		25	0	20.35	20.36	20.43	21.00
	64QAM	1	0	20.27	20.13	20.25	21.00
		1	13	20.36	20.27	20.39	21.00
		1	24	20.27	20.35	20.22	21.00
		12	0	20.39	20.31	20.36	21.00
		12	6	20.39	20.35	20.50	21.00
		12	13	20.30	20.40	20.11	21.00
		25	0	20.33	20.37	20.21	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18650	18900	19150	
10MHz	QPSK	1	0	20.31	20.32	20.33	21.00
		1	25	20.46	20.44	20.51	21.00
		1	49	20.33	20.35	20.41	21.00
		25	0	20.45	20.30	20.36	21.00
		25	13	20.43	20.46	20.39	21.00
		25	25	20.35	20.45	20.35	21.00
		50	0	20.42	20.44	20.34	21.00
	16QAM	1	0	20.64	20.61	20.51	21.00
		1	25	20.63	20.60	20.62	21.00
		1	49	20.65	20.64	20.37	21.00
		25	0	20.56	20.37	20.53	21.00
		25	13	20.34	20.52	20.40	21.00
		25	25	20.25	20.56	20.40	21.00
		50	0	20.43	20.38	20.56	21.00
	64QAM	1	0	20.36	20.29	20.30	21.00
		1	25	20.43	20.43	20.51	21.00
		1	49	20.29	20.32	20.40	21.00
		25	0	20.48	20.26	20.34	21.00
		25	13	20.44	20.46	20.38	21.00
		25	25	20.32	20.42	20.40	21.00
		50	0	20.46	20.47	20.33	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	20.34	20.30	20.23	21.00
		1	38	20.46	20.39	20.31	21.00
		1	74	20.16	20.28	19.97	21.00
		36	0	20.55	20.37	20.41	21.00
		36	18	20.46	20.39	20.46	21.00
		36	39	20.41	20.41	20.27	21.00

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		75	0	20.37	20.38	20.43	21.00
	16QAM	1	0	20.49	20.41	20.61	21.00
		1	38	20.65	20.46	20.63	21.00
		1	74	20.53	20.28	20.66	21.00
		36	0	20.44	20.44	20.48	21.00
		36	18	20.44	20.39	20.45	21.00
		36	39	20.32	20.43	20.27	21.00
		75	0	20.42	20.38	20.38	21.00
	64QAM	1	0	20.29	20.28	20.24	21.00
		1	38	20.49	20.34	20.31	21.00
		1	74	20.12	20.33	19.95	21.00
		36	0	20.58	20.36	20.40	21.00
		36	18	20.42	20.44	20.48	21.00
		36	39	20.39	20.41	20.30	21.00
		75	0	20.33	20.36	20.48	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	20.22	20.00	20.13	21.00
		1	50	20.34	**20.43**	20.37	21.00
		1	99	20.29	20.06	20.17	21.00
		50	0	20.64	20.32	**20.65**	21.00
		50	25	20.50	20.39	20.51	21.00
		50	50	20.51	20.41	20.45	21.00
		100	0	20.60	20.43	20.54	21.00
	16QAM	1	0	20.05	20.31	20.67	21.00
		1	50	20.61	20.65	20.61	21.00
		1	99	20.63	20.16	20.66	21.00
		50	0	20.58	20.46	20.61	21.00
		50	25	20.49	20.45	20.52	21.00
		50	50	20.49	20.51	20.46	21.00
		100	0	20.58	20.45	20.59	21.00
	64QAM	1	0	20.18	20.00	20.16	21.00
		1	50	20.29	20.48	20.38	21.00
		1	99	20.34	20.05	20.13	21.00
		50	0	20.65	20.35	20.63	21.00
		50	25	20.45	20.36	20.56	21.00
		50	50	20.48	20.40	20.49	21.00
		100	0	20.57	20.48	20.57	21.00

LTE Band 2 Sensor on+WLAN/Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	16.36	16.30	16.31	17.00
		1	2	16.35	16.40	16.49	17.00
		1	5	16.27	16.45	16.22	17.00
		3	0	16.52	16.36	16.29	17.00
		3	2	16.63	16.44	16.43	17.00
		3	3	16.39	16.47	16.30	17.00
		6	0	16.41	16.34	16.40	17.00
	16QAM	1	0	16.39	16.80	16.43	17.00
		1	2	16.81	16.85	16.82	17.00
		1	5	16.23	16.76	16.45	17.00
		3	0	16.33	16.46	16.40	17.00
		3	2	16.45	16.75	16.40	17.00
		3	3	16.52	16.47	16.42	17.00
		6	0	16.38	16.50	16.59	17.00
	64QAM	1	0	16.31	16.26	16.35	17.00
		1	2	16.32	16.35	16.54	17.00
		1	5	16.26	16.48	16.23	17.00
		3	0	16.57	16.40	16.27	17.00
		3	2	16.66	16.49	16.43	17.00
		3	3	16.35	16.51	16.31	17.00
		6	0	16.42	16.30	16.35	17.00

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Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	16.36	16.47	16.34	17.00
		1	7	16.60	16.79	16.49	17.00
		1	14	16.21	16.38	16.31	17.00
		8	0	16.33	16.50	16.42	17.00
		8	4	16.39	16.51	16.43	17.00
		8	7	16.45	16.43	16.29	17.00
		15	0	16.43	16.44	16.35	17.00
	16QAM	1	0	16.48	16.63	16.51	17.00
		1	7	16.80	16.82	16.54	17.00
		1	14	16.77	16.83	16.78	17.00
		8	0	16.46	16.53	16.56	17.00
		8	4	16.49	16.40	16.49	17.00
		8	7	16.46	16.47	16.34	17.00
		15	0	16.55	16.51	16.45	17.00
	64QAM	1	0	16.34	16.46	16.36	17.00
		1	7	16.64	16.80	16.47	17.00
		1	14	16.20	16.38	16.27	17.00
		8	0	16.37	16.50	16.47	17.00
		8	4	16.42	16.49	16.47	17.00
		8	7	16.44	16.41	16.28	17.00
		15	0	16.42	16.43	16.32	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	16.27	16.24	16.22	17.00
		1	13	16.26	16.53	16.35	17.00
		1	24	16.29	16.19	16.36	17.00
		12	0	16.35	16.42	16.39	17.00
		12	6	16.47	16.47	16.44	17.00
		12	13	16.31	16.40	16.22	17.00
		25	0	16.26	16.49	16.29	17.00
	16QAM	1	0	16.76	16.30	16.29	17.00
		1	13	16.83	16.76	16.41	17.00
		1	24	16.76	16.39	16.73	17.00
		12	0	16.32	16.32	16.32	17.00
		12	6	16.31	16.58	16.55	17.00
		12	13	16.29	16.38	16.31	17.00
		25	0	16.49	16.43	16.35	17.00
	64QAM	1	0	16.32	16.20	16.20	17.00
		1	13	16.31	16.48	16.33	17.00
		1	24	16.27	16.14	16.38	17.00
		12	0	16.32	16.41	16.34	17.00
		12	6	16.50	16.52	16.45	17.00
		12	13	16.30	16.44	16.17	17.00
		25	0	16.23	16.49	16.26	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	16.49	16.40	16.35	17.00
		1	25	16.42	16.37	16.47	17.00
		1	49	16.46	16.39	16.27	17.00
		25	0	16.43	16.35	16.35	17.00
		25	13	16.38	16.49	16.39	17.00
		25	25	16.35	16.45	16.41	17.00
		50	0	16.47	16.43	16.39	17.00
	16QAM	1	0	16.28	16.78	16.76	17.00
		1	25	16.77	16.72	16.82	17.00
		1	49	16.58	16.88	16.71	17.00
		25	0	16.45	16.46	16.50	17.00
		25	13	16.44	16.53	16.51	17.00
		25	25	16.36	16.45	16.42	17.00
		50	0	16.43	16.50	16.46	17.00
	64QAM	1	0	16.53	16.35	16.35	17.00
		1	25	16.42	16.36	16.49	17.00

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		1	49	16.46	16.42	16.29	17.00
		25	0	16.46	16.34	16.35	17.00
		25	13	16.43	16.54	16.41	17.00
		25	25	16.32	16.46	16.39	17.00
		50	0	16.44	16.40	16.40	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	16.25	16.31	16.36	17.00
		1	38	16.37	16.49	16.33	17.00
		1	74	16.27	16.33	16.34	17.00
		36	0	16.52	16.45	16.39	17.00
		36	18	16.52	16.53	16.46	17.00
		36	39	16.35	16.39	16.31	17.00
		75	0	16.46	16.45	16.50	17.00
	16QAM	1	0	16.80	16.73	16.36	17.00
		1	38	16.36	16.74	16.31	17.00
		1	74	16.76	16.58	16.30	17.00
		36	0	16.45	16.44	16.54	17.00
		36	18	16.45	16.42	16.52	17.00
		36	39	16.41	16.49	16.45	17.00
		75	0	16.48	16.41	16.51	17.00
	64QAM	1	0	16.26	16.29	16.34	17.00
		1	38	16.40	16.53	16.38	17.00
		1	74	16.27	16.32	16.32	17.00
		36	0	16.51	16.47	16.42	17.00
		36	18	16.53	16.53	16.44	17.00
		36	39	16.36	16.34	16.34	17.00
		75	0	16.47	16.49	16.45	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	16.14	16.15	16.23	17.00
		1	50	16.31	16.43	**16.51**	17.00
		1	99	16.22	16.07	16.03	17.00
		50	0	16.66	16.41	**16.69**	17.00
		50	25	16.56	16.54	16.49	17.00
		50	50	16.38	16.55	16.55	17.00
		100	0	16.48	16.39	16.59	17.00
	16QAM	1	0	16.63	16.54	16.47	17.00
		1	50	16.27	16.71	16.69	17.00
		1	99	16.35	16.47	16.70	17.00
		50	0	16.73	16.53	16.60	17.00
		50	25	16.47	16.57	16.52	17.00
		50	50	16.56	16.48	16.50	17.00
		100	0	16.52	16.40	16.57	17.00
	64QAM	1	0	16.13	16.15	16.26	17.00
		1	50	16.26	16.43	16.56	17.00
		1	99	16.27	16.07	16.01	17.00
		50	0	16.66	16.44	16.70	17.00
		50	25	16.57	16.57	16.54	17.00
		50	50	16.36	16.56	16.56	17.00
		100	0	16.47	16.43	16.58	17.00

LTE Band 2 Receiver on+WLAN				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	13.27	13.32	13.28	14.00
		1	2	13.35	13.38	13.36	14.00
		1	5	13.30	13.36	13.19	14.00
		3	0	13.33	13.47	13.29	14.00
		3	2	13.32	13.43	13.40	14.00
		3	3	13.32	13.30	13.40	14.00
		6	0	13.39	13.41	13.32	14.00
	16QAM	1	0	13.28	13.28	13.58	14.00
		1	2	13.65	13.86	13.82	14.00

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		1	5	13.42	13.82	13.30	14.00
		3	0	13.36	13.43	13.32	14.00
		3	2	13.36	13.45	13.40	14.00
		3	3	13.37	13.52	13.35	14.00
		6	0	13.44	13.61	13.33	14.00
	64QAM	1	0	13.31	13.28	13.31	14.00
		1	2	13.34	13.33	13.39	14.00
		1	5	13.31	13.35	13.18	14.00
		3	0	13.33	13.48	13.33	14.00
		3	2	13.30	13.41	13.37	14.00
		3	3	13.28	13.31	13.37	14.00
		6	0	13.43	13.38	13.27	14.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	13.37	13.27	13.28	14.00
		1	7	13.44	13.66	13.48	14.00
		1	14	13.31	13.30	13.38	14.00
		8	0	13.39	13.39	13.20	14.00
		8	4	13.47	13.45	13.41	14.00
		8	7	13.39	13.41	13.34	14.00
		15	0	13.45	13.45	13.29	14.00
	16QAM	1	0	13.41	13.88	13.80	14.00
		1	7	13.90	13.70	13.81	14.00
		1	14	13.48	13.89	13.88	14.00
		8	0	13.53	13.50	13.66	14.00
		8	4	13.51	13.43	13.23	14.00
		8	7	13.37	13.59	13.32	14.00
		15	0	13.37	13.50	13.26	14.00
	64QAM	1	0	13.40	13.24	13.31	14.00
		1	7	13.46	13.63	13.43	14.00
		1	14	13.26	13.32	13.34	14.00
		8	0	13.44	13.34	13.17	14.00
		8	4	13.42	13.48	13.45	14.00
		8	7	13.37	13.37	13.38	14.00
		15	0	13.49	13.50	13.28	14.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	13.26	13.29	13.33	14.00
		1	13	13.36	13.34	13.40	14.00
		1	24	13.27	13.29	13.19	14.00
		12	0	13.35	13.42	13.29	14.00
		12	6	13.38	13.46	13.36	14.00
		12	13	13.31	13.44	13.35	14.00
		25	0	13.37	13.38	13.43	14.00
	16QAM	1	0	13.37	13.32	13.77	14.00
		1	13	13.70	13.73	13.89	14.00
		1	24	13.14	13.52	13.47	14.00
		12	0	13.38	13.38	13.35	14.00
		12	6	13.43	13.44	13.43	14.00
		12	13	13.35	13.33	13.31	14.00
		25	0	13.46	13.53	13.37	14.00
	64QAM	1	0	13.31	13.33	13.35	14.00
		1	13	13.37	13.31	13.42	14.00
		1	24	13.32	13.28	13.20	14.00
		12	0	13.37	13.38	13.24	14.00
		12	6	13.33	13.45	13.38	14.00
		12	13	13.36	13.44	13.31	14.00
		25	0	13.38	13.39	13.39	14.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	13.40	13.45	13.31	14.00
		1	25	13.46	13.42	13.51	14.00
		1	49	13.44	13.32	13.34	14.00
		25	0	13.64	13.39	13.36	14.00

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		25	13	13.44	13.48	13.42	14.00
		25	25	13.45	13.50	13.42	14.00
		50	0	13.44	13.42	13.32	14.00
	16QAM	1	0	13.51	13.85	13.87	14.00
		1	25	13.52	13.62	13.81	14.00
		1	49	13.88	13.49	13.48	14.00
		25	0	13.39	13.45	13.44	14.00
		25	13	13.36	13.52	13.42	14.00
		25	25	13.30	13.45	13.38	14.00
		50	0	13.38	13.48	13.42	14.00
	64QAM	1	0	13.41	13.40	13.34	14.00
		1	25	13.42	13.46	13.56	14.00
		1	49	13.43	13.36	13.32	14.00
		25	0	13.64	13.36	13.38	14.00
		25	13	13.49	13.48	13.44	14.00
		25	25	13.46	13.52	13.45	14.00
		50	0	13.48	13.40	13.36	14.00
Bandwidth	Modulation	RB size	RB offset	Channel 18675	Channel 18900	Channel 19125	Tune up
15MHz	QPSK	1	0	13.33	13.29	13.35	14.00
		1	38	13.34	13.42	13.36	14.00
		1	74	13.30	13.31	13.23	14.00
		36	0	13.54	13.42	13.38	14.00
		36	18	13.43	13.50	13.46	14.00
		36	39	13.38	13.44	13.34	14.00
		75	0	13.40	13.44	13.38	14.00
	16QAM	1	0	13.50	13.85	13.77	14.00
		1	38	13.90	13.81	13.32	14.00
		1	74	13.83	13.77	13.80	14.00
		36	0	13.44	13.40	13.45	14.00
		36	18	13.42	13.47	13.50	14.00
		36	39	13.42	13.33	13.46	14.00
		75	0	13.50	13.39	13.50	14.00
	64QAM	1	0	13.38	13.30	13.40	14.00
		1	38	13.31	13.45	13.34	14.00
		1	74	13.27	13.29	13.18	14.00
		36	0	13.54	13.43	13.36	14.00
		36	18	13.43	13.45	13.42	14.00
		36	39	13.34	13.48	13.37	14.00
		75	0	13.38	13.40	13.35	14.00
Bandwidth	Modulation	RB size	RB offset	Channel 18700	Channel 18900	Channel 19100	Tune up
20MHz	QPSK	1	0	13.18	13.16	13.18	14.00
		1	50	13.32	13.55	13.47	14.00
		1	99	13.15	13.18	13.15	14.00
		50	0	13.68	13.39	13.69	14.00
		50	25	13.64	13.40	13.46	14.00
		50	50	13.50	13.44	13.46	14.00
		100	0	13.64	13.40	13.54	14.00
	16QAM	1	0	13.36	13.28	13.24	14.00
		1	50	13.91	13.60	13.70	14.00
		1	99	13.38	13.21	13.42	14.00
		50	0	13.62	13.38	13.71	14.00
		50	25	13.49	13.43	13.54	14.00
		50	50	13.45	13.46	13.39	14.00
		100	0	13.63	13.48	13.51	14.00
	64QAM	1	0	13.13	13.21	13.20	14.00
		1	50	13.28	13.55	13.42	14.00
		1	99	13.18	13.18	13.19	14.00
		50	0	13.67	13.34	13.71	14.00
		50	25	13.69	13.35	13.51	14.00
		50	50	13.54	13.45	13.47	14.00
		100	0	13.64	13.38	13.56	14.00

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LTE Band 4 Receiver off/Sensor off/Full power				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	23.04	23.13	23.24	24.00
		1	2	23.27	23.29	23.29	24.00
		1	5	23.14	23.18	23.10	24.00
		3	0	23.11	23.19	23.30	24.00
		3	2	23.30	23.27	23.29	24.00
		3	3	23.23	23.30	23.31	24.00
		6	0	22.32	22.18	22.37	23.00
	16QAM	1	0	22.52	22.21	22.58	23.00
		1	2	22.68	22.97	22.21	23.00
		1	5	22.42	22.44	22.57	23.00
		3	0	22.32	22.25	22.15	23.00
		3	2	22.37	22.38	22.15	23.00
		3	3	22.28	22.30	22.27	23.00
		6	0	21.35	21.28	21.42	22.00
	64QAM	1	0	21.48	21.22	21.61	22.00
		1	2	21.65	21.92	21.19	22.00
		1	5	21.41	21.48	21.61	22.00
		3	0	21.34	21.25	21.13	22.00
		3	2	21.34	21.38	21.11	22.00
		3	3	21.32	21.24	21.28	22.00
		6	0	20.33	20.27	20.37	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	23.20	23.10	23.30	24.00
		1	7	23.26	23.29	23.25	24.00
		1	14	23.21	23.26	23.30	24.00
		8	0	22.14	22.24	22.36	23.00
		8	4	22.15	22.30	22.36	23.00
		8	7	22.18	22.30	22.37	23.00
		15	0	22.17	22.28	22.38	23.00
	16QAM	1	0	22.36	22.31	22.36	23.00
		1	7	22.75	22.79	22.68	23.00
		1	14	22.26	22.37	22.53	23.00
		8	0	21.37	21.28	21.29	22.00
		8	4	21.22	21.39	21.49	22.00
		8	7	21.51	21.18	21.27	22.00
		15	0	21.22	21.41	21.49	22.00
	64QAM	1	0	21.39	21.25	21.31	22.00
		1	7	21.70	21.75	21.69	22.00
		1	14	21.26	21.41	21.48	22.00
		8	0	20.33	20.30	20.29	21.00
		8	4	20.16	20.42	20.48	21.00
		8	7	20.48	20.13	20.23	21.00
		15	0	20.23	20.45	20.44	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	22.96	23.12	23.28	24.00
		1	13	23.22	23.26	23.23	24.00
		1	24	23.07	23.24	23.14	24.00
		12	0	22.18	22.24	22.30	23.00
		12	6	22.19	22.39	22.37	23.00
		12	13	22.22	22.18	22.31	23.00
		25	0	22.23	22.27	22.40	23.00
	16QAM	1	0	22.74	22.58	22.47	23.00
		1	13	22.60	22.39	22.30	23.00
		1	24	22.07	22.45	21.99	23.00
		12	0	21.15	21.38	21.24	22.00
		12	6	21.27	21.40	21.40	22.00
		12	13	21.14	21.29	21.13	22.00
		25	0	21.13	21.28	21.38	22.00

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	64QAM	1	0	21.70	21.54	21.51	22.00
		1	13	21.64	21.35	21.25	22.00
		1	24	21.09	21.47	21.00	22.00
		12	0	20.16	20.39	20.26	21.00
		12	6	20.31	20.43	20.40	21.00
		12	13	20.14	20.31	20.15	21.00
		25	0	20.17	20.30	20.36	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	23.26	23.09	23.24	24.00
		1	25	23.30	23.28	23.30	24.00
		1	49	23.10	23.09	23.26	24.00
		25	0	22.18	22.49	22.33	23.00
		25	13	22.19	22.35	22.48	23.00
		25	25	22.34	22.30	22.39	23.00
		50	0	22.23	22.42	22.33	23.00
	16QAM	1	0	22.47	22.52	22.91	23.00
		1	25	22.48	22.70	22.84	23.00
		1	49	22.48	22.61	22.48	23.00
		25	0	21.25	21.38	21.36	22.00
		25	13	21.30	21.46	21.37	22.00
		25	25	21.43	21.38	21.30	22.00
		50	0	21.27	21.34	21.51	22.00
	64QAM	1	0	21.50	21.46	21.92	22.00
		1	25	21.45	21.67	21.83	22.00
		1	49	21.50	21.60	21.47	22.00
		25	0	20.24	20.42	20.34	21.00
		25	13	20.32	20.42	20.39	21.00
		25	25	20.38	20.38	20.30	21.00
		50	0	20.24	20.29	20.51	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	23.10	23.18	23.26	24.00
		1	38	23.12	23.26	23.22	24.00
		1	74	23.24	23.23	23.22	24.00
		36	0	22.17	22.42	22.35	23.00
		36	18	22.25	22.31	22.30	23.00
		36	39	22.22	22.32	22.42	23.00
		75	0	22.19	22.31	22.44	23.00
	16QAM	1	0	22.33	22.21	22.41	23.00
		1	38	22.14	22.84	22.76	23.00
		1	74	22.69	22.35	22.37	23.00
		36	0	21.20	21.38	21.35	22.00
		36	18	21.25	21.34	21.38	22.00
		36	39	21.12	21.29	21.33	22.00
		75	0	21.30	21.33	21.41	22.00
	64QAM	1	0	21.37	21.24	21.38	22.00
		1	38	21.13	21.88	21.73	22.00
		1	74	21.69	21.37	21.34	22.00
		36	0	20.24	20.40	20.36	21.00
		36	18	20.19	20.37	20.37	21.00
		36	39	20.13	20.30	20.33	21.00
		75	0	20.27	20.35	20.35	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	22.83	22.98	22.99	24.00
		1	50	23.21	23.27	23.32	24.00
		1	99	23.06	22.97	23.04	24.00
		50	0	22.09	**22.50**	22.24	23.00
		50	25	22.30	22.29	22.43	23.00
		50	50	22.14	22.36	22.42	23.00
		100	0	22.12	22.42	22.45	23.00
	16QAM	1	0	22.77	21.94	22.30	23.00
		1	50	22.77	22.91	22.91	23.00

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		1	99	22.02	22.37	22.28	23.00
		50	0	21.14	21.40	21.38	22.00
		50	25	21.30	21.37	21.40	22.00
		50	50	21.16	21.27	21.50	22.00
		100	0	21.20	21.36	21.33	22.00
	64QAM	1	0	21.43	20.96	21.43	22.00
		1	50	21.64	21.67	21.34	22.00
		1	99	21.22	21.45	21.04	22.00
		50	0	20.19	20.56	20.44	21.00
		50	25	20.39	20.38	20.43	21.00
		50	50	20.35	20.50	20.56	21.00
		100	0	20.19	20.51	20.62	21.00

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	16.20	16.14	16.28	17.00
		1	2	16.30	16.40	16.32	17.00
		1	5	16.12	16.19	16.22	17.00
		3	0	16.32	16.26	16.39	17.00
		3	2	16.34	16.50	16.37	17.00
		3	3	16.16	16.34	16.36	17.00
		6	0	16.16	16.30	16.32	17.00
	16QAM	1	0	16.71	16.60	16.31	17.00
		1	2	16.67	16.72	16.77	17.00
		1	5	16.89	16.52	16.31	17.00
		3	0	16.53	16.42	16.47	17.00
		3	2	16.36	16.30	16.50	17.00
		3	3	16.43	16.28	16.44	17.00
		6	0	16.27	16.63	16.63	17.00
	64QAM	1	0	16.25	16.13	16.32	17.00
		1	2	16.26	16.36	16.36	17.00
		1	5	16.12	16.22	16.17	17.00
		3	0	16.27	16.29	16.36	17.00
		3	2	16.36	16.49	16.32	17.00
		3	3	16.21	16.31	16.32	17.00
		6	0	16.19	16.25	16.37	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	16.21	16.37	16.29	17.00
		1	7	16.55	16.24	16.69	17.00
		1	14	16.22	16.26	16.39	17.00
		8	0	16.23	16.32	16.38	17.00
		8	4	16.29	16.36	16.51	17.00
		8	7	16.26	16.28	16.37	17.00
		15	0	16.30	16.29	16.41	17.00
	16QAM	1	0	16.58	16.57	16.76	17.00
		1	7	16.44	16.89	16.75	17.00
		1	14	16.73	16.54	16.57	17.00
		8	0	16.34	16.51	16.48	17.00
		8	4	16.42	16.48	16.46	17.00
		8	7	16.26	16.43	16.57	17.00
		15	0	16.16	16.27	16.53	17.00
	64QAM	1	0	16.25	16.42	16.27	17.00
		1	7	16.57	16.25	16.73	17.00
		1	14	16.18	16.26	16.43	17.00
		8	0	16.27	16.30	16.37	17.00
		8	4	16.26	16.31	16.46	17.00
		8	7	16.25	16.23	16.41	17.00
		15	0	16.35	16.24	16.38	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	16.09	16.12	16.36	17.00
		1	13	16.30	16.39	16.29	17.00

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		1	24	16.11	16.20	16.20	17.00
		12	0	16.12	16.41	16.30	17.00
		12	6	16.43	16.46	16.47	17.00
		12	13	16.36	16.24	16.37	17.00
		25	0	16.28	16.36	16.37	17.00
	16QAM	1	0	16.59	16.31	16.82	17.00
		1	13	16.58	16.52	16.75	17.00
		1	24	16.45	16.85	16.51	17.00
		12	0	16.24	16.39	16.47	17.00
		12	6	16.43	16.39	16.40	17.00
		12	13	16.28	16.23	16.35	17.00
		25	0	16.34	16.42	16.41	17.00
	64QAM	1	0	16.13	16.08	16.38	17.00
		1	13	16.29	16.44	16.29	17.00
		1	24	16.11	16.25	16.21	17.00
		12	0	16.10	16.44	16.35	17.00
		12	6	16.40	16.51	16.43	17.00
		12	13	16.41	16.19	16.38	17.00
		25	0	16.26	16.33	16.42	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	16.29	16.32	16.32	17.00
		1	25	16.35	16.36	16.32	17.00
		1	49	16.23	16.16	16.31	17.00
		25	0	16.14	16.40	16.37	17.00
		25	13	16.34	16.33	16.46	17.00
		25	25	16.31	16.19	16.43	17.00
		50	0	16.33	16.49	16.43	17.00
	16QAM	1	0	16.85	16.60	16.74	17.00
		1	25	16.52	16.52	16.64	17.00
		1	49	16.26	16.51	16.82	17.00
		25	0	16.24	16.54	16.38	17.00
		25	13	16.30	16.44	16.52	17.00
		25	25	16.38	16.32	16.49	17.00
		50	0	16.34	16.38	16.43	17.00
	64QAM	1	0	16.28	16.34	16.30	17.00
		1	25	16.32	16.32	16.37	17.00
		1	49	16.26	16.14	16.28	17.00
		25	0	16.17	16.35	16.39	17.00
		25	13	16.36	16.28	16.43	17.00
		25	25	16.35	16.19	16.43	17.00
		50	0	16.36	16.46	16.48	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	16.12	16.25	16.34	17.00
		1	38	16.32	16.38	16.35	17.00
		1	74	16.15	16.12	16.26	17.00
		36	0	16.22	16.44	16.41	17.00
		36	18	16.25	16.41	16.45	17.00
		36	39	16.24	16.34	16.40	17.00
		75	0	16.18	16.42	16.45	17.00
	16QAM	1	0	16.83	16.38	16.61	17.00
		1	38	16.51	16.62	16.55	17.00
		1	74	16.78	16.27	16.46	17.00
		36	0	16.24	16.49	16.42	17.00
		36	18	16.36	16.43	16.35	17.00
		36	39	16.33	16.40	16.41	17.00
		75	0	16.35	16.35	16.40	17.00
	64QAM	1	0	16.13	16.21	16.34	17.00
		1	38	16.37	16.39	16.39	17.00
		1	74	16.10	16.17	16.26	17.00
		36	0	16.24	16.49	16.36	17.00
		36	18	16.29	16.37	16.46	17.00
		36	39	16.25	16.32	16.42	17.00

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		75	0	16.22	16.41	16.45	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	16.09	16.03	16.05	17.00
		1	50	16.35	16.59	**16.63**	17.00
		1	99	16.24	16.03	16.03	17.00
		50	0	16.15	**16.58**	16.42	17.00
		50	25	**16.37**	16.38	16.45	17.00
		50	50	16.22	16.37	**16.62**	17.00
		100	0	16.22	**16.54**	16.50	17.00
	16QAM	1	0	16.76	16.30	16.74	17.00
		1	50	16.30	16.63	16.58	17.00
		1	99	16.55	16.28	16.21	17.00
		50	0	16.21	16.57	16.48	17.00
		50	25	16.29	16.42	16.52	17.00
		50	50	16.36	16.39	16.54	17.00
		100	0	16.21	16.52	16.51	17.00
	64QAM	1	0	16.08	16.06	16.10	17.00
		1	50	16.40	16.62	16.68	17.00
		1	99	16.19	16.07	16.08	17.00
		50	0	16.17	16.58	16.45	17.00
		50	25	16.36	16.41	16.46	17.00
		50	50	16.17	16.36	16.63	17.00
		100	0	16.19	16.50	16.55	17.00

LTE Band 4 sensor on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	20.08	20.19	20.29	21.00
		1	2	20.40	20.31	20.38	21.00
		1	5	20.16	20.19	20.24	21.00
		3	0	20.37	20.39	20.42	21.00
		3	2	20.34	20.35	20.34	21.00
		3	3	20.16	20.26	20.41	21.00
		6	0	20.31	20.42	20.45	21.00
	16QAM	1	0	20.24	20.44	20.57	21.00
		1	2	20.60	20.46	20.73	21.00
		1	5	20.38	20.43	20.77	21.00
		3	0	20.36	20.50	20.41	21.00
		3	2	20.47	20.39	20.55	21.00
		3	3	20.44	20.41	20.40	21.00
		6	0	20.34	20.42	20.56	21.00
	64QAM	1	0	20.12	20.22	20.26	21.00
		1	2	20.41	20.34	20.38	21.00
		1	5	20.17	20.23	20.28	21.00
		3	0	20.41	20.38	20.46	21.00
		3	2	20.39	20.35	20.33	21.00
		3	3	20.11	20.23	20.42	21.00
		6	0	20.28	20.44	20.47	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	20.33	20.32	20.29	21.00
		1	7	20.54	20.50	20.70	21.00
		1	14	20.26	20.27	20.32	21.00
		8	0	20.27	20.39	20.43	21.00
		8	4	20.26	20.38	20.34	21.00
		8	7	20.25	20.41	20.32	21.00
		15	0	20.18	20.40	20.43	21.00
	16QAM	1	0	20.91	20.63	20.37	21.00
		1	7	20.71	20.51	20.92	21.00
		1	14	20.45	20.85	20.83	21.00
		8	0	20.36	20.54	20.64	21.00
		8	4	20.46	20.52	20.40	21.00
		8	7	20.34	20.57	20.55	21.00

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		15	0	20.34	20.36	20.49	21.00
	64QAM	1	0	20.28	20.33	20.31	21.00
		1	7	20.53	20.55	20.74	21.00
		1	14	20.25	20.24	20.28	21.00
		8	0	20.32	20.36	20.45	21.00
		8	4	20.28	20.43	20.35	21.00
		8	7	20.22	20.41	20.35	21.00
		15	0	20.15	20.43	20.45	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	20.19	20.28	20.31	21.00
		1	13	20.21	20.32	20.49	21.00
		1	24	20.12	20.15	20.25	21.00
		12	0	20.15	20.28	20.36	21.00
		12	6	20.35	20.36	20.45	21.00
		12	13	20.23	20.29	20.30	21.00
		25	0	20.26	20.29	20.37	21.00
	16QAM	1	0	20.20	20.74	20.47	21.00
		1	13	20.94	20.90	20.62	21.00
		1	24	20.20	20.48	20.71	21.00
		12	0	20.31	20.36	20.27	21.00
		12	6	20.32	20.41	20.49	21.00
		12	13	20.18	20.41	20.36	21.00
		25	0	20.30	20.43	20.45	21.00
	64QAM	1	0	20.20	20.24	20.26	21.00
		1	13	20.22	20.35	20.49	21.00
		1	24	20.08	20.16	20.30	21.00
		12	0	20.17	20.30	20.39	21.00
		12	6	20.31	20.39	20.40	21.00
		12	13	20.20	20.32	20.31	21.00
		25	0	20.30	20.25	20.36	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	20.55	20.40	20.36	21.00
		1	25	20.34	20.45	20.54	21.00
		1	49	20.15	20.26	20.34	21.00
		25	0	20.24	20.43	20.32	21.00
		25	13	20.31	20.43	20.46	21.00
		25	25	20.39	20.28	20.41	21.00
		50	0	20.31	20.37	20.42	21.00
	16QAM	1	0	20.95	20.47	20.69	21.00
		1	25	20.63	20.81	20.82	21.00
		1	49	20.51	20.81	20.42	21.00
		25	0	20.31	20.43	20.35	21.00
		25	13	20.40	20.39	20.48	21.00
		25	25	20.28	20.39	20.46	21.00
		50	0	20.24	20.46	20.49	21.00
	64QAM	1	0	20.57	20.38	20.36	21.00
		1	25	20.32	20.49	20.55	21.00
		1	49	20.19	20.25	20.38	21.00
		25	0	20.23	20.43	20.30	21.00
		25	13	20.30	20.38	20.50	21.00
		25	25	20.43	20.33	20.37	21.00
		50	0	20.36	20.35	20.40	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	20.14	20.31	20.35	21.00
		1	38	20.23	20.32	20.43	21.00
		1	74	20.21	20.11	20.30	21.00
		36	0	20.31	20.51	20.46	21.00
		36	18	20.39	20.37	20.48	21.00
		36	39	20.37	20.43	20.47	21.00
		75	0	20.30	20.40	20.40	21.00
	16QAM	1	0	20.60	20.91	20.46	21.00

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		1	38	20.89	20.70	20.38	21.00
		1	74	20.81	20.42	20.50	21.00
		36	0	20.25	20.52	20.49	21.00
		36	18	20.47	20.51	20.47	21.00
		36	39	20.24	20.47	20.36	21.00
		75	0	20.29	20.47	20.45	21.00
	64QAM	1	0	20.18	20.36	20.32	21.00
		1	38	20.22	20.29	20.44	21.00
		1	74	20.20	20.11	20.25	21.00
		36	0	20.28	20.56	20.45	21.00
		36	18	20.40	20.42	20.53	21.00
		36	39	20.42	20.47	20.44	21.00
		75	0	20.34	20.35	20.36	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	20.06	19.99	19.99	21.00
		1	50	**20.39**	**20.39**	**20.41**	21.00
		1	99	20.12	20.04	20.02	21.00
		50	0	20.25	**20.67**	20.41	21.00
		50	25	20.36	20.39	20.56	21.00
		50	50	20.23	20.44	20.59	21.00
		100	0	20.28	20.48	**20.56**	21.00
	16QAM	1	0	20.79	20.14	20.27	21.00
		1	50	20.57	20.63	20.69	21.00
		1	99	20.59	20.39	20.53	21.00
		50	0	20.22	20.62	20.45	21.00
		50	25	20.29	20.49	20.56	21.00
		50	50	20.28	20.41	20.52	21.00
		100	0	20.27	20.58	20.65	21.00
	64QAM	1	0	20.06	19.96	19.95	21.00
		1	50	20.43	20.39	20.39	21.00
		1	99	20.14	20.01	20.03	21.00
		50	0	20.28	20.71	20.36	21.00
		50	25	20.33	20.42	20.54	21.00
		50	50	20.28	20.40	20.62	21.00
		100	0	20.24	20.50	20.51	21.00

LTE Band 4 Sensor on+WLAN/Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	15.22	15.26	15.35	16.00
		1	2	15.34	15.34	15.46	16.00
		1	5	15.23	15.28	15.27	16.00
		3	0	15.39	15.32	15.40	16.00
		3	2	15.31	15.52	15.41	16.00
		3	3	15.39	15.47	15.48	16.00
		6	0	15.25	15.27	15.37	16.00
	16QAM	1	0	15.40	15.76	15.48	16.00
		1	2	15.97	15.98	15.68	16.00
		1	5	15.78	15.90	15.71	16.00
		3	0	15.46	15.37	15.44	16.00
		3	2	15.27	15.47	15.24	16.00
		3	3	15.37	15.41	15.38	16.00
		6	0	15.59	15.41	15.37	16.00
	64QAM	1	0	15.27	15.23	15.34	16.00
		1	2	15.37	15.37	15.44	16.00
		1	5	15.26	15.26	15.26	16.00
		3	0	15.40	15.32	15.36	16.00
		3	2	15.28	15.52	15.45	16.00
		3	3	15.34	15.45	15.51	16.00
		6	0	15.27	15.26	15.35	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	15.24	15.35	15.29	16.00

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		1	7	15.47	15.40	15.70	16.00
		1	14	15.28	15.34	15.32	16.00
		8	0	15.32	15.33	15.40	16.00
		8	4	15.20	15.30	15.40	16.00
		8	7	15.27	15.35	15.38	16.00
		15	0	15.25	15.29	15.41	16.00
	16QAM	1	0	15.53	15.78	15.80	16.00
		1	7	15.64	15.65	15.62	16.00
		1	14	15.67	15.60	15.78	16.00
		8	0	15.23	15.44	15.45	16.00
		8	4	15.34	15.43	15.48	16.00
		8	7	15.43	15.33	15.52	16.00
		15	0	15.34	15.29	15.41	16.00
	64QAM	1	0	15.29	15.33	15.33	16.00
		1	7	15.42	15.42	15.69	16.00
		1	14	15.32	15.32	15.36	16.00
		8	0	15.27	15.38	15.42	16.00
		8	4	15.19	15.26	15.45	16.00
		8	7	15.24	15.31	15.38	16.00
		15	0	15.26	15.25	15.45	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	15.23	15.30	15.23	16.00
		1	13	15.26	15.32	15.23	16.00
		1	24	15.08	15.16	15.34	16.00
		12	0	15.19	15.38	15.36	16.00
		12	6	15.33	15.35	15.46	16.00
		12	13	15.35	15.20	15.30	16.00
		25	0	15.27	15.31	15.42	16.00
	16QAM	1	0	15.78	15.46	15.82	16.00
		1	13	15.74	15.86	15.86	16.00
		1	24	15.31	15.58	15.52	16.00
		12	0	15.13	15.21	15.25	16.00
		12	6	15.26	15.43	15.38	16.00
		12	13	15.24	15.19	15.26	16.00
		25	0	15.17	15.30	15.33	16.00
	64QAM	1	0	15.28	15.30	15.23	16.00
		1	13	15.22	15.29	15.28	16.00
		1	24	15.06	15.11	15.36	16.00
		12	0	15.18	15.40	15.34	16.00
		12	6	15.31	15.36	15.47	16.00
		12	13	15.37	15.25	15.27	16.00
		25	0	15.27	15.35	15.40	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	15.39	15.30	15.40	16.00
		1	25	15.41	15.42	15.39	16.00
		1	49	15.21	15.40	15.33	16.00
		25	0	15.24	15.38	15.38	16.00
		25	13	15.30	15.31	15.39	16.00
		25	25	15.29	15.33	15.50	16.00
		50	0	15.33	15.38	15.41	16.00
	16QAM	1	0	15.50	15.62	15.95	16.00
		1	25	15.92	15.61	15.93	16.00
		1	49	15.17	15.51	15.57	16.00
		25	0	15.24	15.46	15.42	16.00
		25	13	15.31	15.39	15.48	16.00
		25	25	15.29	15.39	15.44	16.00
		50	0	15.21	15.42	15.32	16.00
	64QAM	1	0	15.35	15.34	15.42	16.00
		1	25	15.36	15.39	15.40	16.00
		1	49	15.20	15.35	15.28	16.00
		25	0	15.26	15.41	15.43	16.00
		25	13	15.32	15.36	15.44	16.00

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		25	25	15.34	15.28	15.48	16.00
		50	0	15.36	15.40	15.40	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	15.11	15.20	15.42	16.00
		1	38	15.17	15.32	15.47	16.00
		1	74	15.16	15.27	15.21	16.00
		36	0	15.25	15.51	15.41	16.00
		36	18	15.37	15.37	15.47	16.00
		36	39	15.35	15.40	15.41	16.00
		75	0	15.28	15.43	15.36	16.00
	16QAM	1	0	15.30	15.36	15.93	16.00
		1	38	15.43	15.83	15.87	16.00
		1	74	15.71	15.30	15.75	16.00
		36	0	15.15	15.39	15.45	16.00
		36	18	15.34	15.35	15.43	16.00
		36	39	15.37	15.30	15.34	16.00
		75	0	15.27	15.42	15.41	16.00
	64QAM	1	0	15.10	15.18	15.47	16.00
		1	38	15.12	15.31	15.51	16.00
		1	74	15.13	15.28	15.23	16.00
		36	0	15.25	15.49	15.39	16.00
		36	18	15.38	15.33	15.46	16.00
		36	39	15.37	15.36	15.45	16.00
		75	0	15.31	15.45	15.41	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	15.07	14.93	15.22	16.00
		1	50	15.35	15.49	**15.62**	16.00
		1	99	15.02	15.14	14.99	16.00
		50	0	15.17	15.62	15.43	16.00
		50	25	15.32	15.35	15.49	16.00
		50	50	15.19	15.43	15.59	16.00
		100	0	15.25	15.43	15.45	16.00
	16QAM	1	0	15.67	15.54	15.07	16.00
		1	50	15.90	15.80	15.62	16.00
		1	99	15.38	15.73	15.27	16.00
		50	0	15.20	15.64	15.45	16.00
		50	25	15.43	15.47	15.51	16.00
		50	50	15.26	15.42	15.60	16.00
		100	0	15.32	15.58	15.53	16.00
	64QAM	1	0	15.05	14.90	15.26	16.00
		1	50	15.33	15.48	15.50	16.00
		1	99	15.07	15.10	15.03	16.00
		50	0	15.12	15.63	15.47	16.00
		50	25	15.28	15.32	15.46	16.00
		50	50	15.23	15.43	15.64	16.00
		100	0	15.30	15.46	15.40	16.00

LTE Band 4 Receiver on+WLAN				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	14.30	14.27	14.27	15.00
		1	2	14.30	14.42	14.40	15.00
		1	5	13.95	14.17	14.29	15.00
		3	0	14.39	14.38	14.36	15.00
		3	2	13.98	14.48	14.33	15.00
		3	3	14.19	14.35	14.30	15.00
		6	0	14.29	14.33	14.46	15.00
	16QAM	1	0	14.53	14.47	14.82	15.00
		1	2	14.61	14.71	14.40	15.00
		1	5	14.17	14.87	14.49	15.00
		3	0	14.17	14.48	14.43	15.00
		3	2	14.36	14.44	14.22	15.00

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		3	3	14.37	14.36	14.44	15.00
		6	0	14.33	14.40	14.43	15.00
	64QAM	1	0	14.32	14.30	14.30	15.00
		1	2	14.29	14.40	14.41	15.00
		1	5	13.93	14.12	14.32	15.00
		3	0	14.43	14.40	14.39	15.00
		3	2	13.98	14.52	14.32	15.00
		3	3	14.16	14.30	14.32	15.00
		6	0	14.28	14.32	14.45	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	14.03	14.43	14.40	15.00
		1	7	14.61	14.46	14.47	15.00
		1	14	14.20	14.34	14.34	15.00
		8	0	14.43	14.21	14.45	15.00
		8	4	14.20	14.34	14.37	15.00
		8	7	14.14	14.35	14.37	15.00
		15	0	14.12	14.36	14.40	15.00
	16QAM	1	0	14.87	14.56	14.87	15.00
		1	7	14.48	14.85	14.64	15.00
		1	14	14.57	14.61	14.80	15.00
		8	0	14.17	14.34	14.57	15.00
		8	4	14.52	14.32	14.57	15.00
		8	7	14.53	14.43	14.55	15.00
		15	0	14.34	14.38	14.49	15.00
	64QAM	1	0	14.01	14.45	14.43	15.00
		1	7	14.64	14.47	14.47	15.00
		1	14	14.15	14.33	14.35	15.00
		8	0	14.47	14.23	14.43	15.00
		8	4	14.19	14.38	14.42	15.00
		8	7	14.13	14.38	14.36	15.00
		15	0	14.13	14.36	14.37	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	14.24	14.26	14.35	15.00
		1	13	14.16	14.36	14.37	15.00
		1	24	14.10	14.24	14.28	15.00
		12	0	14.26	14.34	14.29	15.00
		12	6	14.35	14.38	14.45	15.00
		12	13	14.19	14.28	14.42	15.00
		25	0	14.23	14.33	14.41	15.00
	16QAM	1	0	14.82	14.48	14.78	15.00
		1	13	14.30	14.85	14.84	15.00
		1	24	14.74	14.83	14.46	15.00
		12	0	14.32	14.41	14.41	15.00
		12	6	14.31	14.35	14.50	15.00
		12	13	14.27	14.39	14.38	15.00
		25	0	14.28	14.42	14.48	15.00
	64QAM	1	0	14.19	14.28	14.38	15.00
		1	13	14.12	14.31	14.38	15.00
		1	24	14.12	14.22	14.24	15.00
		12	0	14.31	14.34	14.31	15.00
		12	6	14.37	14.42	14.44	15.00
		12	13	14.18	14.28	14.46	15.00
		25	0	14.19	14.30	14.42	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	14.13	14.29	14.36	15.00
		1	25	14.24	14.33	14.55	15.00
		1	49	14.21	14.19	14.36	15.00
		25	0	14.13	14.45	14.38	15.00
		25	13	14.34	14.44	14.48	15.00
		25	25	14.34	14.30	14.49	15.00
		50	0	14.27	14.36	14.48	15.00

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	16QAM	1	0	14.84	14.56	14.81	15.00
		1	25	14.80	14.50	14.76	15.00
		1	49	14.52	14.33	14.49	15.00
		25	0	14.23	14.42	14.36	15.00
		25	13	14.37	14.40	14.54	15.00
		25	25	14.44	14.36	14.42	15.00
		50	0	14.31	14.32	14.43	15.00
	64QAM	1	0	14.10	14.30	14.39	15.00
		1	25	14.25	14.28	14.56	15.00
		1	49	14.19	14.22	14.32	15.00
		25	0	14.10	14.47	14.35	15.00
		25	13	14.36	14.41	14.43	15.00
		25	25	14.37	14.26	14.51	15.00
		50	0	14.31	14.41	14.44	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20025	Channel 20175	Channel 20325	Tune up
15MHz	QPSK	1	0	14.17	14.26	14.25	15.00
		1	38	14.18	14.27	14.40	15.00
		1	74	14.20	14.23	14.30	15.00
		36	0	14.26	14.43	14.44	15.00
		36	18	14.41	14.37	14.49	15.00
		36	39	14.35	14.39	14.46	15.00
		75	0	14.33	14.44	14.39	15.00
	16QAM	1	0	14.80	14.25	14.57	15.00
		1	38	14.52	14.82	14.60	15.00
		1	74	14.62	14.80	14.46	15.00
		36	0	14.32	14.37	14.48	15.00
		36	18	14.37	14.37	14.41	15.00
		36	39	14.33	14.41	14.50	15.00
		75	0	14.29	14.36	14.53	15.00
	64QAM	1	0	14.20	14.26	14.25	15.00
		1	38	14.15	14.26	14.37	15.00
		1	74	14.17	14.23	14.35	15.00
		36	0	14.27	14.45	14.39	15.00
		36	18	14.46	14.32	14.44	15.00
		36	39	14.36	14.41	14.51	15.00
		75	0	14.32	14.43	14.42	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20050	Channel 20175	Channel 20300	Tune up
20MHz	QPSK	1	0	14.01	14.01	14.23	15.00
		1	50	14.43	14.41	14.52	15.00
		1	99	14.02	14.04	14.21	15.00
		50	0	14.38	14.72	14.47	15.00
		50	25	14.40	14.52	14.47	15.00
		50	50	14.27	14.37	14.60	15.00
		100	0	14.36	14.50	14.56	15.00
	16QAM	1	0	14.78	14.09	14.41	15.00
		1	50	14.85	14.83	14.80	15.00
		1	99	14.31	14.09	14.59	15.00
		50	0	14.25	14.68	14.43	15.00
		50	25	14.40	14.47	14.44	15.00
		50	50	14.34	14.42	14.63	15.00
		100	0	14.31	14.55	14.46	15.00
	64QAM	1	0	14.06	13.96	14.27	15.00
		1	50	14.38	14.36	14.57	15.00
		1	99	13.99	14.05	14.25	15.00
		50	0	14.34	14.73	14.47	15.00
		50	25	14.41	14.48	14.46	15.00
		50	50	14.31	14.42	14.59	15.00
		100	0	14.31	14.50	14.54	15.00

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LTE Band 5 Receiver off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	23.35	23.35	23.41	24.50
		1	2	23.68	23.49	23.65	24.50
		1	5	23.32	23.41	23.41	24.50
		3	0	23.54	23.51	23.72	24.50
		3	2	23.49	23.57	23.49	24.50
		3	3	23.57	23.51	23.52	24.50
		6	0	22.65	22.62	22.59	23.50
	16QAM	1	0	23.05	22.58	22.41	23.50
		1	2	22.97	22.58	22.69	23.50
		1	5	22.49	22.32	22.64	23.50
		3	0	22.56	22.25	22.45	23.50
		3	2	22.72	22.48	22.25	23.50
		3	3	22.49	22.49	22.34	23.50
		6	0	21.56	21.76	21.71	22.50
	64QAM	1	0	21.99	21.62	21.42	22.50
		1	2	21.92	21.59	21.66	22.50
		1	5	21.47	21.33	21.60	22.50
		3	0	21.51	21.29	21.48	22.50
		3	2	21.71	21.46	21.19	22.50
		3	3	21.44	21.43	21.36	22.50
		6	0	20.53	20.75	20.70	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	23.60	23.55	23.53	24.50
		1	7	23.49	23.80	23.81	24.50
		1	14	23.45	23.54	23.45	24.50
		8	0	22.56	22.64	22.62	23.50
		8	4	22.62	22.64	22.63	23.50
		8	7	22.55	22.61	22.57	23.50
		15	0	22.57	22.60	22.60	23.50
	16QAM	1	0	22.97	22.69	22.68	23.50
		1	7	22.72	23.06	22.83	23.50
		1	14	22.61	22.91	22.62	23.50
		8	0	21.66	21.56	21.63	22.50
		8	4	21.70	21.64	21.53	22.50
		8	7	21.53	21.67	21.70	22.50
		15	0	21.45	21.63	21.55	22.50
	64QAM	1	0	21.93	21.67	21.68	22.50
		1	7	21.73	22.06	21.86	22.50
		1	14	21.55	21.88	21.58	22.50
		8	0	20.60	20.56	20.61	21.50
		8	4	20.67	20.62	20.55	21.50
		8	7	20.48	20.61	20.73	21.50
		15	0	20.49	20.66	20.59	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	23.42	23.41	23.47	24.50
		1	13	23.43	23.61	23.47	24.50
		1	24	23.34	23.43	23.34	24.50
		12	0	22.56	22.50	22.60	23.50
		12	6	22.60	22.61	22.60	23.50
		12	13	22.57	22.60	22.63	23.50
		25	0	22.57	22.70	22.46	23.50
	16QAM	1	0	22.59	22.22	22.63	23.50
		1	13	22.49	22.49	22.37	23.50
		1	24	22.61	22.76	22.66	23.50
		12	0	21.59	21.53	21.42	22.50
		12	6	21.51	21.54	21.60	22.50
		12	13	21.56	21.53	21.38	22.50
		25	0	21.53	21.54	21.38	22.50
	64QAM	1	0	21.58	21.20	21.67	22.50

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		1	13	21.47	21.51	21.38	22.50
		1	24	21.57	21.75	21.68	22.50
		12	0	20.58	20.52	20.43	21.50
		12	6	20.55	20.55	20.62	21.50
		12	13	20.53	20.57	20.37	21.50
		25	0	20.48	20.57	20.37	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	23.57	23.51	23.60	24.50
		1	25	23.50	23.84	23.80	24.50
		1	49	23.55	23.54	23.61	24.50
		25	0	22.65	**22.69**	22.62	23.50
		25	13	22.65	22.65	22.65	23.50
		25	25	22.65	22.67	22.60	23.50
		50	0	22.68	22.79	22.66	23.50
	16QAM	1	0	22.90	22.97	22.92	23.50
		1	25	22.86	23.13	22.67	23.50
		1	49	22.55	23.10	22.70	23.50
		25	0	21.68	21.54	21.64	22.50
		25	13	21.66	21.53	21.60	22.50
		25	25	21.54	21.57	21.57	22.50
		50	0	21.59	21.75	21.65	22.50
	64QAM	1	0	21.74	21.62	21.67	22.50
		1	25	21.88	21.86	21.47	22.50
		1	49	21.43	21.72	21.68	22.50
		25	0	20.63	20.75	20.57	21.50
		25	13	20.62	20.62	20.56	21.50
		25	25	20.68	20.53	20.53	21.50
		50	0	20.68	20.79	20.71	21.50

LTE Band 5 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	22.31	22.32	22.37	23.50
		1	2	22.70	22.46	22.66	23.50
		1	5	22.32	22.44	22.38	23.50
		3	0	22.48	22.52	22.68	23.50
		3	2	22.48	22.55	22.44	23.50
		3	3	22.55	22.46	22.49	23.50
		6	0	22.60	22.61	22.62	23.50
	16QAM	1	0	22.45	22.61	22.38	23.50
		1	2	22.59	22.61	22.69	23.50
		1	5	22.51	22.27	22.68	23.50
		3	0	22.01	22.22	22.43	23.50
		3	2	22.07	22.47	22.27	23.50
		3	3	22.49	22.45	22.36	23.50
		6	0	21.54	21.79	21.76	22.50
	64QAM	1	0	21.99	21.58	21.45	22.50
		1	2	21.92	21.55	21.69	22.50
		1	5	21.48	21.34	21.60	22.50
		3	0	21.06	21.24	21.46	21.50
		3	2	21.07	21.49	21.15	21.50
		3	3	21.40	21.43	21.31	21.50
		6	0	20.52	20.75	20.68	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	22.58	22.55	22.56	23.50
		1	7	22.49	22.78	22.83	23.50
		1	14	22.45	22.51	22.47	23.50
		8	0	22.56	22.65	22.67	23.50
		8	4	22.58	22.64	22.58	23.50
		8	7	22.50	22.64	22.53	23.50
		15	0	22.58	22.62	22.60	23.50
	16QAM	1	0	22.81	22.64	22.67	23.50

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		1	7	22.69	22.61	22.79	23.50
		1	14	22.57	22.80	22.60	23.50
		8	0	21.70	21.56	21.68	22.50
		8	4	21.72	21.66	21.50	22.50
		8	7	21.48	21.64	21.74	22.50
		15	0	21.46	21.58	21.53	22.50
	64QAM	1	0	21.89	21.72	21.70	22.50
		1	7	21.71	22.10	21.82	22.50
		1	14	21.60	21.85	21.56	22.50
		8	0	20.61	20.55	20.60	21.50
		8	4	20.70	20.63	20.54	21.50
		8	7	20.45	20.58	20.72	21.50
		15	0	20.47	20.71	20.62	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	22.44	22.45	22.42	23.50
		1	13	22.39	22.59	22.50	23.50
		1	24	22.34	22.47	22.30	23.50
		12	0	22.60	22.48	22.62	23.50
		12	6	22.60	22.59	22.58	23.50
		12	13	22.55	22.55	22.68	23.50
		25	0	22.54	22.67	22.41	23.50
	16QAM	1	0	22.57	22.26	22.58	23.50
		1	13	22.53	22.50	22.33	23.50
		1	24	22.63	22.76	22.65	23.50
		12	0	21.56	21.49	21.38	22.50
		12	6	21.55	21.50	21.65	22.50
		12	13	21.61	21.51	21.43	22.50
		25	0	21.54	21.56	21.41	22.50
	64QAM	1	0	21.53	21.20	21.66	22.50
		1	13	21.47	21.56	21.40	22.50
		1	24	21.57	21.80	21.73	22.50
		12	0	20.61	20.50	20.48	21.50
		12	6	20.53	20.50	20.62	21.50
		12	13	20.53	20.54	20.40	21.50
		25	0	20.47	20.56	20.40	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	**22.56**	22.46	22.56	23.50
		1	25	22.48	**22.81**	**22.81**	23.50
		1	49	22.55	22.54	22.59	23.50
		25	0	**22.72**	**22.71**	22.61	23.50
		25	13	22.70	22.63	**22.66**	23.50
		25	25	22.63	22.69	22.65	23.50
		50	0	22.72	**22.76**	22.63	23.50
	16QAM	1	0	22.41	22.61	22.81	23.50
		1	25	22.84	22.51	22.64	23.50
		1	49	22.58	22.01	22.75	23.50
		25	0	21.72	21.49	21.65	22.50
		25	13	21.62	21.49	21.59	22.50
		25	25	21.50	21.55	21.57	22.50
		50	0	21.57	21.80	21.63	22.50
	64QAM	1	0	21.75	21.57	21.64	22.50
		1	25	21.85	21.84	21.47	22.50
		1	49	21.43	21.76	21.65	22.50
		25	0	20.68	20.75	20.62	21.50
		25	13	20.66	20.65	20.56	21.50
		25	25	20.73	20.48	20.51	21.50
		50	0	20.65	20.83	20.74	21.50

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LTE Band 5 Receiver on+WLAN				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	20.80	21.41	21.36	22.50
		1	2	22.03	21.95	21.75	22.50
		1	5	21.11	21.83	21.77	22.50
		3	0	21.97	21.81	21.47	22.50
		3	2	21.27	21.54	21.53	22.50
		3	3	21.04	21.05	21.18	22.50
		6	0	21.99	21.70	21.11	22.50
	16QAM	1	0	21.44	21.70	21.47	22.50
		1	2	21.68	21.50	21.18	22.50
		1	5	21.20	21.66	22.02	22.50
		3	0	21.50	21.61	21.72	22.50
		3	2	20.96	21.26	21.16	22.50
		3	3	21.88	21.34	20.85	22.50
		6	0	21.04	21.49	21.86	22.50
	64QAM	1	0	21.74	21.33	21.00	22.50
		1	2	21.97	21.80	21.84	22.50
		1	5	21.23	20.79	21.25	22.50
		3	0	21.11	21.09	20.91	21.50
		3	2	20.92	20.56	20.90	21.50
		3	3	21.05	20.88	20.66	21.50
		6	0	20.37	20.50	21.03	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	21.67	22.04	21.35	22.50
		1	7	21.08	21.77	21.72	22.50
		1	14	21.64	22.00	21.56	22.50
		8	0	21.55	22.03	21.56	22.50
		8	4	21.77	21.73	21.67	22.50
		8	7	20.99	21.93	21.32	22.50
		15	0	21.87	21.61	21.99	22.50
	16QAM	1	0	21.67	22.03	21.46	22.50
		1	7	21.38	21.30	21.67	22.50
		1	14	21.16	21.83	21.09	22.50
		8	0	22.02	21.01	21.93	22.50
		8	4	21.37	21.41	21.35	22.50
		8	7	21.73	21.49	21.29	22.50
		15	0	21.41	21.43	21.68	22.50
	64QAM	1	0	21.44	21.67	21.75	22.50
		1	7	21.66	21.65	21.27	22.50
		1	14	20.95	21.30	21.01	22.50
		8	0	20.36	20.60	20.35	21.50
		8	4	20.45	20.98	20.19	21.50
		8	7	19.90	20.83	20.17	21.50
		15	0	20.52	20.56	19.97	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	21.23	21.54	21.01	22.50
		1	13	21.78	21.38	21.69	22.50
		1	24	21.53	21.26	20.99	22.50
		12	0	21.09	21.77	21.41	22.50
		12	6	21.69	21.18	21.77	22.50
		12	13	21.54	21.34	21.77	22.50
		25	0	21.23	21.56	20.90	22.50
	16QAM	1	0	21.26	21.55	21.27	22.50
		1	13	21.52	21.69	21.42	22.50
		1	24	21.72	21.75	21.94	22.50
		12	0	21.61	21.74	21.23	22.50
		12	6	21.10	21.65	21.50	22.50
		12	13	21.56	21.76	21.08	22.50
		25	0	21.19	21.81	21.26	22.50
	64QAM	1	0	21.28	20.85	22.01	22.50

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		1	13	21.22	21.11	20.75	22.50
		1	24	21.42	21.45	21.78	22.50
		12	0	19.96	20.25	20.13	21.50
		12	6	19.88	19.85	20.17	21.50
		12	13	20.18	19.89	20.65	21.50
		25	0	20.82	20.81	20.25	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	21.55	21.45	21.05	22.50
		1	25	21.07	21.80	21.60	22.50
		1	49	21.54	21.33	21.68	22.50
		25	0	21.19	21.71	21.20	22.50
		25	13	21.29	21.82	22.05	22.50
		25	25	21.12	21.18	21.34	22.50
		50	0	21.51	21.61	21.92	22.50
	16QAM	1	0	21.20	21.10	21.40	22.50
		1	25	21.49	21.80	21.33	22.50
		1	49	21.77	21.20	21.64	22.50
		25	0	21.47	21.64	22.00	22.50
		25	13	21.97	21.14	21.14	22.50
		25	25	21.05	21.50	21.52	22.50
		50	0	21.32	21.62	21.98	22.50
	64QAM	1	0	21.60	21.12	21.59	22.50
		1	25	21.30	21.69	21.42	22.50
		1	49	21.48	21.11	21.30	22.50
		25	0	20.73	20.70	20.07	21.50
		25	13	20.81	20.20	20.41	21.50
		25	25	21.08	20.73	20.66	21.50
		50	0	20.70	20.38	20.89	21.50

LTE Band 7 Receiver off/Sensor off/Full power				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	23.49	23.43	23.31	24.00
		1	13	23.50	23.40	23.51	24.00
		1	24	23.39	23.15	23.34	24.00
		12	0	22.52	22.26	22.45	23.00
		12	6	22.53	22.53	22.50	23.00
		12	13	22.47	22.41	22.57	23.00
		25	0	22.51	22.42	22.44	23.00
	16QAM	1	0	22.51	22.34	22.26	23.00
		1	13	22.61	22.99	22.51	23.00
		1	24	22.40	22.16	22.46	23.00
		12	0	21.56	21.42	21.60	22.00
		12	6	21.64	21.50	21.70	22.00
		12	13	21.66	21.47	21.62	22.00
		25	0	21.51	21.49	21.56	22.00
	64QAM	1	0	21.45	21.38	21.23	22.00
		1	13	21.58	22.00	21.49	22.00
		1	24	21.35	21.20	21.40	22.00
		12	0	20.59	20.42	20.55	21.00
		12	6	20.58	20.51	20.70	21.00
		12	13	20.63	20.42	20.64	21.00
		25	0	20.49	20.51	20.55	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	23.40	23.27	23.37	24.00
		1	25	23.50	23.49	23.50	24.00
		1	49	23.48	23.14	23.34	24.00
		25	0	22.51	22.44	22.52	23.00
		25	13	22.49	22.37	22.57	23.00
		25	25	22.60	22.38	22.61	23.00
		50	0	22.67	22.40	22.53	23.00
	16QAM	1	0	22.72	22.57	22.51	23.00

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		1	25	22.61	22.52	22.46	23.00
		1	49	22.62	22.55	22.49	23.00
		25	0	21.67	21.46	21.64	22.00
		25	13	21.62	21.43	21.61	22.00
		25	25	21.61	21.53	21.68	22.00
		50	0	21.64	21.56	21.59	22.00
	64QAM	1	0	21.73	21.52	21.51	22.00
		1	25	21.63	21.47	21.41	22.00
		1	49	21.66	21.59	21.44	22.00
		25	0	20.61	20.50	20.63	21.00
		25	13	20.57	20.39	20.65	21.00
		25	25	20.58	20.51	20.72	21.00
		50	0	20.65	20.60	20.58	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	23.35	23.32	23.18	24.00
		1	38	23.39	23.22	23.43	24.00
		1	74	23.24	23.23	23.35	24.00
		36	0	22.51	22.43	22.50	23.00
		36	18	22.54	22.35	22.39	23.00
		36	39	22.44	22.46	22.51	23.00
		75	0	22.45	22.38	22.48	23.00
	16QAM	1	0	22.57	22.37	22.41	23.00
		1	38	22.69	22.93	22.42	23.00
		1	74	22.33	22.19	22.40	23.00
		36	0	21.58	21.47	21.61	22.00
		36	18	21.63	21.48	21.53	22.00
		36	39	21.57	21.44	21.56	22.00
		75	0	21.60	21.43	21.61	22.00
	64QAM	1	0	21.54	21.40	21.37	22.00
		1	38	21.63	21.97	21.46	22.00
		1	74	21.37	21.14	21.36	22.00
		36	0	20.52	20.48	20.56	21.00
		36	18	20.58	20.42	20.49	21.00
		36	39	20.57	20.48	20.55	21.00
		75	0	20.62	20.47	20.58	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	23.18	23.08	23.01	24.00
		1	50	23.52	23.28	23.47	24.00
		1	99	23.19	22.99	23.22	24.00
		50	0	**22.60**	22.35	22.58	23.00
		50	25	22.53	22.44	22.46	23.00
		50	50	22.48	22.39	22.52	23.00
		100	0	22.49	22.34	22.47	23.00
	16QAM	1	0	22.30	22.61	22.24	23.00
		1	50	22.77	22.45	22.56	23.00
		1	99	22.43	22.41	22.77	23.00
		50	0	21.61	21.55	21.68	22.00
		50	25	21.58	21.43	21.54	22.00
		50	50	21.51	21.51	21.49	22.00
		100	0	21.50	21.53	21.52	22.00
	64QAM	1	0	21.53	21.60	21.37	22.00
		1	50	21.82	21.84	22.00	22.00
		1	99	21.20	21.55	21.20	22.00
		50	0	20.66	20.64	20.65	21.00
		50	25	20.56	20.63	20.48	21.00
		50	50	20.52	20.51	20.49	21.00
		100	0	20.60	20.59	20.53	21.00

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LTE Band 7 Receiver on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	16.32	16.28	16.30	17.00
		1	13	16.44	16.40	16.52	17.00
		1	24	16.22	16.35	16.26	17.00
		12	0	16.29	16.32	16.54	17.00
		12	6	16.49	16.46	16.62	17.00
		12	13	16.31	16.43	16.50	17.00
		25	0	16.36	16.31	16.56	17.00
	16QAM	1	0	16.75	16.84	16.81	17.00
		1	13	16.88	16.73	16.58	17.00
		1	24	16.57	16.50	16.40	17.00
		12	0	16.37	16.51	16.62	17.00
		12	6	16.51	16.37	16.60	17.00
		12	13	16.43	16.46	16.51	17.00
		25	0	16.33	16.49	16.50	17.00
	64QAM	1	0	16.35	16.26	16.28	17.00
		1	13	16.47	16.43	16.57	17.00
		1	24	16.20	16.31	16.21	17.00
		12	0	16.26	16.29	16.54	17.00
		12	6	16.54	16.42	16.60	17.00
		12	13	16.32	16.46	16.53	17.00
		25	0	16.32	16.31	16.54	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	16.29	16.22	16.28	17.00
		1	25	16.37	16.52	16.54	17.00
		1	49	16.46	16.37	16.42	17.00
		25	0	16.26	16.27	16.42	17.00
		25	13	16.47	16.42	16.54	17.00
		25	25	16.39	16.48	16.55	17.00
		50	0	16.34	16.37	16.53	17.00
	16QAM	1	0	16.93	16.90	16.62	17.00
		1	25	16.72	16.93	16.58	17.00
		1	49	16.91	16.94	16.58	17.00
		25	0	16.26	16.49	16.57	17.00
		25	13	16.33	16.56	16.63	17.00
		25	25	16.43	16.60	16.77	17.00
		50	0	16.47	16.45	16.64	17.00
	64QAM	1	0	16.27	16.24	16.23	17.00
		1	25	16.42	16.53	16.50	17.00
		1	49	16.44	16.35	16.44	17.00
		25	0	16.27	16.31	16.37	17.00
		25	13	16.42	16.45	16.59	17.00
		25	25	16.40	16.49	16.51	17.00
		50	0	16.29	16.38	16.55	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	16.30	16.30	16.19	17.00
		1	38	16.43	16.38	16.48	17.00
		1	74	16.34	16.26	16.44	17.00
		36	0	16.36	16.32	16.53	17.00
		36	18	16.40	16.35	16.47	17.00
		36	39	16.36	16.43	16.61	17.00
		75	0	16.41	16.48	16.57	17.00
	16QAM	1	0	16.85	16.87	16.57	17.00
		1	38	16.51	16.92	16.51	17.00
		1	74	16.86	16.32	16.46	17.00
		36	0	16.24	16.27	16.41	17.00
		36	18	16.43	16.40	16.45	17.00
		36	39	16.34	16.54	16.56	17.00
		75	0	16.39	16.37	16.53	17.00
	64QAM	1	0	16.34	16.33	16.18	17.00

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		1	38	16.41	16.37	16.43	17.00
		1	74	16.31	16.22	16.39	17.00
		36	0	16.34	16.37	16.58	17.00
		36	18	16.43	16.33	16.46	17.00
		36	39	16.37	16.46	16.59	17.00
		75	0	16.44	16.45	16.56	17.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	16.07	16.14	16.09	17.00
		1	50	**16.63**	**16.81**	**16.71**	17.00
		1	99	16.22	16.27	16.34	17.00
		50	0	16.38	16.26	16.51	17.00
		50	25	16.35	16.39	16.47	17.00
		50	50	**16.40**	**16.56**	**16.60**	17.00
		100	0	16.33	16.40	**16.69**	17.00
	16QAM	1	0	16.30	16.10	16.24	17.00
		1	50	16.93	16.86	16.60	17.00
		1	99	16.84	16.67	16.43	17.00
		50	0	16.33	16.38	16.69	17.00
		50	25	16.38	16.53	16.55	17.00
		50	50	16.56	16.56	16.67	17.00
		100	0	16.40	16.47	16.61	17.00
	64QAM	1	0	16.05	16.13	16.12	17.00
		1	50	16.58	16.83	16.67	17.00
		1	99	16.26	16.22	16.38	17.00
		50	0	16.37	16.27	16.49	17.00
		50	25	16.33	16.44	16.46	17.00
		50	50	16.40	16.55	16.56	17.00
		100	0	16.29	16.44	16.69	17.00

LTE Band 7 sensor on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	20.21	20.26	20.38	21.00
		1	13	20.45	20.39	20.43	21.00
		1	24	20.28	20.35	20.38	21.00
		12	0	20.37	20.33	20.50	21.00
		12	6	20.46	20.45	20.57	21.00
		12	13	20.37	20.36	20.59	21.00
		25	0	20.35	20.41	20.47	21.00
	16QAM	1	0	20.30	20.76	20.78	21.00
		1	13	20.80	20.64	20.81	21.00
		1	24	20.81	20.57	20.77	21.00
		12	0	20.32	20.35	20.64	21.00
		12	6	20.40	20.44	20.70	21.00
		12	13	20.36	20.59	20.64	21.00
		25	0	20.34	20.45	20.52	21.00
	64QAM	1	0	20.23	20.23	20.34	21.00
		1	13	20.50	20.43	20.47	21.00
		1	24	20.27	20.39	20.41	21.00
		12	0	20.33	20.32	20.55	21.00
		12	6	20.45	20.48	20.57	21.00
		12	13	20.36	20.39	20.61	21.00
		25	0	20.39	20.40	20.49	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	20.26	20.38	20.35	21.00
		1	25	20.68	20.45	20.60	21.00
		1	49	20.39	20.54	20.38	21.00
		25	0	20.38	20.46	20.58	21.00
		25	13	20.43	20.50	20.66	21.00
		25	25	20.42	20.52	20.62	21.00
		50	0	20.48	20.52	20.68	21.00
	16QAM	1	0	20.79	20.64	20.64	21.00

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		1	25	20.58	20.77	20.78	21.00
		1	49	20.74	20.73	20.80	21.00
		25	0	20.47	20.56	20.50	21.00
		25	13	20.44	20.53	20.72	21.00
		25	25	20.49	20.53	20.65	21.00
		50	0	20.50	20.59	20.66	21.00
	64QAM	1	0	20.27	20.39	20.37	21.00
		1	25	20.66	20.40	20.60	21.00
		1	49	20.39	20.53	20.35	21.00
		25	0	20.36	20.45	20.63	21.00
		25	13	20.40	20.47	20.61	21.00
		25	25	20.44	20.50	20.64	21.00
		50	0	20.49	20.48	20.64	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	20.19	20.27	20.37	21.00
		1	38	20.51	20.36	20.47	21.00
		1	74	20.41	20.43	20.55	21.00
		36	0	20.36	20.34	20.53	21.00
		36	18	20.47	20.42	20.60	21.00
		36	39	20.45	20.50	20.70	21.00
		75	0	20.48	20.43	20.60	21.00
	16QAM	1	0	20.78	20.79	20.80	21.00
		1	38	20.76	20.77	20.75	21.00
		1	74	20.75	20.37	20.71	21.00
		36	0	20.38	20.36	20.58	21.00
		36	18	20.43	20.52	20.65	21.00
		36	39	20.50	20.52	20.62	21.00
		75	0	20.45	20.49	20.64	21.00
	64QAM	1	0	20.22	20.28	20.39	21.00
		1	38	20.49	20.36	20.52	21.00
		1	74	20.39	20.41	20.53	21.00
		36	0	20.36	20.32	20.52	21.00
		36	18	20.52	20.45	20.63	21.00
		36	39	20.40	20.47	20.66	21.00
		75	0	20.52	20.41	20.65	21.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	20.05	20.15	20.09	21.00
		1	50	**20.59**	20.51	20.52	21.00
		1	99	20.22	20.22	20.19	21.00
		50	0	20.42	20.33	**20.70**	21.00
		50	25	20.39	20.44	20.62	21.00
		50	50	**20.44**	**20.56**	20.64	21.00
		100	0	20.39	20.60	**20.65**	21.00
	16QAM	1	0	20.31	20.10	20.39	21.00
		1	50	20.74	20.69	20.64	21.00
		1	99	20.82	20.81	20.61	21.00
		50	0	20.49	20.48	20.66	21.00
		50	25	20.39	20.51	20.69	21.00
		50	50	20.48	20.50	20.73	21.00
		100	0	20.50	20.48	20.72	21.00
	64QAM	1	0	20.05	20.18	20.12	21.00
		1	50	20.55	20.47	20.50	21.00
		1	99	20.19	20.25	20.17	21.00
		50	0	20.37	20.35	20.68	21.00
		50	25	20.44	20.44	20.67	21.00
		50	50	20.40	20.52	20.63	21.00
		100	0	20.41	20.64	20.60	21.00

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LTE Band 7 Sensor on+WLAN/Hotspot on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	15.34	15.35	15.39	16.00
		1	13	15.45	15.47	15.62	16.00
		1	24	15.24	15.26	15.41	16.00
		12	0	15.31	15.40	15.55	16.00
		12	6	15.43	15.47	15.57	16.00
		12	13	15.34	15.49	15.52	16.00
		25	0	15.34	15.39	15.61	16.00
	16QAM	1	0	15.84	15.88	15.38	16.00
		1	13	15.90	15.82	15.81	16.00
		1	24	15.35	15.87	15.50	16.00
		12	0	15.36	15.46	15.62	16.00
		12	6	15.55	15.56	15.65	16.00
		12	13	15.41	15.38	15.72	16.00
		25	0	15.47	15.45	15.70	16.00
	64QAM	1	0	15.30	15.31	15.35	16.00
		1	13	15.45	15.42	15.61	16.00
		1	24	15.22	15.23	15.41	16.00
		12	0	15.29	15.37	15.51	16.00
		12	6	15.38	15.47	15.60	16.00
		12	13	15.34	15.49	15.51	16.00
		25	0	15.29	15.39	15.63	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	15.39	15.31	15.46	16.00
		1	25	15.54	15.47	15.77	16.00
		1	49	15.48	15.40	15.69	16.00
		25	0	15.41	15.35	15.62	16.00
		25	13	15.52	15.55	15.69	16.00
		25	25	15.48	15.58	15.62	16.00
		50	0	15.38	15.48	15.51	16.00
	16QAM	1	0	15.52	15.92	15.51	16.00
		1	25	15.70	15.80	15.58	16.00
		1	49	15.91	15.82	15.84	16.00
		25	0	15.40	15.31	15.61	16.00
		25	13	15.48	15.44	15.61	16.00
		25	25	15.50	15.66	15.71	16.00
		50	0	15.43	15.43	15.55	16.00
	64QAM	1	0	15.43	15.28	15.48	16.00
		1	25	15.52	15.45	15.76	16.00
		1	49	15.43	15.42	15.69	16.00
		25	0	15.45	15.31	15.67	16.00
		25	13	15.50	15.60	15.65	16.00
		25	25	15.47	15.57	15.65	16.00
		50	0	15.42	15.44	15.55	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	15.29	15.35	15.31	16.00
		1	38	15.33	15.51	15.56	16.00
		1	74	15.43	15.47	15.51	16.00
		36	0	15.45	15.40	15.48	16.00
		36	18	15.49	15.51	15.59	16.00
		36	39	15.53	15.59	15.68	16.00
		75	0	15.47	15.52	15.61	16.00
	16QAM	1	0	15.33	15.88	15.57	16.00
		1	38	15.55	15.91	15.57	16.00
		1	74	15.58	15.63	15.55	16.00
		36	0	15.51	15.48	15.53	16.00
		36	18	15.47	15.43	15.62	16.00
		36	39	15.44	15.62	15.71	16.00
		75	0	15.51	15.52	15.63	16.00
	64QAM	1	0	15.31	15.33	15.31	16.00

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		1	38	15.33	15.47	15.53	16.00
		1	74	15.44	15.52	15.51	16.00
		36	0	15.47	15.41	15.48	16.00
		36	18	15.45	15.53	15.60	16.00
		36	39	15.56	15.60	15.70	16.00
		75	0	15.48	15.51	15.63	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	15.06	15.08	15.12	16.00
		1	50	15.64	**15.73**	15.48	16.00
		1	99	15.36	15.31	15.21	16.00
		50	0	15.43	15.46	15.65	16.00
		50	25	15.52	15.45	15.52	16.00
		50	50	15.40	15.70	**15.71**	16.00
		100	0	15.42	15.53	15.64	16.00
	16QAM	1	0	15.66	15.69	15.68	16.00
		1	50	15.86	15.90	15.49	16.00
		1	99	15.59	15.82	15.92	16.00
		50	0	15.48	15.42	15.61	16.00
		50	25	15.49	15.44	15.59	16.00
		50	50	15.57	15.61	15.61	16.00
		100	0	15.51	15.60	15.64	16.00
	64QAM	1	0	15.01	15.03	15.07	16.00
		1	50	15.67	15.68	15.50	16.00
		1	99	15.32	15.28	15.23	16.00
		50	0	15.40	15.44	15.61	16.00
		50	25	15.54	15.41	15.56	16.00
		50	50	15.45	15.71	15.68	16.00
		100	0	15.42	15.57	15.65	16.00

LTE Band 7 Receiver on+WLAN				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20775	Channel 21100	Channel 21425	Tune up
5MHz	QPSK	1	0	14.25	14.32	14.37	15.00
		1	13	14.34	14.45	14.49	15.00
		1	24	14.34	14.32	14.41	15.00
		12	0	14.31	14.32	14.48	15.00
		12	6	14.53	14.52	14.61	15.00
		12	13	14.35	14.48	14.47	15.00
		25	0	14.35	14.43	14.51	15.00
	16QAM	1	0	14.80	14.32	14.79	15.00
		1	13	14.44	14.60	14.50	15.00
		1	24	14.32	14.78	14.78	15.00
		12	0	14.36	14.36	14.44	15.00
		12	6	14.48	14.55	14.77	15.00
		12	13	14.30	14.47	14.55	15.00
		25	0	14.41	14.43	14.65	15.00
	64QAM	1	0	14.21	14.31	14.33	15.00
		1	13	14.34	14.41	14.49	15.00
		1	24	14.34	14.36	14.36	15.00
		12	0	14.34	14.34	14.53	15.00
		12	6	14.55	14.50	14.56	15.00
		12	13	14.36	14.49	14.43	15.00
		25	0	14.38	14.44	14.46	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20800	Channel 21100	Channel 21400	Tune up
10MHz	QPSK	1	0	14.26	14.37	14.54	15.00
		1	25	14.44	14.66	14.63	15.00
		1	49	14.42	14.54	14.39	15.00
		25	0	14.37	14.40	14.57	15.00
		25	13	14.38	14.43	14.59	15.00
		25	25	14.52	14.53	14.61	15.00
		50	0	14.46	14.45	14.60	15.00
	16QAM	1	0	14.45	14.79	14.80	15.00

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		1	25	14.78	14.74	14.79	15.00
		1	49	14.77	14.59	14.57	15.00
		25	0	14.37	14.38	14.61	15.00
		25	13	14.44	14.53	14.63	15.00
		25	25	14.41	14.66	14.73	15.00
		50	0	14.35	14.53	14.68	15.00
	64QAM	1	0	14.29	14.40	14.52	15.00
		1	25	14.42	14.67	14.60	15.00
		1	49	14.37	14.50	14.38	15.00
		25	0	14.42	14.44	14.61	15.00
		25	13	14.33	14.47	14.62	15.00
		25	25	14.50	14.52	14.56	15.00
		50	0	14.46	14.41	14.64	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20825	Channel 21100	Channel 21375	Tune up
15MHz	QPSK	1	0	14.32	14.30	14.36	15.00
		1	38	14.49	14.41	14.56	15.00
		1	74	14.40	14.36	14.55	15.00
		36	0	14.42	14.35	14.52	15.00
		36	18	14.42	14.47	14.61	15.00
		36	39	14.46	14.51	14.64	15.00
		75	0	14.40	14.47	14.65	15.00
	16QAM	1	0	14.58	14.78	14.78	15.00
		1	38	14.61	14.79	14.61	15.00
		1	74	14.66	14.76	14.53	15.00
		36	0	14.51	14.42	14.53	15.00
		36	18	14.49	14.46	14.52	15.00
		36	39	14.46	14.49	14.61	15.00
		75	0	14.47	14.51	14.54	15.00
	64QAM	1	0	14.33	14.27	14.31	15.00
		1	38	14.53	14.46	14.54	15.00
		1	74	14.43	14.36	14.55	15.00
		36	0	14.39	14.40	14.48	15.00
		36	18	14.45	14.44	14.57	15.00
		36	39	14.49	14.49	14.63	15.00
		75	0	14.39	14.46	14.62	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20850	Channel 21100	Channel 21350	Tune up
20MHz	QPSK	1	0	14.07	14.15	14.12	15.00
		1	50	14.56	14.54	14.53	15.00
		1	99	14.26	14.26	14.38	15.00
		50	0	14.41	14.42	14.53	15.00
		50	25	14.44	14.54	14.58	15.00
		50	50	14.50	14.59	14.73	15.00
		100	0	14.46	14.48	14.61	15.00
	16QAM	1	0	14.71	14.67	14.69	15.00
		1	50	14.69	14.65	14.79	15.00
		1	99	14.80	14.24	14.31	15.00
		50	0	14.54	14.35	14.64	15.00
		50	25	14.55	14.61	14.60	15.00
		50	50	14.50	14.63	14.69	15.00
		100	0	14.49	14.55	14.66	15.00
	64QAM	1	0	14.04	14.15	14.17	15.00
		1	50	14.60	14.52	14.57	15.00
		1	99	14.23	14.24	14.43	15.00
		50	0	14.44	14.42	14.51	15.00
		50	25	14.40	14.57	14.54	15.00
		50	50	14.50	14.63	14.71	15.00
		100	0	14.50	14.50	14.64	15.00

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LTE Band 38 Receiver off/Sensor off/Full power				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	23.73	23.82	23.62	24.50
		1	13	23.82	23.83	23.80	24.50
		1	24	23.72	23.64	23.56	24.50
		12	0	22.89	22.87	22.77	23.50
		12	6	22.92	22.92	22.85	23.50
		12	13	22.89	22.82	22.82	23.50
		25	0	22.82	22.79	22.76	23.50
	16QAM	1	0	22.84	22.86	22.77	23.50
		1	13	22.96	22.95	22.86	23.50
		1	24	22.75	22.76	22.69	23.50
		12	0	21.79	21.83	21.69	22.50
		12	6	21.78	21.86	21.76	22.50
		12	13	21.80	21.78	21.68	22.50
		25	0	21.84	21.87	21.73	22.50
	64QAM	1	0	21.83	21.81	21.76	22.50
		1	13	21.97	21.94	21.83	22.50
		1	24	21.71	21.71	21.71	22.50
		12	0	20.79	20.86	20.66	21.50
		12	6	20.80	20.84	20.76	21.50
		12	13	20.83	20.77	20.68	21.50
		25	0	20.79	20.87	20.71	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	23.79	23.82	23.77	24.50
		1	25	23.69	23.79	23.66	24.50
		1	49	23.80	23.81	23.69	24.50
		25	0	22.92	22.90	22.81	23.50
		25	13	22.85	22.95	22.81	23.50
		25	25	22.86	22.84	22.81	23.50
		50	0	22.83	22.88	22.78	23.50
	16QAM	1	0	22.81	23.02	22.91	23.50
		1	25	22.80	22.85	22.76	23.50
		1	49	22.86	22.88	22.80	23.50
		25	0	21.92	21.93	21.85	22.50
		25	13	21.83	21.93	21.77	22.50
		25	25	21.89	21.85	21.78	22.50
		50	0	21.89	22.03	21.87	22.50
	64QAM	1	0	21.84	21.96	21.94	22.50
		1	25	21.84	21.88	21.70	22.50
		1	49	21.89	21.92	21.81	22.50
		25	0	20.96	20.93	20.81	21.50
		25	13	20.85	20.97	20.73	21.50
		25	25	20.86	20.87	20.72	21.50
		50	0	20.92	20.98	20.84	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	23.73	23.79	23.76	24.50
		1	38	23.78	23.81	23.74	24.50
		1	74	23.73	23.67	23.59	24.50
		36	0	22.94	22.91	22.82	23.50
		36	18	22.87	22.90	22.77	23.50
		36	39	22.83	22.83	22.74	23.50
		75	0	22.82	22.86	22.75	23.50
	16QAM	1	0	22.80	22.89	22.83	23.50
		1	38	22.84	22.92	22.79	23.50
		1	74	22.80	22.77	22.69	23.50
		36	0	21.84	21.90	21.76	22.50
		36	18	21.77	21.80	21.73	22.50
		36	39	21.85	21.77	21.70	22.50
		75	0	21.88	21.92	21.88	22.50
	64QAM	1	0	21.75	21.90	21.78	22.50

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		1	38	21.83	21.93	21.79	22.50
		1	74	21.81	21.73	21.70	22.50
		36	0	20.83	20.85	20.74	21.50
		36	18	20.74	20.78	20.76	21.50
		36	39	20.82	20.77	20.66	21.50
		75	0	20.86	20.87	20.82	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	23.60	23.61	23.61	24.50
		1	50	23.84	**23.82**	**23.77**	24.50
		1	99	23.54	23.44	23.42	24.50
		50	0	22.79	22.78	22.80	23.50
		50	25	22.75	22.80	22.73	23.50
		50	50	**22.84**	22.76	22.79	23.50
		100	0	**22.80**	22.74	22.75	23.50
	16QAM	1	0	22.64	22.69	22.71	23.50
		1	50	22.93	22.90	22.88	23.50
		1	99	22.62	22.52	22.51	23.50
		50	0	21.95	21.86	21.93	22.50
		50	25	21.91	21.88	21.89	22.50
		50	50	21.90	21.83	21.83	22.50
		100	0	21.92	21.80	21.87	22.50
	64QAM	1	0	21.27	21.40	21.30	22.50
		1	50	21.64	21.64	21.48	22.50
		1	99	21.18	21.15	21.05	22.50
		50	0	20.94	20.99	20.95	21.50
		50	25	20.92	20.97	20.91	21.50
		50	50	20.93	20.94	20.91	21.50
		100	0	20.97	20.92	20.95	21.50

LTE Band 38 Receiver on/sensor on+WLAN//Hotspot on				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	17.79	17.67	17.74	18.50
		1	13	17.90	17.90	17.83	18.50
		1	24	17.86	17.74	17.68	18.50
		12	0	17.93	17.89	17.87	18.50
		12	6	17.98	17.90	17.90	18.50
		12	13	17.93	17.88	17.88	18.50
		25	0	17.89	17.85	17.80	18.50
	16QAM	1	0	17.93	17.91	17.92	18.50
		1	13	18.05	17.97	17.98	18.50
		1	24	17.94	17.88	17.81	18.50
		12	0	17.85	17.78	17.85	18.50
		12	6	17.97	17.91	17.94	18.50
		12	13	17.81	17.78	17.79	18.50
		25	0	17.88	17.90	17.86	18.50
	64QAM	1	0	17.78	17.71	17.75	18.50
		1	13	17.87	17.93	17.81	18.50
		1	24	17.87	17.71	17.72	18.50
		12	0	17.98	17.94	17.89	18.50
		12	6	18.00	17.95	17.85	18.50
		12	13	17.95	17.88	17.90	18.50
		25	0	17.93	17.87	17.78	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	17.92	17.86	17.91	18.50
		1	25	17.78	17.75	17.78	18.50
		1	49	17.87	17.90	17.83	18.50
		25	0	17.95	17.86	17.84	18.50
		25	13	17.87	17.93	17.97	18.50
		25	25	17.87	17.88	17.83	18.50
		50	0	17.89	17.88	17.89	18.50
	16QAM	1	0	17.97	18.05	18.09	18.50

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		1	25	17.92	17.86	17.90	18.50
		1	49	18.00	17.85	17.89	18.50
		25	0	17.99	17.94	17.91	18.50
		25	13	17.96	17.88	18.00	18.50
		25	25	17.91	17.86	17.92	18.50
		50	0	17.99	17.95	17.94	18.50
	64QAM	1	0	17.97	17.85	17.91	18.50
		1	25	17.74	17.70	17.78	18.50
		1	49	17.87	17.90	17.78	18.50
		25	0	18.00	17.89	17.89	18.50
		25	13	17.92	17.91	18.02	18.50
		25	25	17.91	17.92	17.78	18.50
		50	0	17.86	17.90	17.90	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	17.79	17.73	17.82	18.50
		1	38	17.81	17.75	17.82	18.50
		1	74	17.79	17.78	17.76	18.50
		36	0	17.84	17.78	17.84	18.50
		36	18	17.96	17.90	17.84	18.50
		36	39	17.94	17.86	17.81	18.50
		75	0	17.81	17.84	17.83	18.50
	16QAM	1	0	17.88	17.83	17.80	18.50
		1	38	17.99	17.86	17.86	18.50
		1	74	17.86	17.80	17.87	18.50
		36	0	17.77	17.66	17.82	18.50
		36	18	17.89	17.82	17.81	18.50
		36	39	17.85	17.77	17.83	18.50
		75	0	17.87	17.92	17.88	18.50
	64QAM	1	0	17.81	17.77	17.81	18.50
		1	38	17.78	17.75	17.83	18.50
		1	74	17.79	17.79	17.76	18.50
		36	0	17.81	17.76	17.84	18.50
		36	18	18.00	17.93	17.87	18.50
		36	39	17.91	17.81	17.84	18.50
		75	0	17.85	17.87	17.86	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	17.61	17.64	17.53	18.50
		1	50	**17.94**	17.91	17.92	18.50
		1	99	17.66	17.58	17.57	18.50
		50	0	17.82	17.85	17.87	18.50
		50	25	17.78	17.81	17.88	18.50
		50	50	**17.91**	**17.86**	**17.94**	18.50
		100	0	17.91	**17.95**	17.90	18.50
	16QAM	1	0	17.73	17.75	17.73	18.50
		1	50	18.07	18.03	17.99	18.50
		1	99	17.74	17.71	17.61	18.50
		50	0	18.02	18.01	17.90	18.50
		50	25	17.97	17.91	17.93	18.50
		50	50	18.01	17.99	17.97	18.50
		100	0	17.95	17.99	17.94	18.50
	64QAM	1	0	17.60	17.63	17.50	18.50
		1	50	17.96	17.86	17.96	18.50
		1	99	17.70	17.55	17.52	18.50
		50	0	17.86	17.86	17.89	18.50
		50	25	17.81	17.80	17.88	18.50
		50	50	17.89	17.87	17.92	18.50
		100	0	17.96	18.00	17.89	18.50

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LTE Band 38 sensor on				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	22.74	22.68	22.66	23.50
		1	13	22.86	22.83	22.83	23.50
		1	24	22.70	22.73	22.68	23.50
		12	0	22.88	22.85	22.84	23.50
		12	6	22.97	22.91	22.94	23.50
		12	13	22.94	22.81	22.91	23.50
		25	0	22.84	22.85	22.80	23.50
	16QAM	1	0	22.81	22.83	22.84	23.50
		1	13	22.90	22.95	22.88	23.50
		1	24	22.83	22.79	22.80	23.50
		12	0	21.79	21.77	21.80	22.50
		12	6	21.87	21.84	21.86	22.50
		12	13	21.86	21.79	21.81	22.50
		25	0	21.88	21.87	21.84	22.50
	64QAM	1	0	21.81	21.77	21.88	22.50
		1	13	21.84	21.97	21.92	22.50
		1	24	21.83	21.82	21.83	22.50
		12	0	20.83	20.74	20.81	21.50
		12	6	20.85	20.80	20.82	21.50
		12	13	20.87	20.83	20.81	21.50
		25	0	20.82	20.88	20.87	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	22.88	22.94	22.89	23.50
		1	25	22.74	22.77	22.76	23.50
		1	49	22.84	22.84	22.91	23.50
		25	0	22.96	22.90	22.91	23.50
		25	13	22.86	22.90	22.89	23.50
		25	25	22.97	22.87	22.95	23.50
		50	0	22.91	22.88	22.87	23.50
	16QAM	1	0	22.93	22.98	22.93	23.50
		1	25	22.84	23.00	22.80	23.50
		1	49	23.01	22.92	22.91	23.50
		25	0	22.00	21.98	21.92	22.50
		25	13	21.92	21.92	21.94	22.50
		25	25	21.91	21.92	21.92	22.50
		50	0	21.92	21.96	21.95	22.50
	64QAM	1	0	21.91	21.98	21.95	22.50
		1	25	21.84	22.18	21.82	22.50
		1	49	22.41	21.94	21.89	22.50
		25	0	21.01	20.97	20.96	21.50
		25	13	20.94	20.91	20.93	21.50
		25	25	20.86	20.93	20.87	21.50
		50	0	20.92	20.97	20.94	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	22.78	22.79	22.72	23.50
		1	38	22.89	22.82	22.73	23.50
		1	74	22.79	22.80	22.72	23.50
		36	0	22.99	22.92	22.83	23.50
		36	18	22.84	22.89	22.84	23.50
		36	39	22.92	22.93	22.87	23.50
		75	0	22.89	22.88	22.84	23.50
	16QAM	1	0	22.83	22.92	22.83	23.50
		1	38	22.92	22.93	22.84	23.50
		1	74	22.96	22.84	22.85	23.50
		36	0	21.90	21.82	21.78	22.50
		36	18	21.93	21.88	21.78	22.50
		36	39	21.91	21.81	21.80	22.50
		75	0	21.91	21.92	21.85	22.50
	64QAM	1	0	21.82	21.89	21.78	22.50

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		1	38	21.95	21.89	21.87	22.50
		1	74	21.98	21.88	21.81	22.50
		36	0	20.90	20.78	20.78	21.50
		36	18	20.91	20.82	20.82	21.50
		36	39	20.87	20.78	20.81	21.50
		75	0	20.92	20.89	20.83	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	22.58	22.63	22.54	23.50
		1	50	22.92	**22.96**	22.93	23.50
		1	99	22.58	22.54	22.53	23.50
		50	0	22.86	22.79	**22.98**	23.50
		50	25	22.79	22.85	22.86	23.50
		50	50	22.85	22.87	22.83	23.50
		100	0	22.85	22.86	22.82	23.50
	16QAM	1	0	22.68	22.69	22.64	23.50
		1	50	23.02	22.95	22.98	23.50
		1	99	22.62	22.66	22.59	23.50
		50	0	21.91	21.95	21.89	22.50
		50	25	21.88	21.87	21.93	22.50
		50	50	21.99	21.91	21.92	22.50
		100	0	21.91	21.96	21.87	22.50
	64QAM	1	0	21.67	21.71	21.59	22.50
		1	50	21.98	21.99	21.98	22.50
		1	99	21.62	21.60	21.61	22.50
		50	0	20.89	20.98	20.89	21.50
		50	25	20.91	20.81	20.97	21.50
		50	50	20.93	20.88	20.90	21.50
		100	0	20.88	20.98	20.90	21.50

LTE Band 38 Receiver on+WLAN				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 37775	Channel 38000	Channel 38225	Tune up
5MHz	QPSK	1	0	15.79	15.64	15.66	16.50
		1	13	15.90	15.90	15.88	16.50
		1	24	15.76	15.78	15.63	16.50
		12	0	15.86	15.86	15.81	16.50
		12	6	15.92	15.92	15.92	16.50
		12	13	15.88	15.77	15.77	16.50
		25	0	15.85	15.84	15.90	16.50
	16QAM	1	0	15.87	15.90	15.92	16.50
		1	13	16.01	15.93	15.97	16.50
		1	24	15.90	15.88	15.81	16.50
		12	0	15.84	15.80	15.75	16.50
		12	6	15.85	15.86	15.91	16.50
		12	13	15.84	15.78	15.86	16.50
		25	0	15.94	15.88	15.91	16.50
	64QAM	1	0	15.81	15.65	15.67	16.50
		1	13	15.92	15.88	15.91	16.50
		1	24	15.76	15.82	15.61	16.50
		12	0	15.83	15.89	15.84	16.50
		12	6	15.87	15.91	15.95	16.50
		12	13	15.91	15.74	15.75	16.50
		25	0	15.90	15.89	15.91	16.50
Bandwidth	Modulation	RB size	RB offset	Channel 37800	Channel 38000	Channel 38200	Tune up
10MHz	QPSK	1	0	15.90	15.86	15.82	16.50
		1	25	15.83	15.83	15.75	16.50
		1	49	15.90	15.87	15.78	16.50
		25	0	15.89	15.89	15.76	16.50
		25	13	15.86	15.87	15.91	16.50
		25	25	15.90	15.94	15.80	16.50
		50	0	15.85	15.83	15.81	16.50
	16QAM	1	0	16.00	15.97	15.89	16.50

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		1	25	15.90	15.87	15.81	16.50
		1	49	16.00	15.97	15.89	16.50
		25	0	15.85	15.93	15.86	16.50
		25	13	15.96	15.89	15.86	16.50
		25	25	15.90	15.92	15.87	16.50
		50	0	15.92	15.87	15.96	16.50
	64QAM	1	0	15.86	15.87	15.80	16.50
		1	25	15.79	15.79	15.79	16.50
		1	49	15.95	15.83	15.75	16.50
		25	0	15.91	15.90	15.80	16.50
		25	13	15.85	15.90	15.95	16.50
		25	25	15.87	15.93	15.82	16.50
		50	0	15.81	15.88	15.85	16.50
Bandwidth	Modulation	RB size	RB offset	Channel 37825	Channel 38000	Channel 38175	Tune up
15MHz	QPSK	1	0	15.80	15.79	15.78	16.50
		1	38	15.88	15.88	15.81	16.50
		1	74	15.85	15.66	15.74	16.50
		36	0	15.85	15.81	15.83	16.50
		36	18	15.93	15.93	15.77	16.50
		36	39	15.97	15.88	15.80	16.50
		75	0	15.81	15.80	15.76	16.50
	16QAM	1	0	15.86	15.88	15.89	16.50
		1	38	15.88	15.96	15.86	16.50
		1	74	15.92	15.84	15.79	16.50
		36	0	15.73	15.76	15.72	16.50
		36	18	15.82	15.86	15.84	16.50
		36	39	15.78	15.76	15.77	16.50
		75	0	15.82	15.94	15.87	16.50
	64QAM	1	0	15.76	15.84	15.81	16.50
		1	38	15.86	15.92	15.86	16.50
		1	74	15.80	15.65	15.69	16.50
		36	0	15.83	15.79	15.82	16.50
		36	18	15.98	15.98	15.78	16.50
		36	39	15.98	15.86	15.81	16.50
		75	0	15.81	15.84	15.75	16.50
Bandwidth	Modulation	RB size	RB offset	Channel 37850	Channel 38000	Channel 38150	Tune up
20MHz	QPSK	1	0	15.53	15.61	15.57	16.50
		1	50	15.91	15.90	15.86	16.50
		1	99	15.63	15.51	15.58	16.50
		50	0	15.82	15.99	15.89	16.50
		50	25	15.83	15.76	15.74	16.50
		50	50	15.85	15.81	15.82	16.50
		100	0	15.91	15.86	15.94	16.50
	16QAM	1	0	15.73	15.67	15.73	16.50
		1	50	16.04	16.02	15.99	16.50
		1	99	15.75	15.66	15.64	16.50
		50	0	15.91	15.98	15.89	16.50
		50	25	15.89	15.95	15.92	16.50
		50	50	15.97	15.96	16.00	16.50
		100	0	15.98	15.96	15.96	16.50
	64QAM	1	0	15.53	15.60	15.56	16.50
		1	50	15.92	15.95	15.90	16.50
		1	99	15.65	15.53	15.61	16.50
		50	0	15.79	16.01	15.90	16.50
		50	25	15.78	15.73	15.76	16.50
		50	50	15.82	15.78	15.84	16.50
		100	0	15.88	15.84	15.89	16.50

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LTE Band 41 Receiver off/Sensor off/Full power				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	23.71	23.69	23.62	23.42	24.50
		1	13	23.80	23.81	23.72	23.51	24.50
		1	24	23.60	23.72	23.59	23.46	24.50
		12	0	22.82	22.85	22.67	22.62	23.50
		12	6	22.81	22.90	22.81	22.62	23.50
		12	13	22.84	22.78	22.79	22.57	23.50
		25	0	22.77	22.77	22.79	22.49	23.50
	16QAM	1	0	22.79	22.80	22.74	22.49	23.50
		1	13	22.85	22.93	22.79	22.56	23.50
		1	24	22.75	22.81	22.69	22.49	23.50
		12	0	21.73	21.69	21.66	21.51	22.50
		12	6	21.84	21.78	21.71	21.52	22.50
		12	13	21.75	21.71	21.66	21.45	22.50
		25	0	21.82	21.78	21.71	21.52	22.50
	64QAM	1	0	21.78	21.77	21.72	21.50	22.50
		1	13	21.86	21.95	21.78	21.57	22.50
		1	24	21.77	21.82	21.64	21.46	22.50
		12	0	20.76	20.71	20.60	20.53	21.50
		12	6	20.78	20.75	20.73	20.54	21.50
		12	13	20.77	20.74	20.66	20.44	21.50
		25	0	20.84	20.79	20.68	20.49	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	23.83	23.75	23.60	23.53	24.50
		1	25	23.71	23.64	23.48	23.48	24.50
		1	49	23.75	23.65	23.48	23.49	24.50
		25	0	22.85	22.78	22.63	22.64	23.50
		25	13	22.83	22.78	22.62	22.56	23.50
		25	25	22.80	22.76	22.52	22.52	23.50
		50	0	22.79	22.78	22.49	22.50	23.50
	16QAM	1	0	22.87	22.82	22.54	22.63	23.50
		1	25	22.80	22.73	22.48	22.54	23.50
		1	49	22.78	22.73	22.50	22.61	23.50
		25	0	21.83	21.79	21.59	21.58	22.50
		25	13	21.85	21.77	21.56	21.61	22.50
		25	25	21.88	21.75	21.59	21.53	22.50
		50	0	21.88	21.86	21.55	21.61	22.50
	64QAM	1	0	21.88	21.81	21.52	21.63	22.50
		1	25	21.80	21.74	21.46	21.56	22.50
		1	49	21.76	21.74	21.54	21.64	22.50
		25	0	20.87	20.77	20.54	20.55	21.50
		25	13	20.88	20.81	20.57	20.55	21.50
		25	25	20.85	20.78	20.53	20.53	21.50
		50	0	20.83	20.83	20.56	20.58	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40115	Channel 40465	Channel 40815	Channel 41165	Tune up
15MHz	QPSK	1	0	23.79	23.81	23.76	23.54	24.50
		1	38	23.84	23.83	23.74	23.59	24.50
		1	74	23.65	23.73	23.62	23.43	24.50
		36	0	22.88	22.88	22.82	22.64	23.50
		36	18	22.76	22.88	22.90	22.65	23.50
		36	39	22.80	22.84	22.84	22.59	23.50
		75	0	22.78	22.83	22.76	22.51	23.50
	16QAM	1	0	22.82	22.81	22.81	22.61	23.50
		1	38	22.83	22.92	22.85	22.65	23.50
		1	74	22.73	22.76	22.68	22.43	23.50
		36	0	21.74	21.87	21.83	21.56	22.50
		36	18	21.79	21.85	21.83	21.66	22.50
		36	39	21.75	21.84	21.75	21.54	22.50
		75	0	21.80	21.90	21.85	21.51	22.50
	64QAM	1	0	21.84	21.83	21.78	21.64	22.50

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		1	38	21.83	21.93	21.88	21.69	22.50
		1	74	21.70	21.75	21.66	21.44	22.50
		36	0	20.68	20.88	20.77	20.52	21.50
		36	18	20.79	20.89	20.77	20.67	21.50
		36	39	20.77	20.80	20.77	20.51	21.50
		75	0	20.83	20.86	20.80	20.52	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40140	Channel 40473	Channel 40807	Channel 41140	Tune up
20MHz	QPSK	1	0	23.55	23.52	23.56	23.34	24.50
		1	50	**23.84**	23.85	23.85	**23.65**	24.50
		1	99	23.44	23.49	23.34	23.24	24.50
		50	0	22.67	22.78	**22.80**	22.51	23.50
		50	25	22.69	22.77	22.73	22.49	23.50
		50	50	22.75	22.74	22.74	22.37	23.50
		100	0	22.70	22.82	22.81	22.54	23.50
	16QAM	1	0	22.62	22.68	22.68	22.39	23.50
		1	50	22.86	22.96	22.98	22.69	23.50
		1	99	22.46	22.59	22.43	22.14	23.50
		50	0	21.81	21.96	21.86	21.58	22.50
		50	25	21.82	21.90	21.84	21.51	22.50
		50	50	21.82	21.87	21.87	21.48	22.50
		100	0	21.78	21.85	21.81	21.49	22.50
	64QAM	1	0	21.31	21.33	21.25	21.05	22.50
		1	50	21.65	21.71	21.47	21.27	22.50
		1	99	21.13	21.17	20.98	20.79	22.50
		50	0	20.90	21.01	20.95	20.63	21.50
		50	25	20.88	20.97	20.87	20.66	21.50
		50	50	20.97	20.98	20.84	20.56	21.50
		100	0	20.84	20.97	20.91	20.56	21.50

LTE FDD Band 41 Receiver on				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	17.17	17.29	17.14	17.07	18.00
		1	13	17.29	17.38	17.30	17.15	18.00
		1	24	17.28	17.29	17.16	17.06	18.00
		12	0	17.20	17.40	17.25	17.21	18.00
		12	6	17.37	17.37	17.29	17.21	18.00
		12	13	17.35	17.39	17.25	17.17	18.00
		25	0	17.34	17.34	17.30	17.16	18.00
	16QAM	1	0	17.35	17.43	17.34	17.22	18.00
		1	13	17.41	17.48	17.39	17.30	18.00
		1	24	17.40	17.40	17.38	17.09	18.00
		12	0	17.25	17.25	17.28	17.10	18.00
		12	6	17.39	17.44	17.27	17.16	18.00
		12	13	17.30	17.29	17.28	17.04	18.00
		25	0	17.41	17.43	17.41	17.22	18.00
	64QAM	1	0	17.13	17.26	17.17	17.09	18.00
		1	13	17.33	17.38	17.27	17.17	18.00
		1	24	17.31	17.32	17.19	17.06	18.00
		12	0	17.21	17.39	17.28	17.24	18.00
		12	6	17.37	17.37	17.24	17.16	18.00
		12	13	17.38	17.37	17.30	17.21	18.00
		25	0	17.29	17.37	17.26	17.18	18.00
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	17.33	17.34	17.27	17.10	18.00
		1	25	17.26	17.32	17.21	17.14	18.00
		1	49	17.39	17.28	17.26	17.17	18.00
		25	0	17.28	17.42	17.30	17.24	18.00
		25	13	17.34	17.36	17.43	17.19	18.00
		25	25	17.34	17.42	17.30	17.09	18.00
		50	0	17.40	17.43	17.36	17.17	18.00
	16QAM	1	0	17.22	17.41	17.35	17.27	18.00

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		1	25	17.37	17.46	17.32	17.20	18.00
		1	49	17.41	17.41	17.39	17.28	18.00
		25	0	17.44	17.50	17.41	17.31	18.00
		25	13	17.50	17.43	17.48	17.23	18.00
		25	25	17.45	17.45	17.38	17.21	18.00
		50	0	17.48	17.44	17.50	17.22	18.00
	64QAM	1	0	17.36	17.34	17.22	17.05	18.00
		1	25	17.23	17.29	17.21	17.16	18.00
		1	49	17.42	17.33	17.22	17.13	18.00
		25	0	17.32	17.38	17.26	17.26	18.00
		25	13	17.31	17.36	17.41	17.17	18.00
		25	25	17.33	17.44	17.34	17.06	18.00
		50	0	17.36	17.42	17.38	17.16	18.00
Bandwidth	Modulation	RB size	RB offset	Channel 40115	Channel 40465	Channel 40815	Channel 41165	Tune up
15MHz	QPSK	1	0	17.31	17.20	17.17	17.06	18.00
		1	38	17.38	17.34	17.20	17.13	18.00
		1	74	17.17	17.23	17.18	17.05	18.00
		36	0	17.38	17.31	17.23	17.13	18.00
		36	18	17.42	17.45	17.37	17.24	18.00
		36	39	17.41	17.38	17.27	17.14	18.00
		75	0	17.29	17.34	17.26	17.18	18.00
	16QAM	1	0	17.35	17.37	17.26	17.21	18.00
		1	38	17.43	17.42	17.35	17.23	18.00
		1	74	17.33	17.32	17.36	17.13	18.00
		36	0	17.30	17.36	17.23	17.13	18.00
		36	18	17.25	17.41	17.29	17.20	18.00
		36	39	17.35	17.35	17.29	17.13	18.00
		75	0	17.45	17.47	17.36	17.21	18.00
	64QAM	1	0	17.27	17.22	17.16	17.10	18.00
		1	38	17.34	17.39	17.15	17.13	18.00
		1	74	17.19	17.27	17.18	17.05	18.00
		36	0	17.41	17.32	17.19	17.10	18.00
		36	18	17.41	17.42	17.34	17.20	18.00
		36	39	17.37	17.41	17.31	17.11	18.00
		75	0	17.31	17.32	17.22	17.23	18.00
Bandwidth	Modulation	RB size	RB offset	Channel 40140	Channel 40473	Channel 40807	Channel 41140	Tune up
20MHz	QPSK	1	0	17.06	17.14	17.05	17.12	18.00
		1	50	17.47	17.51	17.37	17.24	18.00
		1	99	17.03	17.11	17.01	17.06	18.00
		50	0	17.38	17.45	17.40	17.40	18.00
		50	25	17.38	17.35	17.40	17.14	18.00
		50	50	**17.50**	17.35	17.42	17.13	18.00
		100	0	17.40	17.45	17.42	17.23	18.00
	16QAM	1	0	17.17	17.25	17.05	17.01	18.00
		1	50	17.47	17.50	17.50	17.29	18.00
		1	99	17.03	17.10	17.09	17.03	18.00
		50	0	17.37	17.49	17.46	17.30	18.00
		50	25	17.43	17.44	17.49	17.23	18.00
		50	50	17.50	17.45	17.49	17.27	18.00
		100	0	17.45	17.48	17.44	17.28	18.00
	64QAM	1	0	17.06	17.17	17.06	17.11	18.00
		1	50	17.50	17.47	17.40	17.28	18.00
		1	99	17.08	17.08	17.06	17.05	18.00
		50	0	17.40	17.48	17.36	17.41	18.00
		50	25	17.41	17.33	17.41	17.12	18.00
		50	50	17.50	17.33	17.42	17.16	18.00
		100	0	17.40	17.42	17.38	17.21	18.00

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LTE FDD Band 41 sensor on				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	22.61	22.68	22.62	22.59	23.50
		1	13	22.85	22.87	22.76	22.61	23.50
		1	24	22.69	22.63	22.74	22.54	23.50
		12	0	22.84	22.90	22.85	22.78	23.50
		12	6	22.87	22.94	22.87	22.73	23.50
		12	13	22.90	22.90	22.86	22.74	23.50
		25	0	22.79	22.81	22.79	22.65	23.50
	16QAM	1	0	22.74	22.80	22.80	22.61	23.50
		1	13	22.85	22.93	22.86	22.68	23.50
		1	24	22.78	22.79	22.72	22.59	23.50
		12	0	21.77	21.75	21.72	21.64	22.50
		12	6	21.84	21.90	21.81	21.65	22.50
		12	13	21.83	21.84	21.82	21.63	22.50
		25	0	21.85	21.91	21.81	21.63	22.50
	64QAM	1	0	21.76	21.75	21.81	21.57	22.50
		1	13	21.81	21.93	21.80	21.63	22.50
		1	24	21.78	21.74	21.71	21.57	22.50
		12	0	20.79	20.71	20.66	20.60	21.50
		12	6	20.86	20.84	20.75	20.61	21.50
		12	13	20.78	20.82	20.82	20.66	21.50
		25	0	20.83	20.87	20.82	20.65	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	22.75	22.88	22.80	22.73	23.50
		1	25	22.75	22.83	22.77	22.61	23.50
		1	49	22.86	22.86	22.84	22.66	23.50
		25	0	22.84	22.98	22.85	22.78	23.50
		25	13	22.89	22.93	22.88	22.79	23.50
		25	25	22.90	22.86	22.90	22.74	23.50
		50	0	22.86	22.88	22.89	22.67	23.50
	16QAM	1	0	22.88	22.93	22.88	22.72	23.50
		1	25	22.81	22.89	22.75	22.67	23.50
		1	49	22.86	22.90	22.87	22.66	23.50
		25	0	21.97	21.97	21.90	21.75	22.50
		25	13	21.92	21.92	21.95	21.72	22.50
		25	25	21.93	21.96	21.90	21.65	22.50
		50	0	21.95	21.95	21.94	21.74	22.50
	64QAM	1	0	21.91	21.90	21.82	21.67	22.50
		1	25	21.83	21.84	21.76	21.68	22.50
		1	49	21.90	21.93	21.86	21.62	22.50
		25	0	20.92	20.97	20.88	20.69	21.50
		25	13	20.93	20.90	20.95	20.76	21.50
		25	25	20.97	20.91	20.86	20.69	21.50
		50	0	20.96	20.96	20.89	20.75	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40115	Channel 40465	Channel 40815	Channel 41165	Tune up
15MHz	QPSK	1	0	22.70	22.80	22.73	22.64	23.50
		1	38	22.84	22.92	22.79	22.72	23.50
		1	74	22.69	22.72	22.71	22.55	23.50
		36	0	22.93	22.94	22.84	22.68	23.50
		36	18	22.93	22.93	22.88	22.77	23.50
		36	39	22.92	22.92	22.96	22.67	23.50
		75	0	22.87	22.83	22.85	22.70	23.50
	16QAM	1	0	22.84	22.80	22.82	22.76	23.50
		1	38	22.92	22.90	22.87	22.72	23.50
		1	74	22.85	22.83	22.77	22.49	23.50
		36	0	21.78	21.92	21.76	21.63	22.50
		36	18	21.86	21.86	21.82	21.63	22.50
		36	39	21.82	21.89	21.79	21.63	22.50
		75	0	21.90	21.96	21.89	21.64	22.50
	64QAM	1	0	21.78	21.78	21.80	21.77	22.50

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		1	38	21.90	21.87	21.89	21.70	22.50
		1	74	21.79	21.80	21.71	21.48	22.50
		36	0	20.73	20.94	20.75	20.64	21.50
		36	18	20.80	20.84	20.77	20.59	21.50
		36	39	20.82	20.92	20.76	20.59	21.50
		75	0	20.84	20.93	20.92	20.65	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 40140	Channel 40473	Channel 40807	Channel 41140	Tune up
20MHz	QPSK	1	0	22.57	22.65	22.56	22.47	23.50
		1	50	**22.92**	23.01	**22.86**	**22.79**	23.50
		1	99	22.53	22.58	22.53	22.40	23.50
		50	0	22.72	**22.90**	22.85	22.57	23.50
		50	25	**22.84**	22.85	22.81	22.59	23.50
		50	50	22.81	22.83	**22.86**	**22.62**	23.50
		100	0	**22.95**	22.92	22.87	22.64	23.50
	16QAM	1	0	22.68	22.63	22.62	22.56	23.50
		1	50	22.91	23.00	22.98	22.78	23.50
		1	99	22.58	22.69	22.62	22.44	23.50
		50	0	21.90	21.96	21.90	21.60	22.50
		50	25	21.93	21.98	21.92	21.67	22.50
		50	50	21.94	21.94	21.96	21.62	22.50
		100	0	21.88	21.99	21.98	21.73	22.50
	64QAM	1	0	21.65	21.61	21.62	21.50	22.50
		1	50	21.91	22.02	22.05	21.81	22.50
		1	99	21.53	21.67	21.63	21.38	22.50
		50	0	20.85	20.92	20.84	20.54	21.50
		50	25	20.92	20.94	20.92	20.61	21.50
		50	50	20.93	20.90	20.93	20.57	21.50
		100	0	20.92	21.01	20.96	20.67	21.50

LTE FDD Band 41 Sensor on+WLAN/Hotspot on				**Conducted Power(dBm)**				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	17.70	17.75	17.65	17.61	18.50
		1	13	17.81	17.84	17.84	17.71	18.50
		1	24	17.73	17.76	17.74	17.57	18.50
		12	0	17.82	17.85	17.71	17.69	18.50
		12	6	17.86	17.91	17.86	17.74	18.50
		12	13	17.80	17.86	17.86	17.67	18.50
		25	0	17.87	17.85	17.81	17.68	18.50
	16QAM	1	0	17.54	17.94	17.86	17.67	18.50
		1	13	18.01	17.99	17.91	17.73	18.50
		1	24	17.86	17.88	17.87	17.72	18.50
		12	0	17.77	17.83	17.78	17.58	18.50
		12	6	17.87	17.87	17.84	17.68	18.50
		12	13	17.87	17.89	17.76	17.61	18.50
		25	0	17.87	17.93	17.85	17.70	18.50
	64QAM	1	0	17.66	17.72	17.65	17.65	18.50
		1	13	17.83	17.86	17.80	17.71	18.50
		1	24	17.74	17.72	17.69	17.55	18.50
		12	0	17.84	17.90	17.69	17.64	18.50
		12	6	17.90	17.87	17.87	17.72	18.50
		12	13	17.84	17.86	17.89	17.64	18.50
		25	0	17.82	17.84	17.78	17.63	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	17.80	17.86	17.83	17.75	18.50
		1	25	17.75	17.81	17.73	17.67	18.50
		1	49	17.83	17.85	17.85	17.68	18.50
		25	0	17.81	17.93	17.82	17.73	18.50
		25	13	17.96	17.88	17.85	17.73	18.50
		25	25	17.89	17.87	17.81	17.67	18.50
		50	0	17.94	17.95	17.91	17.66	18.50
	16QAM	1	0	17.95	18.00	17.81	17.75	18.50

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		1	25	17.95	17.91	17.85	17.73	18.50
		1	49	17.88	17.93	17.85	17.74	18.50
		25	0	17.92	17.95	17.89	17.77	18.50
		25	13	17.90	17.93	17.97	17.82	18.50
		25	25	17.94	17.94	17.85	17.72	18.50
		50	0	17.99	18.00	17.91	17.77	18.50
	64QAM	1	0	17.75	17.84	17.83	17.70	18.50
		1	25	17.79	17.81	17.76	17.62	18.50
		1	49	17.82	17.83	17.85	17.73	18.50
		25	0	17.82	17.98	17.82	17.73	18.50
		25	13	17.98	17.89	17.90	17.70	18.50
		25	25	17.91	17.82	17.80	17.68	18.50
		50	0	17.99	17.97	17.88	17.70	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 40115	Channel 40465	Channel 40815	Channel 41165	Tune up
15MHz	QPSK	1	0	17.85	17.81	17.76	17.68	18.50
		1	38	17.85	17.88	17.88	17.74	18.50
		1	74	17.71	17.85	17.71	17.56	18.50
		36	0	17.92	17.96	17.82	17.71	18.50
		36	18	17.96	17.93	17.92	17.80	18.50
		36	39	17.97	17.92	17.89	17.75	18.50
		75	0	17.92	17.98	17.92	17.66	18.50
	16QAM	1	0	17.98	17.96	17.61	17.69	18.50
		1	38	17.95	18.00	17.93	17.82	18.50
		1	74	17.90	17.89	17.85	17.63	18.50
		36	0	17.87	17.84	17.76	17.69	18.50
		36	18	17.92	17.98	17.88	17.74	18.50
		36	39	17.90	17.91	17.86	17.60	18.50
		75	0	17.97	17.91	17.93	17.78	18.50
	64QAM	1	0	17.82	17.76	17.81	17.66	18.50
		1	38	17.80	17.86	17.85	17.71	18.50
		1	74	17.76	17.83	17.66	17.57	18.50
		36	0	17.96	17.92	17.87	17.76	18.50
		36	18	17.91	17.88	17.87	17.77	18.50
		36	39	17.96	17.94	17.87	17.79	18.50
		75	0	17.96	17.98	17.91	17.69	18.50
Bandwidth	Modulation	RB size	RB offset	Channel 40140	Channel 40473	Channel 40807	Channel 41140	Tune up
20MHz	QPSK	1	0	17.69	17.62	17.61	17.47	18.50
		1	50	17.96	18.01	17.93	17.79	18.50
		1	99	17.59	17.64	17.56	17.40	18.50
		50	0	17.85	17.89	17.96	17.67	18.50
		50	25	17.92	17.85	17.80	17.67	18.50
		50	50	18.01	17.98	17.95	17.65	18.50
		100	0	17.95	17.98	17.98	17.76	18.50
	16QAM	1	0	17.72	17.72	17.74	17.57	18.50
		1	50	18.00	17.99	18.00	17.92	18.50
		1	99	17.63	17.77	17.61	17.49	18.50
		50	0	17.90	17.99	17.93	17.85	18.50
		50	25	17.96	17.99	17.96	17.81	18.50
		50	50	17.98	17.95	17.99	17.81	18.50
		100	0	18.00	18.00	18.00	17.81	18.50
	64QAM	1	0	17.64	17.63	17.65	17.43	18.50
		1	50	17.98	18.00	17.97	17.76	18.50
		1	99	17.54	17.64	17.53	17.35	18.50
		50	0	17.89	17.86	17.96	17.67	18.50
		50	25	17.90	17.84	17.80	17.66	18.50
		50	50	17.96	17.96	17.98	17.63	18.50
		100	0	18.00	17.95	17.99	17.75	18.50

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LTE Band 41 Receiver on+WLAN				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel 40065	Channel 40448	Channel 40832	Channel 41215	Tune up
5MHz	QPSK	1	0	15.30	15.34	15.27	15.14	16.00
		1	13	15.29	15.33	15.32	15.24	16.00
		1	24	15.25	15.29	15.20	15.13	16.00
		12	0	15.38	15.31	15.31	15.23	16.00
		12	6	15.45	15.46	15.43	15.30	16.00
		12	13	15.44	15.43	15.36	15.21	16.00
		25	0	15.42	15.42	15.40	15.23	16.00
	16QAM	1	0	15.37	15.37	15.36	15.20	16.00
		1	13	15.49	15.47	15.43	15.32	16.00
		1	24	15.40	15.38	15.36	15.17	16.00
		12	0	15.27	15.34	15.31	15.07	16.00
		12	6	15.37	15.44	15.40	15.24	16.00
		12	13	15.35	15.31	15.27	15.17	16.00
		25	0	15.51	15.41	15.39	15.22	16.00
	64QAM	1	0	15.35	15.37	15.26	15.12	16.00
		1	13	15.32	15.28	15.35	15.20	16.00
		1	24	15.28	15.26	15.25	15.16	16.00
		12	0	15.40	15.29	15.26	15.20	16.00
		12	6	15.42	15.50	15.45	15.35	16.00
		12	13	15.49	15.46	15.38	15.21	16.00
		25	0	15.38	15.43	15.37	15.28	16.00
Bandwidth	Modulation	RB size	RB offset	Channel 40090	Channel 40457	Channel 40823	Channel 41190	Tune up
10MHz	QPSK	1	0	15.40	15.47	15.35	15.27	16.00
		1	25	15.31	15.41	15.33	15.17	16.00
		1	49	15.36	15.32	15.40	15.23	16.00
		25	0	15.44	15.44	15.44	15.27	16.00
		25	13	15.49	15.50	15.46	15.27	16.00
		25	25	15.55	15.48	15.39	15.21	16.00
		50	0	15.42	15.44	15.42	15.23	16.00
	16QAM	1	0	15.55	15.44	15.45	15.31	16.00
		1	25	15.39	15.44	15.37	15.29	16.00
		1	49	15.55	15.63	15.44	15.31	16.00
		25	0	15.48	15.50	15.41	15.35	16.00
		25	13	15.44	15.54	15.51	15.30	16.00
		25	25	15.42	15.42	15.41	15.32	16.00
		50	0	15.42	15.44	15.48	15.27	16.00
	64QAM	1	0	15.45	15.45	15.38	15.27	16.00
		1	25	15.30	15.45	15.30	15.17	16.00
		1	49	15.40	15.30	15.41	15.28	16.00

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		25	0	15.42	15.46	15.39	15.24	16.00
		25	13	15.53	15.48	15.50	15.25	16.00
		25	25	15.57	15.50	15.36	15.18	16.00
		50	0	15.45	15.44	15.45	15.22	16.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Tune up
				40115	40465	40815	41165	
15MHz	QPSK	1	0	15.33	15.38	15.25	15.22	16.00
		1	38	15.46	15.50	15.38	15.24	16.00
		1	74	15.26	15.28	15.33	15.16	16.00
		36	0	15.44	15.47	15.36	15.32	16.00
		36	18	15.49	15.52	15.43	15.32	16.00
		36	39	15.49	15.40	15.45	15.29	16.00
		75	0	15.42	15.45	15.34	15.16	16.00
	16QAM	1	0	15.42	15.46	15.34	15.23	16.00
		1	38	15.63	15.47	15.47	15.36	16.00
		1	74	15.38	15.40	15.49	15.20	16.00
		36	0	15.37	15.44	15.27	15.16	16.00
		36	18	15.43	15.46	15.44	15.27	16.00
		36	39	15.44	15.43	15.38	15.23	16.00
		75	0	15.42	15.50	15.42	15.23	16.00
	64QAM	1	0	15.28	15.38	15.21	15.21	16.00
		1	38	15.49	15.47	15.43	15.25	16.00
		1	74	15.21	15.29	15.30	15.11	16.00
		36	0	15.39	15.42	15.34	15.30	16.00
		36	18	15.51	15.50	15.43	15.35	16.00
		36	39	15.54	15.39	15.44	15.24	16.00
		75	0	15.47	15.42	15.29	15.14	16.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Channel	Tune up
				40140	40473	40807	41140	
20MHz	QPSK	1	0	15.11	15.15	15.12	15.04	16.00
		1	50	15.44	15.52	15.44	15.32	16.00
		1	99	15.16	15.11	15.13	14.95	16.00
		50	0	15.33	15.47	15.44	15.31	16.00
		50	25	15.36	15.44	15.42	15.26	16.00
		50	50	15.44	15.44	15.37	15.24	16.00
		100	0	15.51	15.57	15.52	15.31	16.00
	16QAM	1	0	15.26	15.21	15.24	15.14	16.00
		1	50	15.61	15.61	15.55	15.41	16.00
		1	99	15.20	15.26	15.16	15.14	16.00
		50	0	15.43	15.45	15.45	15.36	16.00
		50	25	15.41	15.51	15.53	15.34	16.00
		50	50	15.60	15.54	15.53	15.20	16.00
		100	0	15.50	15.56	15.49	15.33	16.00
	64QAM	1	0	15.14	15.13	15.07	15.09	16.00
		1	50	15.42	15.57	15.46	15.30	16.00
		1	99	15.18	15.09	15.13	15.00	16.00
		50	0	15.33	15.50	15.40	15.31	16.00

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		50	25	15.41	15.46	15.41	15.23	16.00
		50	50	15.40	15.49	15.40	15.20	16.00
		100	0	15.46	15.60	15.48	15.32	16.00

Table 17：Conducted Power of LTE

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8.1.3 Conducted Power of WIFI and BT

WiFi 2.4G Receiver off						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	20.00	**18.87**	Yes
	6	2437		20.00	**18.91**	Yes
	10	2457		20.00	18.76	No
	11	2462		17.00	15.61	No
802.11g	1	2412	6	20.00	18.52	No
	6	2437		20.00	18.23	No
	10	2457		20.00	18.20	No
	11	2462		17.00	15.46	No
802.11n HT20	1	2412	6.5	20.00	18.42	No
	6	2437		20.00	18.46	No
	10	2457		20.00	18.38	No
	11	2462		17.00	15.54	No
WiFi 2.4G Receiver on						
Mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11b	1	2412	1	14.00	12.54	No
	6	2437		14.00	**12.60**	Yes
	11	2462		14.00	12.58	No
802.11g	1	2412	6	14.00	12.54	No
	6	2437		14.00	12.24	No
	11	2462		14.00	12.39	No
802.11n HT20	1	2412	6.5	14.00	12.36	No
	6	2437		14.00	12.57	No
	11	2462		14.00	12.54	No

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5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11a	U-NII-1	36	5180	6	13.00	11.81	No
		40	5200		13.00	11.91	No
		44	5220		13.00	11.90	No
		48	5240		13.00	11.92	No
	U-NII-2A	52	5260		13.00	11.90	No
		56	5280		13.00	11.92	No
		60	5300		13.00	11.79	No
		64	5320		13.00	11.95	No
	U-NII-2C	100	5500		13.00	11.75	No
		104	5520		13.00	11.25	No
		108	5540		13.00	11.28	No
		112	5560		13.00	11.19	No
		116	5580		13.00	11.20	No
		120	5600		13.00	11.17	No
		124	5620		13.00	11.06	No
		128	5640		13.00	11.07	No
		132	5660		13.00	11.41	No
		136	5680		13.00	11.52	No
		140	5700		13.00	11.46	No
		144	5720		13.00	11.69	No
	U-NII-3	149	5745		13.00	11.64	No
		153	5765		13.00	11.46	No
		157	5785		13.00	11.66	No
		161	5805		13.00	11.57	No
		165	5825		13.00	11.67	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT20	U-NII-1	36	5180	MCS0	13.00	11.83	No
		40	5200		13.00	11.85	No
		44	5220		13.00	11.82	No
		48	5240		13.00	11.57	No
	U-NII-2A	52	5260		13.00	11.84	No
		56	5280		13.00	11.63	No
		60	5300		13.00	11.69	No
		64	5320		13.00	11.81	No
	U-NII-2C	100	5500		13.00	11.23	No
		104	5520		13.00	11.27	No
		108	5540		13.00	11.22	No
		112	5560		13.00	11.17	No
		116	5580		13.00	11.16	No
		120	5600		13.00	11.03	No
		124	5620		13.00	10.86	No
		128	5640		13.00	10.98	No
		132	5660		13.00	11.24	No

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		136	5680		13.00	11.25	No
		140	5700		13.00	11.35	No
		144	5720		13.00	11.34	No
	U-NII-3	149	5745		13.00	11.48	No
		153	5765		13.00	11.35	No
		157	5785		13.00	11.31	No
		161	5805		13.00	11.48	No
		165	5825		13.00	11.31	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11n-HT40	U-NII-1	38	5190	MCS0	13.00	11.72	No
		46	5230		13.00	**11.73**	Yes
	U-NII-2A	54	5270		13.00	11.77	No
		62	5310		13.00	**11.83**	Yes
	U-NII-2C	102	5510		13.00	**11.62**	Yes
		110	5550		13.00	11.17	No
		118	5590		13.00	11.09	No
		126	5630		13.00	11.03	No
		134	5670		13.00	11.34	No
		142	5710		13.00	11.38	No
	U-NII-3	151	5755		13.00	**11.54**	Yes
		159	5795		13.00	11.43	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 20M	U-NII-1	36	5180	MCS0	13.00	11.89	No
		40	5200		13.00	11.85	No
		44	5220		13.00	11.78	No
		48	5240		13.00	11.81	No
	U-NII-2A	52	5260		13.00	11.76	No
		56	5280		13.00	11.79	No
		60	5300		13.00	11.86	No
		64	5320		13.00	11.95	No
	U-NII-2C	100	5500		13.00	11.28	No
		104	5520		13.00	11.43	No
		108	5540		13.00	11.35	No
		112	5560		13.00	11.29	No
		116	5580		13.00	11.33	No
		120	5600		13.00	10.55	No
		124	5620		13.00	11.12	No
		128	5640		13.00	11.15	No
		132	5660		13.00	11.00	No
		136	5680		13.00	11.04	No
		140	5700		13.00	10.93	No
		144	5720		13.00	11.14	No
	U-NII-3	149	5745		13.00	11.03	No
		153	5765		13.00	11.07	No
		157	5785		13.00	11.16	No

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		161	5805		13.00	11.08	No
		165	5825		13.00	11.13	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 40M	U-NII-1	38	5190	MCS0	13.00	11.70	No
		46	5230		13.00	11.72	No
	U-NII-2A	54	5270		13.00	11.76	No
		62	5310		13.00	11.81	No
	U-NII-2C	102	5510		13.00	11.17	No
		110	5550		13.00	10.79	No
		118	5590		13.00	10.46	No
		126	5630		13.00	10.43	No
		134	5670		13.00	11.01	No
		142	5710		13.00	11.02	No
	U-NII-3	151	5755		13.00	10.92	No
		159	5795		13.00	11.12	No
5GHz	mode	Channel	Frequency (MHz)	Data Rate(Mbps)	Tune up	Average Power (dBm)	SAR Test
802.11ac 80M	U-NII-1	42	5210	MCS0	12.50	11.65	No
	U-NII-2A	58	5290		12.50	11.45	No
	U-NII-2C	106	5530		12.50	11.29	No
		122	5610		12.50	11.28	No
		138	5690		12.50	11.06	No
	U-NII-3	155	5775		12.50	11.25	No

Table 18：Conducted Power of WiFi

Note:

a) Power must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band.

b) Power measurement is required for the transmission mode configuration with the highest maximum output power specified for production units.

1) When the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured.

2) When the same highest maximum output power is specified for multiple largest channel bandwidth configurations with the same lowest order modulation or lowest order modulation and lowest data rate, power measurement is required for all equivalent 802.11 configurations with the same maximum output power.

c) For each transmission mode configuration, power must be measured for the highest and lowest channels; and at the mid-band channel(s) when there are at least 3 channels. For configurations with multiple mid-band channels, due to an even number of channels, both channels should be measured.

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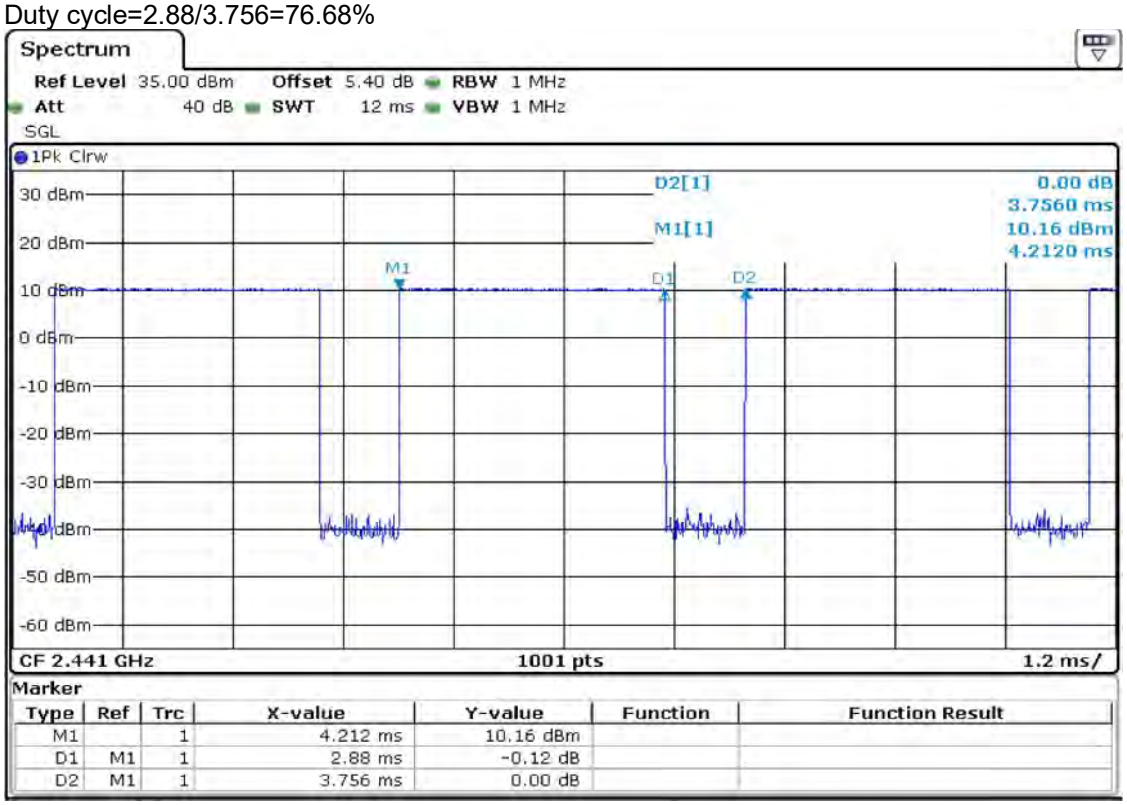
BT			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency(MHz)		
DH5 (GFSK)	0	2402	11.00	10.76
	39	2441	11.00	**10.84**
	78	2480	11.00	9.69
2DH5 (π/4DQPSK)	0	2402	9.00	7.48
	39	2441	9.00	7.46
	78	2480	9.00	6.65
3DH5 (8DPSK)	0	2402	9.00	7.38
	39	2441	9.00	7.35
	78	2480	9.00	6.56
BLE 1M			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency(MHz)		
GFSK	0	2402	-3.00	-4.04
	19	2440	-3.00	-3.16
	39	2480	-3.00	-4.63
BLE 2M			Tune up (dBm)	Average Conducted Power(dBm)
Modulation	Channel	Frequency(MHz)		
GFSK	0	2402	-3.00	-5.68
	19	2440	-3.00	-4.82
	39	2480	-3.00	-6.35

Table 19：Conducted Power of BT

Bluetooth DH5(GFSK):

Duty cycle=2.88/3.756=76.68%



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8.2 Stand-alone SAR test evaluation

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and Product specific 10g SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

Freq. Band	Frequency (GHz)	Position	Average Power		Test Separation (mm)	Calculate Value	Exclusion Threshold	Exclusion (Y/N)
			dBm	mW				
Wi-Fi	2.62	Head	14.0	25.12	5	8.13	3	N
		Body-worn	20.0	100.00	15	10.79	3	N
		Hotspot	20.0	100.00	10	16.19	3	N
Wi-Fi	5.85	Head	13.0	19.95	5	9.65	3	N
		Body-worn	13.0	19.95	15	3.22	3	N
		Hotspot	13.0	19.95	10	4.83	3	N
Bluetooth	2.48	Head	11.00	12.59	5	3.97	3	N
		Body-worn	11.00	12.59	15	1.32	3	Y
		Hotspot	11.00	12.59	10	1.98	3	Y

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where
• f(GHz) is the RF channel transmit frequency in GHz
• Power and distance are rounded to the nearest mW and mm before calculation
• The result is rounded to one decimal place for comparison

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

Estimated SAR:
When the standalone SAR test exclusion is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to the following to determine simultaneous transmission SAR test exclusion:
• (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;
Where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Estimated SAR Result

Freq. Band	Frequency (GHz)	Test Position	max. power(dBm)	Test Separation (mm)	Estimated 1g SAR (W/kg)
Bluetooth	2.48	Body-worn	11.0	15	0.264
Bluetooth	2.48	Hotspot	11.0	10	0.176

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8.3 Measurement of SAR Data

8.3.1 SAR Result of GSM850

Ant 1										
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	0.063	0.01	32.83	33.20	1.089	**0.068**	22.0
Left tilted	GSM	190/836.6	1:8.3	0.031	0.07	32.83	33.20	1.089	0.034	22.0
Right cheek	GSM	190/836.6	1:8.3	0.058	0.02	32.83	33.20	1.089	0.063	22.0
Right tilted	GSM	190/836.6	1:8.3	0.028	0.03	32.83	33.20	1.089	0.030	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.050	0.03	32.83	33.20	1.089	0.054	22.0
Back side	GSM	190/836.6	1:8.3	0.070	0.01	32.83	33.20	1.089	**0.076**	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.127	-0.01	29.33	30.00	1.167	0.148	22.0
Back side	GPRS 4TS	190/836.6	1:2.075	0.199	0.06	29.33	30.00	1.167	**0.232**	22.0
Left side	GPRS 4TS	190/836.6	1:2.075	0.142	0.09	29.33	30.00	1.167	0.166	22.0
Right side	GPRS 4TS	190/836.6	1:2.075	0.124	0.15	29.33	30.00	1.167	0.145	22.0
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.070	0.04	29.33	30.00	1.167	0.082	22.0
Ant 2										
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	0.551	0.03	31.87	32.70	1.211	0.667	22.0
Left tilted	GSM	190/836.6	1:8.3	0.426	-0.01	31.87	32.70	1.211	0.516	22.0
Right cheek	GSM	190/836.6	1:8.3	0.885	0.11	31.87	32.70	1.211	1.071	22.0
Right cheek	GSM	128/824.2	1:8.3	0.917	-0.09	31.60	32.70	1.288	**1.181**	22.0
Right cheek-Repaet	GSM	128/824.2	1:8.3	0.842	-0.09	31.60	32.70	1.288	1.085	22.0
Right cheek	GSM	251/848.8	1:8.3	0.709	0.03	32.08	32.70	1.153	0.818	22.0
Right tilted	GSM	190/836.6	1:8.3	0.580	-0.01	31.87	32.70	1.211	0.702	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.096	-0.14	32.45	33.20	1.189	0.114	22.0
Back side	GSM	190/836.6	1:8.3	0.139	-0.04	32.45	33.20	1.189	**0.165**	22.0

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Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.225	-0.15	29.18	30.00	1.208	0.272	22.0
Back side	GPRS 4TS	190/836.6	1:2.075	0.336	-0.13	29.18	30.00	1.208	**0.406**	22.0
Left side	GPRS 4TS	190/836.6	1:2.075	0.137	0.08	29.18	30.00	1.208	0.165	22.0
Top side	GPRS 4TS	190/836.6	1:2.075	0.244	-0.01	29.18	30.00	1.208	0.295	22.0

Table 20：SAR of GSM850 for Head and Body

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Right cheek(Ant2)	128/824.2	0.914	0.842	1.086	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 performed 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 performed 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						

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8.3.2 SAR Result of GSM1900

Ant 1										
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	0.054	0.08	29.95	30.20	1.059	**0.057**	22.0
Left tilted	GSM	661/1880	1:8.3	0.045	0.01	29.95	30.20	1.059	0.048	22.0
Right cheek	GSM	661/1880	1:8.3	0.043	0.18	29.95	30.20	1.059	0.045	22.0
Right tilted	GSM	661/1880	1:8.3	0.041	-0.02	29.95	30.20	1.059	0.043	22.0
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.085	-0.02	29.95	30.20	1.059	0.090	22.0
Back side	GSM	661/1880	1:8.3	0.231	-0.02	29.95	30.20	1.059	**0.245**	22.0
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.298	0.06	26.63	27.00	1.089	0.325	22.0
Back side	GPRS 4TS	661/1880	1:2.075	0.799	-0.11	26.63	27.00	1.089	**0.870**	22.0
Back side	GPRS 4TS	512/1850.2	1:2.075	0.770	-0.06	26.50	27.00	1.122	0.864	22.0
Back side	GPRS 4TS	810/1909.8	1:2.075	0.757	-0.10	26.75	27.00	1.059	0.802	22.0
Left side	GPRS 4TS	661/1880	1:2.075	0.089	0.02	26.63	27.00	1.089	0.097	22.0
Right side	GPRS 4TS	661/1880	1:2.075	0.021	0.04	26.63	27.00	1.089	0.023	22.0
Bottom side	GPRS 4TS	661/1880	1:2.075	0.609	0.09	26.63	27.00	1.089	0.663	22.0

Table 21：SAR of GSM1900 for Head and Body.

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.

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8.3.3 SAR Result of CDMA BC0

Ant 1										
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	1xRTT(RC3 SO55)	384/836.52	1:1	0.103	0.16	24.05	24.50	1.109	**0.114**	22.0
Left tilted	1xRTT(RC3 SO55)	384/836.52	1:1	0.048	0.01	24.05	24.50	1.109	0.053	22.0
Right cheek	1xRTT(RC3 SO55)	384/836.52	1:1	0.102	0.09	24.05	24.50	1.109	0.113	22.0
Right tilted	1xRTT(RC3 SO55)	384/836.52	1:1	0.056	0.08	24.05	24.50	1.109	0.062	22.0
Body worn Test data(Separate 15mm)										
Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.106	-0.01	24.05	24.50	1.109	0.118	22.0
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	0.127	0.04	24.05	24.50	1.109	**0.141**	22.0
Hotspot Test data(Separate 10mm)										
Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.110	0.01	24.05	24.50	1.109	0.122	22.0
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	0.142	0.04	24.05	24.50	1.109	**0.158**	22.0
Left side	1xRTT(RC3 SO32)	384/836.52	1:1	0.123	0.05	24.05	24.50	1.109	0.136	22.0
Right side	1xRTT(RC3 SO32)	384/836.52	1:1	0.103	-0.07	24.05	24.50	1.109	0.114	22.0
Bottom side	1xRTT(RC3 SO32)	384/836.52	1:1	0.084	-0.02	24.05	24.50	1.109	0.093	22.0
Back side	1XEVDO RTAP 153.6Kbps	384/836.52	1:1	0.135	0.02	24.02	24.50	1.117	0.151	22.0
Back side	1XEVDO RETAP 4096Bits	384/836.52	1:1	0.134	-0.06	24.10	24.50	1.096	0.147	22.0
Ant 2										
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	1xRTT(RC3 SO55)	384/836.52	1:1	0.594	0.00	22.98	23.50	1.127	0.670	22.0
Left tilted	1xRTT(RC3 SO55)	384/836.52	1:1	0.504	-0.07	22.98	23.50	1.127	0.568	22.0
Right cheek	1xRTT(RC3 SO55)	384/836.52	1:1	0.984	-0.05	22.98	23.50	1.127	1.109	22.0
Right cheek	1xRTT(RC3 SO55)	1013/824.7	1:1	0.967	0.05	23.00	23.50	1.122	1.085	22.0
Right cheek	1xRTT(RC3 SO55)	777/848.31	1:1	0.990	0.02	23.15	23.50	1.084	1.073	22.0
Right cheek-Repeat	1xRTT(RC3 SO55)	777/848.31	1:1	1.040	-0.09	23.15	23.50	1.084	**1.127**	22.0
Right tilted	1xRTT(RC3 SO55)	384/836.52	1:1	0.700	0.08	22.98	23.50	1.127	0.789	22.0
Body worn Test data(Separate 15mm)										
Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.123	-0.02	23.99	24.50	1.125	0.138	22.0
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	0.156	0.05	23.99	24.50	1.125	**0.175**	22.0
Hotspot Test data(Separate 10mm)										

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Front side	1xRTT(RC3 SO32)	384/836.52	1:1	0.135	-0.02	23.99	24.50	1.125	0.152	22.0
Back side	1xRTT(RC3 SO32)	384/836.52	1:1	0.192	0.00	23.99	24.50	1.125	**0.216**	22.0
Left side	1xRTT(RC3 SO32)	384/836.52	1:1	0.131	0.01	23.99	24.50	1.125	0.147	22.0
Top side	1xRTT(RC3 SO32)	384/836.52	1:1	0.173	-0.02	23.99	24.50	1.125	0.195	22.0
Back side	1XEVDO RTAP 153.6Kbps	384/836.52	1:1	0.181	0.06	24.02	24.50	1.12	0.202	22.000
Back side	1XEVDO RETAP 4096Bits	384/836.52	1:1	0.175	0.01	24.06	24.50	1.11	0.194	22.000

Table 22：SAR of CDMA BC0 for Head and Body.

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Right cheek(Ant2)	777/848.31	0.990	1.040	1.051	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 performed 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 performed 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						

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8.3.4 SAR Result of WCDMA Band II

Ant 1										
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	0.111	0.09	24.25	24.50	1.059	**0.118**	22.0
Left tilted	RMC	9400/1880	1:1	0.104	0.05	24.25	24.50	1.059	0.110	22.0
Right cheek	RMC	9400/1880	1:1	0.086	0.05	24.25	24.50	1.059	0.091	22.0
Right tilted	RMC	9400/1880	1:1	0.083	0.05	24.25	24.50	1.059	0.088	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.177	0.06	24.25	24.50	1.059	0.187	22.0
Back side	RMC	9400/1880	1:1	0.470	-0.01	24.25	24.50	1.059	**0.498**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.327	-0.06	24.25	24.50	1.059	0.346	22.0
Back side	RMC	9400/1880	1:1	0.843	-0.05	24.25	24.50	1.059	**0.893**	22.0
Back side-repeat	RMC	9400/1880	1:1	0.805	-0.05	24.25	24.50	1.059	0.853	22.0
Back side	RMC	9262/1852.4	1:1	0.728	0.15	24.12	24.50	1.091	0.795	22.0
Back side	RMC	9538/1907.6	1:1	0.684	0.09	24.16	24.50	1.081	0.740	22.0
Left side	RMC	9400/1880	1:1	0.128	0.11	24.25	24.50	1.059	0.136	22.0
Right side	RMC	9400/1880	1:1	0.191	0.06	24.25	24.50	1.059	0.202	22.0
Bottom side	RMC	9400/1880	1:1	0.666	0.07	24.25	24.50	1.059	0.705	22.0
Ant 2										
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	0.333	-0.04	15.66	16.50	1.213	0.404	22.0
Left tilted	RMC	9400/1880	1:1	0.483	0.03	15.66	16.50	1.213	0.586	22.0
Right cheek	RMC	9400/1880	1:1	0.546	0.08	15.66	16.50	1.213	0.663	22.0
Right tilted	RMC	9400/1880	1:1	0.701	0.05	15.66	16.50	1.213	0.851	22.0
Right tilted	RMC	9262/1852.4	1:1	0.731	-0.04	15.76	16.50	1.186	**0.867**	22.0
Right tilted	RMC	9538/1907.6	1:1	0.678	0.07	15.63	16.50	1.222	0.828	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.366	0.06	23.80	24.50	1.175	0.430	22.0
Back side	RMC	9400/1880	1:1	0.552	-0.03	23.80	24.50	1.175	**0.649**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.205	-0.08	17.46	18.50	1.271	0.260	22.0
Back side	RMC	9400/1880	1:1	0.290	0.03	17.46	18.50	1.271	0.368	22.0
Left side	RMC	9400/1880	1:1	0.048	0.03	17.46	18.50	1.271	0.061	22.0
Top side	RMC	9400/1880	1:1	0.402	0.10	17.46	18.50	1.271	**0.511**	22.0

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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)	Liquid Temp.(℃)
Product specific 10g SAR Test data(sensor on 0mm)										
Back side	RMC	9400/1880	1:1	1.100	0.05	20.75	21.50	1.189	1.307	22.0
Top side	RMC	9400/1880	1:1	1.450	0.01	20.75	21.50	1.189	1.723	22.0
Product specific 10g SAR Test data(sensor off 5mm)										
Back side	RMC	9400/1880	1:1	1.280	0.09	23.80	24.50	1.175	1.504	22.0
Top side	RMC	9400/1880	1:1	1.620	-0.03	23.80	24.50	1.175	**1.903**	22.0

Table 23：SAR of WCDMA Band II for Head, Body and Product specific 10g SAR.

Note:

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

2) Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1-g or then testing at the other channels is not required for such test configuration(s).

3) 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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Back side 10mm(Ant1)	9400/1880	0.843	0.805	1.047	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 performed 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 performed 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						

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8.3.5 SAR Result of WCDMA Band IV

Ant 1										
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	0.113	0.09	23.93	24.50	1.140	**0.129**	22.0
Left tilted	RMC	1412/1732.4	1:1	0.064	0.16	23.93	24.50	1.140	0.073	22.0
Right cheek	RMC	1412/1732.4	1:1	0.070	0.04	23.93	24.50	1.140	0.080	22.0
Right tilted	RMC	1412/1732.4	1:1	0.060	0.03	23.93	24.50	1.140	0.068	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.216	0.02	23.93	24.50	1.140	0.246	22.0
Back side	RMC	1412/1732.4	1:1	0.359	-0.08	23.93	24.50	1.140	**0.409**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.353	-0.01	23.93	24.50	1.140	0.403	22.0
Back side	RMC	1412/1732.4	1:1	0.703	-0.09	23.93	24.50	1.140	**0.802**	22.0
Back side	RMC	1312/1712.4	1:1	0.649	-0.16	23.77	24.50	1.183	0.768	22.0
Back side	RMC	1513/1752.6	1:1	0.682	0.05	23.86	24.50	1.159	0.790	22.0
Left side	RMC	1412/1732.4	1:1	0.091	0.11	23.93	24.50	1.140	0.104	22.0
Right side	RMC	1412/1732.4	1:1	0.153	0.08	23.93	24.50	1.140	0.174	22.0
Bottom side	RMC	1412/1732.4	1:1	0.639	0.19	23.93	24.50	1.140	0.729	22.0
Ant 2										
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	0.318	0.06	17.11	18.00	1.227	0.390	22.0
Left tilted	RMC	1412/1732.4	1:1	0.450	0.01	17.11	18.00	1.227	0.552	22.0
Right cheek	RMC	1412/1732.4	1:1	0.492	0.09	17.11	18.00	1.227	0.604	22.0
Right tilted	RMC	1412/1732.4	1:1	0.671	0.05	17.11	18.00	1.227	0.824	22.0
Right tilted	RMC	1312/1712.4	1:1	0.583	-0.02	17.06	18.00	1.242	0.724	22.0
Right tilted	RMC	1513/1752.6	1:1	0.704	0.04	17.13	18.00	1.222	**0.860**	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.237	0.07	23.82	24.50	1.169	0.277	22.0
Back side	RMC	1412/1732.4	1:1	0.328	0.10	23.82	24.50	1.169	**0.384**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.079	-0.05	15.35	16.50	1.303	0.103	22.0

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Back side	RMC	1412/1732.4	1:1	0.100	0.16	15.35	16.50	1.303	0.130	22.0
Left side	RMC	1412/1732.4	1:1	0.047	0.04	15.35	16.50	1.303	0.061	22.0
Top side	RMC	1412/1732.4	1:1	0.147	0.05	15.35	16.50	1.303	**0.192**	22.0
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)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(sensor on 0mm)										
Top side	RMC	1412/1732.4	1:1	1.690	-0.03	20.53	21.50	1.250	**2.113**	22.0
Top side	RMC	1312/1712.4	1:1	1.680	0.02	20.52	21.50	1.253	2.105	22.0
Top side	RMC	1513/1752.6	1:1	1.640	0.04	20.64	21.50	1.219	1.999	22.0
Product specific 10g SAR Test data(sensor off 5mm)										
Top side	RMC	1412/1732.4	1:1	1.090	0.02	23.82	24.50	1.169	1.275	22.0

Table 24：SAR of WCDMA Band IV for Head, Body and Product specific 10g SAR.

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.

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8.3.6 SAR Result of WCDMA Band V

Ant 1										
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	0.144	0.05	24.28	24.50	1.052	**0.151**	22.0
Left tilted	RMC	4182/836.4	1:1	0.069	-0.12	24.28	24.50	1.052	0.072	22.0
Right cheek	RMC	4182/836.4	1:1	0.140	0.04	24.28	24.50	1.052	0.147	22.0
Right tilted	RMC	4182/836.4	1:1	0.066	-0.01	24.28	24.50	1.052	0.069	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.117	0.03	24.28	24.50	1.052	0.123	22.0
Back side	RMC	4182/836.4	1:1	0.151	0.01	24.28	24.50	1.052	**0.159**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.102	-0.06	24.28	24.50	1.052	0.107	22.0
Back side	RMC	4182/836.4	1:1	0.175	0.05	24.28	24.50	1.052	**0.184**	22.0
Left side	RMC	4182/836.4	1:1	0.105	0.19	24.28	24.50	1.052	0.110	22.0
Right side	RMC	4182/836.4	1:1	0.074	0.04	24.28	24.50	1.052	0.078	22.0
Bottom side	RMC	4182/836.4	1:1	0.061	0.04	24.28	24.50	1.052	0.064	22.0
Ant 2										
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	0.584	0.03	23.45	23.50	1.012	0.591	22.0
Left tilted	RMC	4182/836.4	1:1	0.436	0.17	23.45	23.50	1.012	0.441	22.0
Right cheek	RMC	4182/836.4	1:1	0.697	-0.11	23.45	23.50	1.012	**0.705**	22.0
Right tilted	RMC	4182/836.4	1:1	0.666	0.01	23.45	23.50	1.012	0.674	22.0
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.113	-0.07	24.48	24.50	1.005	0.114	22.0
Back side	RMC	4182/836.4	1:1	0.153	0.01	24.48	24.50	1.005	**0.154**	22.0
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.126	0.01	24.48	24.50	1.005	0.127	22.0
Back side	RMC	4182/836.4	1:1	0.208	0.07	24.48	24.50	1.005	**0.209**	22.0
Left side	RMC	4182/836.4	1:1	0.091	-0.09	24.48	24.50	1.005	0.091	22.0
Top side	RMC	4182/836.4	1:1	0.138	0.01	24.48	24.50	1.005	0.139	22.0

Table 25：SAR of WCDMA Band V for Head and Body.

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.

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8.3.7 SAR Result of LTE Band 2

Ant 1												
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. (℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_99	18900/1880	1:1	0.101	0.13	23.90	24.00	1.023	**0.103**	22.1
Left tilted	20	QPSK	1_99	18900/1880	1:1	0.098	0.09	23.90	24.00	1.023	0.101	22.1
Right cheek	20	QPSK	1_99	18900/1880	1:1	0.095	0.02	23.90	24.00	1.023	0.097	22.1
Right tilted	20	QPSK	1_99	18900/1880	1:1	0.090	0.12	23.90	24.00	1.023	0.092	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_0	18900/1880	1:1	0.085	0.01	22.95	23.00	1.012	0.086	22.1
Left tilted	20	QPSK	50_0	18900/1880	1:1	0.083	0.05	22.95	23.00	1.012	0.084	22.1
Right cheek	20	QPSK	50_0	18900/1880	1:1	0.076	0.13	22.95	23.00	1.012	0.076	22.1
Right tilted	20	QPSK	50_0	18900/1880	1:1	0.065	0.03	22.95	23.00	1.012	0.065	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_99	18900/1880	1:1	0.171	0.05	23.90	24.00	1.023	0.175	22.1
Back side	20	QPSK	1_99	18900/1880	1:1	0.464	-0.16	23.90	24.00	1.023	**0.475**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	18900/1880	1:1	0.145	-0.01	22.95	23.00	1.012	0.147	22.1
Back side	20	QPSK	50_0	18900/1880	1:1	0.315	0.04	22.95	23.00	1.012	0.319	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_99	18900/1880	1:1	0.309	0.09	23.90	24.00	1.023	0.316	22.1
Back side	20	QPSK	1_99	18900/1880	1:1	0.727	0.14	23.90	24.00	1.023	0.744	22.1
Back side	20	QPSK	1_99	18900/1880	1:1	0.824	0.03	23.90	24.00	1.023	**0.843**	22.1
Back side-repeat	20	QPSK	1_99	18900/1880	1:1	0.809	0.05	23.90	24.00	1.023	0.828	22.1
Back side	20	QPSK	1_99	18700/1860	1:1	0.713	0.15	23.85	24.00	1.035	0.738	22.1
Back side	20	QPSK	1_99	19100/1900	1:1	0.716	-0.13	23.74	24.00	1.062	0.760	22.1
Left side	20	QPSK	1_99	18900/1880	1:1	0.122	-0.17	23.90	24.00	1.023	0.125	22.1
Right side	20	QPSK	1_99	18900/1880	1:1	0.182	0.03	23.90	24.00	1.023	0.186	22.1
Bottom side	20	QPSK	1_99	18900/1880	1:1	0.637	-0.05	23.90	24.00	1.023	0.652	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	18900/1880	1:1	0.259	0.07	22.95	23.00	1.012	0.262	22.1
Back side	20	QPSK	50_0	18900/1880	1:1	0.623	0.17	22.95	23.00	1.012	0.630	22.1
Left side	20	QPSK	50_0	18900/1880	1:1	0.095	-0.05	22.95	23.00	1.012	0.096	22.1
Right side	20	QPSK	50_0	18900/1880	1:1	0.169	0.01	22.95	23.00	1.012	0.171	22.1
Bottom side	20	QPSK	50_0	18900/1880	1:1	0.553	-0.11	22.95	23.00	1.012	0.559	22.1
Hotspot Test data(Separate 10mm 100%RB)												
Back side	20	QPSK	100_0	18700/1860	1:1	0.616	0.07	22.93	23.00	1.016	0.626	22.1

Ant 2												
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. (℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	18900/1880	1:1	0.496	-0.02	15.90	16.00	1.023	0.508	22.1
Left tilted	20	QPSK	1_50	18900/1880	1:1	0.735	-0.04	15.90	16.00	1.023	0.752	22.1
Right cheek	20	QPSK	1_50	18900/1880	1:1	0.587	-0.05	15.90	16.00	1.023	0.601	22.1
Right tilted	20	QPSK	1_50	18900/1880	1:1	0.747	-0.04	15.90	16.00	1.023	0.764	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_0	19100/1900	1:1	0.501	0.01	15.59	16.00	1.099	0.551	22.1
Left tilted	20	QPSK	50_0	19100/1900	1:1	0.554	-0.05	15.59	16.00	1.099	0.609	22.1
Right cheek	20	QPSK	50_0	19100/1900	1:1	0.621	0.04	15.59	16.00	1.099	0.682	22.1
Right tilted	20	QPSK	50_0	19100/1900	1:1	0.761	-0.05	15.59	16.00	1.099	0.836	22.1
Right tilted	20	QPSK	50_0	18700/1860	1:1	0.819	0.15	15.56	16.00	1.107	**0.906**	22.1
Right tilted-repeat	20	QPSK	50_0	18700/1860	1:1	0.817	0.16	15.56	16.00	1.107	0.904	22.1
Right tilted	20	QPSK	50_0	18900/1880	1:1	0.735	0.19	15.47	16.00	1.130	0.830	22.1
Head Test Data(100%RB)												
Right tilted	20	QPSK	100_0	19100/1900	1:1	0.724	-0.03	15.54	16.00	1.112	0.805	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	18700/1860	1:1	0.337	-0.09	23.60	24.00	1.096	0.370	22.1
Back side	20	QPSK	1_50	18700/1860	1:1	0.582	0.06	23.60	24.00	1.096	**0.638**	22.1

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Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	18700/1860	1:1	0.308	-0.05	22.78	23.00	1.052	0.324	22.1
Back side	20	QPSK	50_0	18700/1860	1:1	0.445	-0.16	22.78	23.00	1.052	0.468	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	19100/1900	1:1	0.164	0.14	16.51	17.00	1.119	0.184	22.1
Back side	20	QPSK	1_50	19100/1900	1:1	0.238	-0.05	16.51	17.00	1.119	0.266	22.1
Left side	20	QPSK	1_50	19100/1900	1:1	0.031	0.19	16.51	17.00	1.119	0.035	22.1
Top side	20	QPSK	1_50	19100/1900	1:1	0.329	0.05	16.51	17.00	1.119	0.368	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	19100/1900	1:1	0.181	0.15	16.69	17.00	1.074	0.194	22.1
Back side	20	QPSK	50_0	19100/1900	1:1	0.251	-0.08	16.69	17.00	1.074	0.270	22.1
Left side	20	QPSK	50_0	19100/1900	1:1	0.028	-0.05	16.69	17.00	1.074	0.030	22.1
Top side	20	QPSK	50_0	19100/1900	1:1	0.365	0.05	16.69	17.00	1.074	**0.392**	22.1
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)**	**Liquid Temp. (℃)**
	BW.	**Modulation**	**RB Size_ RB offset**									
Product specific 10g SAR Test data(sensor on 0mm 1RB)												
Back side	20	QPSK	1_50	18900/1880	1:1	1.440	-0.02	20.43	21.00	1.140	1.642	22.1
Top side	20	QPSK	1_50	18900/1880	1:1	1.440	0.05	20.43	21.00	1.140	1.642	22.1
Product specific 10g SAR Test data(sensor on 0mm 50%RB)												
Back side	20	QPSK	50_0	19100/1900	1:1	1.470	-0.09	20.65	21.00	1.084	1.593	22.1
Top side	20	QPSK	50_0	19100/1900	1:1	1.500	0.14	20.65	21.00	1.084	1.626	22.1
Product specific 10g SAR Test data(sensor off 5mm 1RB)												
Back side	20	QPSK	1_50	18700/1860	1:1	1.240	-0.08	23.60	24.00	1.096	1.360	22.1
Top side	20	QPSK	1_50	18700/1860	1:1	1.770	-0.07	23.60	24.00	1.096	**1.941**	22.1
Product specific 10g SAR Test data(sensor off 5mm 50%RB)												
Back side	20	QPSK	50_0	18700/1860	1:1	1.150	0.01	22.78	23.00	1.052	1.210	22.1
Top side	20	QPSK	50_0	18700/1860	1:1	1.410	0.07	22.78	23.00	1.052	1.483	22.1

Table 26：SAR of LTE Band 2 for Head, Body and Product specific 10g SAR.

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Back side 10mm (Ant1)	18900/1880	0.809	0.824	1.019	N/A	N/A
Right tilted (Ant2)	18700/1860	0.819	0.817	1.002	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 performed 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 performed 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						

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8.3.8 SAR Result of LTE Band 4

Ant 1												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_99	20175/1732.5	1:1	0.109	0.06	23.60	24.00	1.096	**0.120**	22.1
Left tilted	20	QPSK	1_99	20175/1732.5	1:1	0.071	0.04	23.60	24.00	1.096	0.078	22.1
Right cheek	20	QPSK	1_99	20175/1732.5	1:1	0.078	0.05	23.60	24.00	1.096	0.085	22.1
Right tilted	20	QPSK	1_99	20175/1732.5	1:1	0.060	0.03	23.60	24.00	1.096	0.066	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20300/1745	1:1	0.101	0.06	22.85	23.00	1.035	0.105	22.1
Left tilted	20	QPSK	50_25	20300/1745	1:1	0.061	0.03	22.85	23.00	1.035	0.063	22.1
Right cheek	20	QPSK	50_25	20300/1745	1:1	0.067	0.01	22.85	23.00	1.035	0.069	22.1
Right tilted	20	QPSK	50_25	20300/1745	1:1	0.052	0.03	22.85	23.00	1.035	0.054	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_99	20175/1732.5	1:1	0.200	0.05	23.60	24.00	1.096	0.219	22.1
Back side	20	QPSK	1_99	20175/1732.5	1:1	0.360	-0.04	23.60	24.00	1.096	**0.395**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	20300/1745	1:1	0.174	-0.04	22.85	23.00	1.035	0.180	22.1
Back side	20	QPSK	50_25	20300/1745	1:1	0.303	0.19	22.85	23.00	1.035	0.314	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_99	20175/1732.5	1:1	0.324	0.08	23.60	24.00	1.096	0.355	22.1
Back side	20	QPSK	1_99	20175/1732.5	1:1	0.640	-0.03	23.60	24.00	1.096	**0.702**	22.1
Left side	20	QPSK	1_99	20175/1732.5	1:1	0.084	0.00	23.60	24.00	1.096	0.092	22.1
Right side	20	QPSK	1_99	20175/1732.5	1:1	0.138	0.17	23.60	24.00	1.096	0.151	22.1
Bottom side	20	QPSK	1_99	20175/1732.5	1:1	0.571	0.17	23.60	24.00	1.096	0.626	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	20300/1745	1:1	0.287	0.12	22.85	23.00	1.035	0.297	22.1
Back side	20	QPSK	50_25	20300/1745	1:1	0.545	-0.08	22.85	23.00	1.035	0.564	22.1
Left side	20	QPSK	50_25	20300/1745	1:1	0.072	-0.02	22.85	23.00	1.035	0.075	22.1
Right side	20	QPSK	50_25	20300/1745	1:1	0.132	-0.16	22.85	23.00	1.035	0.137	22.1
Bottom side	20	QPSK	50_25	20300/1745	1:1	0.532	0.07	22.85	23.00	1.035	0.551	22.1
Ant 2												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	20300/1745	1:1	0.433	-0.05	16.63	17.00	1.089	0.472	22.1
Left tilted	20	QPSK	1_50	20300/1745	1:1	0.632	0.07	16.63	17.00	1.089	0.688	22.1
Right cheek	20	QPSK	1_50	20300/1745	1:1	0.525	0.11	16.63	17.00	1.089	0.572	22.1
Right tilted	20	QPSK	1_50	20300/1745	1:1	0.679	0.06	16.63	17.00	1.089	0.739	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_50	20300/1745	1:1	0.460	-0.01	16.62	17.00	1.091	0.502	22.1
Left tilted	20	QPSK	50_50	20300/1745	1:1	0.613	-0.03	16.62	17.00	1.091	0.669	22.1
Right cheek	20	QPSK	50_50	20300/1745	1:1	0.715	0.10	16.62	17.00	1.091	0.780	22.1
Right tilted	20	QPSK	50_50	20300/1745	1:1	0.783	0.05	16.62	17.00	1.091	**0.855**	22.1
Right tilted	20	QPSK	50_25	20175/1732.5	1:1	0.692	0.03	16.37	17.00	1.156	0.800	22.1
Right tilted	20	QPSK	50_0	20050/1720	1:1	0.608	-0.06	16.58	17.00	1.102	0.670	22.1
Head Test Data(100%RB)												
Right tilted	20	QPSK	100_0	20175/1732.5	1:1	0.632	-0.07	16.54	17.00	1.112	0.703	22.1
Body worn Test data(Separate 15mm 1RB)												

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Front side	20	QPSK	1_50	20300/1745	1:1	0.231	-0.06	23.32	24.00	1.169	0.270	22.1
Back side	20	QPSK	1_50	20300/1745	1:1	0.382	0.10	23.32	24.00	1.169	**0.447**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	20175/1732.5	1:1	0.188	-0.02	22.50	23.00	1.122	0.211	22.1
Back side	20	QPSK	50_0	20175/1732.5	1:1	0.247	-0.08	22.50	23.00	1.122	0.277	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	20300/1745	1:1	0.094	-0.04	15.52	16.00	1.117	0.105	22.1
Back side	20	QPSK	1_50	20300/1745	1:1	0.114	-0.06	15.52	16.00	1.117	0.127	22.1
Left side	20	QPSK	1_50	20300/1745	1:1	0.000	0.01	15.52	16.00	1.117	0.000	22.1
Top side	20	QPSK	1_50	20300/1745	1:1	0.184	-0.04	15.52	16.00	1.117	**0.206**	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	20175/1732.5	1:1	0.084	0.10	15.62	16.00	1.091	0.092	22.1
Back side	20	QPSK	50_0	20175/1732.5	1:1	0.103	-0.19	15.62	16.00	1.091	0.112	22.1
Left side	20	QPSK	50_0	20175/1732.5	1:1	0.000	0.10	15.62	16.00	1.091	0.000	22.1
Top side	20	QPSK	50_0	20175/1732.5	1:1	0.150	-0.01	15.62	16.00	1.091	0.164	22.1
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)**	**Liquid Temp.(℃)**
	BW.	**Modulation**	**RB Size_ RB offset**									
Product specific 10g SAR Test data(sensor on 0mm 1RB)												
Top side	20	QPSK	1_50	20300/1745	1:1	1.700	-0.09	20.41	21.00	1.146	**1.947**	22.1
Top side	20	QPSK	1_50	20175/1732.5	1:1	1.670	-0.10	20.39	21.00	1.151	1.922	22.1
Top side	20	QPSK	1_50	20050/1720	1:1	1.650	-0.08	20.39	21.00	1.151	1.899	22.1
Product specific 10g SAR Test data(sensor on 0mm 50%RB)												
Top side	20	QPSK	50_0	20175/1732.5	1:1	1.580	-0.17	20.67	21.00	1.079	1.705	22.1
Product specific 10g SAR Test data(sensor on 0mm 100%RB)												
Top side	20	QPSK	100_0	20300/1745	1:1	1.690	-0.02	20.56	21.00	1.107	1.870	22.1
Product specific 10g SAR Test data(sensor off 5mm 1RB)												
Top side	20	QPSK	1_50	20300/1745	1:1	1.060	0.14	23.32	24.00	1.169	1.240	22.1
Product specific 10g SAR Test data(sensor off 5mm 50%RB)												
Top side	20	QPSK	50_0	20175/1732.5	1:1	0.898	0.04	22.50	23.00	1.122	1.008	22.1

Table 27：SAR of LTE Band 4 for Head, Body and Product specific 10g SAR.

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.

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8.3.9 SAR Result of LTE Band 5

Ant 1												
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.(℃)
	BW.	Modulation	RB Size_RB offset									
Head Test Data(1RB)												
Left cheek	10	QPSK	1_0	20450/829	1:1	0.082	0.06	23.79	24.50	1.178	0.097	22.1
Left tilted	10	QPSK	1_0	20450/829	1:1	0.041	0.03	23.79	24.50	1.178	0.048	22.1
Right cheek	10	QPSK	1_0	20450/829	1:1	0.091	0.14	23.79	24.50	1.178	**0.107**	22.1
Right tilted	10	QPSK	1_0	20450/829	1:1	0.045	0.03	23.79	24.50	1.178	0.053	22.1
Head Test Data(50%RB)												
Left cheek	10	QPSK	25_0	20450/829	1:1	0.070	0.06	23.03	23.50	1.114	0.078	22.1
Left tilted	10	QPSK	25_0	20450/829	1:1	0.035	0.13	23.03	23.50	1.114	0.039	22.1
Right cheek	10	QPSK	25_0	20450/829	1:1	0.078	0.05	23.03	23.50	1.114	0.087	22.1
Right tilted	10	QPSK	25_0	20450/829	1:1	0.038	0.04	23.03	23.50	1.114	0.042	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	10	QPSK	1_0	20450/829	1:1	0.074	0.01	23.79	24.50	1.178	0.087	22.1
Back side	10	QPSK	1_0	20450/829	1:1	0.105	0.03	23.79	24.50	1.178	**0.124**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	10	QPSK	25_0	20450/829	1:1	0.061	-0.08	23.03	23.50	1.114	0.068	22.1
Back side	10	QPSK	25_0	20450/829	1:1	0.082	0.15	23.03	23.50	1.114	0.091	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	10	QPSK	1_0	20450/829	1:1	0.077	0.19	23.79	24.50	1.178	0.091	22.1
Back side	10	QPSK	1_0	20450/829	1:1	0.123	0.08	23.79	24.50	1.178	**0.145**	22.1
Left side	10	QPSK	1_0	20450/829	1:1	0.081	0.11	23.79	24.50	1.178	0.095	22.1
Right side	10	QPSK	1_0	20450/829	1:1	0.060	0.17	23.79	24.50	1.178	0.071	22.1
Bottom Side	10	QPSK	1_0	20450/829	1:1	0.092	-0.08	23.79	24.50	1.178	0.108	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	10	QPSK	25_0	20450/829	1:1	0.063	0.06	23.03	23.50	1.114	0.070	22.1
Back side	10	QPSK	25_0	20450/829	1:1	0.100	-0.11	23.03	23.50	1.114	0.111	22.1
Left side	10	QPSK	25_0	20450/829	1:1	0.068	0.06	23.03	23.50	1.114	0.076	22.1
Right side	10	QPSK	25_0	20450/829	1:1	0.051	0.08	23.03	23.50	1.114	0.057	22.1
Bottom Side	10	QPSK	25_0	20450/829	1:1	0.081	0.16	23.03	23.50	1.114	0.090	22.1
Ant 2												
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.(℃)
	BW.	Modulation	RB Size_RB offset									
Head Test Data(1RB)												
Left cheek	10	QPSK	1_25	20525/836.5	1:1	0.485	0.05	22.81	23.50	1.172	0.569	22.1
Left tilted	10	QPSK	1_25	20525/836.5	1:1	0.435	0.03	22.81	23.50	1.172	0.510	22.1
Right cheek	10	QPSK	1_25	20525/836.5	1:1	0.756	-0.03	22.81	23.50	1.172	0.886	22.1
Right cheek	10	QPSK	1_0	20450/829	1:1	0.692	-0.08	22.56	23.50	1.242	0.859	22.1
Right cheek	10	QPSK	1_25	20600/844	1:1	0.797	0.01	22.81	23.50	1.172	0.934	22.1
Right tilted	10	QPSK	1_25	20525/836.5	1:1	0.610	0.05	22.81	23.50	1.172	0.715	22.1
Head Test Data(50%RB)												
Left cheek	10	QPSK	25_0	20450/829	1:1	0.549	0.02	22.72	23.50	1.197	0.657	22.1
Left tilted	10	QPSK	25_0	20450/829	1:1	0.500	0.19	22.72	23.50	1.197	0.598	22.1
Right cheek	10	QPSK	25_0	20450/829	1:1	0.770	0.45	22.72	23.50	1.197	0.921	22.1
Right cheek	10	QPSK	25_0	20525/836.5	1:1	0.803	-0.09	22.71	23.50	1.199	0.963	22.1
Right cheek	10	QPSK	25_13	20600/844	1:1	0.805	0.03	22.66	23.50	1.213	**0.977**	22.1
Right cheek-repeat	10	QPSK	25_13	20600/844	1:1	0.744	0.01	22.66	23.50	1.213	0.903	22.1

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Right tilted	10	QPSK	25_25	20450/829	1:1	0.616	0.02	22.72	23.50	1.197	0.737	22.1
Head Test Data(100%RB)												
Right cheek	10	QPSK	50_0	20525/836.5	1:1	0.744	-0.06	22.76	23.50	1.186	0.882	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	10	QPSK	1_25	20525/836.5	1:1	0.124	0.09	23.84	24.50	1.164	0.144	22.1
Back side	10	QPSK	1_25	20525/836.5	1:1	0.137	-0.08	23.84	24.50	1.164	**0.159**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	10	QPSK	25_0	20525/836.5	1:1	0.084	0.15	22.69	23.50	1.205	0.101	22.1
Back side	10	QPSK	25_0	20525/836.5	1:1	0.099	0.09	22.69	23.50	1.205	0.119	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	10	QPSK	1_25	20525/836.5	1:1	0.120	-0.17	23.84	24.50	1.164	0.140	22.1
Back side	10	QPSK	1_25	20525/836.5	1:1	0.204	-0.11	23.84	24.50	1.164	**0.237**	22.1
Left side	10	QPSK	1_25	20525/836.5	1:1	0.082	0.17	23.84	24.50	1.164	0.095	22.1
Top side	10	QPSK	1_25	20525/836.5	1:1	0.134	-0.06	23.84	24.50	1.164	0.156	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	10	QPSK	25_0	20525/836.5	1:1	0.107	0.15	22.69	23.50	1.205	0.129	22.1
Back side	10	QPSK	25_0	20525/836.5	1:1	0.145	-0.01	22.69	23.50	1.205	0.175	22.1
Left side	10	QPSK	25_0	20525/836.5	1:1	0.064	-0.03	22.69	23.50	1.205	0.077	22.1
Top side	10	QPSK	25_0	20525/836.5	1:1	0.125	-0.17	22.69	23.50	1.205	0.151	22.1

Table 28：SAR of LTE Band 5 for Head and Body.

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Right cheek (Ant2)	20600/844	0.805	0.744	1.082	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 performed 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 performed 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						

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8.3.10SAR Result of LTE Band 7

Ant 1												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_99	20850/2510	1:1	0.095	0.05	23.76	24.00	1.057	0.100	22.1
Left tilted	20	QPSK	1_99	20850/2510	1:1	0.097	0.04	23.76	24.00	1.057	0.103	22.1
Right cheek	20	QPSK	1_99	20850/2510	1:1	0.170	0.09	23.76	24.00	1.057	**0.180**	22.1
Right tilted	20	QPSK	1_99	20850/2510	1:1	0.091	0.01	23.76	24.00	1.057	0.096	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	20850/2510	1:1	0.075	0.06	22.64	23.00	1.086	0.082	22.1
Left tilted	20	QPSK	50_25	20850/2510	1:1	0.072	0.03	22.64	23.00	1.086	0.078	22.1
Right cheek	20	QPSK	50_25	20850/2510	1:1	0.134	0.00	22.64	23.00	1.086	0.146	22.1
Right tilted	20	QPSK	50_25	20850/2510	1:1	0.075	0.04	22.64	23.00	1.086	0.082	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_99	20850/2510	1:1	0.136	-0.05	23.76	24.00	1.057	0.144	22.1
Back side	20	QPSK	1_99	20850/2510	1:1	0.305	-0.06	23.76	24.00	1.057	**0.322**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	20850/2510	1:1	0.090	0.04	22.64	23.00	1.086	0.098	22.1
Back side	20	QPSK	50_25	20850/2510	1:1	0.186	0.09	22.64	23.00	1.086	0.202	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_99	20850/2510	1:1	0.199	-0.04	23.76	24.00	1.057	0.210	22.1
Back side	20	QPSK	1_99	20850/2510	1:1	0.611	-0.07	23.76	24.00	1.057	**0.646**	22.1
Left side	20	QPSK	1_99	20850/2510	1:1	0.086	0.05	23.76	24.00	1.057	0.091	22.1
Right side	20	QPSK	1_99	20850/2510	1:1	0.174	-0.10	23.76	24.00	1.057	0.184	22.1
Bottom side	20	QPSK	1_99	20850/2510	1:1	0.582	0.08	23.76	24.00	1.057	0.615	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	20850/2510	1:1	0.180	0.06	22.64	23.00	1.086	0.196	22.1
Back side	20	QPSK	50_25	20850/2510	1:1	0.534	0.07	22.64	23.00	1.086	0.580	22.1
Left side	20	QPSK	50_25	20850/2510	1:1	0.076	0.15	22.64	23.00	1.086	0.083	22.1
Right side	20	QPSK	50_25	20850/2510	1:1	0.159	-0.01	22.64	23.00	1.086	0.173	22.1
Bottom side	20	QPSK	50_25	20850/2510	1:1	0.460	0.03	22.64	23.00	1.086	0.500	22.1
Ant 2												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	21100/2535	1:1	0.381	0.14	16.81	17.00	1.045	0.398	22.1
Left tilted	20	QPSK	1_50	21100/2535	1:1	0.472	0.11	16.81	17.00	1.045	0.493	22.1
Right cheek	20	QPSK	1_50	21100/2535	1:1	0.510	0.00	16.81	17.00	1.045	0.533	22.1
Right tilted	20	QPSK	1_50	21100/2535	1:1	0.832	-0.06	16.81	17.00	1.045	0.869	22.1
Right tilted	20	QPSK	1_50	20850/2510	1:1	0.718	0.18	16.63	17.00	1.089	0.782	22.1
Right tilted	20	QPSK	1_50	21350/2560	1:1	0.876	0.04	16.71	17.00	1.069	0.936	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_50	21350/2560	1:1	0.401	0.07	16.60	17.00	1.096	0.440	22.1
Left tilted	20	QPSK	50_50	21350/2560	1:1	0.575	0.03	16.60	17.00	1.096	0.630	22.1
Right cheek	20	QPSK	50_50	21350/2560	1:1	0.611	-0.04	16.60	17.00	1.096	0.670	22.1
Right tilted	20	QPSK	50_50	21350/2560	1:1	0.923	0.10	16.60	17.00	1.096	**1.012**	22.1
Right tilted-Repeat	20	QPSK	50_50	21350/2560	1:1	0.874	0.19	16.60	17.00	1.096	0.958	22.1
Right tilted	20	QPSK	50_50	20850/2510	1:1	0.580	0.03	16.40	17.00	1.148	0.666	22.1
Right tilted	20	QPSK	50_50	21100/2535	1:1	0.752	0.18	16.56	17.00	1.107	0.832	22.1
Head Test Data(100%RB)												
Right tilted	20	QPSK	100_0	21350/2560	1:1	0.861	0.10	16.69	17.00	1.074	0.925	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	20850/2510	1:1	0.214	0.02	23.52	24.00	1.117	0.239	22.1
Back side	20	QPSK	1_50	20850/2510	1:1	0.462	-0.05	23.52	24.00	1.117	**0.516**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	20850/2510	1:1	0.193	-0.02	22.60	23.00	1.096	0.212	22.1
Front side	20	QPSK	50_0	20850/2510	1:1	0.420	0.01	22.60	23.00	1.096	0.461	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	21100/2535	1:1	0.089	0.00	15.73	16.00	1.064	0.095	22.1

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Back side	20	QPSK	1_50	21100/2535	1:1	0.187	0.19	15.73	16.00	1.064	0.199	22.1
Left side	20	QPSK	1_50	21100/2535	1:1	0.034	-0.12	15.73	16.00	1.064	0.036	22.1
Top side	20	QPSK	1_50	21100/2535	1:1	0.312	0.08	15.73	16.00	1.064	0.332	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	21350/2560	1:1	0.111	0.07	15.71	16.00	1.069	0.119	22.1
Back side	20	QPSK	50_50	21350/2560	1:1	0.230	-0.12	15.71	16.00	1.069	0.246	22.1
Left side	20	QPSK	50_50	21350/2560	1:1	0.034	-0.10	15.71	16.00	1.069	0.036	22.1
Top side	20	QPSK	50_50	21350/2560	1:1	0.444	-0.01	15.71	16.00	1.069	**0.475**	22.1
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)**	**Liquid Temp.(℃)**
	BW.	**Modulation**	**RB Size_ RB offset**									
Product specific 10g SAR Test data(sensor on 0mm 1RB)												
Back side	20	QPSK	1_50	20850/2510	1:1	1.810	0.06	20.59	21.00	1.099	1.989	22.1
Top side	20	QPSK	1_50	20850/2510	1:1	1.760	-0.12	20.59	21.00	1.099	1.934	22.1
Product specific 10g SAR Test data(sensor on 0mm 50%RB)												
Back side	20	QPSK	50_0	21350/2560	1:1	2.200	-0.05	20.70	21.00	1.072	**2.357**	22.1
Back side-Repeat	20	QPSK	50_0	21350/2560	1:1	2.150	0.02	20.70	21.00	1.072	2.304	22.1
Back side	20	QPSK	50_50	20850/2510	1:1	1.430	-0.14	20.44	21.00	1.138	1.627	22.1
Back side	20	QPSK	50_50	21100/2535	1:1	1.780	0.04	20.56	21.00	1.107	1.970	22.1
Top side	20	QPSK	50_0	21350/2560	1:1	1.590	-0.18	20.70	21.00	1.072	1.704	22.1
Product specific 10g SAR Test data(sensor on 0mm 100%RB)												
Back side	20	QPSK	100_0	21350/2560	1:1	1.980	0.01	20.65	21.00	1.084	2.146	22.1
Product specific 10g SAR Test data(sensor off 5mm 1RB)												
Back side	20	QPSK	1_50	20850/2510	1:1	1.050	-0.1	23.52	24.00	1.117	1.173	22.1
Top side	20	QPSK	1_50	20850/2510	1:1	1.640	0.19	23.52	24.00	1.117	1.832	22.1
Product specific 10g SAR Test data(sensor off 5mm 50%RB)												
Back side	20	QPSK	50_0	20850/2510	1:1	1.020	-0.09	22.60	23.00	1.096	1.118	22.1
Top side	20	QPSK	50_0	20850/2510	1:1	1.580	0.07	22.60	23.00	1.096	1.732	22.1

Table 29：SAR of LTE Band 7 for Head, Body and Product specific 10g SAR.

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Right tilted (Ant2)	21350/2560	0.923	0.874	1.056	N/A	N/A
Back side 0mm(Ant2)	21350/2560	2.200	2.150	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 performed 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 performed 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						

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8.3.11 SAR Result of LTE Band 38

Ant 1												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	37850/2580	1:1.58	0.101	0.02	24.03	24.50	1.114	0.113	22.1
Left tilted	20	QPSK	1_50	37850/2580	1:1.58	0.122	0.09	24.03	24.50	1.114	0.136	22.1
Right cheek	20	QPSK	1_50	37850/2580	1:1.58	0.206	0.03	24.03	24.50	1.114	**0.230**	22.1
Right tilted	20	QPSK	1_50	37850/2580	1:1.58	0.095	0.11	24.03	24.50	1.114	0.106	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_0	38000/2595	1:1.58	0.078	0.02	22.98	23.50	1.127	0.088	22.1
Left tilted	20	QPSK	50_0	38000/2595	1:1.58	0.097	0.04	22.98	23.50	1.127	0.109	22.1
Right cheek	20	QPSK	50_0	38000/2595	1:1.58	0.161	0.09	22.98	23.50	1.127	0.181	22.1
Right tilted	20	QPSK	50_0	38000/2595	1:1.58	0.081	0.04	22.98	23.50	1.127	0.091	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	37850/2580	1:1.58	0.120	0.01	24.03	24.50	1.114	0.134	22.1
Back side	20	QPSK	1_50	37850/2580	1:1.58	0.174	-0.07	24.03	24.50	1.114	**0.194**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	38000/2595	1:1.58	0.105	-0.05	22.98	23.50	1.127	0.118	22.1
Back side	20	QPSK	50_0	38000/2595	1:1.58	0.118	0.09	22.98	23.50	1.127	0.133	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	37850/2580	1:1.58	0.220	-0.09	24.03	24.50	1.114	0.245	22.1
Back side	20	QPSK	1_50	37850/2580	1:1.58	0.266	-0.17	24.03	24.50	1.114	0.296	22.1
Left side	20	QPSK	1_50	37850/2580	1:1.58	0.047	0.18	24.03	24.50	1.114	0.052	22.1
Right side	20	QPSK	1_50	37850/2580	1:1.58	0.175	0.13	24.03	24.50	1.114	0.195	22.1
Bottom side	20	QPSK	1_50	37850/2580	1:1.58	0.354	0.10	24.03	24.50	1.114	**0.394**	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_0	38000/2595	1:1.58	0.200	0.06	22.98	23.50	1.127	0.225	22.1
Back side	20	QPSK	50_0	38000/2595	1:1.58	0.227	-0.17	22.98	23.50	1.127	0.256	22.1
Left side	20	QPSK	50_0	38000/2595	1:1.58	0.031	0.11	22.98	23.50	1.127	0.035	22.1
Right side	20	QPSK	50_0	38000/2595	1:1.58	0.158	-0.13	22.98	23.50	1.127	0.178	22.1
Bottom side	20	QPSK	50_0	38000/2595	1:1.58	0.225	0.16	22.98	23.50	1.127	0.254	22.1

Ant 2												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	37850/2580	1:1.58	0.344	-0.01	17.94	18.50	1.138	0.391	22.1
Left tilted	20	QPSK	1_50	37850/2580	1:1.58	0.444	-0.03	17.94	18.50	1.138	0.505	22.1
Right cheek	20	QPSK	1_50	37850/2580	1:1.58	0.525	-0.04	17.94	18.50	1.138	0.597	22.1
Right tilted	20	QPSK	1_50	37850/2580	1:1.58	0.785	0.17	17.94	18.50	1.138	0.893	22.1
Right tilted	20	QPSK	1_50	38000/2595	1:1.58	0.882	-0.09	17.91	18.50	1.146	1.010	22.1
Right tilted	20	QPSK	1_50	38150/2610	1:1.58	0.892	0.03	17.92	18.50	1.143	**1.019**	22.1
Right tilted-Repeat	20	QPSK	1_50	38150/2610	1:1.58	0.825	0.09	17.92	18.50	1.143	0.943	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_50	38150/2610	1:1.58	0.356	-0.07	17.94	18.50	1.138	0.405	22.1
Left tilted	20	QPSK	50_50	38150/2610	1:1.58	0.563	0.03	17.94	18.50	1.138	0.640	22.1
Right cheek	20	QPSK	50_50	38150/2610	1:1.58	0.648	-0.18	17.94	18.50	1.138	0.737	22.1
Right tilted	20	QPSK	50_50	38150/2610	1:1.58	0.821	-0.02	17.94	18.50	1.138	0.934	22.1
Right tilted	20	QPSK	50_50	37850/2580	1:1.58	0.727	0.03	17.91	18.50	1.146	0.833	22.1
Right tilted	20	QPSK	50_50	38000/2595	1:1.58	0.758	0.09	17.86	18.50	1.159	0.878	22.1
Head Test Data(100%RB)												
Right tilted	20	QPSK	100_0	38000/2595	1:1.58	0.828	0.08	17.95	18.50	1.135	0.940	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	37850/2580	1:1.58	0.195	0.05	23.84	24.50	1.164	0.227	22.1
Back side	20	QPSK	1_50	37850/2580	1:1.58	0.482	-0.07	23.84	24.50	1.164	**0.561**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_50	37850/2580	1:1.58	0.169	-0.11	22.84	23.50	1.164	0.197	22.1
Back side	20	QPSK	50_50	37850/2580	1:1.58	0.360	-0.08	22.84	23.50	1.164	0.419	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	37850/2580	1:1.58	0.084	0.09	17.94	18.50	1.138	0.096	22.1

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Back side	20	QPSK	1_50	37850/2580	1:1.58	0.174	0.07	17.94	18.50	1.138	0.198	22.1
Left side	20	QPSK	1_50	37850/2580	1:1.58	0.032	0.08	17.94	18.50	1.138	0.036	22.1
Top side	20	QPSK	1_50	37850/2580	1:1.58	0.392	0.14	17.94	18.50	1.138	0.446	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	38150/2610	1:1.58	0.088	-0.05	17.94	18.50	1.138	0.100	22.1
Back side	20	QPSK	50_50	38150/2610	1:1.58	0.183	-0.09	17.94	18.50	1.138	0.208	22.1
Left side	20	QPSK	50_50	38150/2610	1:1.58	0.035	0.07	17.94	18.50	1.138	0.040	22.1
Top side	20	QPSK	50_50	38150/2610	1:1.58	0.550	0.02	17.94	18.50	1.138	**0.626**	22.1
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)**	**Liquid Temp.(℃)**
	BW.	**Modulation**	**RB Size_ RB offset**									
Product specific 10g SAR Test data(sensor on 0mm 1RB)												
Top side	20	QPSK	1_50	38000/2595	1:1.58	1.670	0.05	22.96	23.50	1.132	1.891	22.1
Product specific 10g SAR Test data(sensor on 0mm 50%RB)												
Top side	20	QPSK	50_0	38150/2610	1:1.58	1.760	0.09	22.98	23.50	1.127	1.984	22.1
Product specific 10g SAR Test data(sensor off 5mm 1RB)												
Top side	20	QPSK	1_50	37850/2580	1:1.58	1.800	0.03	23.84	24.50	1.164	**2.095**	22.1
Top side	20	QPSK	1_50	38000/2595	1:1.58	1.750	-0.05	23.82	24.50	1.169	2.047	22.1
Top side	20	QPSK	1_50	38150/2610	1:1.58	1.720	0.07	23.77	24.50	1.183	2.035	22.1
Product specific 10g SAR Test data(sensor off 5mm 50%RB)												
Top side	20	QPSK	50_50	37850/2580	1:1.58	1.420	0.04	22.84	23.50	1.164	1.653	22.1
Product specific 10g SAR Test data(sensor off 5mm 100%RB)												
Top side	20	QPSK	100_0	37850/2580	1:1.58	1.450	-0.11	22.80	23.50	1.175	1.704	22.1

Table 30：SAR of LTE Band 38 for Head, Body and Product specific 10g SAR.

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.

Test Position	**Channel/Frequency (MHz)**	**Measured SAR**	**1st Repeated SAR**	**Ratio**	**2nd Repeated SAR**	**3rd Repeated SAR**
Right tilted (Ant2)	38150/2610	0.892	0.825	1.081	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 performed 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 performed 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						

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8.3.12 SAR Result of LTE Band 41

Ant 1												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_99	40140/2545	1:1.58	0.082	0.08	24.02	24.50	1.117	0.092	22.1
Left tilted	20	QPSK	1_99	40140/2545	1:1.58	0.089	0.09	24.02	24.50	1.117	0.100	22.1
Right cheek	20	QPSK	1_99	40140/2545	1:1.58	0.151	0.02	24.02	24.50	1.117	**0.169**	22.1
Right tilted	20	QPSK	1_99	40140/2545	1:1.58	0.073	0.05	24.02	24.50	1.117	0.081	22.1
Head Test Data(50%RB)												
Left cheek	20	QPSK	50_25	40140/2545	1:1.58	0.066	0.03	22.95	23.50	1.135	0.075	22.1
Left tilted	20	QPSK	50_25	40140/2545	1:1.58	0.052	0.02	22.95	23.50	1.135	0.059	22.1
Right cheek	20	QPSK	50_25	40140/2545	1:1.58	0.122	0.03	22.95	23.50	1.135	0.138	22.1
Right tilted	20	QPSK	50_25	40140/2545	1:1.58	0.057	0.02	22.95	23.50	1.135	0.065	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_99	40140/2545	1:1.58	0.090	0.02	24.02	24.50	1.117	0.101	22.1
Back side	20	QPSK	1_99	40140/2545	1:1.58	0.179	-0.05	24.02	24.50	1.117	**0.200**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_25	40140/2545	1:1.58	0.075	-0.06	22.95	23.50	1.135	0.085	22.1
Back side	20	QPSK	50_25	40140/2545	1:1.58	0.125	0.11	22.95	23.50	1.135	0.142	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_99	40140/2545	1:1.58	0.169	0.09	24.02	24.50	1.117	0.189	22.1
Back side	20	QPSK	1_99	40140/2545	1:1.58	0.353	-0.04	24.02	24.50	1.117	**0.394**	22.1
Left side	20	QPSK	1_99	40140/2545	1:1.58	0.052	-0.10	24.02	24.50	1.117	0.058	22.1
Right side	20	QPSK	1_99	40140/2545	1:1.58	0.143	0.06	24.02	24.50	1.117	0.160	22.1
Bottom side	20	QPSK	1_99	40140/2545	1:1.58	0.327	-0.10	24.02	24.50	1.117	0.365	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_25	40140/2545	1:1.58	0.153	-0.15	22.95	23.50	1.135	0.174	22.1
Back side	20	QPSK	50_25	40140/2545	1:1.58	0.270	0.14	22.95	23.50	1.135	0.306	22.1
Left side	20	QPSK	50_25	40140/2545	1:1.58	0.030	0.10	22.95	23.50	1.135	0.034	22.1
Right side	20	QPSK	50_25	40140/2545	1:1.58	0.121	0.15	22.95	23.50	1.135	0.137	22.1
Bottom side	20	QPSK	50_25	40140/2545	1:1.58	0.260	0.00	22.95	23.50	1.135	0.295	22.1
Ant 2												
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.(℃)
	BW.	Modulation	RB Size_ RB offset									
Head Test Data(1RB)												
Left cheek	20	QPSK	1_50	40473/2578.3	1:1.58	0.354	0.08	17.51	18.00	1.119	0.396	22.1
Left tilted	20	QPSK	1_50	40473/2578.3	1:1.58	0.536	0.01	17.51	18.00	1.119	0.600	22.1
Right cheek	20	QPSK	1_50	40473/2578.3	1:1.58	0.481	0.07	17.51	18.00	1.119	0.538	22.1
Right tilted	20	QPSK	1_50	40473/2578.3	1:1.58	0.698	-0.02	17.51	18.00	1.119	**0.781**	22.1
Head Test Data(50%RB)												

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Left cheek	20	QPSK	50_50	40140/2545	1:1.58	0.307	0.01	17.50	18.00	1.122	0.344	22.1
Left tilted	20	QPSK	50_50	40140/2545	1:1.58	0.468	0.17	17.50	18.00	1.122	0.525	22.1
Right cheek	20	QPSK	50_50	40140/2545	1:1.58	0.414	0.00	17.50	18.00	1.122	0.465	22.1
Right tilted	20	QPSK	50_50	40140/2545	1:1.58	0.588	-0.07	17.50	18.00	1.122	0.660	22.1
Body worn Test data(Separate 15mm 1RB)												
Front side	20	QPSK	1_50	40807/2611.7	1:1.58	0.173	0.01	23.85	24.50	1.161	0.201	22.1
Back side	20	QPSK	1_50	40807/2611.7	1:1.58	0.429	0.09	23.85	24.50	1.161	**0.498**	22.1
Body worn Test data(Separate 15mm 50%RB)												
Front side	20	QPSK	50_0	40807/2611.7	1:1.58	0.141	0.15	22.80	23.50	1.175	0.166	22.1
Back side	20	QPSK	50_0	40807/2611.7	1:1.58	0.319	0.17	22.80	23.50	1.175	0.375	22.1
Hotspot Test data(Separate 10mm 1RB)												
Front side	20	QPSK	1_50	40473/2578.3	1:1.58	0.077	0.05	18.01	18.50	1.119	0.086	22.1
Back side	20	QPSK	1_50	40473/2578.3	1:1.58	0.178	0.16	18.01	18.50	1.119	0.199	22.1
Left side	20	QPSK	1_50	40473/2578.3	1:1.58	0.031	0.11	18.01	18.50	1.119	0.035	22.1
Top side	20	QPSK	1_50	40473/2578.3	1:1.58	0.489	0.03	18.01	18.50	1.119	**0.547**	22.1
Hotspot Test data(Separate 10mm 50%RB)												
Front side	20	QPSK	50_50	40140/2545	1:1.58	0.071	-0.12	18.01	18.50	1.119	0.079	22.1
Back side	20	QPSK	50_50	40140/2545	1:1.58	0.164	-0.09	18.01	18.50	1.119	0.184	22.1
Left side	20	QPSK	50_50	40140/2545	1:1.58	0.040	0.11	18.01	18.50	1.119	0.045	22.1
Top side	20	QPSK	50_50	40140/2545	1:1.58	0.340	-0.06	18.01	18.50	1.119	0.381	22.1
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)**	**Liquid Temp.(℃)**
	BW.	**Modulation**	**RB Size_ RB offset**									
Product specific 10g SAR Test data(sensor on 0mm 1RB)												
Top side	20	QPSK	1_50	40473/2578.3	1:1.58	1.870	0.06	23.01	23.50	1.119	2.093	22.1
Top side	20	QPSK	1_50	40140/2545	1:1.58	2.060	0.15	22.92	23.50	1.143	2.354	22.1
Top side	20	QPSK	1_50	40807/2611.7	1:1.58	1.400	-0.09	22.86	23.50	1.159	1.622	22.1
Top side	20	QPSK	1_50	40140/2545	1:1.58	1.140	0.11	22.79	23.50	1.178	1.342	22.1
Product specific 10g SAR Test data(sensor on 0mm 50%RB)												
Top side	20	QPSK	50_0	40473/2578.3	1:1.58	1.970	-0.13	22.90	23.50	1.148	2.262	22.1
Top side	20	QPSK	50_25	40140/2545	1:1.58	2.110	0.05	22.84	23.50	1.164	**2.456**	22.1
Top side-Repeat	20	QPSK	50_25	40140/2545	1:1.58	2.080	0.06	22.84	23.50	1.164	2.421	22.1
Top side	20	QPSK	50_50	40807/2611.7	1:1.58	1.450	0.10	22.86	23.50	1.159	1.680	22.1
Top side	20	QPSK	50_50	41140/2645.5	1:1.58	1.160	0.07	22.62	23.50	1.225	1.421	22.1
Product specific 10g SAR Test data(sensor on 0mm 100%RB)												
Top side	20	QPSK	100_0	40140/2545	1:1.58	2.080	-0.03	22.95	23.50	1.135	2.361	22.1

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Product specific 10g SAR Test data(sensor off 5mm 1RB)												
Top side	20	QPSK	1_50	40807/2611.7	1:1.58	1.860	0.03	23.85	24.50	1.161	2.160	22.1
Top side	20	QPSK	1_50	40140/2545	1:1.58	1.760	0.02	23.84	24.50	1.164	2.049	22.1
Top side	20	QPSK	1_50	40473/2578.3	1:1.58	1.810	0.05	23.85	24.50	1.161	2.102	22.1
Top side	20	QPSK	1_50	40140/2545	1:1.58	1.740	-0.17	23.65	24.50	1.216	2.116	22.1
Product specific 10g SAR Test data(sensor off 5mm 50%RB)												
Top side	20	QPSK	50_0	40807/2611.7	1:1.58	1.230	0.01	22.80	23.50	1.175	1.445	22.1

Table 31：SAR of LTE Band 41 for Head, Body and Product specific 10g SAR.

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.

Test Position	Channel/Frequency (MHz)	Measured SAR	1st Repeated SAR	Ratio	2nd Repeated SAR	3rd Repeated SAR
Top side 0mm (Ant2)	40140/2545	2.110	2.080	1.014	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 performed 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 performed 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						

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8.3.13 SAR Result of WIFI 2.4G

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	6/2437	98.93%	1.011	0.470	0.04	12.60	14.00	1.380	**0.656**	22
Left tilted	802.11b	6/2437	98.93%	1.011	0.288	-0.07	12.60	14.00	1.380	0.402	22
Right cheek	802.11b	6/2437	98.93%	1.011	0.084	0.06	12.60	14.00	1.380	0.117	22
Right tilted	802.11b	6/2437	98.93%	1.011	0.058	0.02	12.60	14.00	1.380	0.080	22
Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	98.93%	1.011	0.143	-0.02	18.91	20.00	1.285	0.186	22
Back side	802.11b	6/2437	98.93%	1.011	0.151	-0.04	18.91	20.00	1.285	**0.196**	22
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	98.93%	1.011	0.298	-0.04	18.91	20.00	1.285	0.387	22
Back side	802.11b	6/2437	98.93%	1.011	0.372	0.03	18.91	20.00	1.285	0.483	22
Right side	802.11b	6/2437	98.93%	1.011	0.623	0.08	18.91	20.00	1.285	**0.809**	22
Right side	802.11b	1/2412	98.93%	1.011	0.456	0.11	18.87	20.00	1.297	0.598	22
Top side	802.11b	6/2437	98.93%	1.011	0.093	0.03	18.91	20.00	1.285	0.121	22

Table 32：SAR of WIFI 2.4G for Head and Body.

Note:

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

2) Per KDB 648474 D04, Product Specific 10-g SAR test is not required for this frequency band since hotspot mode 1-g reported SAR < 1.2 W/kg.

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.

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8.3.14 SAR Result of WIFI 5G

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 40M	62/5310	88.44%	1.131	0.179	0.08	11.83	13.00	1.309	**0.265**	22.2
Left tilted	802.11n 40M	62/5310	88.44%	1.131	0.145	0.06	11.83	13.00	1.309	0.215	22.2
Right cheek	802.11n 40M	62/5310	88.44%	1.131	0.041	0.12	11.83	13.00	1.309	0.061	22.2
Right tilted	802.11n 40M	62/5310	88.44%	1.131	0.067	-0.15	11.83	13.00	1.309	0.099	22.2
Head Test data of U-NII-2C											
Left cheek	802.11n 40M	102/5510	88.44%	1.131	0.075	0.00	11.62	13.00	1.374	0.117	22.2
Left tilted	802.11n 40M	102/5510	88.44%	1.131	0.106	0.03	11.62	13.00	1.374	0.165	22.2
Right cheek	802.11n 40M	102/5510	88.44%	1.131	0.001	0.09	11.62	13.00	1.374	0.002	22.2
Right tilted	802.11n 40M	102/5510	88.44%	1.131	0.031	0.01	11.62	13.00	1.374	0.048	22.2
Head Test data of U-NII-3											
Left cheek	802.11n 40M	151/5755	88.44%	1.131	0.107	0.03	11.54	13.00	1.400	0.169	22.2
Left tilted	802.11n 40M	151/5755	88.44%	1.131	0.144	0.04	11.54	13.00	1.400	0.228	22.2
Right cheek	802.11n 40M	151/5755	88.44%	1.131	0.067	0.02	11.54	13.00	1.400	0.106	22.2
Right tilted	802.11n 40M	151/5755	88.44%	1.131	0.097	0.03	11.54	13.00	1.400	0.153	22.2
Body worn Test data of U-NII-2A (Separate 15mm)											
Front side	802.11n 40M	62/5310	88.44%	1.131	0.036	0.01	11.83	13.00	1.309	0.053	22.2
Back side	802.11n 40M	62/5310	88.44%	1.131	0.043	0.05	11.83	13.00	1.309	**0.063**	22.2
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11n 40M	102/5510	88.44%	1.131	0.016	0.00	11.62	13.00	1.374	0.025	22.2
Back side	802.11n 40M	102/5510	88.44%	1.131	0.033	0.07	11.62	13.00	1.374	0.051	22.2
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11n 40M	151/5755	78.17%	1.279	0.031	0.08	11.54	13.00	1.400	0.056	22.2
Back side	802.11n 40M	151/5755	78.17%	1.279	0.030	0.05	11.54	13.00	1.400	0.054	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11n 40M	46/5230	88.44%	1.131	0.039	0.09	11.73	13.00	1.340	0.059	22.2
Back side	802.11n 40M	46/5230	88.44%	1.131	0.069	0.08	11.73	13.00	1.340	**0.104**	22.2
Right side	802.11n 40M	46/5230	88.44%	1.131	0.032	0.10	11.73	13.00	1.340	0.048	22.2
Top side	802.11n 40M	46/5230	88.44%	1.131	0.045	-0.14	11.73	13.00	1.340	0.068	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11n 40M	151/5755	88.44%	1.131	0.038	0.12	11.54	13.00	1.400	0.060	22.2
Back side	802.11n 40M	151/5755	88.44%	1.131	0.041	0.05	11.54	13.00	1.400	0.065	22.2

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Right side	802.11n 40M	151/5755	88.44%	1.131	0.038	0.07	11.54	13.00	1.400	0.060	22.2
Top side	802.11n 40M	151/5755	88.44%	1.131	0.051	-0.08	11.54	13.00	1.400	0.081	22.2
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 10g SAR Test data of U-NII-2A(Separate 0mm)											
Front side	802.11n 40M	62/5310	88.44%	1.131	0.117	0.01	11.83	13.00	1.309	0.173	22.2
Back side	802.11n 40M	62/5310	88.44%	1.131	0.104	0.04	11.83	13.00	1.309	0.154	22.2
Right side	802.11n 40M	62/5310	88.44%	1.131	0.134	0.07	11.83	13.00	1.309	**0.198**	22.2
Top side	802.11n 40M	62/5310	88.44%	1.131	0.109	-0.08	11.83	13.00	1.309	0.161	22.2
Product specific 10g SAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11n 40M	102/5510	88.44%	1.131	0.116	0.01	11.62	13.00	1.374	0.180	22.2
Back side	802.11n 40M	102/5510	88.44%	1.131	0.067	0.18	11.62	13.00	1.374	0.104	22.2
Right side	802.11n 40M	102/5510	88.44%	1.131	0.127	0.14	11.62	13.00	1.374	0.197	22.2
Top side	802.11n 40M	102/5510	88.44%	1.131	0.099	0.17	11.62	13.00	1.374	0.154	22.2

Table 33：SAR of WIFI 5G for Head, Body and Product specific 10g SAR.

Note:

1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
2) Each channel was tested at the lowest data rate.
3) 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.
4) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) bands does not support hotspot function.
5) 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.

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8.3.15 SAR Result of BT

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	76.68%	1.304	0.123	-0.07	10.84	11.00	1.038	**0.166**	22
Left tilted	DH5	39/2441	76.68%	1.304	0.065	0.03	10.84	11.00	1.038	0.088	22
Right cheek	DH5	39/2441	76.68%	1.304	0.013	0.00	10.84	11.00	1.038	0.017	22
Right tilted	DH5	39/2441	76.68%	1.304	0.028	-0.06	10.84	11.00	1.038	0.038	22

Table 34：SAR of BT for Head.

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.

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8.4 Multiple Transmitter Evaluation

8.4.1 Simultaneous SAR SAR test evaluation

- **Simultaneous Transmission Possibilities**

NO.	Simultaneous Tx Combination	Head	Body	Hotspot	Product Specific 10-g (0mm)
1	GSM (Ant 1) + BT	Yes	Yes	Yes	Yes
2	GSM (Ant 2)+ BT	Yes	Yes	Yes	Yes
3	GSM (Ant 1) + WiFi 2.4G	Yes	Yes	Yes	Yes
4	GSM (Ant 2) + WiFi 2.4G	Yes	Yes	Yes	Yes
5	UMTS (Ant 1) + BT	Yes	Yes	Yes	Yes
6	UMTS (Ant 2) + BT	Yes	Yes	Yes	Yes
7	UMTS (Ant 1) + WiFi 2.4G	Yes	Yes	Yes	Yes
8	UMTS (Ant 2)+ WiFi 2.4G	Yes	Yes	Yes	Yes
9	LTE (Ant 1) + WiFi 2.4G	Yes	Yes	Yes	Yes
10	LTE(Ant 1) + BT	Yes	Yes	Yes	Yes
11	LTE (Ant 2) + WiFi 2.4G	Yes	Yes	Yes	Yes
12	LTE (Ant 2) + BT	Yes	Yes	Yes	Yes
13	GSM (Ant 1) + WiFi 5G	Yes	Yes	Yes	Yes
14	GSM (Ant 2) + WiFi 5G	Yes	Yes	Yes	Yes
15	UMTS (Ant 1) + WiFi 5G	Yes	Yes	Yes	Yes
16	UMTS (Ant 2)+ WiFi 5G	Yes	Yes	Yes	Yes
17	LTE (Ant 1) + WiFi 5G	Yes	Yes	Yes	Yes
18	LTE (Ant 2) + WiFi 5G	Yes	Yes	Yes	Yes

Note:
1) WiFi 2.4G and Bluetooth can't transmit simultaneously.
2) WiFi 5G and Bluetooth can't transmit simultaneously.
3) WiFi 2.4G and 5G can't transmit simultaneously.
4) 2G&3G&4G Ant1 and Ant 2 can't transmit simultaneously
5) The device does not support DTM function.

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8.4.2 Simultaneous Transmission SAR Summation Scenario

Test position		Ant1 Main Antenna SARmax (W/kg)												WiFi/BT Antenna SARmax (W/kg)			Summed SARmax (W/kg)
		GSM850	GSM1900	CDMA BC0	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 38	LTE Band 41	WLAN 2.4G	WLAN 5G	BT	
Head	Left Touch	0.068	0.057	0.114	0.118	0.129	0.151	0.103	0.120	0.097	0.100	0.113	0.092	0.656	0.265	0.166	0.807
	Left Tilt	0.034	0.048	0.053	0.110	0.073	0.072	0.101	0.078	0.048	0.103	0.136	0.100	0.402	0.228	0.088	0.538
	Right Touch	0.063	0.045	0.113	0.091	0.080	0.147	0.097	0.085	0.107	0.180	0.230	0.169	0.117	0.106	0.017	0.347
	Right Tilt	0.030	0.043	0.062	0.088	0.068	0.069	0.092	0.066	0.053	0.096	0.106	0.081	0.080	0.153	0.038	0.259
Body-worn	Front	0.054	0.090	0.118	0.187	0.246	0.123	0.175	0.219	0.087	0.144	0.134	0.101	0.186	0.056	0.176	0.432
	Back	0.076	0.245	0.141	0.498	0.409	0.159	0.475	0.395	0.124	0.322	0.194	0.200	0.196	0.063	0.176	0.694
Hotspot	Front	0.148	0.325	0.122	0.346	0.403	0.107	0.316	0.355	0.091	0.210	0.245	0.189	0.387	0.060	0.264	0.790
	Back	0.232	0.870	0.158	0.893	0.802	0.184	0.843	0.702	0.145	0.646	0.296	0.394	0.483	0.104	0.264	1.376
	Left	0.166	0.097	0.136	0.136	0.104	0.110	0.125	0.092	0.095	0.091	0.052	0.058	/	/	/	0.166
	Right	0.145	0.023	0.114	0.202	0.174	0.078	0.186	0.151	0.071	0.184	0.195	0.160	0.809	0.060	0.264	1.011
	Top	/	/	/	/	/	/	/	/	/	/	/	/	0.121	0.081	0.264	0.264
	Bottom	0.082	0.663	0.093	0.705	0.729	0.064	0.652	0.626	0.108	0.615	0.394	0.365	/	/	/	0.729
Product specific 10g SAR	Front	/	/	/	/	/	/	/	/	/	/	/	/	/	0.180	/	0.180
	Back	/	/	/	/	/	/	/	/	/	/	/	/	/	0.154	/	0.154
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	/	/	/	/	/	/	/	/	/	/	/	0.198	/	0.198
	Top	/	/	/	/	/	/	/	/	/	/	/	/	/	0.161	/	0.161
	Bottom	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Test position		Ant2 Main Antenna SARmax (W/kg)											WiFi/BT Antenna SARmax (W/kg)			Summed SARmax (W/kg)
		GSM850	CDMA BC0	WCDMA Band II	WCDMA Band IV	WCDMA Band V	LTE Band 2	LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 38	LTE Band 41	WLAN 2.4G	WLAN 5G	BT	
Head	Left Touch	0.667	0.670	0.404	0.390	0.591	0.551	0.502	0.657	0.440	0.405	0.396	0.656	0.265	0.166	1.326
	Left Tilt	0.516	0.568	0.586	0.552	0.441	0.752	0.688	0.598	0.630	0.640	0.600	0.402	0.228	0.088	1.154
	Right Touch	1.181	1.127	0.663	0.604	0.705	0.682	0.780	0.977	0.670	0.737	0.538	0.117	0.106	0.017	1.298
	Right Tilt	0.702	0.789	0.867	0.860	0.674	0.906	0.855	0.737	1.012	1.019	0.781	0.080	0.153	0.038	1.172
Body-worn	Front	0.114	0.138	0.430	0.277	0.114	0.370	0.270	0.144	0.239	0.227	0.201	0.186	0.056	0.176	0.616
	Back	0.165	0.175	0.649	0.384	0.154	0.638	0.447	0.159	0.516	0.561	0.498	0.196	0.063	0.176	0.845
Hotspot	Front	0.272	0.152	0.260	0.103	0.127	0.194	0.105	0.140	0.119	0.100	0.086	0.387	0.060	0.264	0.659
	Back	0.406	0.216	0.368	0.130	0.209	0.270	0.127	0.237	0.246	0.208	0.199	0.483	0.104	0.264	0.889
	Left	0.165	0.147	0.061	0.061	0.091	0.035	0.000	0.095	0.036	0.040	0.045	/	/	/	0.165
	Right	/	/	/	/	/	/	/	/	/	/	/	0.809	0.060	0.264	0.809
	Top	0.295	0.202	0.511	0.192	0.139	0.392	0.206	0.156	0.475	0.626	0.547	0.121	0.081	0.264	0.890
	Bottom	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Product specific 10g SAR	Front	/	/	/	/	/	/	/	/	/	/	/	/	0.180	/	0.180
	Back	/	/	1.504	/	/	1.642	/	/	2.357	/	/	/	0.154	/	2.511
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	/	/	/	/	/	/	/	/	/	/	0.198	/	0.198
	Top	/	/	1.903	2.113	/	1.941	1.947	/	1.934	2.095	2.456	/	0.161	/	2.617
	Bottom	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

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9 Equipment list

Test Platform	SPEAG DASY5 Professional
Description	SAR Test System (Frequency range 300MHz-6GHz)
Software Reference	DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474)

Hardware Reference

	Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM 1	1640	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 2	1913	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 3	1912	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 7	1027	NCR	NCR
☒	DAE	SPEAG	DAE4	896	2019-09-18	2020-09-17
☒	DAE	SPEAG	DAE4	1267	2019-12-17	2020-12-16
☒	DAE	SPEAG	DAE4	1428	2020-03-03	2021-03-02
☒	E-Field Probe	SPEAG	EX3DV4	3748	2019-06-19	2020-06-18
☒	E-Field Probe	SPEAG	EX3DV4	3923	2019-10-22	2020-10-21
☒	E-Field Probe	SPEAG	EX3DV4	3982	2019-09-11	2020-09-10
☒	Validation Kits	SPEAG	D835V2	4d105	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D1750V2	1149	2019-05-21	2022-05-20
☒	Validation Kits	SPEAG	D1900V2	5d028	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D2450V2	733	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D2600V2	1125	2019-05-20	2022-05-19
☒	Validation Kits	SPEAG	D5GHzV2	1165	2019-12-20	2022-12-19
☒	Agilent Network Analyzer	Agilent	E5071C	MY46523591	2020-04-16	2021-04-15
☒	Dielectric Probe Kit	Agilent	85070E	US01440210	NCR	NCR
☒	Universal Radio Communication Tester	R&S	CMU200	123090	2019-06-25	2020-06-24
☒	Radio Communication Analyzer	Anritsu	MT8821C	6201502984	2019-06-25	2020-06-24
☒	RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR
☒	Signal Generator	Agilent	N5171B	MY53050736	2020-04-15	2021-04-14
☒	Preamplifier	Mini-Circuits	ZHL-42W	15542	NCR	NCR
☒	Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	073501433	NCR	NCR
☒	Power Meter	Agilent	E4416A	GB41292095	2020-04-15	2021-04-14
☒	Power Sensor	Agilent	8481H	MY41091234	2020-04-15	2021-04-14
☒	Power Sensor	R&S	NRP-Z92	100025	2020-04-16	2021-04-15
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR

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☒	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
☒	50 Ω coaxial load	Mini-Circuits	KARN-50+	00850	NCR	NCR
☒	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
☒	Speed reading thermometer	MingGao	T809	NA	2020-04-21	2021-04-20
☒	Humidity and Temperature Indicator	KIMTOKA	KIMTOKA	NA	2020-04-21	2021-04-20

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

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