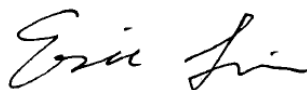


# FCC SAR TEST REPORT

**Application No.:** KSCR2205000668AT  
**Applicant:** Shanghai Sunmi Technology Co.,Ltd.  
**Address of Applicant:** Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China  
**Manufacturer:** Shanghai Sunmi Technology Co.,Ltd.  
**Address of Manufacturer:** Room 505,No.388,Song Hu Road,Yang Pu District,Shanghai,China  
**Product Name:** Handheld Wireless Terminal  
**Model No.(EUT):** T8920  
**Trade mark:** SUNMI  
**FCC ID:** 2AH25T8920  
**Standard(s) :** FCC 47CFR §2.1093  
**Date of Receipt:** 2022-07-27  
**Date of Test:** 2022-07-28 to 2022-08-04  
**Date of Issue:** 2022-08-24

**Test Result:****Pass\***

\* In the configuration tested, the EUT complied with the standards specified above.



Eric Lin  
EMC Laboratory Manager



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### REVISION HISTORY

Revision Record			
Version	Description	Date	Remark
00	Original	2022-08-24	/

<b>Authorized for issue by:</b>			
		<i>Richard Kong</i>	
		<b>Richard.Kong/ Project Engineer</b>	
		<i>Eric Lin</i>	
		<b>Eric.Lin/Reviewer</b>	



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**TEST SUMMARY**

Frequency Band	Maximum Reported SAR(W/kg)		
	Head	Body	Extremity
GSM850	0.32	0.82	1.75
GSM1900	0.16	0.78	<b>2.25</b>
WCDMA Band II	0.19	0.37	1.48
WCDMA Band IV	0.29	0.55	1.49
WCDMA Band V	0.11	0.21	0.94
LTE Band 2	0.15	0.33	1.01
LTE Band 4	0.25	0.46	1.22
LTE Band 5	0.35	0.51	1.91
LTE Band 7	0.11	0.70	1.44
LTE Band 12	0.03	0.06	0.11
LTE Band 13	0.05	0.11	0.33
LTE Band 14	0.07	0.30	0.54
LTE Band 17	0.03	0.06	0.12
LTE Band 25	0.15	0.33	1.02
LTE Band 26	0.36	0.52	1.92
LTE Band 30	0.10	<b>1.03</b>	1.13
LTE Band 38	0.06	0.19	0.24
LTE Band 41	0.06	0.46	0.96
LTE Band 66	0.24	0.45	1.18
LTE Band 71	0.03	0.06	0.12
WI-FI (2.4GHz)	<b>0.49</b>	0.14	0.43
BT	0.06	0.05	0.06
WI-FI (5GHz)	0.19	0.11	0.17
SAR Limited(W/kg)	1.6		4.0
Maximum Simultaneous Transmission SAR (W/kg)			
Scenario	Head	Body	Extremity
Sum SAR	0.85	1.07	2.41
SPLSR	/	/	/
SPLSR Limited	0.04		0.1

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# Compliance Certification Services (Kunshan) Inc.

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# 1 General Information

## 1.1 General Description of EUT

Product Phase:	Production unit		
Device Type:	Portable device		
Exposure Category:	Uncontrolled environment / general population		
SN:	LP07D26F00016		
Hardware Version:	V1.03		
Software Version:	Sun8611_V0.41_20220622_flash_userdebug		
Antenna Gain:	GSM850: -2.02dBi (Provided by the manufacturer) GSM1900: -0.56dBi (Provided by the manufacturer) UMTS B2: -0.56dBi (Provided by the manufacturer) UMTS B4: 0.44dBi (Provided by the manufacturer) UMTS B5: -2.02dBi (Provided by the manufacturer) Band 2: -0.56dBi (Provided by the manufacturer) Band 4: -0.28dBi (Provided by the manufacturer) Band 5: -2.02dBi (Provided by the manufacturer) Band 7: 0.3dBi (Provided by the manufacturer) Band 12: -3.4dBi (Provided by the manufacturer) Band 13: -4.31dBi (Provided by the manufacturer) Band 14: -4.02dBi (Provided by the manufacturer) Band 17: -3.4dBi (Provided by the manufacturer) Band 25: -1.57dBi (Provided by the manufacturer) Band 26: -2.02dBi (Provided by the manufacturer) Band 30: 0.69dBi (Provided by the manufacturer) Band 38: 0.39dBi (Provided by the manufacturer) Band 41: 0.39dBi (Provided by the manufacturer) Band 66: -0.28dBi (Provided by the manufacturer) Band 71: -3.58dBi (Provided by the manufacturer)		
Antenna Type:	PIFA Antenna		
Device Operating Configurations:			
Modulation Mode:	GSM: GMSK, 8PSK WCDMA: QPSK, 16QAM(HSPA+) LTE: QPSK, 16QAM, 64QAM WIFI: CCK, DSSS, OFDM BT: GFSK, $\pi/4$ DQPSK, 8DPSK		
GPRS Multi-slots Class:	12	EGPRS Multi-slots Class:	12
HSDPA UE Category:	14	HSUPA UE Category	6
DC-HSDPA UE Category:	24	LTE UE Category:	5
Power Class:	4, tested with power level 5(GSM850)		
	1, tested with power level 0(GSM1900)		



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# Compliance Certification Services (Kunshan) Inc.

Report No.: KSCR220500066801

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	3, tested with power control "all 1"(WCDMA Band II/IV/V)		
	3, tested with power control Max Power (LTE Band 2/4/5/7/12/13/14/17/25/26/30/38/41/66/71)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824-849	869-894
	GSM1900	1850-1910	1930-1990
	WCDMA Band II	1850-1910	1930-1990
	WCDMA Band IV	1710-1755	2110- 2155
	WCDMA Band V	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110- 2155
	LTE Band 5	824-849	869-894
	LTE Band 7	2500-2570	2620- 2690
	LTE Band 12	699-716	729-746
	LTE Band 13	777-787	746-756
	LTE Band 14	788-798	758-768
	LTE Band 17	704-716	734-746
	LTE Band 25	1850-1915	1930-1995
	LTE Band 26	814-849	859-894
	LTE Band 30	2305~2315	2350~2360
	LTE Band 38	2570-2620	2570-2620
	LTE Band 41	2496-2690	2496-2690
	LTE Band 66	1710~1780	2110~2180
	LTE Band 71	663-698	617-632
		WIFI2.4G	2412-2462
	BT	2402-2480	2402-2480
	WIFI(U-NII-1)	5150~5250	5150~5250
	WIFI(U-NII-3)	5725~5850	5725~5850
Battery Information:	Model:	JKNR 11CP10/51/66	
	Normal Voltage:	3.8V	
	Rated capacity:	5000mAh/19wh	
	Battery Type:	Li-ion Polymer Battery	
	Manufacturer:	Jiade Energy Technology(Zhuhai)	



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### 1.1.1 DUT Antenna Locations

Please see the Appendix D

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## 1.2 Test Specification

Identity	Document Title
FCC 47CFR §2.1093	Radio frequency Radiation Exposure Evaluation: Portable Devices
IEEE Std C95.1 – 1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 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 447498 D04v01	Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies
KDB 865664 D01 v01r04	SAR Measurement Requirements for 100 MHz to 6 GHz
KDB 865664 D02 v01r02	RF Exposure Compliance Reporting and Documentation Considerations
KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS
KDB 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
KDB 941225 D01 v03r01	3G SAR Measurement Procedures
KDB 941225 D05 v02r05	SAR EVALUATION CONSIDERATIONS FOR LTE DEVICES
KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES



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1.3 RF exposure limits

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

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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## 1.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc ) is provided by the applicant. (if applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

## 1.5 Test Facility

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

### • CNAS (No. CNAS L4354)

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 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. 2541.01)

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

### • FCC (Designation Number: CN1172)

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

### • ISED (CAB identifier: CN0072)

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

### • VCCI (Member No.: 1938)

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



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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.	



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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  $SAR = \sigma (|E|^2) / \rho$  where  $\sigma$  and  $\rho$  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.



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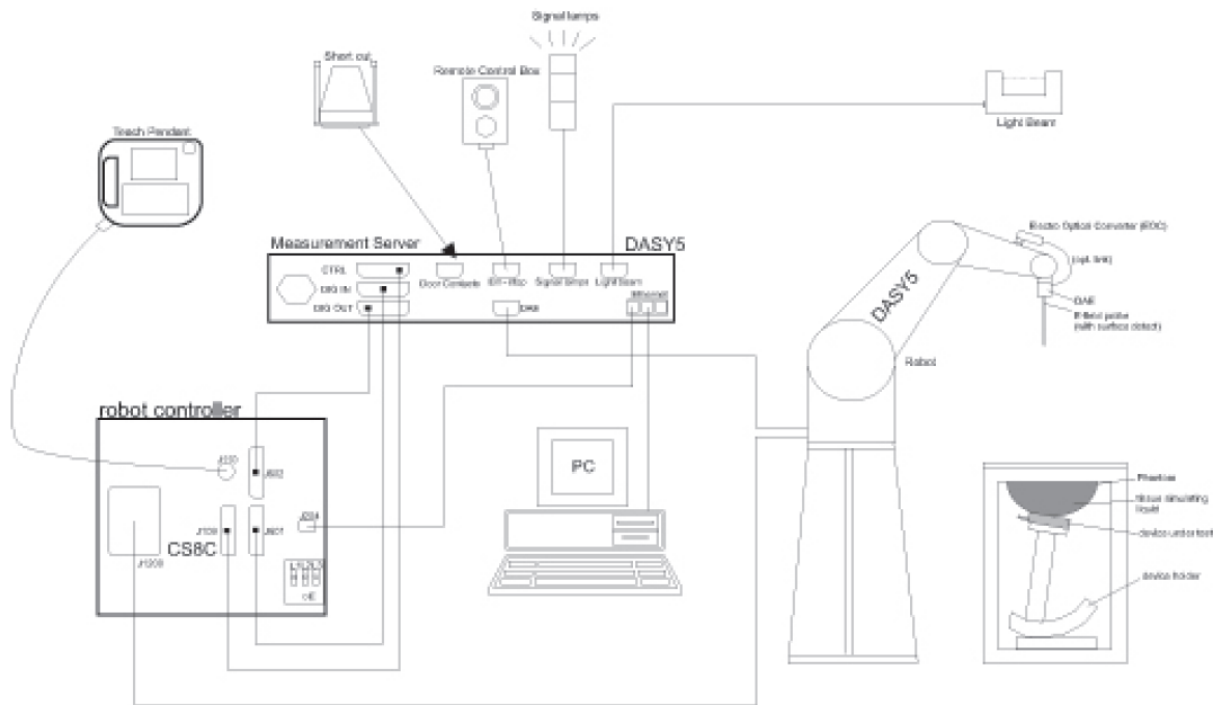
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F-1. SAR Measurement System Configuration

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

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### 3.2 Isotropic E-field Probe EX3DV4

	<p>Symmetrical design with triangular core          Built-in shielding against static charges          PEEK enclosure material (resistant to organic solvents, e.g., DGBE)</p>
<p><b>Calibration</b></p>	<p>ISO/IEC 17025 <a href="#">calibration service</a> available.</p>
<p><b>Frequency</b></p>	<p>10 MHz to &gt; 6 GHz          Linearity: <math>\pm 0.2</math> dB (30 MHz to 6 GHz)</p>
<p><b>Directivity</b></p>	<p><math>\pm 0.3</math> dB in TSL (rotation around probe axis)  <math>\pm 0.5</math> dB in TSL (rotation normal to probe axis)</p>
<p><b>Dynamic Range</b></p>	<p>10 <math>\mu</math>W/g to &gt; 100 mW/g          Linearity: <math>\pm 0.2</math> dB (noise: typically &lt; 1 <math>\mu</math>W/g)</p>
<p><b>Dimensions</b></p>	<p>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</p>
<p><b>Application</b></p>	<p>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%.</p>
<p><b>Compatibility</b></p>	<p>DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI</p>




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### 3.3 Data Acquisition Electronics (DAE)

<b>Model</b>	DAE4	
<b>Construction</b>	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.	
<b>Measurement Range</b>	-100 to +300 mV (16 bit resolution and two range settings: 4mV,400mV)	
<b>Input Offset Voltage</b>	< 5μV (with auto zero)	
<b>Input Bias Current</b>	< 50 f A	
<b>Dimensions</b>	60 x 60 x 68 mm	

### 3.4 SAM Twin Phantom

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

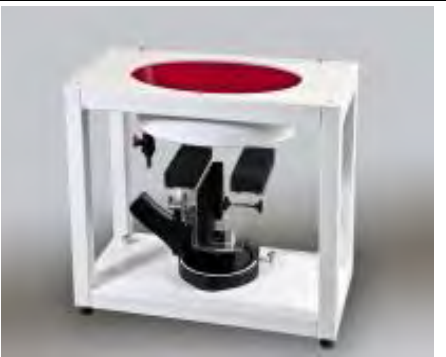
Twin SAM V5.0 has the same shell geometry and is manufactured from the same material as Twin SAM V4.0, but has reinforced top structure.



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### 3.5 ELI Phantom

<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)	
<b>Liquid Compatibility</b>	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)	
<b>Shell Thickness</b>	2.0 ± 0.2 mm (bottom plate)	
<b>Dimensions</b>	Major axis: 600 mm Minor axis: 400 mm	
<b>Filling Volume</b>	approx. 30 liters	
<b>Wooden Support</b>	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  $\epsilon=3$  and loss tangent  $\delta=0.02$ . 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 30mm\*30mm\*30mm (fine resolution volume scan, zoom scan) was assessed by measuring 5x5x7 points ( $\leq 2\text{GHz}$ ) and 7x7x7 points ( $\geq 2\text{GHz}$ ). 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 <sub>Area</sub> , Δy <sub>Area</sub>		≤ 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 <sub>Zoom</sub> , Δy <sub>Zoom</sub>		≤ 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: Δz <sub>Zoom</sub> (n)	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	Δz <sub>Zoom</sub> (1): between 1 <sup>st</sup> two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		Δz <sub>Zoom</sub> (n>1): between subsequent points	≤ 1.5·Δz <sub>Zoom</sub> (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	
<p>Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.</p> <p>* When zoom scan is required and the <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</p>				

**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 “.DAE3”. 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/cm<sup>2</sup>], [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:

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

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



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U<sub>i</sub> = input signal of channel i ( i = x, y, z )  
 cf = crest factor of exciting field (DASY parameter)  
 dcp i = diode compression point (DASY parameter)

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

E-field probes:

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

H-field probes:

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

With V<sub>i</sub> = compensated signal of channel i (i = x, y, z)

Norm<sub>i</sub> = sensor sensitivity of channel I (i = x, y, z)

[mV/(V/m)<sup>2</sup>] for E-field Probes

ConvF = sensitivity enhancement in solution

a<sub>ij</sub> = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E<sub>i</sub> = electric field strength of channel i in V/m

H<sub>i</sub> = magnetic field strength of channel i in A/m

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

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

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

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

With SAR = local specific absorption rate in mW/g

E<sub>tot</sub> = total field strength in V/m

σ = conductivity in [mho/m] or [Siemens/m]

ε = equivalent tissue density in g/cm<sup>3</sup>

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

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

with P<sub>pwe</sub> = equivalent power density of a plane wave in mW/cm<sup>2</sup>

E<sub>tot</sub> = total electric field strength in V/m

H<sub>tot</sub> = 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  $\geq 0.80$  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  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is  $\geq 1.5$  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.



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### 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 The Head Test Position

##### 5.1.1 SAM Phantom Shape

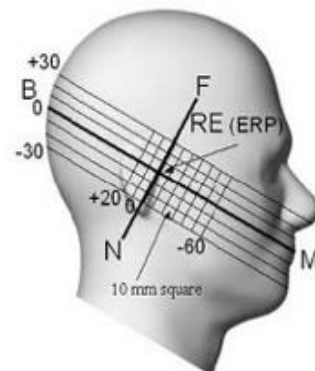
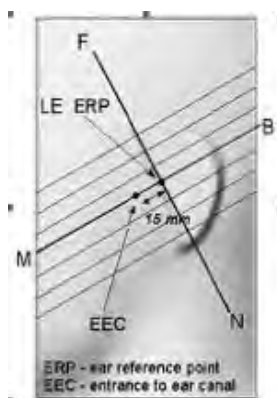


F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

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)



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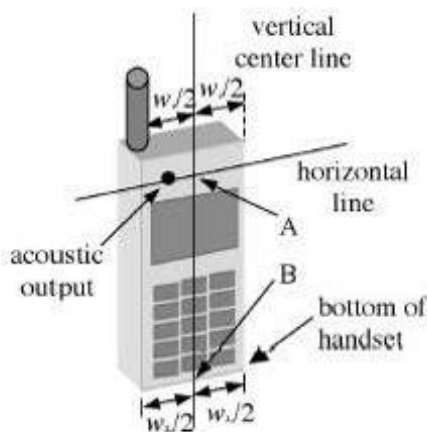
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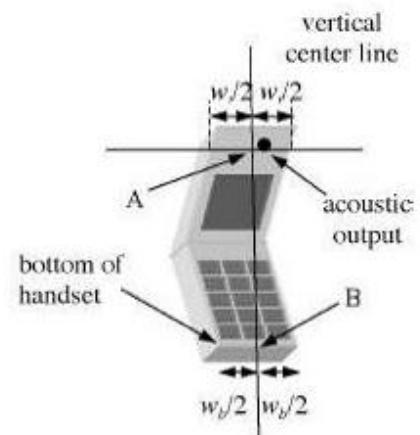
F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

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

### 5.1.2 EUT constructions



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



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

### 5.1.3 Definition of the “cheek” position

- 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.
- Translate the mobile phone box towards the phantom with the ear piece aligned with the line LE-RE until telephone touches the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the box until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.

### 5.1.4 Definition of the “tilted” position

- Position the device in the “cheek” position described above;
- 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.

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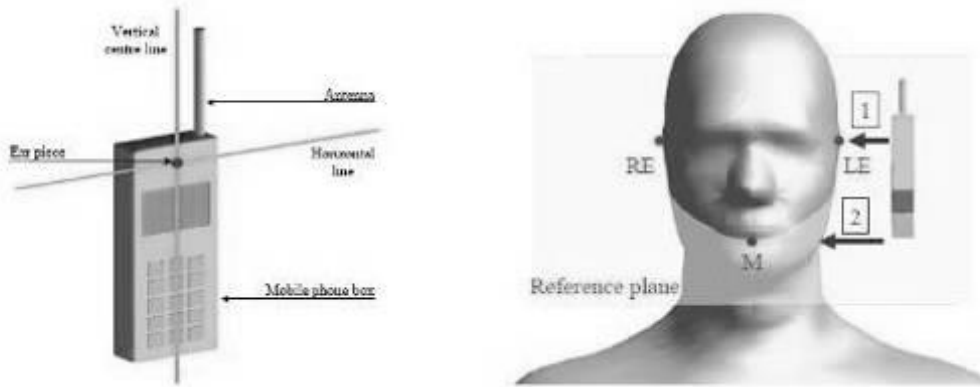
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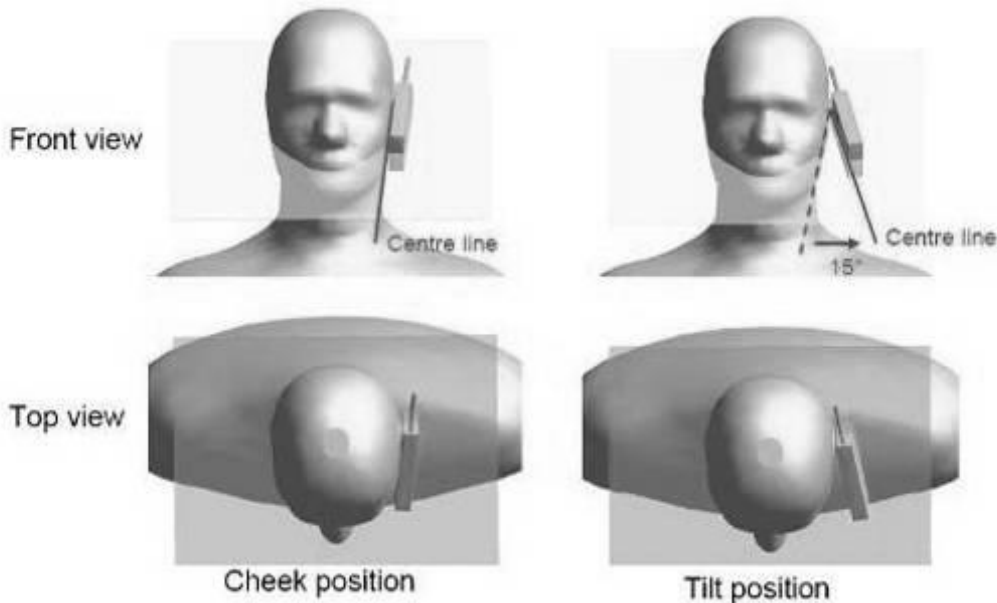
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F-9. Definition of the reference lines and points, on the phone and on the phantom and initial position



F-10. "Cheek" and "tilt" positions of the mobile phone on the left side



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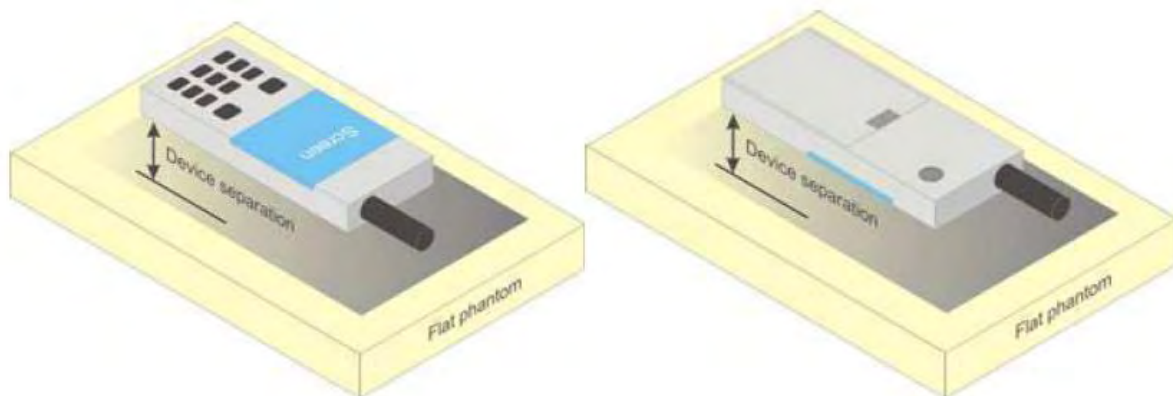
## 5.2 The Body Test Position

### 5.2.1 Body-worn accessory exposure conditions

Devices that support transmission while used with body-worn accessories must be tested for body-worn accessory SAR compliance. SAR evaluation is required for body-worn accessories supplied with the host device. The test configurations must be conservative for supporting the body-worn accessory use conditions expected by users, as indicated in Figure 11

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 surface of the device and the flat phantom is used. Base upon the description of EN 62209-2, a separation distance 5 mm is commonly used for body-worn mobile phones, to represent a spacing provided by intended accessories. So the separation distance 5 mm is used for body-worn SAR testing of this device.



F-11. Test positions for body-worn devices



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### 5.3 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.

### 5.4 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.



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## 6 SAR System Verification Procedure

### 6.1 Tissue Simulate Liquid

#### 6.1.1 Recipes for Tissue Simulate Liquid

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

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (S/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

HSL5GHz is composed of the following ingredients:

Water: 50-65%

Mineral oil: 10-30%

Emulsifiers: 8-25%

Sodium salt: 0-1.5%

MSL5GHz is composed of the following ingredients:

Water: 64-78%

Mineral oil: 11-18%

Emulsifiers: 9-15%

Sodium salt: 2-3%

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**6.1.2 Test Liquids Confirmation**

**Simulated tissue liquid parameter confirmation**

The dielectric parameters were checked prior to assessment using the SPEAG DAK3.5 dielectric probe kit. The dielectric parameters measured are reported in each correspondent section.

**IEEE SCC-34/SC-2 P1528 recommended tissue dielectric parameters**

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in P1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in P1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations and extrapolated according to the head parameters specified in P1528

Target Frequency (MHz)	Head		Body	
	$\epsilon_r$	$\sigma$ (S/m)	$\epsilon_r$	$\sigma$ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800-2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5800	35.3	5.27	48.2	6.00

( $\epsilon_r$  = relative permittivity,  $\sigma$  = conductivity and  $\rho = 1000 \text{ kg/m}^3$ )



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6.1.3 Measurement for Tissue Simulate Liquid

The dielectric properties for this Tissue Simulate Liquids were measured by using the SPEAG DAK3.5 dielectric probe kit in conjunction with Agilent E5071B Network Analyzer (300 KHz-8500 MHz). The Conductivity ( $\sigma$ ) and Permittivity ( $\rho$ ) 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)	Conductivity ( $\sigma$ )	Permittivity ( $\epsilon_r$ )	Conductivity Target ( $\sigma$ )	Permittivity Target ( $\epsilon_r$ )	Delta ( $\sigma$ ) (%)	Delta ( $\epsilon_r$ ) (%)	Limit (%)	Liquid Temp. (°C)	Date
750 Head	750	0.88	43.03	0.89	41.90	-1.35	2.69	±5	22.1	2022/7/28
835 Head	835	0.93	42.54	0.90	41.50	3.11	2.49	±5	22	2022/7/29
1800 Head	1800	1.37	40.28	1.40	40.00	-2.29	0.71	±5	22.2	2022/7/30
1900 Head	1900	1.45	38.56	1.40	40.00	3.64	-3.59	±5	22	2022/7/31
2300 Head	2300	1.66	40.52	1.67	39.50	-0.48	2.58	±5	22	2022/8/1
2450 Head	2450	1.82	40.07	1.80	39.20	0.89	2.21	±5	22.1	2022/8/2
2600 Head	2600	1.99	39.56	1.96	39.00	1.63	1.44	±5	22	2022/8/3
5200 Head	5200	4.58	37.03	4.66	36.01	-1.63	2.82	±5	22.2	2022/8/4
5800 Head	5800	5.28	35.72	5.28	35.24	-0.06	1.35	±5	22.2	2022/8/4



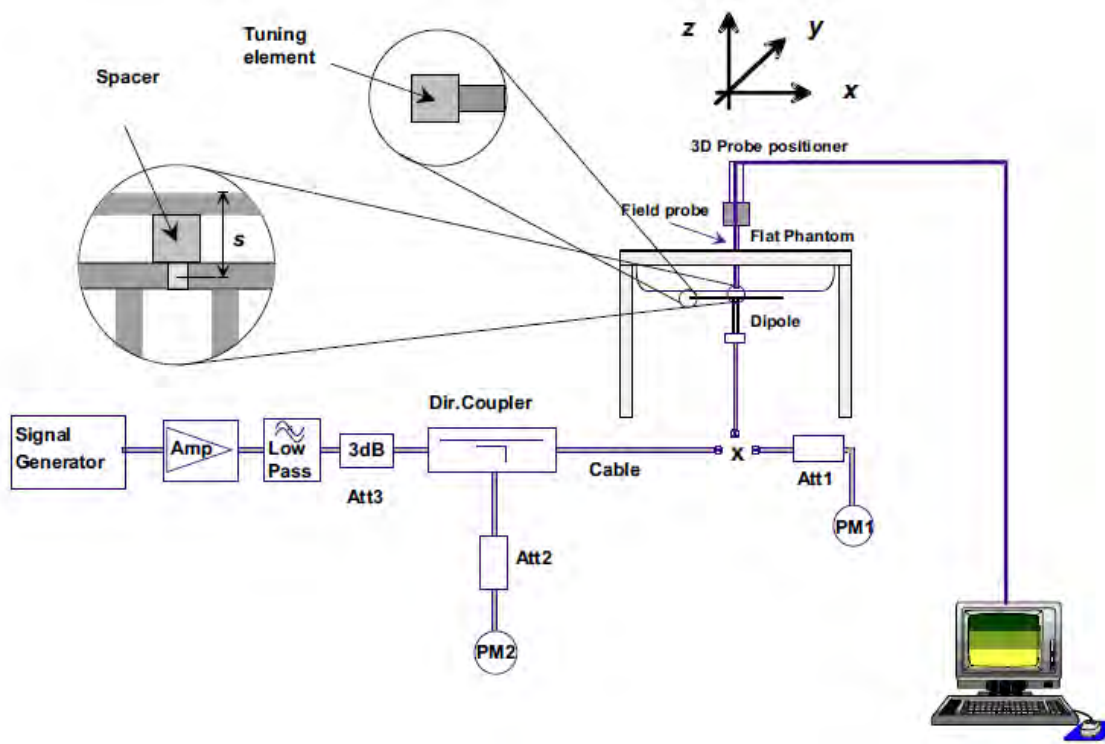
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## 6.2 SAR System Check

The microwave circuit arrangement for system check is sketched in bellow figure. 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. During the tests, the ambient temperature of the laboratory was in the range  $22\pm 2^{\circ}\text{C}$ , the relative humidity was in the range 60% and the liquid depth above the ear reference points was above 15 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 verification

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### 6.2.1 Justification for Extended SAR Dipole Calibrations

1) Referring to KDB865664 D01 requirements for dipole calibration, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.

- a) There is no physical damage on the dipole;
- b) System check with specific dipole is within 10% of calibrated value;
- c) Return-loss is within 10% of calibrated measurement;
- d) Impedance is within  $5\Omega$  from the previous measurement.

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

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6.2.2 Summary System Check Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1w)	Measured SAR (normalized to 1w)	Target SAR (normalized to 1w) (±10%)	Target SAR (normalized to 1w) (±10%)	Liquid Temp. (°C)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D750V2	Head	1.95	1.31	7.8	5.24	8.27 (7.44~9.10)	5.48 (4.93~6.03)	22.1	2022/7/28
D835V2	Head	2.25	1.51	9	6.04	9.40 (8.46~10.34)	6.12 (5.51~6.73)	22	2022/7/29
D1800V2	Head	9.82	4.85	39.28	19.4	38.9 (35.01~42.79)	20.4 (18.36~22.44)	22.2	2022/7/30
D1900V2	Head	9.95	4.97	39.8	19.88	40.0 (36.00~44.00)	20.3 (18.72~22.88)	22	2022/7/31
D2300V2	Head	12.5	5.51	50	22.04	49.2 (44.28~54.12)	23.4 (21.06~25.74)	22	2022/8/1
D2450V2	Head	13.58	5.84	54.32	23.36	53 (47.70~58.30)	24.7 (22.23~27.17)	22.1	2022/8/2
D2600V2	Head	13.11	5.81	52.44	23.24	54.8 (49.32~60.28)	24.5 (22.05~26.95)	22	2022/8/3
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. (°C)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D5GHzV2	Head (5.20GHz)	7.6	2.21	76	22.1	77.6 (69.84~85.36)	22.1 (19.35~23.65)	22.2	2022/8/4
	Head (5.80GHz)	7.81	2.24	78.1	22.4	76.7 (69.03~84.37)	21.5 (19.35~23.65)	22.2	2022/8/4

6.2.3 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  $\leq \frac{1}{4}$  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  $\leq 1.2$  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 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 spreading 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

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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  $\leq \frac{1}{4}$  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  $\leq 1.2$  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 ( $\beta_c$ ,  $\beta_d$ ), and HS-DPCCH power offset parameters ( $\Delta_{ACK}$ ,  $\Delta_{NACK}$ ,  $\Delta_{CQI}$ ) 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	$\beta_c$	Bd	$\beta_d(SF)$	$\beta_c/\beta_d$	$\beta_{hs}$	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:  $\Delta ACK, \Delta NACK$  and  $\Delta CQI = 8$  Ahs =  $\beta_{hs}/\beta_c = 30/15$   $\beta_{hs} = 30/15 * \beta_c$

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,  $\Delta ACK$  and  $\Delta NACK = 8$  ( Ahs = 30/15) with  $\beta_{hs} = 30/15 * \beta_c$ , and  $\Delta CQI = 7$  ( Ahs = 24/15) with  $\beta_{hs} = 24/15 * \beta_c$ .

Note3: CM=1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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



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

**b) HSUPA**

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

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Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	$\beta_{ec}$	$\beta_{ed}$	$\beta_c$ (SF)	$\beta_{ed}$ (code)	CM (dB)	MP R (dB)	AG Index	E-TFC I
1	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	11/15 <sup>(3)</sup>	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	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	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 <sup>(4)</sup>	15/15 <sup>(4)</sup>	64	15/15 <sup>(4)</sup>	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1:  $\Delta ACK$ ,  $\Delta NACK$  and  $\Delta CQI = 8$   $A_{hs} = \beta_{hs}/\beta_c = 30/15$   $\beta_{hs} = 30/15 * \beta_c$   
 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  $\beta_c/\beta_d$  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  $\beta_c/\beta_d$  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:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

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



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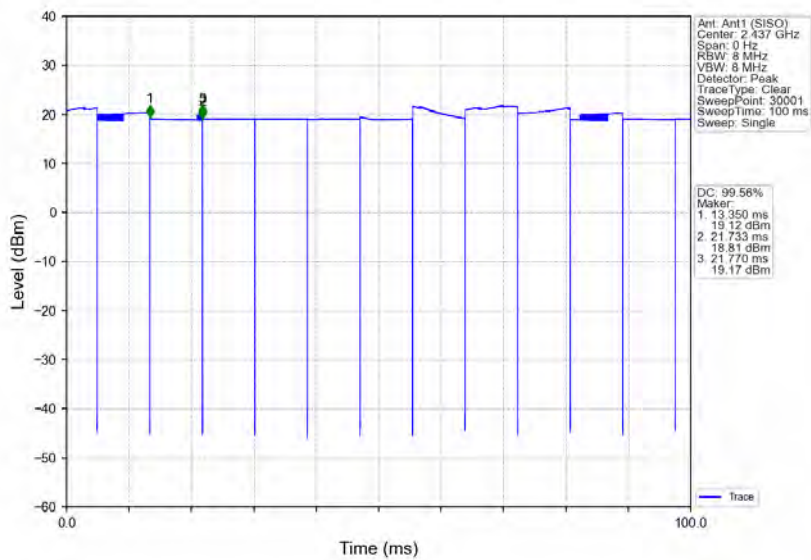
### 7.2.2 Wi-Fi Test Configuration

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.

#### 7.2.2.1 Duty cycle

1) 2.4GHz Wi-Fi:

WI-FI 802.11b: Duty cycle= 99.56%



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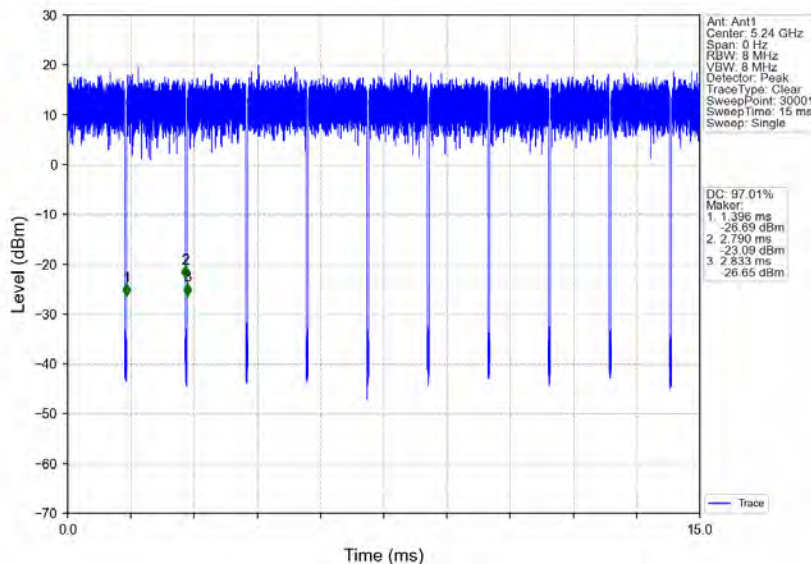
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- 2) 5GHz Wi-Fi 802.11a:  
 WI-FI 802.11a: Duty cycle= 97.01%



### 7.2.2.2 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  $\leq 0.4$  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  $\leq 0.8$  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  $\leq 1.2$  W/kg or all required channels are tested. a) Additional

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power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

**7.2.2.3 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.

**7.2.2.4 Subsequent Test Configuration Procedures**

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

- 1) . When SAR test exclusion provisions of KDB Publication 447498 are applicable and SAR measurement is not required for the initial test configuration, SAR is also not required for the next highest maximum output power transmission mode subsequent test configuration(s) in that frequency band or aggregated band and exposure configuration.
- 2) . When the highest *reported* SAR for the initial test configuration (when applicable, include subsequent highest output channels), according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.
- 3) . The number of channels in the initial test configuration and subsequent test configuration can be different due to differences in channel bandwidth. When SAR measurement is required for a subsequent test configuration and the channel bandwidth is smaller than that in the initial test configuration, all channels in the subsequent test configuration that overlap with the larger bandwidth channel tested in the initial test configuration should be used to determine the highest maximum output power channel. This step requires additional power measurement to identify the highest maximum output power channel in the subsequent test configuration to determine SAR test reduction.
  - a) SAR should first be measured for the channel with highest measured output power in the subsequent test configuration.
  - b) SAR for subsequent highest measured maximum output power channels in the subsequent test

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

- 4) . SAR measurements for the remaining highest specified maximum output power OFDM transmission mode configurations that have not been tested in the initial test configuration (highest maximum output) or subsequent test configuration(s) (subsequent next highest maximum output power) is determined by recursively applying the subsequent test configuration procedures in this section to the remaining configurations according to the following:
  - a) replace "subsequent test configuration" with "next subsequent test configuration" (i.e., subsequent next highest specified maximum output power configuration)
  - b) replace "initial test configuration" with "all tested higher output power configurations"

### 7.2.2.5 2.4 GHz Wi-Fi 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  $\leq 0.8$  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  $\leq 1.2$  W/kg.

### 7.2.2.6 5 GHz Wi-Fi 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  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition);

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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  $\leq 1.2$  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.

• **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

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- 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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**7.2.3 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 R&S CMW500 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.

**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 V13.5.0 (201609) Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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

**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.



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#### 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  $> \frac{1}{2}$  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  $> \frac{1}{2}$  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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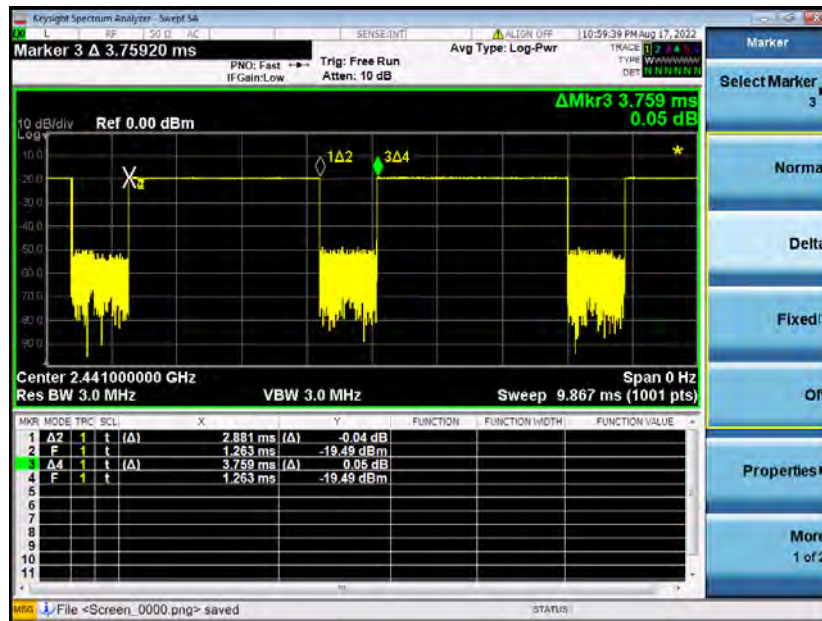
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### 7.2.4 BluetoothTest Configuration

For the Bluetooth SAR tests, a communication link is set up with the test mode software for BT mode test. Bluetooth USES frequency hopping technology to divide the transmitted data into packets and transmit the packets respectively through 79 designated Bluetooth channels, 1MHz Bandwidth, frequency hops at 1600 hops/second per the Bluetooth standard. The Radio Frequency Channel Number (RFCN) is allocated to 0, 39 and 78 respectively in the case of 2402~2480 MHz during the test at each test frequency channel, the EUT is operated at the RF continuous emission mode.

#### 7.2.4.1 Duty cycle

Bluetooth duty cycle: 76.64%



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## 8 Test Result

### 8.1 Measurement of RF Conducted Power

#### 8.1.1 Conducted Power Of GSM

GSM 850										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		128	190	251			128	190	251	
GSM(GMSK)	GSM	32.79	<b>32.81</b>	32.80	<b>34.00</b>	-9.03	23.76	23.78	23.77	24.97
GPRS/EGPRS (GMSK)	1 TX Slot	32.82	32.74	32.72	33.50	-9.03	23.79	23.71	23.69	24.47
	2 TX Slots	32.18	32.17	32.14	33.00	-6.02	26.16	26.15	26.12	26.98
	3 TX Slots	30.54	30.56	30.56	31.00	-4.26	26.28	26.3	26.3	26.74
	4 TX Slots	29.36	29.38	<b>29.39</b>	<b>30.00</b>	-3.01	26.35	26.37	26.38	26.99
EGPRS(8PSK)	1 TX Slot	27.84	27.66	27.72	29.00	-9.03	18.81	18.63	18.69	19.97
	2 TX Slots	26.71	26.73	26.80	27.00	-6.02	20.69	20.71	20.78	20.98
	3 TX Slots	24.42	24.31	24.56	25.00	-4.26	20.16	20.05	20.3	20.74
	4 TX Slots	23.07	22.98	<b>23.21</b>	<b>24.00</b>	-3.01	20.06	19.97	20.2	20.99
GSM 1900										
Burst Output Power(dBm)					Tune up	Division Factors	Frame-Average Output Power(dBm)			Tune up
Channel		512	661	810			512	661	810	
GSM(GMSK)	GSM	29.35	<b>29.57</b>	28.99	30.00	-9.03	20.32	20.54	19.96	20.97
GPRS/EGPRS (GMSK)	1 TX Slot	29.36	29.54	28.96	30.00	-9.03	20.33	20.51	19.93	20.97
	2 TX Slots	28.63	28.82	28.26	30.00	-6.02	22.61	22.8	22.24	23.98
	3 TX Slots	26.90	27.08	26.55	28.00	-4.26	22.64	22.82	22.29	23.74
	4 TX Slots	25.82	<b>25.99</b>	25.46	<b>27.00</b>	-3.01	22.81	22.98	22.45	23.99
EGPRS(8PSK)	1 TX Slot	26.48	26.14	26.46	27.00	-9.03	17.45	17.11	17.43	17.97
	2 TX Slots	25.40	25.27	25.53	26.00	-6.02	19.38	19.25	19.51	19.98
	3 TX Slots	23.43	23.16	24.30	24.00	-4.26	19.17	18.9	20.04	19.74
	4 TX Slots	22.30	22.02	<b>22.38</b>	<b>23.00</b>	-3.01	19.29	19.01	19.37	19.99

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**8.1.2 Conducted Power Of WCDMA**

WCDMA Band II					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	23.45	23.49	<b>23.92</b>	<b>25.00</b>
HSDPA	Subtest 1	21.59	21.50	21.78	23.00
	Subtest 2	21.64	21.50	21.80	23.00
	Subtest 3	21.63	21.49	21.78	23.00
	Subtest 4	21.57	21.42	21.74	23.00
HSUPA	Subtest 1	19.74	19.66	19.53	21.00
	Subtest 2	19.50	19.01	19.25	21.00
	Subtest 3	19.83	19.48	19.08	21.00
	Subtest 4	19.02	19.05	19.96	21.00
	Subtest 5	19.62	19.53	19.77	21.00

WCDMA Band IV					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	23.18	23.56	<b>23.67</b>	<b>24.00</b>
HSDPA	Subtest 1	21.18	21.39	21.45	22.00
	Subtest 2	21.18	21.38	21.47	22.00
	Subtest 3	21.13	21.37	21.45	22.00
	Subtest 4	21.12	21.32	21.39	22.00
HSUPA	Subtest 1	18.87	19.61	19.54	20.00
	Subtest 2	19.09	18.69	18.78	20.00
	Subtest 3	18.88	19.50	19.11	20.00
	Subtest 4	19.15	18.81	18.91	20.00
	Subtest 5	18.89	19.54	19.53	20.00

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WCDMA Band V					
Average Conducted Power(dBm)					
	Channel	4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	23.89	23.93	<b>24.06</b>	<b>25.00</b>
HSDPA	Subtest 1	21.94	21.96	21.91	23.00
	Subtest 2	21.94	21.92	21.90	23.00
	Subtest 3	21.92	21.93	21.92	23.00
	Subtest 4	21.89	21.87	21.87	23.00
HSUPA	Subtest 1	20.04	19.53	19.90	21.00
	Subtest 2	19.77	19.77	19.80	21.00
	Subtest 3	19.95	19.65	19.99	21.00
	Subtest 4	19.49	19.78	19.97	21.00
	Subtest 5	19.48	19.70	19.51	21.00



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8.1.3 Conducted Power Of LTE

LTE Band 2				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				18607	18900	19193		
1.4MHz	QPSK	1	0	22.36	22.62	22.15	23.50	
		1	2	22.43	22.74	22.21	23.50	
		1	5	22.36	22.61	22.14	23.50	
		3	0	22.45	22.70	22.22	23.50	
		3	2	22.47	22.71	22.27	23.50	
		3	3	22.45	22.70	22.27	23.50	
	16QAM	6	0	21.46	21.65	21.23	22.50	
		1	0	21.48	21.63	21.15	23.00	
		1	2	21.64	21.74	21.23	23.00	
		1	5	21.52	21.70	21.18	23.00	
		3	0	21.41	21.77	21.41	22.50	
		3	2	21.42	21.76	21.45	22.50	
	64QAM	3	3	21.45	21.75	21.49	22.50	
		6	0	20.42	20.59	20.21	21.50	
		1	0	20.42	20.51	20.52	22.00	
		1	2	20.53	20.56	20.66	22.00	
		1	5	20.37	20.46	20.55	22.00	
		3	0	20.66	20.65	20.42	21.50	
	3MHz	QPSK	3	2	20.66	20.65	20.44	21.50
			3	3	20.65	20.63	20.42	21.50
			6	0	19.64	19.75	19.23	21.00
			1	0	22.42	22.66	22.25	23.50
			1	7	22.59	22.85	22.40	23.50
			1	14	22.44	22.64	22.26	23.50
16QAM		8	0	21.47	21.73	21.29	22.50	
		8	4	21.52	21.76	21.30	22.50	
		8	7	21.46	21.68	21.25	22.50	
		15	0	21.46	21.70	21.27	22.50	
		1	0	22.00	21.88	21.28	23.00	
		1	7	22.13	22.02	21.44	23.00	
64QAM	1	14	22.00	21.85	21.30	23.00		
	8	0	20.62	20.71	20.34	21.50		
	8	4	20.67	20.71	20.36	21.50		
	8	7	20.63	20.66	20.29	21.50		
	15	0	20.52	20.66	20.30	21.50		
	1	0	20.67	20.74	20.10	22.00		
	64QAM	1	7	20.81	20.89	20.28	22.00	
		1	14	20.73	20.74	20.05	22.00	
		8	0	19.60	19.64	19.30	21.00	
		8	0	19.60	19.64	19.30	21.00	

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Bandwidth	Modulation	RB size	RB offset	8	4	19.62	19.64	19.28	21.00
				8	7	19.60	19.57	19.22	21.00
		15	0	19.45	19.84	19.27	21.00		
		18625	18900	19175				Tune up	
5MHz	QPSK	1	0	22.29	22.61	22.10	23.50		
		1	13	22.53	22.74	22.30	23.50		
		1	24	22.38	22.56	22.12	23.50		
		12	0	21.42	21.63	21.24	22.50		
		12	6	21.47	21.73	21.30	22.50		
		12	13	21.41	21.65	21.14	22.50		
	16QAM	25	0	21.38	21.68	21.19	22.50		
		1	0	21.23	21.88	21.24	23.00		
		1	13	21.38	22.01	21.43	23.00		
		1	24	21.22	21.82	21.28	23.00		
		12	0	20.35	20.70	20.19	21.50		
		12	6	20.48	20.77	20.27	21.50		
	64QAM	12	13	20.43	20.68	20.11	21.50		
		25	0	20.45	20.67	20.23	21.50		
		1	0	20.27	20.78	20.27	22.00		
		1	13	20.46	20.92	20.49	22.00		
		1	24	20.35	20.73	20.38	22.00		
		12	0	19.32	19.66	19.33	21.00		
	10MHz	QPSK	12	6	19.43	19.73	19.40	21.00	
			12	13	19.35	19.64	19.23	21.00	
			25	0	19.42	19.72	19.17	21.00	
			1	0	22.34	22.69	22.24	23.50	
			1	25	22.64	22.82	22.41	23.50	
			1	49	22.49	22.54	22.24	23.50	
16QAM		25	0	21.44	21.66	21.23	22.50		
		25	13	21.50	21.73	21.26	22.50		
		25	25	21.41	21.63	21.11	22.50		
		50	0	21.46	21.67	21.17	22.50		
		1	0	21.88	21.84	21.27	23.00		
		1	25	22.17	22.00	21.40	23.00		
64QAM	1	49	21.81	21.71	21.20	23.00			
	25	0	20.52	20.71	20.33	21.50			
	25	13	20.54	20.76	20.35	21.50			
	25	25	20.52	20.63	20.20	21.50			
	50	0	20.48	20.68	20.20	21.50			
	1	0	20.56	20.74	20.08	22.00			
		1	25	20.85	20.89	20.22	22.00		
		1	49	20.70	20.64	20.09	22.00		
		25	0	19.50	19.76	19.32	21.00		

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Bandwidth	Modulation	RB size	RB offset	25	13	19.52	19.82	19.32	21.00	
				25	25	19.49	19.68	19.19	21.00	
				50	0	19.50	19.69	19.19	21.00	
				18675	18900	19125	Tune up			
15MHz	QPSK	1	0	22.28	22.56	22.24	23.50			
		1	38	22.48	22.68	22.26	23.50			
		1	74	22.53	22.45	22.16	23.50			
		36	0	21.50	21.70	21.27	22.50			
		36	18	21.56	21.73	21.32	22.50			
		36	39	21.57	21.62	21.21	22.50			
		75	0	21.52	21.63	21.23	22.50			
	16QAM	1	0	21.86	21.77	21.62	23.00			
		1	38	22.06	21.86	21.58	23.00			
		1	74	22.18	21.65	21.53	23.00			
		36	0	20.48	20.68	20.19	21.50			
		36	18	20.56	20.73	20.28	21.50			
		36	39	20.56	20.56	20.16	21.50			
		75	0	20.53	20.63	20.17	21.50			
	64QAM	1	0	20.49	20.65	20.55	22.00			
		1	38	20.77	20.75	20.59	22.00			
		1	74	20.73	20.51	20.50	22.00			
		36	0	19.50	19.71	19.16	21.00			
		36	18	19.56	19.73	19.23	21.00			
		36	39	19.53	19.61	19.07	21.00			
		75	0	19.52	19.61	19.19	21.00			
	Bandwidth	Modulation	RB size	RB offset	18700	18900	19100	Tune up		
					20MHz	QPSK	1	0	22.12	22.40
	1	50	22.69	<b>22.84</b>			22.39	<b>23.50</b>		
1	99	22.42	22.24	21.95			23.50			
50	0	21.57	21.61	21.32			22.50			
50	25	21.56	<b>21.66</b>	21.31			<b>22.50</b>			
50	50	21.61	21.46	21.10			22.50			
100	0	21.60	21.56	21.26			22.50			
16QAM	1	0	21.39	21.66		21.77	23.00			
	1	50	21.97	22.03		22.00	23.00			
	1	99	21.75	21.45		21.57	23.00			
	50	0	20.59	20.62		20.37	21.50			
	50	25	20.57	20.69		20.30	21.50			
	50	50	20.65	20.48		20.15	21.50			
	100	0	20.62	20.56		20.25	21.50			

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64QAM	1	0	20.27	20.68	20.06	22.00
	1	50	20.87	21.16	20.30	22.00
	1	99	20.68	20.53	19.84	22.00
	50	0	19.67	19.62	19.31	21.00
	50	25	19.58	19.74	19.31	21.00
	50	50	19.68	19.49	19.16	21.00
	100	0	19.62	19.51	19.27	21.00

LTE Band 4				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				19957	20175	20393		
1.4MHz	QPSK	1	0	22.26	22.28	22.18	23.50	
		1	2	22.35	22.39	22.25	23.50	
		1	5	22.31	22.25	22.14	23.50	
		3	0	22.41	22.36	22.28	23.00	
		3	2	22.39	22.37	22.31	23.00	
		3	3	22.39	22.38	22.26	23.00	
		6	0	21.36	21.29	21.24	22.50	
	16QAM	1	0	21.45	21.30	21.22	23.00	
		1	2	21.59	21.38	21.27	23.00	
		1	5	21.47	21.26	21.18	23.00	
		3	0	21.37	21.44	21.46	22.00	
		3	2	21.38	21.43	21.51	22.00	
		3	3	21.39	21.44	21.48	22.00	
		6	0	20.35	20.25	20.25	21.50	
	64QAM	1	0	20.38	20.18	20.59	22.00	
		1	2	20.53	20.18	20.71	22.00	
		1	5	20.32	20.13	20.59	22.00	
		3	0	20.58	20.31	20.51	21.50	
		3	2	20.66	20.32	20.51	21.50	
		3	3	20.59	20.32	20.46	21.50	
		6	0	19.62	19.44	19.30	21.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					19965	20175	20385	
	3MHz	QPSK	1	0	22.35	22.29	22.25	23.50
1			7	22.47	22.47	22.40	23.50	
1			14	22.32	22.28	22.23	23.50	
8			0	21.35	21.34	21.26	22.50	
8			4	21.38	21.35	21.27	22.50	
8			7	21.32	21.30	21.24	22.50	
15			0	21.35	21.30	21.25	22.50	
16QAM		1	0	21.98	21.50	21.26	23.00	
		1	7	22.06	21.64	21.44	23.00	
		1	14	21.86	21.48	21.24	23.00	
		8	0	20.51	20.31	20.33	21.50	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up		
				19975	20175	20375			
5MHz	QPSK	8	4	20.54	20.34	20.37	21.50		
		8	7	20.50	20.29	20.31	21.50		
		15	0	20.42	20.29	20.30	21.50		
		1	0	20.55	20.36	20.14	22.00		
		1	7	20.74	20.51	20.26	22.00		
		1	14	20.55	20.38	20.08	22.00		
		8	0	19.60	19.27	19.32	21.00		
		8	4	19.59	19.30	19.35	21.00		
	16QAM	16QAM	8	7	19.54	19.28	19.31	21.00	
			15	0	19.42	19.55	19.34	21.00	
			1	0	21.14	21.51	21.32	23.00	
			1	13	21.27	21.66	21.42	23.00	
			1	24	21.12	21.47	21.27	23.00	
			12	0	20.32	20.32	20.21	21.50	
			12	6	20.36	20.40	20.29	21.50	
			12	13	20.23	20.29	20.19	21.50	
		64QAM	64QAM	25	0	20.34	20.27	20.25	21.50
				1	0	20.19	20.37	20.37	21.50
				1	13	20.33	20.57	20.49	21.50
				1	24	20.18	20.37	20.34	21.50
				12	0	19.33	19.36	19.40	20.50
				12	6	19.39	19.40	19.50	20.50
				12	13	19.28	19.27	19.38	20.50
				25	0	19.40	19.39	19.29	20.50
10MHz	QPSK	20000	20175	20350					
		1	0	22.33	22.33	22.36	23.50		
		1	25	22.47	22.45	22.45	23.50		
		1	49	22.28	22.23	22.30	23.50		
		25	0	21.37	21.30	21.32	22.50		
		25	13	21.33	21.33	21.32	22.50		
		25	25	21.38	21.29	21.23	22.50		
		50	0	21.36	21.29	21.28	22.50		
	16QAM	16QAM	1	0	21.87	21.54	21.27	23.00	
			1	25	22.08	21.63	21.43	23.00	
			1	49	21.87	21.44	21.39	23.00	
			25	0	20.42	20.35	20.39	21.50	
			25	13	20.40	20.37	20.41	21.50	

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# Compliance Certification Services (Kunshan) Inc.

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Bandwidth	Modulation	RB size	RB offset	25	25	20.46	20.28	20.33	21.50
				50	0	20.38	20.31	20.30	21.50
64QAM		1	0	20.55	20.37	20.16	22.00		
		1	25	20.75	20.52	20.27	22.00		
		1	49	20.53	20.32	20.06	22.00		
		25	0	19.47	19.48	19.45	21.00		
		25	13	19.46	19.49	19.42	21.00		
		25	25	19.49	19.44	19.39	21.00		
		50	0	19.46	19.39	19.41	21.00		
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up		
				20025	20175	20325			
15MHz	QPSK	1	0	22.27	22.23	22.22	23.50		
		1	38	22.34	22.33	22.29	23.50		
		1	74	22.20	22.19	22.08	23.50		
		36	0	21.39	21.33	21.41	22.50		
		36	18	21.36	21.38	21.35	22.50		
		36	39	21.43	21.31	21.27	22.50		
		75	0	21.41	21.30	21.31	22.50		
	16QAM	1	0	21.82	21.43	21.60	23.00		
		1	38	21.98	21.53	21.69	23.00		
		1	74	21.85	21.33	21.10	23.00		
		36	0	20.38	20.37	20.38	21.50		
		36	18	20.42	20.38	20.32	21.50		
		36	39	20.40	20.30	20.23	21.50		
		75	0	20.42	20.35	20.28	21.50		
	64QAM	1	0	20.50	20.33	20.54	22.00		
		1	38	20.62	20.42	20.64	22.00		
		1	74	20.43	20.25	20.50	22.00		
		36	0	19.42	19.42	19.39	21.00		
		36	18	19.46	19.46	19.35	21.00		
		36	39	19.49	19.37	19.23	21.00		
		75	0	19.46	19.36	19.37	21.00		
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
					20050	20175	20300		
	20MHz	QPSK	1	0	22.12	22.04	21.96	23.50	
1			50	22.50	<b>22.50</b>	22.45	<b>23.50</b>		
1			99	22.06	22.07	21.95	23.50		
50			0	21.30	21.34	21.41	22.50		
50			25	21.41	21.36	21.33	22.50		
50			50	<b>21.47</b>	21.27	21.25	<b>22.50</b>		
16QAM		100	0	21.42	21.24	21.34	22.50		
		1	0	21.34	21.29	21.60	23.00		
		1	50	21.80	21.70	22.02	23.00		
		1	99	21.37	21.31	21.54	23.00		
		50	0	20.31	20.29	20.47	21.50		
		50	25	20.37	20.35	20.38	21.50		
		50	50	20.46	20.28	20.25	21.50		

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		100	0	20.45	20.25	20.37	21.50
	64QAM	1	0	20.26	20.34	19.87	21.50
		1	50	20.69	20.78	20.37	21.50
		1	99	20.23	20.32	19.81	21.50
		50	0	19.47	19.37	19.52	21.00
		50	25	19.47	19.47	19.46	21.00
		50	50	19.61	19.34	19.31	21.00
		100	0	19.47	19.31	19.41	21.00

LTE Band 5				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				20407	20525	20643		
1.4MHz	QPSK	1	0	23.49	23.31	23.20	24.50	
		1	2	23.56	23.47	23.35	24.50	
		1	5	23.48	23.35	23.26	24.50	
		3	0	23.61	23.42	23.35	24.50	
		3	2	23.64	23.45	23.37	24.50	
		3	3	23.63	23.42	23.31	24.50	
		6	0	22.62	22.41	22.37	23.50	
	16QAM	1	0	22.71	22.38	22.21	24.00	
		1	2	22.76	22.48	22.31	24.00	
		1	5	22.64	22.42	22.19	24.00	
		3	0	22.59	22.53	22.51	23.50	
		3	2	22.63	22.52	22.54	23.50	
		3	3	22.65	22.48	22.48	23.50	
		6	0	21.64	21.35	21.34	22.50	
	64QAM	1	0	21.62	21.24	21.57	23.00	
		1	2	21.74	21.32	21.72	23.00	
		1	5	21.57	21.24	21.55	23.00	
		3	0	21.82	21.39	21.55	22.50	
		3	2	21.87	21.43	21.56	22.50	
		3	3	21.83	21.38	21.53	22.50	
		6	0	20.83	20.48	20.36	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					20415	20525	20635	
	3MHz	QPSK	1	0	23.56	23.35	23.34	24.50
1			7	23.68	23.52	23.47	24.50	
1			14	23.49	23.32	23.40	24.50	
8			0	22.62	22.41	22.37	23.50	
8			4	22.63	22.44	22.42	23.50	
8			7	22.55	22.40	22.31	23.50	
15			0	22.58	22.40	22.33	23.50	
16QAM		1	0	23.09	22.59	22.37	24.00	
		1	7	23.25	22.73	22.48	24.00	
		1	14	23.05	22.53	22.31	24.00	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				20425	20525	20625		
5MHz	QPSK	8	0	21.77	21.39	21.42	22.50	
		8	4	21.81	21.43	21.47	22.50	
		8	7	21.74	21.38	21.35	22.50	
		15	0	21.67	21.36	21.40	22.50	
		64QAM	1	0	21.80	21.49	21.24	23.00
		1	7	21.95	21.64	21.35	23.00	
		1	14	21.77	21.47	21.10	23.00	
	8	0	20.76	20.31	20.37	22.00		
	8	4	20.75	20.34	20.41	22.00		
	8	7	20.71	20.29	20.32	22.00		
	15	0	20.60	20.53	20.36	22.00		
	10MHz	QPSK	1	0	23.44	23.30	23.26	24.50
			1	13	23.58	23.41	23.36	24.50
			1	24	23.42	23.23	23.22	24.50
			12	0	22.66	22.36	22.37	23.50
			12	6	22.65	22.46	22.42	23.50
			12	13	22.57	22.41	22.18	23.50
			25	0	22.58	22.38	22.28	23.50
		16QAM	1	0	22.37	22.63	22.43	24.00
			1	13	22.50	22.72	22.49	24.00
			1	24	22.34	22.53	22.29	24.00
			12	0	21.61	21.37	21.32	22.50
			12	6	21.65	21.49	21.41	22.50
			12	13	21.54	21.43	21.20	22.50
			25	0	21.62	21.36	21.34	22.50
		64QAM	1	0	21.47	21.51	21.47	23.00
			1	13	21.58	21.60	21.56	23.00
			1	24	21.44	21.41	21.37	23.00
12			0	20.58	20.35	20.48	22.00	
12			6	20.60	20.42	20.53	22.00	
12			13	20.51	20.38	20.31	22.00	
25			0	20.64	20.40	20.31	22.00	
5MHz		QPSK	1	0	23.50	23.41	23.32	24.50
			1	25	<b>23.66</b>	23.50	23.46	<b>24.50</b>
			1	49	23.35	23.31	23.32	24.50
			25	0	<b>22.63</b>	22.32	22.52	<b>23.50</b>
			25	13	22.54	22.42	22.43	23.50
			25	25	22.61	22.39	22.30	23.50
			50	0	22.63	22.36	22.44	23.50
	16QAM	1	0	23.01	22.63	22.37	24.00	
		1	25	23.24	22.73	22.48	24.00	
		1	49	23.01	22.52	22.30	24.00	
		25	0	21.69	21.38	21.63	22.50	

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64QAM	25	13	21.63	21.44	21.53	22.50
	25	25	21.67	21.41	21.41	22.50
	50	0	21.65	21.35	21.44	22.50
	1	0	21.74	21.54	21.20	23.00
	1	25	21.85	21.64	21.38	23.00
	1	49	21.65	21.41	21.12	23.00
	25	0	20.70	20.45	20.63	22.00
	25	13	20.62	20.52	20.49	22.00
	25	25	20.63	20.48	20.39	22.00
	50	0	20.66	20.38	20.48	22.00

LTE Band 7				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				20775	21100	21425		
5MHz	QPSK	1	0	21.54	21.79	22.26	23.00	
		1	13	21.72	21.99	22.37	23.00	
		1	24	21.61	21.86	22.18	23.00	
		12	0	20.62	20.87	21.34	22.00	
		12	6	20.76	20.97	21.35	22.00	
		12	13	20.57	20.88	21.19	22.00	
	16QAM	25	0	20.68	20.93	21.31	22.00	
		1	0	20.44	21.12	21.38	22.50	
		1	13	20.58	21.23	21.45	22.50	
		1	24	20.46	21.13	21.28	22.50	
		12	0	19.64	19.93	20.31	21.00	
		12	6	19.76	20.04	20.33	21.00	
	64QAM	12	13	19.65	19.97	20.20	21.00	
		25	0	19.72	19.95	20.35	21.00	
		1	0	19.47	19.97	20.45	21.50	
		1	13	19.70	20.15	20.49	21.50	
		1	24	19.56	20.01	20.35	21.50	
		12	0	18.56	18.86	19.51	20.50	
	10MHz	QPSK	12	6	18.70	18.98	19.49	20.50
			12	13	18.61	18.90	19.32	20.50
			25	0	18.68	18.98	19.35	20.50
			1	0	21.59	21.88	22.36	23.00
			1	25	21.78	22.06	22.53	23.00
			1	49	21.65	21.98	22.21	23.00
16QAM		25	0	20.71	20.90	21.47	22.00	
		25	13	20.73	20.96	21.37	22.00	
		25	25	20.86	21.00	21.27	22.00	
		50	0	20.74	20.92	21.38	22.00	
		1	0	21.20	21.07	21.38	22.50	
		1	0	21.20	21.07	21.38	22.50	

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		1	25	21.42	21.26	21.54	22.50	
		1	49	21.30	21.14	21.25	22.50	
		25	0	19.77	20.01	20.56	21.00	
		25	13	19.82	19.98	20.48	21.00	
		25	25	19.86	20.00	20.39	21.00	
		50	0	19.77	19.98	20.42	21.00	
	64QAM	1	0	19.86	19.96	20.26	21.50	
		1	25	20.03	20.13	20.39	21.50	
		1	49	19.92	20.02	20.10	21.50	
		25	0	18.72	19.03	19.50	20.50	
		25	13	18.79	19.07	19.48	20.50	
		25	25	18.83	19.06	19.43	20.50	
		50	0	18.79	19.02	19.41	20.50	
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				20825	21100	21375		
15MHz	QPSK	1	0	21.48	21.79	22.28	23.00	
		1	38	21.72	21.97	22.36	23.00	
		1	74	21.67	22.00	22.13	23.00	
		36	0	20.64	20.93	21.47	22.00	
		36	18	20.76	21.00	21.44	22.00	
		36	39	20.79	21.00	21.32	22.00	
		75	0	20.74	20.93	21.34	22.00	
	16QAM	1	0	21.19	20.99	21.69	22.50	
		1	38	21.32	21.11	21.79	22.50	
		1	74	21.30	21.19	21.55	22.50	
		36	0	19.76	19.94	20.40	21.00	
		36	18	19.79	19.98	20.41	21.00	
		36	39	19.84	20.04	20.30	21.00	
		75	0	19.75	19.94	20.37	21.00	
	64QAM	1	0	19.80	19.88	20.60	21.50	
		1	38	19.96	20.03	20.70	21.50	
		1	74	19.89	20.04	20.49	21.50	
		36	0	18.68	18.95	19.36	20.50	
		36	18	18.79	19.01	19.40	20.50	
		36	39	18.76	19.01	19.26	20.50	
		75	0	18.75	18.92	19.36	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					20850	21100	21350	
	20MHz	QPSK	1	0	21.38	21.58	22.13	23.00
			1	50	21.88	22.09	<b>22.49</b>	<b>23.00</b>
			1	99	21.60	21.91	21.97	23.00
			50	0	20.70	20.91	21.37	22.00
			50	25	20.81	20.98	<b>21.44</b>	<b>22.00</b>
50			50	20.84	20.97	21.31	22.00	
100			0	20.77	20.98	21.35	22.00	
16QAM		1	0	20.70	20.84	21.70	22.50	
		1	50	21.21	21.36	22.07	22.50	

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# Compliance Certification Services (Kunshan) Inc.

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64QAM	1	99	20.84	21.14	21.45	22.50
	50	0	19.69	19.97	20.39	21.00
	50	25	19.80	19.97	20.43	21.00
	50	50	19.89	20.00	20.31	21.00
	100	0	19.82	20.00	20.42	21.00
	1	0	19.58	19.93	19.94	21.50
	1	50	20.07	20.36	20.40	21.50
	1	99	19.75	20.17	19.79	21.50
	50	0	18.76	18.95	19.42	20.50
	50	25	18.88	19.00	19.44	20.50
	50	50	18.89	19.05	19.34	20.50
	100	0	18.83	18.98	19.38	20.50

LTE FDD Band 12				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				23017	23095	23173		
1.4MHz	QPSK	1	0	23.82	23.86	23.88	24.50	
		1	2	23.92	23.98	24.00	24.50	
		1	5	23.78	23.83	23.82	24.50	
		3	0	23.76	23.82	23.91	24.50	
		3	2	23.65	23.88	23.85	24.50	
		3	3	23.55	23.82	23.83	24.50	
	16QAM	6	0	22.52	22.92	22.93	23.50	
		1	0	22.60	22.83	22.77	24.00	
		1	2	22.80	22.84	22.85	24.00	
		1	5	22.62	22.85	22.77	24.00	
		3	0	22.61	22.84	23.01	23.50	
		3	2	22.56	22.94	23.00	23.50	
		3	3	22.46	22.87	23.00	23.50	
		6	0	21.55	21.82	21.90	22.50	
		64QAM	1	0	22.60	22.83	22.77	23.50
			1	2	22.80	22.84	22.85	23.50
			1	5	22.62	22.85	22.77	23.50
			3	0	22.61	22.84	23.01	23.50
	3		2	22.56	22.94	23.00	23.50	
	3		3	22.46	22.87	23.00	23.50	
	3MHz	QPSK	6	0	21.55	21.82	21.90	23.50
			1	0	23.88	23.87	23.93	24.50
			1	7	23.96	24.01	24.10	24.50
			1	14	23.80	23.82	23.98	24.50
8			0	22.76	22.88	22.90	23.50	
8			4	22.78	22.91	22.94	23.50	
				22.78	22.87	22.92	23.50	

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		15	0	22.72	22.86	22.90	23.50	
	16QAM	1	0	23.09	23.01	22.83	24.00	
		1	7	23.12	23.17	22.97	24.00	
		1	14	23.07	22.92	22.77	24.00	
		8	0	21.74	21.84	21.96	22.50	
		8	4	21.95	21.87	21.99	22.50	
		8	7	21.87	21.83	21.96	22.50	
		15	0	21.83	21.83	21.92	22.50	
	64QAM	1	0	22.02	21.90	21.73	23.00	
		1	7	22.17	22.04	21.89	23.00	
		1	14	22.01	21.89	21.66	23.00	
		8	0	21.03	20.84	21.00	22.00	
		8	4	21.06	20.87	21.00	22.00	
		8	7	21.01	20.83	20.96	22.00	
	15	0	20.88	21.06	20.96	22.00		
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				23035	23095	23155		
5MHz	QPSK	1	0	23.75	23.75	23.77	24.50	
		1	13	23.84	23.88	23.92	24.50	
		1	24	23.74	23.71	23.78	24.50	
		12	0	22.76	22.79	22.84	23.50	
		12	6	22.80	22.91	22.89	23.50	
		12	13	22.70	22.76	22.83	23.50	
		25	0	22.61	22.77	22.84	23.50	
	16QAM	1	0	22.37	22.95	22.75	24.00	
		1	13	22.48	23.02	22.87	24.00	
		1	24	22.25	22.85	22.82	24.00	
		12	0	21.69	21.84	21.80	22.50	
		12	6	21.74	21.89	21.88	22.50	
		12	13	21.74	21.78	21.77	22.50	
		25	0	21.77	21.83	21.87	22.50	
	64QAM	1	0	21.65	21.88	21.87	23.00	
		1	13	21.74	22.01	21.97	23.00	
		1	24	21.66	21.85	21.88	23.00	
		12	0	20.78	20.88	20.99	22.00	
		12	6	20.85	20.94	21.08	22.00	
		12	13	20.85	20.87	21.02	22.00	
		25	0	20.86	20.93	20.90	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					23060	23095	23130	
	10MHz	QPSK	1	0	23.83	23.81	23.88	24.50
1			25	24.00	23.96	<b>24.02</b>	<b>24.50</b>	
1			49	23.77	23.77	23.91	24.50	
25			0	22.78	22.80	<b>22.88</b>	<b>23.50</b>	
25			13	22.81	22.87	22.87	23.50	
25			25	22.82	22.78	22.83	23.50	
50			0	22.84	22.75	22.87	23.50	

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	16QAM	1	0	23.14	22.82	22.77	24.00
		1	25	23.34	22.99	22.90	24.00
		1	49	23.21	22.79	22.75	24.00
		25	0	21.73	21.85	21.97	22.50
		25	13	21.93	21.91	21.94	22.50
		25	25	21.94	21.83	21.88	22.50
		50	0	21.83	21.86	21.90	22.50
	64QAM	1	0	22.00	21.86	21.69	23.00
		1	25	22.16	22.01	21.79	23.00
		1	49	21.98	21.83	21.62	23.00
		25	0	20.88	21.00	21.04	22.00
		25	13	20.96	21.04	21.00	22.00
		25	25	20.98	21.00	20.98	22.00
		50	0	20.94	20.95	20.99	22.00

LTE FDD Band 13				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				23205	23230	23255		
5MHz	QPSK	1	0	23.84	23.61	23.72	24.50	
		1	13	23.79	23.48	23.51	24.50	
		1	24	23.31	23.24	23.22	24.50	
		12	0	22.48	22.36	22.39	23.50	
		12	6	22.54	22.44	22.41	23.50	
		12	13	22.47	22.38	22.31	23.50	
		25	0	22.46	22.34	22.28	23.50	
	16QAM	1	0	22.19	22.60	22.36	24.00	
		1	13	22.35	22.64	22.46	24.00	
		1	24	22.13	22.45	22.32	24.00	
		12	0	21.44	21.38	21.31	22.50	
		12	6	21.50	21.45	21.36	22.50	
		12	13	21.44	21.35	21.26	22.50	
		25	0	21.54	21.34	21.36	22.50	
	64QAM	1	0	21.32	21.49	21.42	23.00	
		1	13	21.48	21.54	21.53	23.00	
		1	24	21.25	21.38	21.43	23.00	
		12	0	20.52	20.51	20.68	22.00	
		12	6	20.59	20.66	20.72	22.00	
		12	13	20.57	20.58	20.59	22.00	
		25	0	20.65	20.60	20.63	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					NA	23230	NA	
	10MHz	QPSK	1	0	NA	23.4	NA	24.50
			1	25	NA	<b>23.58</b>	NA	<b>24.50</b>
			1	49	NA	23.24	NA	24.50
			25	0	NA	<b>22.41</b>	NA	<b>23.50</b>

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	16QAM	25	13	NA	22.39	NA	23.50
		25	25	NA	22.3	NA	23.50
		50	0	NA	22.37	NA	23.50
		1	0	NA	22.88	NA	24.00
		1	25	NA	22.96	NA	24.00
		1	49	NA	22.77	NA	24.00
		25	0	NA	21.45	NA	22.50
		25	13	NA	21.45	NA	22.50
	64QAM	25	25	NA	21.33	NA	22.50
		50	0	NA	21.36	NA	22.50
		1	0	NA	21.63	NA	23.00
		1	25	NA	21.72	NA	23.00
		1	49	NA	21.48	NA	23.00
		25	0	NA	20.53	NA	22.00
		25	13	NA	20.49	NA	22.00
		25	25	NA	20.37	NA	22.00
		50	0	NA	20.55	NA	22.00

LTE FDD Band 14				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				23305	23330	23355		
5MHz	QPSK	1	0	23.64	23.58	23.51	24.50	
		1	13	23.70	23.54	23.62	24.50	
		1	24	23.37	23.28	23.25	24.50	
		12	0	22.59	22.48	22.43	23.50	
		12	6	22.51	22.52	22.56	23.50	
		12	13	22.34	22.45	22.48	23.50	
		25	0	22.40	22.42	22.46	23.50	
	16QAM	1	0	22.28	22.64	22.40	24.00	
		1	13	22.27	22.63	22.65	24.00	
		1	24	22.05	22.57	22.25	24.00	
		12	0	21.46	21.52	21.37	22.50	
		12	6	21.61	21.51	21.46	22.50	
		12	13	21.56	21.45	21.39	22.50	
		25	0	21.54	21.52	21.55	22.50	
	64QAM	1	0	21.52	21.67	21.65	23.00	
		1	13	21.50	21.75	21.75	23.00	
		1	24	21.37	21.60	21.55	23.00	
		12	0	20.69	20.60	20.72	22.00	
		12	6	20.73	20.66	20.75	22.00	
		12	13	20.62	20.58	20.61	22.00	
		25	0	20.70	20.62	20.55	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
	10MHz	QPSK	1	0	NA	23.67	NA	24.50

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		1	25	NA	23.63	NA	24.50
		1	49	NA	23.2	NA	24.50
		25	0	NA	22.28	NA	23.50
		25	13	NA	<b>22.4</b>	NA	<b>23.50</b>
		25	25	NA	22.22	NA	23.50
		50	0	NA	22.39	NA	23.50
		16QAM	1	0	NA	22.89	NA
	1	25	NA	22.91	NA	24.00	
	1	49	NA	22.72	NA	24.00	
	25	0	NA	21.42	NA	22.50	
	25	13	NA	21.47	NA	22.50	
	25	25	NA	21.39	NA	22.50	
	50	0	NA	21.48	NA	22.50	
	64QAM	1	0	NA	21.8	NA	23.00
	1	25	NA	21.82	NA	23.00	
	1	49	NA	21.72	NA	23.00	
	25	0	NA	20.7	NA	22.00	
	25	13	NA	20.69	NA	22.00	
	25	25	NA	20.57	NA	22.00	
	50	0	NA	20.65	NA	22.00	



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LTE FDD Band 17				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				23755	23790	23825		
5MHz	QPSK	1	0	23.64	23.66	23.74	24.50	
		1	13	23.81	23.81	23.86	24.50	
		1	24	23.66	23.69	23.71	24.50	
		12	0	22.73	22.76	22.70	23.50	
		12	6	22.79	22.83	22.80	23.50	
		12	13	22.78	22.75	22.76	23.50	
	16QAM	25	0	22.71	22.74	22.75	23.50	
		1	0	22.51	22.87	22.76	24.00	
		1	13	22.61	23.01	22.84	24.00	
		1	24	22.51	22.92	22.64	24.00	
		12	0	21.67	21.75	21.70	22.50	
		12	6	21.76	21.85	21.74	22.50	
	64QAM	12	13	21.75	21.81	21.75	22.50	
		25	0	21.79	21.74	21.83	22.50	
		1	0	21.63	21.79	21.83	23.00	
		1	13	21.76	21.94	21.94	23.00	
		1	24	21.61	21.83	21.81	23.00	
		12	0	20.73	20.81	20.96	22.00	
	10MHz	QPSK	12	6	20.80	20.89	21.00	22.00
			12	13	20.77	20.84	20.93	22.00
			25	0	20.83	20.88	20.83	22.00
			1	0	23.74	23.69	23.83	24.50
			1	25	23.93	23.95	<b>24.03</b>	<b>24.50</b>
			1	49	23.78	23.72	23.80	24.50
16QAM		25	0	22.74	22.70	22.70	23.50	
		25	13	22.76	22.76	<b>22.87</b>	<b>23.50</b>	
		25	25	22.81	22.77	22.73	23.50	
		50	0	22.76	22.75	22.78	23.50	
		1	0	23.22	22.68	22.62	24.00	
		1	25	23.32	22.98	22.85	24.00	
64QAM	1	49	23.16	22.75	22.72	24.00		
	25	0	21.73	21.68	21.87	22.50		
	25	13	21.85	21.76	21.90	22.50		
	25	25	21.86	21.80	21.87	22.50		
	50	0	21.77	21.77	21.85	22.50		
	1	0	21.94	21.78	21.63	23.00		
64QAM	1	25	22.14	21.97	21.78	23.00		
	1	49	21.98	21.74	21.60	23.00		
	25	0	20.86	20.92	20.97	22.00		

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# Compliance Certification Services (Kunshan) Inc.

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		25	13	20.87	20.96	20.99	22.00
		25	25	20.92	20.95	20.94	22.00
		50	0	20.89	20.88	20.94	22.00



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# Compliance Certification Services (Kunshan) Inc.

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LTE Band 25				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				26047	26365	26683		
1.4MHz	QPSK	1	0	22.41	22.57	22.16	23.50	
		1	2	22.5	22.7	22.25	23.50	
		1	5	22.41	22.58	22.16	23.50	
		3	0	22.5	22.64	22.29	23.50	
		3	2	22.53	22.65	22.31	23.50	
		3	3	22.45	22.65	22.3	23.50	
	16QAM	6	0	21.51	21.64	21.3	22.50	
		1	0	21.57	21.61	21.2	23.00	
		1	2	21.69	21.69	21.3	23.00	
		1	5	21.59	21.62	21.22	23.00	
		3	0	21.46	21.73	21.45	22.50	
		3	2	21.49	21.7	21.48	22.50	
	64QAM	3	3	21.49	21.68	21.44	22.50	
		6	0	20.46	20.54	20.28	21.50	
		1	0	20.46	20.44	20.57	22.00	
		1	2	20.63	20.53	20.72	22.00	
		1	5	20.46	20.44	20.58	22.00	
		3	0	20.75	20.61	20.41	21.00	
	3MHz	QPSK	3	2	20.72	20.61	20.5	21.00
			3	3	20.71	20.63	20.48	21.00
			6	0	19.68	19.68	19.27	21.00
			1	0	22.48	22.65	22.25	23.50
			1	7	22.65	22.79	22.44	23.50
			1	14	22.45	22.6	22.28	23.50
16QAM		8	0	21.51	21.7	21.29	22.50	
		8	4	21.52	21.69	21.33	22.50	
		8	7	21.48	21.62	21.27	22.50	
		15	0	21.47	21.66	21.28	22.50	
		1	0	22.05	21.83	21.26	23.00	
		1	7	22.19	21.96	21.49	23.00	
64QAM	1	14	22.02	21.79	21.27	23.00		
	8	0	20.65	20.65	20.34	21.50		
	8	4	20.68	20.66	20.38	21.50		
	8	7	20.64	20.62	20.31	21.50		
	15	0	20.56	20.62	20.31	21.50		
	1	0	20.7	20.74	20.11	22.00		
	64QAM	1	7	20.88	20.85	20.3	22.00	
		1	14	20.68	20.71	20.07	22.00	
		8	0	19.66	19.56	19.28	21.00	
		8	0	19.66	19.56	19.28	21.00	

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# Compliance Certification Services (Kunshan) Inc.

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26065	26365	26665	
5MHz	QPSK	8	4	19.64	19.59	19.31	21.00
		8	7	19.6	19.5	19.27	21.00
		15	0	19.49	19.8	19.26	21.00
		1	0	22.36	22.55	22.16	23.50
		1	13	22.48	22.68	22.3	23.50
		1	24	22.36	22.55	22.19	23.50
		12	0	21.4	21.65	21.26	22.50
	12	6	21.5	21.71	21.32	22.50	
	12	13	21.39	21.55	21.27	22.50	
	25	0	21.38	21.63	21.26	22.50	
	16QAM	1	0	21.25	21.83	21.27	23.00
		1	13	21.36	21.93	21.39	23.00
		1	24	21.25	21.83	21.3	23.00
		12	0	20.44	20.67	20.24	21.50
		12	6	20.47	20.73	20.29	21.50
		12	13	20.36	20.61	20.23	21.50
		25	0	20.42	20.61	20.29	21.50
	64QAM	1	0	20.29	20.76	20.31	22.00
		1	13	20.45	20.86	20.48	22.00
		1	24	20.32	20.69	20.33	22.00
		12	0	19.34	19.62	19.33	21.00
		12	6	19.43	19.68	19.35	21.00
		12	13	19.33	19.55	19.28	21.00
		25	0	19.4	19.69	19.21	21.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26090	26365	26640	
10MHz	QPSK	1	0	22.41	22.68	22.21	23.50
		1	25	22.65	22.82	22.38	23.50
		1	49	22.54	22.55	22.25	23.50
		25	0	21.51	21.72	21.37	22.50
		25	13	21.54	21.72	21.25	22.50
		25	25	21.47	21.56	21.21	22.50
		50	0	21.55	21.67	21.29	22.50
	16QAM	1	0	22.01	21.88	21.22	23.00
		1	25	22.22	21.99	21.43	23.00
		1	49	22.12	21.73	21.25	23.00
		25	0	20.55	20.74	20.46	21.50
		25	13	20.6	20.74	20.34	21.50
		25	25	20.53	20.56	20.3	21.50
		50	0	20.51	20.68	20.27	21.50
	64QAM	1	0	20.7	20.74	20.07	22.00
		1	25	20.88	20.88	20.28	22.00
		1	49	20.79	20.61	20.09	22.00
		25	0	19.55	19.8	19.46	21.00
		25	13	19.58	19.81	19.34	21.00

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EMC Laboratory





# Compliance Certification Services (Kunshan) Inc.

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Bandwidth	Modulation	25	25	19.5	19.64	19.22	21.00	
		50	0	19.55	19.71	19.31	21.00	
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				26115	26365	26615		
15MHz	QPSK	1	0	22.33	22.64	22.13	23.50	
		1	38	22.57	22.67	22.2	23.50	
		1	74	22.6	22.42	22.18	23.50	
		36	0	21.58	21.77	21.3	22.50	
		36	18	21.6	21.71	21.3	22.50	
		36	39	21.61	21.6	21.22	22.50	
	16QAM	75	0	21.56	21.69	21.22	22.50	
		1	0	21.94	21.82	21.49	23.00	
		1	38	22.12	21.83	21.58	23.00	
		1	74	22.25	21.61	21.52	23.00	
		36	0	20.56	20.7	20.2	21.50	
		36	18	20.59	20.69	20.22	21.50	
	64QAM	36	39	20.61	20.55	20.13	21.50	
		75	0	20.55	20.69	20.2	21.50	
		1	0	20.6	20.73	20.4	22.00	
		1	38	20.81	20.69	20.49	22.00	
		1	74	20.84	20.52	20.42	22.00	
		36	0	19.56	19.78	19.2	21.00	
	20MHz	QPSK	36	18	19.59	19.71	19.16	21.00
			36	39	19.59	19.55	19.05	21.00
			75	0	19.55	19.67	19.24	21.00
			1	0	22.2	22.48	22.08	23.50
			1	50	22.67	<b>22.81</b>	22.34	<b>23.50</b>
			1	99	22.49	22.28	22.01	23.50
16QAM		50	0	21.62	<b>21.71</b>	21.17	<b>22.50</b>	
		50	25	21.6	21.68	21.25	22.50	
		50	50	21.7	21.45	20.99	22.50	
		100	0	21.66	21.62	21.12	22.50	
		1	0	21.49	21.74	21.7	23.00	
		1	50	21.95	21.98	21.9	23.00	
64QAM		1	99	21.77	21.47	21.63	23.00	
		50	0	20.6	20.75	20.17	21.50	
		50	25	20.59	20.7	20.26	21.50	
		50	50	20.71	20.45	20.02	21.50	
		100	0	20.72	20.61	20.13	21.50	
		1	0	20.36	20.78	19.95	22.00	
64QAM		1	50	20.89	21.04	20.24	22.00	
		1	99	20.71	20.55	19.9	22.00	
		50	0	19.69	19.75	19.24	21.00	
		50	25	19.67	19.7	19.3	21.00	
		50	50	19.75	19.47	19.01	21.00	

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		100	0	19.67	19.6	19.12	21.00
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LTE FDD Band 26				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				26697	26865	27033		
1.4MHz	QPSK	1	0	23.40	23.36	23.38	24.50	
		1	2	23.48	23.57	23.60	24.50	
		1	5	23.42	23.27	23.35	24.50	
		3	0	23.51	23.44	23.53	24.50	
		3	2	23.56	23.38	23.56	24.50	
		3	3	23.51	23.46	23.60	24.50	
	16QAM	6	0	22.41	22.50	22.57	23.50	
		1	0	22.34	22.29	22.45	23.50	
		1	2	22.65	22.51	22.70	23.50	
		1	5	22.73	22.72	22.88	23.50	
		3	0	22.40	22.36	22.48	23.50	
		3	2	22.59	22.45	22.44	23.50	
	64QAM	3	3	22.55	22.53	22.67	23.50	
		6	0	21.50	21.48	21.57	22.50	
		1	0	21.55	21.51	21.34	22.50	
		1	2	21.41	21.35	21.62	22.50	
		1	5	21.22	21.24	21.67	22.50	
		3	0	21.60	21.53	21.51	22.50	
	3MHz	QPSK	3	2	21.35	21.34	21.74	22.50
			3	3	21.73	21.70	21.72	22.50
			6	0	20.31	20.33	20.52	21.00
			1	0	23.42	23.50	23.41	24.50
			1	7	23.34	23.28	23.51	24.50
			1	14	23.38	23.50	23.56	24.50
16QAM		8	0	22.45	22.43	22.51	23.50	
		8	4	22.53	22.46	22.52	23.50	
		8	7	22.46	22.37	22.44	23.50	
		15	0	22.44	22.40	22.46	23.50	
		1	0	22.54	22.82	22.83	24.00	
		1	7	22.79	22.29	22.35	24.00	
64QAM		1	14	22.44	22.48	22.54	24.00	
		8	0	21.50	21.50	21.55	22.50	
		8	4	21.58	21.45	21.47	22.50	
		8	7	21.45	21.40	21.46	22.50	
		15	0	21.42	21.45	21.51	22.50	
		1	0	21.34	21.33	21.36	22.00	
	64QAM	1	7	21.23	21.05	21.11	22.00	
		1	14	21.16	21.29	21.36	22.00	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				26715	26865	27015		
5MHz	QPSK	8	0	20.52	20.51	20.55	21.00	
		8	4	20.58	20.44	20.48	21.00	
		8	7	20.45	20.43	20.50	21.00	
		15	0	20.47	20.46	20.50	21.00	
		1	0	23.32	23.35	23.30	24.50	
		1	13	23.47	23.51	23.50	24.50	
		1	24	23.27	23.34	23.41	24.50	
	16QAM	12	0	22.40	22.45	22.52	23.50	
		12	6	22.54	22.53	22.50	23.50	
		12	13	22.49	22.34	22.42	23.50	
		25	0	22.44	22.41	22.47	23.50	
		1	0	22.37	22.55	22.51	24.00	
		1	13	22.94	22.59	22.55	24.00	
		1	24	22.31	22.55	22.62	24.00	
	64QAM	12	0	21.39	21.50	21.56	22.50	
		12	6	21.51	21.48	21.52	22.50	
		12	13	21.50	21.37	21.41	22.50	
		25	0	21.46	21.46	21.56	22.50	
		1	0	21.30	21.31	21.24	22.50	
		1	13	22.11	22.04	22.06	22.50	
		1	24	21.64	21.70	21.79	22.50	
	10MHz	QPSK	12	0	20.46	20.47	20.53	21.50
			12	6	20.57	20.56	20.58	21.50
			12	13	20.51	20.43	20.48	21.50
			25	0	20.50	20.40	20.50	21.50
			1	0	23.43	23.46	23.48	24.50
			1	25	23.48	23.52	23.61	24.50
			1	49	23.47	23.50	23.44	24.50
16QAM	25	0	22.44	22.46	22.47	23.50		
	25	13	22.50	22.51	22.56	23.50		
	25	25	22.39	22.37	22.37	23.50		
	50	0	22.37	22.40	22.40	23.50		
	1	0	22.73	22.43	22.48	24.00		
	1	25	22.45	22.49	22.79	24.00		
	1	49	22.69	22.64	22.70	24.00		
64QAM	25	0	21.50	21.51	21.52	22.50		
	25	13	21.55	21.50	21.60	22.50		
	25	25	21.37	21.41	21.40	22.50		
	50	0	21.41	21.40	21.42	22.50		
	1	0	21.79	21.84	21.80	22.50		
	1	25	21.49	21.48	21.50	22.50		
	1	49	21.47	21.44	21.51	22.50		
10MHz	QPSK	25	0	20.41	20.47	20.46	21.50	

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Bandwidth	Modulation	RB size	RB offset	25	13	20.54	20.51	20.59	21.50
				25	25	20.38	20.43	20.39	21.50
		50	0	20.39	20.39	20.39	20.39	20.39	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up		
				26775	26865	26965			
15MHz	QPSK	1	0	23.37	23.37	23.50	24.50		
		1	38	23.45	<b>23.59</b>	23.49	<b>24.50</b>		
		1	74	23.50	23.40	23.34	24.50		
		36	0	22.48	22.61	22.64	23.50		
		36	18	22.55	22.62	22.66	23.50		
		36	39	22.52	<b>22.70</b>	22.52	<b>23.50</b>		
		75	0	22.52	22.68	22.62	23.50		
	16QAM	1	0	22.28	22.74	22.71	24.00		
		1	38	22.42	22.92	22.74	24.00		
		1	74	22.40	22.76	22.55	24.00		
		36	0	21.39	21.68	21.62	22.50		
		36	18	21.51	21.72	21.65	22.50		
		36	39	21.42	21.75	21.52	22.50		
		75	0	21.47	21.71	21.54	22.50		
	64QAM	1	0	21.65	21.81	21.44	22.50		
		1	38	21.81	22.03	21.53	22.50		
		1	74	21.79	21.79	21.34	22.50		
		36	0	20.42	20.58	20.64	21.50		
		36	18	20.50	20.64	20.67	21.50		
		36	39	20.49	20.72	20.57	21.50		
		75	0	20.48	20.68	20.62	21.50		

LTE FDD Band 30				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				27685	27710	27735	
5MHz	QPSK	1	0	22.53	22.54	22.56	23.50
		1	13	22.65	22.68	22.71	23.50
		1	24	22.54	22.56	22.58	23.50
		12	0	21.60	21.62	21.62	22.50
		12	6	21.68	21.69	21.72	22.50
		12	13	21.64	21.65	21.69	22.50
		25	0	21.59	21.58	21.64	22.50
	16QAM	1	0	21.79	21.61	21.39	23.00
		1	13	21.92	21.73	21.52	23.00
		1	24	21.77	21.63	21.39	23.00
		12	0	20.62	20.61	20.63	22.00
		12	6	20.72	20.67	20.71	22.00
		12	13	20.67	20.63	20.66	22.00
		25	0	20.65	20.67	20.70	22.00
	64QAM	1	0	20.85	20.71	20.50	22.00

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				NA	27710	NA		
10MHz	QPSK	1	0	20.99	20.85	20.67	22.00	
		1	24	20.68	20.73	20.56	22.00	
		12	0	19.64	19.77	19.64	21.00	
		12	6	19.72	19.85	19.73	21.00	
		12	13	19.64	19.80	19.65	21.00	
		25	0	19.68	19.69	19.74	21.00	
	16QAM	QPSK	1	0	NA	22.63	NA	23.50
			1	25	NA	<b>22.84</b>	NA	<b>23.50</b>
			1	49	NA	22.63	NA	23.50
			25	0	NA	21.66	NA	22.50
			25	13	NA	<b>21.73</b>	NA	<b>22.50</b>
			25	25	NA	21.7	NA	22.50
		16QAM	1	0	NA	22.11	NA	23.00
			1	25	NA	22.32	NA	23.00
			1	49	NA	22.18	NA	23.00
			25	0	NA	20.77	NA	22.00
			25	13	NA	20.8	NA	22.00
			25	25	NA	20.77	NA	22.00
		64QAM	50	0	NA	20.71	NA	22.00
			1	0	NA	20.85	NA	22.00
			1	25	NA	21.03	NA	22.00
			1	49	NA	20.86	NA	22.00
			25	0	NA	19.79	NA	21.00
			25	13	NA	19.82	NA	21.00
			25	25	NA	19.81	NA	21.00
50	0	NA	19.83	NA	21.00			

LTE Band 38				Conducted Power(dBm)			Tune up
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	
				37775	38000	38225	
5MHz	QPSK	1	0	21.94	22.17	22.56	23.50
		1	13	22.17	22.52	22.59	23.50
		1	24	22	22.35	22.44	23.50
		12	0	20.99	21.41	21.61	22.50
		12	6	21.16	21.39	21.77	22.50
		12	13	21.01	21.37	21.62	22.50
	16QAM	25	0	21.04	21.39	21.65	22.50
		1	0	21.21	21.37	21.57	22.50
		1	13	21.07	21.81	21.65	22.50
		1	24	20.69	21.67	21.48	22.50
		12	0	20.01	20.27	20.5	21.50
		12	6	20.19	20.47	20.49	21.50
		12	13	20.09	20.41	20.5	21.50

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				37800	38000	38200		
10MHz	64QAM	25	0	20.01	20.38	20.58	21.50	
		1	0	19.7	20.44	20.49	21.50	
		1	13	19.78	20.66	20.24	21.50	
		1	24	19.94	20.57	20.62	21.50	
		12	0	18.92	19.31	19.45	20.50	
		12	6	19.02	19.45	19.64	20.50	
		12	13	19.1	19.32	19.46	20.50	
	10MHz	QPSK	25	0	18.94	19.37	19.57	20.50
			1	0	22.09	22.38	22.64	23.50
			1	25	22.37	22.73	22.84	23.50
			1	49	22.05	22.6	22.64	23.50
			25	0	21.15	21.39	21.72	22.50
			25	13	21.15	21.48	21.65	22.50
			25	25	21.14	21.58	21.67	22.50
		16QAM	50	0	21.17	21.5	21.72	22.50
			1	0	21.28	21.12	21.42	22.50
			1	25	21.39	21.44	21.99	22.50
			1	49	20.9	21.45	21.6	22.50
			25	0	20.24	20.44	20.69	21.50
			25	13	20.07	20.46	20.68	21.50
			25	25	20.24	20.59	20.7	21.50
64QAM		50	0	20.03	20.45	20.62	21.50	
		1	0	20.38	20.76	20.75	21.50	
		1	25	19.76	21.02	20.47	21.50	
		1	49	19.55	20.57	20.67	21.50	
		25	0	19.03	19.29	19.56	20.50	
		25	13	18.97	19.37	19.58	20.50	
		25	25	19.04	19.39	19.53	20.50	
15MHz	QPSK	50	0	19.14	19.35	19.53	20.50	
		1	0	22.03	22.17	22.52	23.50	
		1	38	22.13	22.47	22.71	23.50	
		1	74	22.08	22.49	22.46	23.50	
		36	0	21.1	21.47	21.62	22.50	
		36	18	21.08	21.52	21.72	22.50	
		36	39	21.2	21.53	21.61	22.50	
	16QAM	75	0	21.08	21.49	21.62	22.50	
		1	0	21.15	21.16	21.58	22.50	
		1	38	20.9	21.26	21.66	22.50	
		1	74	20.84	21.19	21.21	22.50	
		36	0	20.09	20.26	20.66	21.50	
		36	18	20.14	20.47	20.66	21.50	
		36	39	20.08	20.51	20.61	21.50	
	16QAM	75	0	20.07	20.39	20.61	21.50	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				37850	38000	38150		
20MHz	64QAM	1	0	20.26	20.24	20.77	21.50	
		1	38	19.8	20.07	20.51	21.50	
		1	74	19.71	20.03	20.33	21.50	
		36	0	19.06	19.37	19.55	20.50	
		36	18	19.14	19.36	19.61	20.50	
		36	39	19.13	19.38	19.52	20.50	
		75	0	19.02	19.34	19.67	20.50	
	QPSK	1	0	21.89	22.05	22.32	23.50	
		1	50	22.33	22.63	<b>22.74</b>	<b>23.50</b>	
		1	99	22.07	22.34	22.3	23.50	
		50	0	21.09	21.24	21.65	22.50	
		50	25	21.17	21.47	<b>21.73</b>	<b>22.50</b>	
		50	50	21.26	21.48	21.68	22.50	
		100	0	21.1	21.46	21.63	22.50	
		16QAM	1	0	20.89	21.21	20.99	22.50
			1	50	21.26	21.34	21.74	22.50
			1	99	21	21.54	21.33	22.50
			50	0	20.1	20.22	20.54	21.50
			50	25	20.18	20.44	20.59	21.50
			50	50	20.24	20.57	20.69	21.50
			100	0	20.06	20.38	20.6	21.50
		64QAM	1	0	19.51	19.47	20.39	21.50
			1	50	19.98	20.26	20.79	21.50
			1	99	20.01	19.85	20.07	21.50
			50	0	18.85	19.23	19.55	20.50
			50	25	19.19	19.42	19.76	20.50
			50	50	19.25	19.57	19.7	20.50
			100	0	19.17	19.39	19.59	20.50



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LTE Band 41				Conducted Power(dBm)			Tune up	
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel		
				39675	40620	41565		
5MHz	QPSK	1	0	22.15	22.11	22.47	23.50	
		1	13	22.42	22.32	22.57	23.50	
		1	24	22.28	22.21	22.58	23.50	
		12	0	21.32	21.14	21.52	22.50	
		12	6	21.28	21.41	21.57	22.50	
		12	13	21.32	21.28	21.58	22.50	
	16QAM	25	0	21.38	21.17	21.52	22.50	
		1	0	21.53	21.19	21.18	22.50	
		1	13	21.69	21.33	21.59	22.50	
		1	24	21.27	21.26	21.73	22.50	
		12	0	20.18	20.12	20.41	21.50	
		12	6	20.37	20.29	20.49	21.50	
	64QAM	12	13	20.27	20.14	20.51	21.50	
		25	0	20.41	20.13	20.58	21.50	
		1	0	20.42	20.29	20.74	21.50	
		1	13	20.14	19.92	20.93	21.50	
		1	24	20.05	20.21	20.5	21.50	
		12	0	19.26	19.03	19.44	20.50	
	10MHz	QPSK	12	6	19.43	19.26	19.71	20.50
			12	13	19.29	19.2	19.63	20.50
			25	0	19.32	19.07	19.45	20.50
			1	0	22.26	22.25	22.39	23.50
			1	25	22.67	22.49	22.69	23.50
			1	49	22.6	22.34	22.63	23.50
16QAM		25	0	21.4	21.29	21.46	22.50	
		25	13	21.47	21.23	21.58	22.50	
		25	25	21.51	21.36	21.48	22.50	
		50	0	21.38	21.34	21.53	22.50	
		1	0	21.28	21.12	21.38	22.50	
		1	25	21.57	21.44	21.72	22.50	
64QAM		1	49	21.28	21.14	21.35	22.50	
		25	0	20.4	20.24	20.37	21.50	
		25	13	20.44	20.36	20.48	21.50	
		25	25	20.48	20.38	20.47	21.50	
		50	0	20.47	20.23	20.54	21.50	
		1	0	20.58	20.41	19.92	21.50	
10MHz		64QAM	1	25	20.88	20.08	20.29	21.50
			1	49	20.81	19.95	20.14	21.50
			25	0	19.39	19.23	19.38	20.50

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# Compliance Certification Services (Kunshan) Inc.

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Bandwidth	Modulation	RB size	RB offset	19.46	19.21	19.46	20.50	
				25	13	25		
				19.47	19.26	19.53	20.50	
				19.5	19.2	19.44	20.50	
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				39725	40620	41515		
15MHz	QPSK	1	0	22.24	22.12	22.26	23.50	
		1	38	22.56	22.36	22.59	23.50	
		1	74	22.64	22.41	22.54	23.50	
		36	0	21.41	21.16	21.42	22.50	
		36	18	21.47	21.35	21.47	22.50	
		36	39	21.59	21.34	21.49	22.50	
		75	0	21.5	21.36	21.55	22.50	
	16QAM	1	0	21.04	20.95	21.66	22.50	
		1	38	21.68	21.04	21.92	22.50	
		1	74	21.32	21.26	21.93	22.50	
		36	0	20.4	20.19	20.31	21.50	
		36	18	20.57	20.22	20.49	21.50	
		36	39	20.61	20.28	20.52	21.50	
		75	0	20.52	20.32	20.5	21.50	
	64QAM	1	0	19.94	20.42	20.29	21.50	
		1	38	20.77	20.69	20.53	21.50	
		1	74	20.22	20.62	20.63	21.50	
		36	0	19.45	19.21	19.3	20.50	
		36	18	19.57	19.22	19.44	20.50	
		36	39	19.61	19.37	19.56	20.50	
		75	0	19.52	19.31	19.41	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					39750	40620	41490	
	20MHz	QPSK	1	0	22.15	21.81	21.95	23.50
1			50	<b>22.59</b>	22.33	22.54	<b>23.50</b>	
1			99	22.46	22.11	22.32	23.50	
50			0	21.46	21.07	21.29	22.50	
50			25	21.63	21.41	21.49	22.50	
50			50	<b>21.64</b>	21.4	21.41	<b>22.50</b>	
100			0	21.57	21.32	21.46	22.50	
16QAM		1	0	21.15	20.58	20.63	22.50	
		1	50	22	21.7	21.16	22.50	
		1	99	21.43	20.96	21.54	22.50	
		50	0	20.35	20.04	20.25	21.50	
		50	25	20.55	20.33	20.45	21.50	
		50	50	20.59	20.29	20.4	21.50	
		100	0	20.49	20.18	20.35	21.50	
64QAM		1	0	20.1	19.72	20.19	21.50	
		1	50	20.44	20.1	20.52	21.50	
		1	99	20.45	19.68	20.36	21.50	
		50	0	19.25	19.2	19.3	20.50	
		50	25	19.45	19.28	19.48	20.50	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				131997	132322	132647		
5MHz	QPSK	1	0	22.21	22.53	22.31	23.50	
		1	13	22.39	22.67	22.44	23.50	
		1	24	22.26	22.41	22.34	23.50	
		12	0	21.38	21.61	21.47	22.50	
		12	6	21.44	21.65	21.47	22.50	
		12	13	21.33	21.57	21.33	22.50	
		25	0	21.39	21.62	21.41	22.50	
	16QAM	1	0	21.4	21.97	21.3	22.50	
		1	13	21.56	22.11	21.38	22.50	
		1	24	21.44	21.97	21.29	22.50	
		12	0	20.39	20.6	20.5	21.50	
		12	6	20.42	20.67	20.54	21.50	
		12	13	20.32	20.55	20.38	21.50	
		25	0	20.34	20.63	20.51	21.50	
	64QAM	1	0	20.26	20.48	20.32	21.50	
		1	13	20.39	20.58	20.45	21.50	
		1	24	20.31	20.45	20.35	21.50	
		12	0	19.48	19.63	19.5	20.50	
		12	6	19.53	19.68	19.56	20.50	
		12	13	19.43	19.57	19.4	20.50	
		25	0	19.48	19.61	19.47	20.50	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					132022	132322	132622	
	10MHz	QPSK	1	0	22.3	22.67	22.61	23.50
			1	25	22.51	22.78	22.5	23.50
			1	49	22.39	22.67	22.48	23.50
			25	0	21.48	21.7	21.48	22.50
			25	13	21.43	21.69	21.51	22.50
25			25	21.43	21.62	21.36	22.50	
50			0	21.4	21.65	21.39	22.50	
16QAM		1	0	21.34	21.59	21.87	22.50	
		1	25	21.52	21.66	21.91	22.50	
		1	49	21.47	21.59	21.82	22.50	
		25	0	20.49	20.77	20.53	21.50	
		25	13	20.46	20.76	20.53	21.50	
		25	25	20.44	20.68	20.35	21.50	
		50	0	20.4	20.66	20.42	21.50	
64QAM		1	0	20.08	20.49	20.34	21.50	
		1	25	20.18	20.62	20.33	21.50	
		1	49	20.16	20.56	20.01	21.50	

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# Compliance Certification Services (Kunshan) Inc.

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				132047	132322	132597		
15MHz	QPSK	25	0	19.46	19.77	19.56	20.50	
		25	13	19.45	19.76	19.58	20.50	
		25	25	19.42	19.68	19.43	20.50	
		50	0	19.43	19.7	19.46	20.50	
		1	0	22.27	22.57	22.52	23.50	
		1	38	22.41	22.69	22.51	23.50	
		1	74	22.42	22.58	22.35	23.50	
	16QAM	36	0	21.42	21.7	21.59	22.50	
		36	18	21.45	21.68	21.55	22.50	
		36	39	21.54	21.64	21.44	22.50	
		75	0	21.48	21.67	21.48	22.50	
		1	0	21.27	21.5	21.47	22.50	
		1	38	21.51	21.59	21.51	22.50	
		1	74	21.51	21.51	21.29	22.50	
	64QAM	36	0	20.38	20.67	20.55	21.50	
		36	18	20.41	20.64	20.55	21.50	
		36	39	20.48	20.59	20.39	21.50	
		75	0	20.44	20.71	20.51	21.50	
		1	0	20.01	20.42	20.5	21.50	
		1	38	20.17	20.58	20.51	21.50	
		1	74	20.13	20.44	20.31	21.50	
	20MHz	QPSK	36	0	19.44	19.71	19.59	20.50
			36	18	19.49	19.68	19.59	20.50
			36	39	19.56	19.63	19.41	20.50
			75	0	19.49	19.75	19.52	20.50
			1	0	22.12	22.36	22.39	23.50
			1	50	22.51	<b>22.72</b>	22.59	<b>23.50</b>
			1	99	22.26	22.37	22.16	23.50
50		0	21.41	<b>21.75</b>	21.58	<b>22.50</b>		
16QAM	50	25	21.46	21.66	21.52	22.50		
	50	50	21.67	21.6	21.36	22.50		
	100	0	21.58	21.67	21.46	22.50		
	1	0	21.56	21.21	21.46	22.50		
	1	50	21.97	21.6	21.62	22.50		
	1	99	21.73	21.21	21.16	22.50		
	50	0	20.41	20.76	20.61	21.50		
64QAM	50	25	20.46	20.68	20.5	21.50		
	50	50	20.68	20.55	20.31	21.50		
	100	0	20.57	20.76	20.5	21.50		
	1	0	20	20.13	20.25	21.50		
	1	50	20.48	20.49	20.45	21.50		
20MHz	64QAM	1	99	20.2	20.3	20.03	21.50	
		50	0	19.43	19.83	19.71	20.50	

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		50	25	19.42	19.83	19.63	20.50
		50	50	19.64	19.65	19.44	20.50
		100	0	19.57	19.77	19.59	20.50

LTE Band 71				Conducted Power(dBm)				
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up	
				665.5	675.5	695.5		
5MHz	QPSK	1	0	24.03	23.81	23.81	25.00	
		1	13	24.16	23.82	23.99	25.00	
		1	24	23.97	23.76	23.94	25.00	
		12	0	22.96	22.78	22.92	24.00	
		12	6	23.13	22.88	22.99	24.00	
		12	13	23.08	22.84	22.92	24.00	
		25	0	23.04	22.84	22.92	24.00	
	16QAM	1	0	23.29	22.93	22.67	24.50	
		1	13	23.4	22.92	22.89	24.50	
		1	24	23.23	22.89	22.8	24.50	
		12	0	21.96	21.78	21.89	23.00	
		12	6	22.15	21.85	21.94	23.00	
		12	13	22.1	21.8	21.88	23.00	
		25	0	22.03	21.86	21.93	23.00	
	64QAM	1	0	22.2	21.93	21.71	23.00	
		1	13	22.23	21.98	21.91	23.00	
		1	24	22.12	21.93	21.88	23.00	
		12	0	20.98	20.94	20.89	22.00	
		12	6	21.15	21.03	20.96	22.00	
		12	13	21.14	20.97	20.89	22.00	
		25	0	21.1	20.86	20.98	22.00	
	Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
					668	678	693	
	10MHz	QPSK	1	0	24.1	23.82	23.86	25.00
1			25	24.11	23.93	24.05	25.00	
1			49	23.89	23.82	24.01	25.00	
25			0	22.98	22.82	22.93	24.00	
25			13	23.07	22.87	22.94	24.00	
25			25	23.05	22.88	22.94	24.00	
50			0	22.98	22.9	22.93	24.00	
16QAM		1	0	23.69	22.95	22.86	24.50	
		1	25	23.73	23.13	23.03	24.50	
		1	49	23.49	22.96	23.08	24.50	
		25	0	22.05	21.88	22	23.00	
		25	13	22.12	21.91	22.05	23.00	
		25	25	22.08	21.9	22.02	23.00	
		50	0	22.03	21.9	21.95	23.00	
64QAM		1	0	22.34	21.94	21.67	23.00	

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Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				670.5	680.5	690.5	
15MHz	QPSK	1	0	23.97	23.75	23.73	25.00
		1	38	23.94	23.84	23.92	25.00
		1	74	23.82	23.74	23.98	25.00
		36	0	23.01	22.87	22.89	24.00
		36	18	23.02	22.87	22.97	24.00
		36	39	23	22.88	23.01	24.00
		75	0	22.99	22.82	22.92	24.00
	16QAM	1	0	23.54	22.98	23.12	24.50
		1	38	23.54	23.03	23.33	24.50
		1	74	23.37	22.88	23.38	24.50
		36	0	22.06	21.87	21.83	23.00
		36	18	22.03	21.88	21.92	23.00
		36	39	21.99	21.89	21.96	23.00
		75	0	21.96	21.86	21.91	23.00
	64QAM	1	0	22.23	21.87	22.02	23.00
		1	38	22.2	21.93	22.22	23.00
		1	74	22.08	21.81	22.28	23.00
		36	0	21.07	20.95	20.89	22.00
		36	18	21.11	20.96	20.96	22.00
		36	39	21.08	20.97	21.04	22.00
		75	0	21.05	20.92	20.97	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				673	683	688	
20MHz	QPSK	1	0	23.84	23.62	23.57	25.00
		1	50	<b>24.07</b>	24	23.97	<b>25.00</b>
		1	99	23.62	23.72	23.76	25.00
		50	0	22.87	22.76	22.77	24.00
		50	25	22.92	22.89	22.89	24.00
		50	50	<b>22.93</b>	22.83	22.89	<b>24.00</b>
		100	0	22.9	22.82	22.84	24.00
	16QAM	1	0	23.14	22.84	23.15	24.50
		1	50	23.37	23.23	23.55	24.50
		1	99	22.89	22.92	23.31	24.50
		50	0	21.83	21.74	21.82	23.00
		50	25	21.94	21.89	21.89	23.00
		50	50	21.91	21.84	21.88	23.00
		100	0	21.91	21.84	21.86	23.00
	64QAM	1	0	22	21.89	21.45	23.00
		1	50	22.25	22.28	21.84	23.00

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	1	99	21.79	21.96	21.61	23.00
	50	0	20.97	20.85	20.92	22.00
	50	25	21.04	20.93	20.96	22.00
	50	50	21.09	21	20.97	22.00
	100	0	20.99	20.89	20.99	22.00



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**8.1.4 Conducted Power Of Wi-Fi**

Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)	Tune up
802.11b	1	2412	1	16.38	17.00
	6	2437		15.94	17.00
	11	2462		16.20	17.00
802.11g	1	2412	6	14.45	15.00
	6	2437		13.96	15.00
	11	2462		14.07	15.00
802.11n SISO HT20	1	2412	MCS0	13.71	15.00
	6	2437		13.39	15.00
	11	2462		14.03	15.00
802.11n SISO HT40	3	2422	MCS0	13.20	14.00
	6	2437		13.13	14.00
	9	2452		13.10	14.00

5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11a	U-NII-1	36	5180	6	10.94	12
		40	5200		10.79	12
		48	5240		10.77	12
	U-NII-3	149	5745		10.79	12
		157	5785		10.55	12
		165	5825		10.69	12
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT20	U-NII-1	36	5180	MCS0	10.80	12
		40	5200		10.64	12
		48	5240		10.58	12
	U-NII-3	149	5745		10.63	12
		157	5785		10.33	12
		165	5825		10.55	12
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT40	U-NII-1	38	5190	MCS0	10.31	11
		46	5230		10.15	11
	U-NII-3	151	5755		10.10	11
		159	5795		9.78	11
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up

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802.11ac 20M	U-NII-1	36	5180	MCS0	10.65	12
		40	5200		10.61	12
		48	5240		10.53	12
	U-NII-3	149	5745		10.68	12
		157	5785		10.35	12
		165	5825		10.55	12
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 40M	U-NII-1	38	5190	MCS0	10.17	11
		46	5230		10.06	11
	U-NII-3	151	5755		10.16	11
		159	5795		9.69	11
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 80M	U-NII-1	42	5210	MCS0	10.39	11
	U-NII-3	155	5775		9.98	11

**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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**8.1.5 Conducted Power Of BT**

BT			Average Conducted Power(dBm)	Tune up (dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	5.62	7.5
	39	2441	7.13	7.5
	78	2480	9.52	10
π/4DQPSK	0	2402	5.06	7
	39	2441	6.38	7
	78	2480	9.32	10
8DPSK	0	2402	5.11	7
	39	2441	6.35	7
	78	2480	9.13	10

BLE_1M			Average Conducted Power(dBm)	Tune up (dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	-4.06	-2.5
	19	2440	-2.98	-2.5
	39	2480	-4.11	-2.5
BLE_2M			Average Conducted Power(dBm)	Tune up (dBm)
Modulation	Channel	Frequency (MHz)		
GFSK	0	2402	-4.03	-2.5
	19	2440	-2.88	-2.5
	39	2480	-4.05	-2.5

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### 8.2 Measurement of SAR Data

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph Results refer to Appendix B
- 2) Per FCC KDB Publication 447498 D04, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is  $\leq 0.8$  W/kg (2.0W/kg for 10g) then testing at the other channels is not required for such test configuration(s).
- 3) “\*” is repeated measurement.

WiFi 2.4G:

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

**WiFi 5G:**

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



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8.2.1 SAR Result Of GSM 850

GSM850 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp	SAR limit (W/kg)
Head Test data													
Left cheek	GSM	190/836.6	1:8.3	0.239	0.192	0.03	32.81	34	1.315	0.314	0.253	22.1	1.6
Left tilted	GSM	190/836.6	1:8.3	0.094	0.073	-0.05	32.81	34	1.315	0.124	0.096	22.1	1.6
Right cheek	GSM	190/836.6	1:8.3	0.132	0.106	0.17	32.81	34	1.315	0.173	0.140	22.1	1.6
Right tilted	GSM	190/836.6	1:8.3	0.076	0.058	0.02	32.81	34	1.315	0.100	0.077	22.1	1.6
Left cheek	GSM	128/824.2	1:8.3	0.235	0.184	0.1	32.79	34	1.321	0.311	0.243	22.1	1.6
Left cheek	GSM	251/848.8	1:8.3	0.242	0.191	0.06	32.8	34	1.318	<b>0.319</b>	0.252	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	GSM	251/848.8	1:8.3	0.225	0.172	-0.08	32.8	34	1.318	0.297	0.227	22.1	1.6
Body Test data(Separate 10mm)													
Front side	GPRS 4TS	251/848.8	1:2.075	0.220	0.180	0.01	29.39	30	1.151	0.253	0.207	22.1	1.6
Back side	GPRS 4TS	251/848.8	1:2.075	0.706	0.524	-0.08	29.39	30	1.151	0.812	0.603	22.1	1.6
Left side	GPRS 4TS	251/848.8	1:2.075	0.251	0.202	0.02	29.39	30	1.151	0.289	0.232	22.1	1.6
Right side	GPRS 4TS	251/848.8	1:2.075	0.138	0.118	-0.03	29.39	30	1.151	0.159	0.136	22.1	1.6
Bottom side	GPRS 4TS	251/848.8	1:2.075	0.452	0.346	-0.13	29.39	30	1.151	0.520	0.398	22.1	1.6
Back side	GPRS 4TS	128/824.2	1:2.075	0.702	0.519	0.09	29.36	30	1.159	0.813	0.601	22.1	1.6
Back side	GPRS 4TS	190/836.6	1:2.075	0.712	0.531	0.11	29.38	30	1.153	<b>0.821</b>	0.612	22.1	1.6
Back side	EGPRS 4TS	251/848.8	1:2.075	0.644	0.418	0.07	23.21	24	1.199	0.772	0.501	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	EGPRS 4TS	190/836.6	1:1	0.702	0.516	0.01	29.38	30	1.153	0.810	0.595	22.3	4
Extremity Test data(Separate 0mm)													
Front side	GPRS 4TS	251/848.8	1:2.075	0.760	0.487	0.06	29.39	30	1.151	0.875	0.561	22.1	4
Back side	GPRS 4TS	251/848.8	1:2.075	2.51	1.49	0.04	29.39	30	1.151	2.889	1.715	22.1	4
Left side	GPRS 4TS	251/848.8	1:2.075	0.862	0.606	0.05	29.39	30	1.151	0.992	0.697	22.1	4
Right side	GPRS 4TS	251/848.8	1:2.075	0.501	0.318	-0.19	29.39	30	1.151	0.576	0.366	22.1	4
Bottom side	GPRS 4TS	251/848.8	1:2.075	1.56	0.967	0.01	29.39	30	1.151	1.799	1.113	22.1	4
Back side	GPRS 4TS	128/824.2	1:2.075	2.35	1.44	0.04	29.36	30	1.159	2.723	1.669	22.1	4
Back side	GPRS 4TS	190/836.6	1:2.075	2.52	1.52	-0.06	29.38	30	1.153	2.907	<b>1.753</b>	22.1	4
Back side	EGPRS 4TS	251/848.8	1:2.075	2.14	1.390	-0.15	23.21	24	1.199	2.567	1.667	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	GPRS 4TS	190/836.6	1:2.075	2.31	1.38	-0.04	29.38	30	1.153	2.664	1.592	22.1	4



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## 8.2.2 SAR Result Of PCS 1900

GSM1900 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift(dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp	SAR limit (W/kg)
Head Test data													
Left cheek	GSM	661/1880	1:8.3	0.146	0.089	0.03	29.57	30	1.104	<b>0.161</b>	0.098	22.3	1.6
Left tilted	GSM	661/1880	1:8.3	0.053	0.037	-0.13	29.57	30	1.104	0.058	0.041	22.3	1.6
Right cheek	GSM	661/1880	1:8.3	0.079	0.051	-0.06	29.57	30	1.104	0.087	0.056	22.3	1.6
Right tilted	GSM	661/1880	1:8.3	0.043	0.028	-0.15	29.57	30	1.104	0.047	0.031	22.3	1.6
Left cheek	GSM	512/1850.2	1:8.3	0.125	0.075	0.01	29.35	30	1.161	0.145	0.087	22.3	1.6
Left cheek	GSM	810/1909.8	1:8.3	0.132	0.084	0.05	28.99	30	1.262	0.167	0.106	22.3	1.6
Head Test data at the worst case with SIM2													
Left cheek	GSM	661/1880	1:8.3	0.135	0.081	0.14	29.57	30	1.104	0.149	0.089	22.3	1.6
Body Test data(Separate 10mm)													
Front side	GPRS 4TS	661/1880	1:2.075	0.197	0.117	-0.06	25.99	27	1.262	0.248	0.147	22.3	1.6
Back side	GPRS 4TS	661/1880	1:2.075	0.618	0.357	0.08	25.99	27	1.262	<b>0.780</b>	0.450	22.3	1.6
Left side	GPRS 4TS	661/1880	1:2.075	0.216	0.146	-0.05	25.99	27	1.262	0.272	0.185	22.3	1.6
Right side	GPRS 4TS	661/1880	1:2.075	0.114	0.071	-0.03	25.99	27	1.262	0.144	0.089	22.3	1.6
Bottom side	GPRS 4TS	661/1880	1:2.075	0.393	0.221	-0.02	25.99	27	1.262	0.495	0.279	22.3	1.6
Back side	GPRS 4TS	512/1850.2	1:2.075	0.589	0.335	-0.03	25.82	27	1.312	0.773	0.440	22.3	1.6
Back side	GPRS 4TS	810/1909.8	1:2.075	0.534	0.311	0.02	25.46	27	1.426	0.761	0.443	22.3	1.6
Back side	EGPRS 4TS	810/1909.8	1:2.075	0.543	0.309	0.08	22.38	23	1.153	0.626	0.356	22.3	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	GPRS 4TS	661/1880	1:2.075	0.558	0.326	0.16	25.99	27	1.262	0.704	0.412	22.3	1.6
Extremity Test data(Separate 0mm)													
Front side	GPRS 4TS	661/1880	1:2.075	1.03	0.549	-0.13	25.99	27	1.262	1.300	0.693	22.3	4
Back side	GPRS 4TS	661/1880	1:2.075	3.44	1.78	-0.03	25.99	27	1.262	4.341	<b>2.246</b>	22.3	4
Left side	GPRS 4TS	661/1880	1:2.075	1.21	0.685	0.05	25.99	27	1.262	1.528	0.864	22.3	4
Right side	GPRS 4TS	661/1880	1:2.075	0.675	0.358	0.14	25.99	27	1.262	0.852	0.452	22.3	4
Bottom side	GPRS 4TS	661/1880	1:2.075	2.12	1.15	-0.19	25.99	27	1.262	2.679	1.450	22.3	4



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Back side	GPRS 4TS	512/1850.2	1:2.075	3.27	1.68	-0.04	25.82	27	1.312	4.291	2.204	22.3	4
Back side	GPRS 4TS	810/1909.8	1:2.075	3.08	1.51	-0.07	25.46	27	1.426	4.385	2.153	22.3	4
Back side	EGPRS 4TS	810/1909.8	1:2.075	3.09	1.47	0.01	22.38	23	1.153	3.564	1.696	22.3	1.6
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	GPRS 4TS	661/1880	1:2.075	3.10	1.61	0.1	25.99	27	1.262	3.914	2.027	22.3	4



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8.2.3 SAR Result Of WCDMA Band II

WCDMA Band II SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp	SAR limit (W/kg)
Head Test data													
Left cheek	RMC	9538/1907.6	1:1	0.145	0.085	-0.15	23.92	25	1.282	<b>0.186</b>	0.109	22.3	1.6
Left tilted	RMC	9538/1907.6	1:1	0.057	0.035	-0.04	23.92	25	1.282	0.073	0.045	22.3	1.6
Right cheek	RMC	9538/1907.6	1:1	0.080	0.049	-0.04	23.92	25	1.282	0.103	0.062	22.3	1.6
Right tilted	RMC	9538/1907.6	1:1	0.042	0.028	0.11	23.92	25	1.282	0.054	0.036	22.3	1.6
Left cheek	RMC	9262/1852.4	1:1	0.120	0.081	-0.01	23.45	25	1.429	0.171	0.116	22.3	1.6
Left cheek	RMC	9400/1880	1:1	0.114	0.076	-0.07	23.49	25	1.416	0.161	0.108	22.3	1.6
Head Test data at the worst case with SIM2													
Left cheek	RMC	9538/1907.6	1:1	0.133	0.080	0.14	23.92	25	1.282	0.171	0.102	22.3	1.6
Body Test data(Separate 10mm)													
Front side	RMC	9538/1907.6	1:1	0.091	0.054	0.17	23.92	25	1.282	0.117	0.069	22.3	1.6
Back side	RMC	9538/1907.6	1:1	0.290	0.165	-0.14	23.92	25	1.282	<b>0.372</b>	0.212	22.3	1.6
Left side	RMC	9538/1907.6	1:1	0.104	0.068	-0.01	23.92	25	1.282	0.134	0.087	22.3	1.6
Right side	RMC	9538/1907.6	1:1	0.055	0.032	0.02	23.92	25	1.282	0.071	0.041	22.3	1.6
Bottom side	RMC	9538/1907.6	1:1	0.183	0.107	0.08	23.92	25	1.282	0.235	0.137	22.3	1.6
Back side	RMC	9262/1852.4	1:1	0.238	0.147	-0.15	23.45	25	1.429	0.340	0.211	22.3	1.6
Back side	RMC	9400/1880	1:1	0.261	0.149	0.1	23.49	25	1.416	0.369	0.211	22.3	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	RMC	9538/1907.6	1:1	0.262	0.151	-0.07	23.92	25	1.282	0.336	0.194	22.3	1.6
Extremity Test data(Separate 0mm)													
Front side	RMC	9538/1907.6	1:1	0.685	0.348	-0.07	23.92	25	1.282	0.879	0.447	22.3	4
Back side	RMC	9538/1907.6	1:1	2.27	1.15	-0.12	23.92	25	1.282	2.911	<b>1.475</b>	22.3	4
Left side	RMC	9538/1907.6	1:1	0.776	0.472	0.12	23.92	25	1.282	0.995	0.605	22.3	4
Right side	RMC	9538/1907.6	1:1	0.419	0.250	0.05	23.92	25	1.282	0.537	0.321	22.3	4
Bottom side	RMC	9538/1907.6	1:1	1.43	0.707	-0.09	23.92	25	1.282	1.834	0.907	22.3	4
Back side	RMC	9262/1852.4	1:1	1.84	1.02	0.17	23.45	25	1.429	2.623	1.457	22.3	4
Back side	RMC	9400/1880	1:1	2.03	1.03	-0.11	23.49	25	1.416	2.871	1.458	22.3	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	RMC	9538/1907.6	1:1	2.05	1.04	-0.04	23.92	25	1.282	2.623	1.330	22.3	4



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8.2.4 SAR Result Of WCDMA Band IV

WCDMA Band IV SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp	SAR limit (W/kg)
Head Test data													
Left cheek	RMC	1513/1752.6	1:1	0.271	0.168	-0.07	23.67	24	1.079	<b>0.292</b>	0.181	22.2	1.6
Left tilted	RMC	1513/1752.6	1:1	0.097	0.058	0.1	23.67	24	1.079	0.105	0.063	22.2	1.6
Right cheek	RMC	1513/1752.6	1:1	0.141	0.094	-0.06	23.67	24	1.079	0.152	0.101	22.2	1.6
Right tilted	RMC	1513/1752.6	1:1	0.087	0.057	-0.15	23.67	24	1.079	0.094	0.062	22.2	1.6
Left cheek	RMC	1312/1712.4	1:1	0.228	0.140	0.18	23.18	24	1.208	0.276	0.169	22.2	1.6
Left cheek	RMC	1412/1732.4	1:1	0.243	0.156	-0.13	23.56	24	1.107	0.269	0.173	22.2	1.6
Head Test data at the worst case with SIM2													
Left cheek	RMC	1513/1752.6	1:1	0.249	0.156	-0.15	23.67	24	1.079	0.268	0.168	22.2	1.6
Body Test data(Separate 10mm)													
Front side	RMC	1513/1752.6	1:1	0.164	0.093	-0.07	23.67	24	1.079	0.177	0.100	22.2	1.6
Back side	RMC	1513/1752.6	1:1	0.512	0.312	0.01	23.67	24	1.079	<b>0.552</b>	0.337	22.2	1.6
Left side	RMC	1513/1752.6	1:1	0.178	0.122	-0.19	23.67	24	1.079	0.192	0.132	22.2	1.6
Right side	RMC	1513/1752.6	1:1	0.093	0.069	0.08	23.67	24	1.079	0.101	0.075	22.2	1.6
Bottom side	RMC	1513/1752.6	1:1	0.319	0.198	-0.08	23.67	24	1.079	0.344	0.214	22.2	1.6
Back side	RMC	1312/1712.4	1:1	0.423	0.261	-0.05	23.18	24	1.208	0.511	0.315	22.2	1.6
Back side	RMC	1412/1732.4	1:1	0.490	0.303	0.1	23.56	24	1.107	0.542	0.335	22.2	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	RMC	1513/1752.6	1:1	0.465	0.282	0.05	23.67	24	1.079	0.502	0.304	22.2	1.6
Extremity Test data(Separate 0mm)													
Front side	RMC	1513/1752.6	1:1	0.763	0.415	-0.01	23.67	24	1.079	0.824	0.448	22.2	4
Back side	RMC	1513/1752.6	1:1	2.56	1.38	-0.11	23.67	24	1.079	2.762	<b>1.489</b>	22.2	4
Left side	RMC	1513/1752.6	1:1	0.882	0.510	-0.15	23.67	24	1.079	0.951	0.550	22.2	4
Right side	RMC	1513/1752.6	1:1	0.488	0.261	0.01	23.67	24	1.079	0.526	0.282	22.2	4
Bottom side	RMC	1513/1752.6	1:1	1.63	0.861	-0.17	23.67	24	1.079	1.760	0.929	22.2	4
Back side	RMC	1312/1712.4	1:1	2.12	1.14	-0.13	23.18	24	1.208	2.557	1.380	22.2	4
Back side	RMC	1412/1732.4	1:1	2.44	1.32	-0.05	23.56	24	1.107	2.701	1.459	22.2	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	RMC	1513/1752.6	1:1	2.31	1.25	0.15	23.67	24	1.079	2.491	1.348	22.2	4



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8.2.5 SAR Result Of WCDMA Band V

WCDMA Band V SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp	SAR limit (W/kg)
Head Test data													
Left cheek	RMC	4233/846.6	1:1	0.081	0.063	-0.09	24.06	25	1.242	0.101	0.078	22.1	1.6
Left tilted	RMC	4233/846.6	1:1	0.032	0.025	-0.05	24.06	25	1.242	0.039	0.031	22.1	1.6
Right cheek	RMC	4233/846.6	1:1	0.047	0.040	0.09	24.06	25	1.242	0.058	0.049	22.1	1.6
Right tilted	RMC	4233/846.6	1:1	0.026	0.018	0.08	24.06	25	1.242	0.032	0.023	22.1	1.6
Left cheek	RMC	4132/826.4	1:1	0.078	0.062	0.11	23.89	25	1.291	0.101	0.080	22.1	1.6
Left cheek	RMC	4182/836.4	1:1	0.085	0.065	0.05	23.93	25	1.279	<b>0.109</b>	0.083	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	RMC	4182/836.4	1:1	0.082	0.063	0.13	23.93	25	1.279	0.105	0.080	22.1	1.6
Body Test data(Separate 10mm)													
Front side	RMC	4233/846.6	1:1	0.052	0.041	-0.19	24.06	25	1.242	0.065	0.051	22.1	1.6
Back side	RMC	4233/846.6	1:1	0.151	0.111	0.15	24.06	25	1.242	0.188	0.138	22.1	1.6
Left side	RMC	4233/846.6	1:1	0.057	0.049	-0.1	24.06	25	1.242	0.071	0.061	22.1	1.6
Right side	RMC	4233/846.6	1:1	0.031	0.027	-0.17	24.06	25	1.242	0.039	0.034	22.1	1.6
Bottom side	RMC	4233/846.6	1:1	0.105	0.080	0.15	24.06	25	1.242	0.131	0.100	22.1	1.6
Back side	RMC	4132/826.4	1:1	0.145	0.112	0.04	23.89	25	1.291	0.187	0.145	22.1	1.6
Back side	RMC	4182/836.4	1:1	0.165	0.123	-0.03	23.93	25	1.279	<b>0.211</b>	0.157	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	RMC	4182/836.4	1:1	0.151	0.115	0.09	23.93	25	1.279	0.193	0.147	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	RMC	4233/846.6	1:1	0.407	0.234	0.15	24.06	25	1.242	0.506	0.291	22.1	4
Back side	RMC	4233/846.6	1:1	1.15	0.677	-0.15	24.06	25	1.242	1.424	0.841	22.1	4
Left side	RMC	4233/846.6	1:1	0.438	0.296	0.05	24.06	25	1.242	0.544	0.368	22.1	4
Right side	RMC	4233/846.6	1:1	0.232	0.170	-0.18	24.06	25	1.242	0.288	0.211	22.1	4
Bottom side	RMC	4233/846.6	1:1	0.797	0.465	0.13	24.06	25	1.242	0.989	0.577	22.1	4
Back side	RMC	4132/826.4	1:1	1.12	0.684	0.1	23.89	25	1.291	1.442	0.883	22.1	4
Back side	RMC	4182/836.4	1:1	1.28	0.736	-0.06	23.93	25	1.279	1.638	<b>0.942</b>	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	RMC	4182/836.4	1:1	1.15	0.668	0.03	23.93	25	1.279	1.476	0.854	22.1	1.6

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8.2.6 SAR Result Of LTE Band 2

LTE Band 2 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	18900/1880	1:1	0.129	0.076	0.02	22.84	23.5	1.164	0.150	0.089	22.3	1.6
Left tilted	20M_QPSK 1RB_50	18900/1880	1:1	0.049	0.029	-0.08	22.84	23.5	1.164	0.058	0.034	22.3	1.6
Right cheek	20M_QPSK 1RB_50	18900/1880	1:1	0.073	0.041	0.17	22.84	23.5	1.164	0.086	0.048	22.3	1.6
Right tilted	20M_QPSK 1RB_50	18900/1880	1:1	0.042	0.023	0.1	22.84	23.5	1.164	0.049	0.027	22.3	1.6
Left cheek	20M_QPSK 1RB_50	18700/1860	1:1	0.116	0.077	0.06	22.69	23.5	1.205	0.140	0.093	22.3	1.6
Left cheek	20M_QPSK 1RB_50	19100/1900	1:1	0.114	0.070	0.02	22.39	23.5	1.291	0.147	0.090	22.3	1.6
Left cheek	20M_QPSK 50RB_25	18900/1880	1:1	0.091	0.058	-0.14	21.66	22.5	1.213	0.110	0.071	22.3	1.6
Left tilted	20M_QPSK 50RB_25	18900/1880	1:1	0.039	0.021	0.15	21.66	22.5	1.213	0.048	0.026	22.3	1.6
Right cheek	20M_QPSK 50RB_25	18900/1880	1:1	0.050	0.033	0.06	21.66	22.5	1.213	0.061	0.040	22.3	1.6
Right tilted	20M_QPSK 50RB_25	18900/1880	1:1	0.034	0.016	0.12	21.66	22.5	1.213	0.041	0.020	22.3	1.6
Left cheek	20M_QPSK 50RB_25	18700/1860	1:1	0.093	0.054	0	21.56	22.5	1.242	0.115	0.067	22.3	1.6
Left cheek	20M_QPSK 50RB_25	19100/1900	1:1	0.081	0.051	0.02	21.31	22.5	1.315	0.106	0.066	22.3	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	18900/1880	1:1	0.117	0.070	-0.08	22.84	23.5	1.164	0.136	0.082	22.3	1.6
Body Test data(Separate 10mm)													
Front side	20M_QPSK 1RB_50	18900/1880	1:1	0.084	0.048	-0.02	22.84	23.5	1.164	0.098	0.056	22.3	1.6
Back side	20M_QPSK 1RB_50	18900/1880	1:1	0.282	0.161	-0.14	22.84	23.5	1.164	0.328	0.187	22.3	1.6
Left side	20M_QPSK 1RB_50	18900/1880	1:1	0.096	0.059	0.19	22.84	23.5	1.164	0.112	0.069	22.3	1.6
Right side	20M_QPSK 1RB_50	18900/1880	1:1	0.049	0.030	0.15	22.84	23.5	1.164	0.058	0.035	22.3	1.6
Bottom side	20M_QPSK 1RB_50	18900/1880	1:1	0.174	0.098	-0.16	22.84	23.5	1.164	0.203	0.115	22.3	1.6
Back side	20M_QPSK 1RB_50	18700/1860	1:1	0.271	0.157	0.14	22.69	23.5	1.205	0.327	0.189	22.3	1.6
Back side	20M_QPSK 1RB_50	19100/1900	1:1	0.247	0.144	0.02	22.39	23.5	1.291	0.318	0.186	22.3	1.6
Front side	20M_QPSK 50RB_25	18900/1880	1:1	0.080	0.047	-0.07	21.66	22.5	1.213	0.097	0.057	22.3	1.6
Back side	20M_QPSK 50RB_25	18900/1880	1:1	0.256	0.145	-0.16	21.66	22.5	1.213	0.311	0.176	22.3	1.6
Left side	20M_QPSK 50RB_25	18900/1880	1:1	0.092	0.057	0.16	21.66	22.5	1.213	0.112	0.069	22.3	1.6
Right side	20M_QPSK 50RB_25	18900/1880	1:1	0.048	0.028	0.06	21.66	22.5	1.213	0.058	0.034	22.3	1.6

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Bottom side	20M_QPSK 50RB_25	18900/1880	1:1	0.161	0.092	0.05	21.66	22.5	1.213	0.195	0.112	22.3	1.6
Back side	20M_QPSK 50RB_25	18700/1860	1:1	0.246	0.144	-0.13	21.56	22.5	1.242	0.305	0.179	22.3	1.6
Back side	20M_QPSK 50RB_25	19100/1900	1:1	0.223	0.134	-0.14	21.31	22.5	1.315	0.293	0.176	22.3	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	18900/1880	1:1	0.240	0.144	-0.08	22.84	23.5	1.164	0.280	0.168	22.3	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	18900/1880	1:1	0.532	0.280	0.01	22.84	23.5	1.164	0.620	0.326	22.3	4
Back side	20M_QPSK 1RB_50	18900/1880	1:1	1.67	0.864	-0.17	22.84	23.5	1.164	1.944	<b>1.006</b>	22.3	4
Left side	20M_QPSK 1RB_50	18900/1880	1:1	0.569	0.350	0.11	22.84	23.5	1.164	0.663	0.407	22.3	4
Right side	20M_QPSK 1RB_50	18900/1880	1:1	0.326	0.165	-0.19	22.84	23.5	1.164	0.380	0.192	22.3	4
Bottom side	20M_QPSK 1RB_50	18900/1880	1:1	1.03	0.560	0.13	22.84	23.5	1.164	1.202	0.651	22.3	4
Back side	20M_QPSK 1RB_50	18700/1860	1:1	1.59	0.829	0.19	22.69	23.5	1.205	1.917	0.999	22.3	4
Back side	20M_QPSK 1RB_50	19100/1900	1:1	1.46	0.757	0.08	22.39	23.5	1.291	1.883	0.978	22.3	4
Front side	20M_QPSK 50RB_25	18900/1880	1:1	0.480	0.258	0.06	21.66	22.5	1.213	0.583	0.314	22.3	4
Back side	20M_QPSK 50RB_25	18900/1880	1:1	1.51	0.780	-0.02	21.66	22.5	1.213	1.827	0.946	22.3	4
Left side	20M_QPSK 50RB_25	18900/1880	1:1	0.517	0.320	0.01	21.66	22.5	1.213	0.627	0.388	22.3	4
Right side	20M_QPSK 50RB_25	18900/1880	1:1	0.296	0.151	-0.07	21.66	22.5	1.213	0.359	0.183	22.3	4
Bottom side	20M_QPSK 50RB_25	18900/1880	1:1	0.93	0.508	0	21.66	22.5	1.213	1.133	0.616	22.3	4
Back side	20M_QPSK 50RB_25	18700/1860	1:1	1.44	0.747	-0.04	21.56	22.5	1.242	1.783	0.928	22.3	4
Back side	20M_QPSK 50RB_25	19100/1900	1:1	1.32	0.687	-0.09	21.31	22.5	1.315	1.730	0.903	22.3	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	18900/1880	1:1	1.43	0.742	-0.06	22.84	23.5	1.164	1.665	0.864	22.3	4



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8.2.7 SAR Result Of LTE Band 4

LTE Band 4 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	20175/1732.5	1:1	0.196	0.121	0.03	22.5	23.5	1.259	<b>0.247</b>	0.152	22.2	1.6
Left tilted	20M_QPSK 1RB_50	20175/1732.5	1:1	0.078	0.046	0.15	22.5	23.5	1.259	0.098	0.058	22.2	1.6
Right cheek	20M_QPSK 1RB_50	20175/1732.5	1:1	0.110	0.072	0.05	22.5	23.5	1.259	0.138	0.091	22.2	1.6
Right tilted	20M_QPSK 1RB_50	20175/1732.5	1:1	0.064	0.039	0.05	22.5	23.5	1.259	0.080	0.050	22.2	1.6
Left cheek	20M_QPSK 1RB_50	20050/1720	1:1	0.193	0.121	0.15	22.5	23.5	1.259	0.243	0.152	22.2	1.6
Left cheek	20M_QPSK 1RB_50	20300/1745	1:1	0.189	0.121	0.11	22.45	23.5	1.274	0.241	0.154	22.2	1.6
Left cheek	20M_QPSK 50RB_50	20050/1720	1:1	0.151	0.097	-0.07	21.47	22.5	1.268	0.191	0.123	22.2	1.6
Left tilted	20M_QPSK 50RB_50	20050/1720	1:1	0.064	0.037	0.16	21.47	22.5	1.268	0.081	0.047	22.2	1.6
Right cheek	20M_QPSK 50RB_50	20050/1720	1:1	0.089	0.055	-0.13	21.47	22.5	1.268	0.113	0.070	22.2	1.6
Right tilted	20M_QPSK 50RB_50	20050/1720	1:1	0.050	0.032	0.07	21.47	22.5	1.268	0.063	0.041	22.2	1.6
Left cheek	20M_QPSK 50RB_50	20175/1732.5	1:1	0.150	0.093	0.02	21.27	22.5	1.327	0.199	0.123	22.2	1.6
Left cheek	20M_QPSK 50RB_50	20300/1745	1:1	0.153	0.096	0.18	21.25	22.5	1.334	0.204	0.128	22.2	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	20175/1732.5	1:1	0.190	0.118	0.08	22.5	23.5	1.259	0.240	0.149	22.2	1.6
Body Test data(Seperate 10mm)													
Front side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.111	0.073	0.11	22.5	23.5	1.259	0.139	0.092	22.2	1.6
Back side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.367	0.227	-0.13	22.5	23.5	1.259	<b>0.462</b>	0.286	22.2	1.6
Left side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.127	0.089	0.17	22.5	23.5	1.259	0.160	0.112	22.2	1.6
Right side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.069	0.047	0.03	22.5	23.5	1.259	0.086	0.060	22.2	1.6
Bottom side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.233	0.147	0.13	22.5	23.5	1.259	0.293	0.185	22.2	1.6
Back side	20M_QPSK 1RB_50	20050/1720	1:1	0.354	0.221	-0.15	22.5	23.5	1.259	0.445	0.279	22.2	1.6
Back side	20M_QPSK 1RB_50	20300/1745	1:1	0.350	0.217	0.02	22.45	23.5	1.274	0.445	0.276	22.2	1.6
Front side	20M_QPSK 50RB_50	20050/1720	1:1	0.103	0.072	-0.13	21.47	22.5	1.268	0.131	0.091	22.2	1.6
Back side	20M_QPSK 50RB_50	20050/1720	1:1	0.336	0.206	0.05	21.47	22.5	1.268	0.426	0.261	22.2	1.6
Left side	20M_QPSK 50RB_50	20050/1720	1:1	0.117	0.084	0.01	21.47	22.5	1.268	0.148	0.107	22.2	1.6
Right side	20M_QPSK 50RB_50	20050/1720	1:1	0.063	0.046	-0.07	21.47	22.5	1.268	0.080	0.059	22.2	1.6

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Bottom side	20M_QPSK 50RB_50	20050/1720	1:1	0.212	0.135	-0.11	21.47	22.5	1.268	0.268	0.171	22.2	1.6
Back side	20M_QPSK 50RB_50	20175/1732.5	1:1	0.315	0.192	-0.02	21.27	22.5	1.327	0.418	0.255	22.2	1.6
Back side	20M_QPSK 50RB_50	20300/1745	1:1	0.321	0.200	-0.05	21.25	22.5	1.334	0.428	0.266	22.2	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.317	0.201	-0.04	22.5	23.5	1.259	0.399	0.253	22.2	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.559	0.314	-0.01	22.5	23.5	1.259	0.704	0.395	22.2	4
Back side	20M_QPSK 1RB_50	20175/1732.5	1:1	1.86	0.970	0.04	22.5	23.5	1.259	2.342	<b>1.221</b>	22.2	4
Left side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.650	0.394	-0.02	22.5	23.5	1.259	0.819	0.496	22.2	4
Right side	20M_QPSK 1RB_50	20175/1732.5	1:1	0.351	0.185	0.12	22.5	23.5	1.259	0.442	0.233	22.2	4
Bottom side	20M_QPSK 1RB_50	20175/1732.5	1:1	1.15	0.608	0.02	22.5	23.5	1.259	1.450	0.766	22.2	4
Back side	20M_QPSK 1RB_50	20050/1720	1:1	1.777	0.927	0.16	22.5	23.5	1.259	2.238	1.167	22.2	4
Back side	20M_QPSK 1RB_50	20300/1745	1:1	1.774	0.927	-0.17	22.45	23.5	1.274	2.260	1.181	22.2	4
Front side	20M_QPSK 50RB_50	20050/1720	1:1	0.506	0.286	0.15	21.47	22.5	1.268	0.641	0.362	22.2	4
Back side	20M_QPSK 50RB_50	20050/1720	1:1	1.68	0.877	0.06	21.47	22.5	1.268	2.127	1.112	22.2	4
Left side	20M_QPSK 50RB_50	20050/1720	1:1	0.591	0.360	0.19	21.47	22.5	1.268	0.749	0.456	22.2	4
Right side	20M_QPSK 50RB_50	20050/1720	1:1	0.321	0.169	-0.01	21.47	22.5	1.268	0.406	0.215	22.2	4
Bottom side	20M_QPSK 50RB_50	20050/1720	1:1	1.04	0.549	-0.18	21.47	22.5	1.268	1.316	0.696	22.2	4
Back side	20M_QPSK 50RB_50	20175/1732.5	1:1	1.60	0.837	0.1	21.27	22.5	1.327	2.127	1.111	22.2	4
Back side	20M_QPSK 50RB_50	20300/1745	1:1	1.60	0.837	-0.17	21.25	22.5	1.334	2.140	1.116	22.2	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	20175/1732.5	1:1	1.59	0.827	-0.08	22.5	23.5	1.259	2.001	1.041	22.2	4



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8.2.8 SAR Result Of LTE Band 5

LTE Band 5 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_25	20450/829	1:1	0.292	0.224	0.19	23.66	24.5	1.213	<b>0.354</b>	0.272	22.1	1.6
Left tilted	10M_QPSK 1RB_25	20450/829	1:1	0.121	0.094	0.12	23.66	24.5	1.213	0.147	0.115	22.1	1.6
Right cheek	10M_QPSK 1RB_25	20450/829	1:1	0.172	0.139	0.03	23.66	24.5	1.213	0.209	0.169	22.1	1.6
Right tilted	10M_QPSK 1RB_25	20450/829	1:1	0.101	0.073	0.07	23.66	24.5	1.213	0.122	0.089	22.1	1.6
Left cheek	10M_QPSK 1RB_25	20525/836.5	1:1	0.279	0.198	-0.16	23.50	24.5	1.259	0.351	0.249	22.1	1.6
Left cheek	10M_QPSK 1RB_25	20600/844	1:1	0.271	0.194	-0.07	23.46	24.5	1.271	0.344	0.246	22.1	1.6
Left cheek	10M_QPSK 25RB_0	20450/829	1:1	0.246	0.190	-0.11	22.63	23.5	1.222	0.301	0.232	22.1	1.6
Left tilted	10M_QPSK 25RB_0	20450/829	1:1	0.105	0.083	0.09	22.63	23.5	1.222	0.129	0.101	22.1	1.6
Right cheek	10M_QPSK 25RB_0	20450/829	1:1	0.148	0.121	-0.12	22.63	23.5	1.222	0.180	0.148	22.1	1.6
Right tilted	10M_QPSK 25RB_0	20450/829	1:1	0.089	0.066	0.03	22.63	23.5	1.222	0.108	0.081	22.1	1.6
Left cheek	10M_QPSK 25RB_0	20525/836.5	1:1	0.215	0.155	0.1	22.32	23.5	1.312	0.282	0.203	22.1	1.6
Left cheek	10M_QPSK 25RB_0	20600/844	1:1	0.203	0.143	0.06	22.52	23.5	1.253	0.255	0.179	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_25	20450/829	1:1	0.255	0.193	-0.09	23.66	24.5	1.213	0.310	0.235	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_25	20450/829	1:1	0.132	0.101	-0.13	23.66	24.5	1.213	0.160	0.123	22.1	1.6
Back side	10M_QPSK 1RB_25	20450/829	1:1	0.424	0.315	-0.16	23.66	24.5	1.213	<b>0.514</b>	0.382	22.1	1.6
Left side	10M_QPSK 1RB_25	20450/829	1:1	0.146	0.122	-0.1	23.66	24.5	1.213	0.177	0.148	22.1	1.6
Right side	10M_QPSK 1RB_25	20450/829	1:1	0.079	0.072	-0.09	23.66	24.5	1.213	0.096	0.088	22.1	1.6
Bottom side	10M_QPSK 1RB_25	20450/829	1:1	0.263	0.194	0.02	23.66	24.5	1.213	0.319	0.236	22.1	1.6
Back side	10M_QPSK 1RB_25	20525/836.5	1:1	0.387	0.274	0.06	23.50	24.5	1.259	0.487	0.345	22.1	1.6
Back side	10M_QPSK 1RB_25	20600/844	1:1	0.402	0.298	0.13	23.46	24.5	1.271	0.511	0.379	22.1	1.6
Front side	10M_QPSK 25RB_0	20450/829	1:1	0.119	0.091	-0.16	22.63	23.5	1.222	0.146	0.112	22.1	1.6
Back side	10M_QPSK 25RB_0	20450/829	1:1	0.384	0.288	-0.12	22.63	23.5	1.222	0.469	0.352	22.1	1.6
Left side	10M_QPSK 25RB_0	20450/829	1:1	0.133	0.116	-0.05	22.63	23.5	1.222	0.163	0.141	22.1	1.6
Right side	10M_QPSK 25RB_0	20450/829	1:1	0.075	0.068	-0.05	22.63	23.5	1.222	0.092	0.083	22.1	1.6

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Bottom side	10M_QPSK 25RB_0	20450/829	1:1	0.239	0.181	-0.15	22.63	23.5	1.222	0.292	0.221	22.1	1.6
Back side	10M_QPSK 25RB_0	20525/836.5	1:1	0.344	0.246	-0.04	22.32	23.5	1.312	0.451	0.323	22.1	1.6
Back side	10M_QPSK 25RB_0	20600/844	1:1	0.358	0.273	0.04	22.52	23.5	1.253	0.449	0.342	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	20450/829	1:1	0.401	0.301	-0.14	23.66	24.5	1.213	0.487	0.365	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_25	20450/829	1:1	0.809	0.497	0.02	23.66	24.5	1.213	0.981	0.603	22.1	4
Back side	10M_QPSK 1RB_25	20450/829	1:1	2.63	1.57	-0.03	23.66	24.5	1.213	3.191	<b>1.905</b>	22.1	4
Left side	10M_QPSK 1RB_25	20450/829	1:1	0.917	0.590	-0.18	23.66	24.5	1.213	1.112	0.716	22.1	4
Right side	10M_QPSK 1RB_25	20450/829	1:1	0.496	0.345	-0.12	23.66	24.5	1.213	0.602	0.419	22.1	4
Bottom side	10M_QPSK 1RB_25	20450/829	1:1	1.63	0.994	-0.01	23.66	24.5	1.213	1.977	1.206	22.1	4
Back side	10M_QPSK 1RB_25	20525/836.5	1:1	2.51	1.50	0.04	23.50	24.5	1.259	3.154	1.886	22.1	4
Back side	10M_QPSK 1RB_25	20600/844	1:1	2.37	1.44	-0.03	23.46	24.5	1.271	3.011	1.830	22.1	4
Front side	10M_QPSK 25RB_0	20450/829	1:1	0.733	0.448	-0.02	22.63	23.5	1.222	0.896	0.548	22.1	4
Back side	10M_QPSK 25RB_0	20450/829	1:1	2.37	1.42	-0.05	22.63	23.5	1.222	2.901	1.733	22.1	4
Left side	10M_QPSK 25RB_0	20450/829	1:1	0.831	0.536	-0.03	22.63	23.5	1.222	1.016	0.655	22.1	4
Right side	10M_QPSK 25RB_0	20450/829	1:1	0.450	0.315	-0.15	22.63	23.5	1.222	0.549	0.385	22.1	4
Bottom side	10M_QPSK 25RB_0	20450/829	1:1	1.47	0.899	0.15	22.63	23.5	1.222	1.797	1.099	22.1	4
Back side	10M_QPSK 25RB_0	20525/836.5	1:1	2.05	1.16	0.01	22.32	23.5	1.312	2.690	1.522	22.1	4
Back side	10M_QPSK 25RB_0	20600/844	1:1	2.14	1.30	0.14	22.52	23.5	1.253	2.677	1.628	22.1	4
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	20450/829	1:1	2.14	1.29	-0.07	23.66	24.5	1.213	2.601	1.560	22.1	4



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8.2.9 SAR Result Of LTE Band 7

LTE Band 7 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	21350/2560	1:1	0.093	0.048	0.03	22.49	23	1.125	<b>0.105</b>	0.054	22.1	1.6
Left tilted	20M_QPSK 1RB_50	21350/2560	1:1	0.038	0.017	-0.05	22.49	23	1.125	0.042	0.020	22.1	1.6
Right cheek	20M_QPSK 1RB_50	21350/2560	1:1	0.050	0.027	0	22.49	23	1.125	0.056	0.031	22.1	1.6
Right tilted	20M_QPSK 1RB_50	21350/2560	1:1	0.030	0.015	0.06	22.49	23	1.125	0.033	0.017	22.1	1.6
Left cheek	20M_QPSK 1RB_50	20850/2510	1:1	0.072	0.041	-0.17	21.88	23	1.294	0.093	0.053	22.1	1.6
Left cheek	20M_QPSK 1RB_50	21100/2535.5	1:1	0.075	0.039	-0.1	22.09	23	1.233	0.092	0.048	22.1	1.6
Left cheek	20M_QPSK 50RB_25	21350/2560	1:1	0.086	0.044	-0.17	21.44	22	1.138	0.097	0.050	22.1	1.6
Left tilted	20M_QPSK 50RB_25	21350/2560	1:1	0.035	0.016	0.13	21.44	22	1.138	0.039	0.018	22.1	1.6
Right cheek	20M_QPSK 50RB_25	21350/2560	1:1	0.046	0.025	-0.09	21.44	22	1.138	0.052	0.029	22.1	1.6
Right tilted	20M_QPSK 50RB_25	21350/2560	1:1	0.027	0.014	0.16	21.44	22	1.138	0.031	0.016	22.1	1.6
Left cheek	20M_QPSK 50RB_25	20850/2510	1:1	0.066	0.038	0.02	20.81	22	1.315	0.087	0.050	22.1	1.6
Left cheek	20M_QPSK 50RB_25	21100/2535.5	1:1	0.069	0.036	0.18	20.98	22	1.265	0.087	0.045	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	21350/2560	1:1	0.081	0.042	0.03	22.49	23	1.125	0.091	0.047	22.1	1.6
Body Test data(Seperate 10mm)													
Front side	20M_QPSK 1RB_50	21350/2560	1:1	0.192	0.095	0.12	22.49	23	1.125	0.216	0.106	22.1	1.6
Back side	20M_QPSK 1RB_50	21350/2560	1:1	0.623	0.298	-0.18	22.49	23	1.125	<b>0.701</b>	0.335	22.1	1.6
Left side	20M_QPSK 1RB_50	21350/2560	1:1	0.226	0.116	0.01	22.49	23	1.125	0.254	0.131	22.1	1.6
Right side	20M_QPSK 1RB_50	21350/2560	1:1	0.124	0.068	0.18	22.49	23	1.125	0.139	0.077	22.1	1.6
Bottom side	20M_QPSK 1RB_50	21350/2560	1:1	0.397	0.188	-0.14	22.49	23	1.125	0.446	0.212	22.1	1.6
Back side	20M_QPSK 1RB_50	20850/2510	1:1	0.536	0.259	-0.19	21.88	23	1.294	0.694	0.335	22.1	1.6
Back side	20M_QPSK 1RB_50	21100/2535.5	1:1	0.548	0.267	0.14	22.09	23	1.233	0.676	0.329	22.1	1.6
Front side	20M_QPSK 50RB_25	21350/2560	1:1	0.176	0.090	0.02	21.44	22	1.138	0.200	0.102	22.1	1.6
Back side	20M_QPSK 50RB_25	21350/2560	1:1	0.563	0.273	-0.01	21.44	22	1.138	0.641	0.311	22.1	1.6
Left side	20M_QPSK 50RB_25	21350/2560	1:1	0.205	0.110	-0.01	21.44	22	1.138	0.234	0.125	22.1	1.6
Right side	20M_QPSK 50RB_25	21350/2560	1:1	0.112	0.063	0	21.44	22	1.138	0.128	0.071	22.1	1.6
Bottom side	20M_QPSK 50RB_25	21350/2560	1:1	0.363	0.170	0.14	21.44	22	1.138	0.413	0.194	22.1	1.6

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Back side	20M_QPSK 50RB_25	20850/2510	1:1	0.490	0.234	-0.14	20.81	22	1.315	0.645	0.308	22.1	1.6
Back side	20M_QPSK 50RB_25	21100/2535.5	1:1	0.499	0.240	0.1	20.98	22	1.265	0.631	0.304	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	21350/2560	1:1	0.590	0.287	-0.13	22.49	23	1.125	0.663	0.323	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	21350/2560	1:1	1.04	0.387	0.07	22.49	23	1.125	1.172	0.435	22.1	4
Back side	20M_QPSK 1RB_50	21350/2560	1:1	3.44	1.28	0.06	22.49	23	1.125	3.869	<b>1.439</b>	22.1	4
Left side	20M_QPSK 1RB_50	21350/2560	1:1	1.18	0.509	-0.16	22.49	23	1.125	1.328	0.573	22.1	4
Right side	20M_QPSK 1RB_50	21350/2560	1:1	0.683	0.250	0.13	22.49	23	1.125	0.769	0.281	22.1	4
Bottom side	20M_QPSK 1RB_50	21350/2560	1:1	2.20	0.818	0.13	22.49	23	1.125	2.470	0.920	22.1	4
Back side	20M_QPSK 1RB_50	20850/2510	1:1	2.84	1.03	0.07	21.88	23	1.294	3.676	1.333	22.1	4
Back side	20M_QPSK 1RB_50	21100/2535.5	1:1	2.91	1.11	-0.11	22.09	23	1.233	3.588	1.369	22.1	4
Front side	20M_QPSK 50RB_25	21350/2560	1:1	0.942	0.351	0.01	21.44	22	1.138	1.071	0.399	22.1	4
Back side	20M_QPSK 50RB_25	21350/2560	1:1	3.10	1.16	0.02	21.44	22	1.138	3.527	1.316	22.1	4
Left side	20M_QPSK 50RB_25	21350/2560	1:1	1.06	0.462	-0.05	21.44	22	1.138	1.210	0.525	22.1	4
Right side	20M_QPSK 50RB_25	21350/2560	1:1	0.619	0.225	-0.13	21.44	22	1.138	0.704	0.256	22.1	4
Bottom side	20M_QPSK 50RB_25	21350/2560	1:1	1.98	0.738	-0.15	21.44	22	1.138	2.253	0.840	22.1	4
Back side	20M_QPSK 50RB_25	20850/2510	1:1	2.68	0.999	0.01	20.81	22	1.315	3.520	1.314	22.1	4
Back side	20M_QPSK 50RB_25	21100/2535.5	1:1	2.81	1.09	-0.04	20.98	22	1.265	3.551	1.379	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	21350/2560	1:1	3.25	1.21	-0.16	22.49	23	1.125	3.655	1.359	22.1	4



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8.2.10 SAR Result Of LTE Band 12

LTE Band 12 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_25	23130/711	1:1	0.021	0.018	0.13	24.02	24.5	1.117	0.023	0.020	22.1	1.6
Left tilted	10M_QPSK 1RB_25	23130/711	1:1	0.009	0.006	0.01	24.02	24.5	1.117	0.010	0.007	22.1	1.6
Right cheek	10M_QPSK 1RB_25	23130/711	1:1	0.012	0.010	0.17	24.02	24.5	1.117	0.014	0.011	22.1	1.6
Right tilted	10M_QPSK 1RB_25	23130/711	1:1	0.007	0.005	-0.14	24.02	24.5	1.117	0.008	0.006	22.1	1.6
Left cheek	10M_QPSK 1RB_25	23060/704	1:1	0.019	0.016	0.01	24.00	24.5	1.122	0.021	0.018	22.1	1.6
Left cheek	10M_QPSK 1RB_25	23095/707.5	1:1	0.022	0.018	0.07	23.96	24.5	1.132	<b>0.025</b>	0.020	22.1	1.6
Left cheek	10M_QPSK 25RB_0	23130/711	1:1	0.019	0.013	-0.15	22.88	23.5	1.153	0.022	0.015	22.1	1.6
Left tilted	10M_QPSK 25RB_0	23130/711	1:1	0.007	0.004	-0.06	22.88	23.5	1.153	0.008	0.005	22.1	1.6
Right cheek	10M_QPSK 25RB_0	23130/711	1:1	0.011	0.008	0.08	22.88	23.5	1.153	0.013	0.009	22.1	1.6
Right tilted	10M_QPSK 25RB_0	23130/711	1:1	0.005	0.002	-0.1	22.88	23.5	1.153	0.006	0.002	22.1	1.6
Left cheek	10M_QPSK 25RB_0	23060/704	1:1	0.015	0.011	-0.08	22.78	23.5	1.180	0.018	0.013	22.1	1.6
Left cheek	10M_QPSK 25RB_0	23095/707.5	1:1	0.020	0.016	0.13	22.8	23.5	1.175	0.023	0.019	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_25	23095/707.5	1:1	0.016	0.011	0.13	23.96	24.5	1.132	0.018	0.012	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_25	23130/711	1:1	0.017	0.013	-0.15	24.02	24.5	1.117	0.019	0.015	22.1	1.6
Back side	10M_QPSK 1RB_25	23130/711	1:1	0.054	0.041	0.05	24.02	24.5	1.117	0.060	0.046	22.1	1.6
Left side	10M_QPSK 1RB_25	23130/711	1:1	0.020	0.015	0.1	24.02	24.5	1.117	0.022	0.017	22.1	1.6
Right side	10M_QPSK 1RB_25	23130/711	1:1	0.010	0.009	0.11	24.02	24.5	1.117	0.011	0.010	22.1	1.6
Bottom side	10M_QPSK 1RB_25	23130/711	1:1	0.034	0.025	0.11	24.02	24.5	1.117	0.037	0.028	22.1	1.6
Back side	10M_QPSK 1RB_25	23060/704	1:1	0.051	0.037	0.17	24.00	24.5	1.122	0.057	0.042	22.1	1.6
Back side	10M_QPSK 1RB_25	23095/707.5	1:1	0.054	0.040	0.05	23.96	24.5	1.132	<b>0.061</b>	0.046	22.1	1.6
Front side	10M_QPSK 25RB_0	23130/711	1:1	0.015	0.013	-0.1	22.88	23.5	1.153	0.017	0.015	22.1	1.6
Back side	10M_QPSK 25RB_0	23130/711	1:1	0.045	0.033	0.18	22.88	23.5	1.153	0.052	0.039	22.1	1.6
Left side	10M_QPSK 25RB_0	23130/711	1:1	0.018	0.012	-0.01	22.88	23.5	1.153	0.021	0.014	22.1	1.6
Right side	10M_QPSK 25RB_0	23130/711	1:1	0.008	0.005	-0.05	22.88	23.5	1.153	0.009	0.006	22.1	1.6

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Bottom side	10M_QPSK 25RB_0	23130/711	1:1	0.029	0.020	-0.12	22.88	23.5	1.153	0.034	0.023	22.1	1.6
Back side	10M_QPSK 25RB_0	23060/704	1:1	0.044	0.029	-0.08	22.78	23.5	1.180	0.052	0.034	22.1	1.6
Back side	10M_QPSK 25RB_0	23095/707.5	1:1	0.039	0.032	-0.1	22.8	23.5	1.175	0.045	0.038	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	23095/707.5	1:1	0.042	0.031	0.02	23.96	24.5	1.132	0.048	0.035	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_25	23130/711	1:1	0.053	0.030	0.18	24.02	24.5	1.117	0.059	0.033	22.1	4
Back side	10M_QPSK 1RB_25	23130/711	1:1	0.168	0.095	-0.09	24.02	24.5	1.117	0.188	0.106	22.1	4
Left side	10M_QPSK 1RB_25	23130/711	1:1	0.059	0.037	-0.08	24.02	24.5	1.117	0.065	0.041	22.1	4
Right side	10M_QPSK 1RB_25	23130/711	1:1	0.033	0.021	0.18	24.02	24.5	1.117	0.037	0.023	22.1	4
Bottom side	10M_QPSK 1RB_25	23130/711	1:1	0.110	0.062	-0.14	24.02	24.5	1.117	0.123	0.069	22.1	4
Back side	10M_QPSK 1RB_25	23060/704	1:1	0.168	0.096	0.09	24.00	24.5	1.122	0.188	0.108	22.1	4
Back side	10M_QPSK 1RB_25	23095/707.5	1:1	0.172	0.097	0.05	23.96	24.5	1.132	0.195	<b>0.110</b>	22.1	4
Front side	10M_QPSK 25RB_0	23130/711	1:1	0.047	0.025	-0.03	22.88	23.5	1.153	0.054	0.029	22.1	4
Back side	10M_QPSK 25RB_0	23130/711	1:1	0.148	0.084	-0.01	22.88	23.5	1.153	0.171	0.096	22.1	4
Left side	10M_QPSK 25RB_0	23130/711	1:1	0.050	0.032	-0.05	22.88	23.5	1.153	0.058	0.037	22.1	4
Right side	10M_QPSK 25RB_0	23130/711	1:1	0.025	0.012	-0.03	22.88	23.5	1.153	0.029	0.014	22.1	4
Bottom side	10M_QPSK 25RB_0	23130/711	1:1	0.095	0.054	-0.08	22.88	23.5	1.153	0.110	0.063	22.1	4
Back side	10M_QPSK 25RB_0	23060/704	1:1	0.145	0.085	0.13	22.78	23.5	1.180	0.171	0.100	22.1	4
Back side	10M_QPSK 25RB_0	23095/707.5	1:1	0.135	0.077	0.09	22.8	23.5	1.175	0.158	0.091	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	10M_QPSK 1RB_25	23095/707.5	1:1	0.166	0.097	-0.15	23.96	24.5	1.132	0.187	0.110	22.1	4



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8.2.11 SAR Result Of LTE Band 13

LTE Band 13 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_25	23230/782	1:1	0.040	0.031	0.08	23.58	24.5	1.236	<b>0.049</b>	0.038	22.1	1.6
Left tilted	10M_QPSK 1RB_25	23230/782	1:1	0.016	0.010	0.15	23.58	24.5	1.236	0.020	0.013	22.1	1.6
Right cheek	10M_QPSK 1RB_25	23230/782	1:1	0.022	0.017	-0.15	23.58	24.5	1.236	0.028	0.021	22.1	1.6
Right tilted	10M_QPSK 1RB_25	23230/782	1:1	0.013	0.009	0.06	23.58	24.5	1.236	0.017	0.011	22.1	1.6
Left cheek	10M_QPSK 25RB_0	23230/782	1:1	0.037	0.028	0.15	22.41	23.5	1.285	0.048	0.036	22.1	1.6
Left tilted	10M_QPSK 25RB_0	23230/782	1:1	0.015	0.008	0.19	22.41	23.5	1.285	0.019	0.010	22.1	1.6
Right cheek	10M_QPSK 25RB_0	23230/782	1:1	0.016	0.009	0.19	22.41	23.5	1.285	0.021	0.012	22.1	1.6
Right tilted	10M_QPSK 25RB_0	23230/782	1:1	0.011	0.006	0	22.41	23.5	1.285	0.014	0.008	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_25	23230/782	1:1	0.036	0.025	0.08	23.58	24.5	1.236	0.044	0.031	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_25	23230/782	1:1	0.027	0.020	-0.07	23.58	24.5	1.236	0.033	0.024	22.1	1.6
Back side	10M_QPSK 1RB_25	23230/782	1:1	0.085	0.064	-0.01	23.58	24.5	1.236	<b>0.106</b>	0.079	22.1	1.6
Left side	10M_QPSK 1RB_25	23230/782	1:1	0.029	0.025	-0.06	23.58	24.5	1.236	0.036	0.031	22.1	1.6
Right side	10M_QPSK 1RB_25	23230/782	1:1	0.016	0.013	-0.05	23.58	24.5	1.236	0.020	0.017	22.1	1.6
Bottom side	10M_QPSK 1RB_25	23230/782	1:1	0.055	0.040	-0.09	23.58	24.5	1.236	0.068	0.050	22.1	1.6
Front side	10M_QPSK 25RB_0	23230/782	1:1	0.022	0.015	0.06	22.41	23.5	1.285	0.028	0.020	22.1	1.6
Back side	10M_QPSK 25RB_0	23230/782	1:1	0.062	0.050	0.1	22.41	23.5	1.285	0.080	0.064	22.1	1.6
Left side	10M_QPSK 25RB_0	23230/782	1:1	0.025	0.019	-0.16	22.41	23.5	1.285	0.032	0.025	22.1	1.6
Right side	10M_QPSK 25RB_0	23230/782	1:1	0.014	0.010	0.16	22.41	23.5	1.285	0.018	0.013	22.1	1.6
Bottom side	10M_QPSK 25RB_0	23230/782	1:1	0.043	0.033	0.08	22.41	23.5	1.285	0.055	0.042	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	23230/782	1:1	0.074	0.061	-0.01	23.58	24.5	1.236	0.091	0.075	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_25	23230/782	1:1	0.143	0.085	-0.02	23.58	24.5	1.236	0.177	0.105	22.1	1.6
Back side	10M_QPSK 1RB_25	23230/782	1:1	0.465	0.267	-0.06	23.58	24.5	1.236	0.575	<b>0.330</b>	22.1	1.6

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Left side	10M_QPSK 1RB_25	23230/782	1:1	0.161	0.110	0.02	23.58	24.5	1.236	0.199	0.136	22.1	1.6
Right side	10M_QPSK 1RB_25	23230/782	1:1	0.088	0.054	-0.1	23.58	24.5	1.236	0.109	0.066	22.1	1.6
Bottom side	10M_QPSK 1RB_25	23230/782	1:1	0.296	0.171	-0.11	23.58	24.5	1.236	0.366	0.211	22.1	1.6
Front side	10M_QPSK 25RB_0	23230/782	1:1	0.111	0.070	-0.19	22.41	23.5	1.285	0.143	0.090	22.1	1.6
Back side	10M_QPSK 25RB_0	23230/782	1:1	0.357	0.208	0.02	22.41	23.5	1.285	0.459	0.267	22.1	1.6
Left side	10M_QPSK 25RB_0	23230/782	1:1	0.128	0.086	-0.04	22.41	23.5	1.285	0.164	0.110	22.1	1.6
Right side	10M_QPSK 25RB_0	23230/782	1:1	0.071	0.044	-0.02	22.41	23.5	1.285	0.092	0.056	22.1	1.6
Bottom side	10M_QPSK 25RB_0	23230/782	1:1	0.228	0.132	0.16	22.41	23.5	1.285	0.293	0.170	22.1	1.6
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	10M_QPSK 1RB_25	23230/782	1:1	0.441	0.258	0.12	23.58	24.5	1.236	0.545	0.319	22.1	1.6



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8.2.12SAR Result Of LTE Band 14

LTE Band 14 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_0	23330/793	1:1	0.059	0.045	-0.13	23.67	24.5	1.211	<b>0.071</b>	0.054	22.1	1.6
Left tilted	10M_QPSK 1RB_0	23330/793	1:1	0.023	0.018	0.16	23.67	24.5	1.211	0.028	0.022	22.1	1.6
Right cheek	10M_QPSK 1RB_0	23330/793	1:1	0.033	0.026	0.11	23.67	24.5	1.211	0.040	0.032	22.1	1.6
Right tilted	10M_QPSK 1RB_0	23330/793	1:1	0.019	0.014	0.06	23.67	24.5	1.211	0.023	0.017	22.1	1.6
Left cheek	10M_QPSK 25RB_13	23330/793	1:1	0.049	0.037	-0.12	22.4	23.5	1.288	0.063	0.048	22.1	1.6
Left tilted	10M_QPSK 25RB_13	23330/793	1:1	0.020	0.015	0.06	22.4	23.5	1.288	0.026	0.019	22.1	1.6
Right cheek	10M_QPSK 25RB_13	23330/793	1:1	0.028	0.024	-0.09	22.4	23.5	1.288	0.035	0.031	22.1	1.6
Right tilted	10M_QPSK 25RB_13	23330/793	1:1	0.017	0.009	0.01	22.4	23.5	1.288	0.022	0.012	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_0	23330/793	1:1	0.052	0.039	0.07	23.67	24.5	1.211	0.063	0.047	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_0	23330/793	1:1	0.078	0.064	0.03	23.67	24.5	1.211	0.095	0.077	22.1	1.6
Back side	10M_QPSK 1RB_0	23330/793	1:1	0.249	0.188	-0.15	23.67	24.5	1.211	<b>0.301</b>	0.228	22.1	1.6
Left side	10M_QPSK 1RB_0	23330/793	1:1	0.090	0.078	-0.03	23.67	24.5	1.211	0.109	0.094	22.1	1.6
Right side	10M_QPSK 1RB_0	23330/793	1:1	0.050	0.039	-0.11	23.67	24.5	1.211	0.061	0.047	22.1	1.6
Bottom side	10M_QPSK 1RB_0	23330/793	1:1	0.162	0.125	0.1	23.67	24.5	1.211	0.196	0.151	22.1	1.6
Front side	10M_QPSK 25RB_13	23330/793	1:1	0.070	0.058	-0.06	22.4	23.5	1.288	0.090	0.075	22.1	1.6
Back side	10M_QPSK 25RB_13	23330/793	1:1	0.211	0.160	0.03	22.4	23.5	1.288	0.272	0.207	22.1	1.6
Left side	10M_QPSK 25RB_13	23330/793	1:1	0.080	0.070	-0.17	22.4	23.5	1.288	0.104	0.090	22.1	1.6
Right side	10M_QPSK 25RB_13	23330/793	1:1	0.046	0.035	0.14	22.4	23.5	1.288	0.059	0.044	22.1	1.6
Bottom side	10M_QPSK 25RB_13	23330/793	1:1	0.149	0.113	0.16	22.4	23.5	1.288	0.193	0.145	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_0	23330/793	1:1	0.221	0.174	0.15	23.67	24.5	1.211	0.268	0.211	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_0	23330/793	1:1	0.250	0.142	0.03	23.67	24.5	1.211	0.303	0.172	22.1	1.6
Back side	10M_QPSK 1RB_0	23330/793	1:1	0.785	0.445	0.03	23.67	24.5	1.211	0.950	<b>0.539</b>	22.1	1.6

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Left side	10M_QPSK 1RB_0	23330/793	1:1	0.279	0.188	-0.13	23.67	24.5	1.211	0.338	0.228	22.1	1.6
Right side	10M_QPSK 1RB_0	23330/793	1:1	0.152	0.092	-0.16	23.67	24.5	1.211	0.185	0.111	22.1	1.6
Bottom side	10M_QPSK 1RB_0	23330/793	1:1	0.503	0.294	-0.1	23.67	24.5	1.211	0.608	0.355	22.1	1.6
Front side	10M_QPSK 25RB_13	23330/793	1:1	0.212	0.124	-0.19	22.4	23.5	1.288	0.273	0.159	22.1	1.6
Back side	10M_QPSK 25RB_13	23330/793	1:1	0.736	0.411	-0.16	22.4	23.5	1.288	0.948	0.529	22.1	1.6
Left side	10M_QPSK 25RB_13	23330/793	1:1	0.238	0.159	0.05	22.4	23.5	1.288	0.307	0.205	22.1	1.6
Right side	10M_QPSK 25RB_13	23330/793	1:1	0.129	0.080	0.15	22.4	23.5	1.288	0.167	0.103	22.1	1.6
Bottom side	10M_QPSK 25RB_13	23330/793	1:1	0.457	0.267	0.05	22.4	23.5	1.288	0.589	0.344	22.1	1.6
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	10M_QPSK 1RB_0	23330/793	1:1	0.724	0.405	0.06	23.67	24.5	1.211	0.876	0.490	22.1	1.6



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8.2.13 SAR Result Of LTE Band 17

LTE Band 17 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_25	23800/711	1:1	0.018	0.013	-0.06	24.03	24.5	1.114	0.020	0.014	22.1	1.6
Left tilted	10M_QPSK 1RB_25	23800/711	1:1	0.009	0.006	0.15	24.03	24.5	1.114	0.010	0.007	22.1	1.6
Right cheek	10M_QPSK 1RB_25	23800/711	1:1	0.012	0.010	-0.09	24.03	24.5	1.114	0.014	0.011	22.1	1.6
Right tilted	10M_QPSK 1RB_25	23800/711	1:1	0.008	0.005	0.05	24.03	24.5	1.114	0.009	0.006	22.1	1.6
Left cheek	10M_QPSK 1RB_25	23780/709	1:1	0.020	0.015	-0.1	23.93	24.5	1.140	0.023	0.017	22.1	1.6
Left cheek	10M_QPSK 1RB_25	23790/710	1:1	0.023	0.018	0.07	23.95	24.5	1.135	<b>0.026</b>	0.020	22.1	1.6
Left cheek	10M_QPSK 25RB_13	23800/711	1:1	0.015	0.011	0.03	22.87	23.5	1.156	0.018	0.013	22.1	1.6
Left tilted	10M_QPSK 25RB_13	23800/711	1:1	0.007	0.005	-0.05	22.87	23.5	1.156	0.008	0.006	22.1	1.6
Right cheek	10M_QPSK 25RB_13	23800/711	1:1	0.010	0.008	0.17	22.87	23.5	1.156	0.012	0.010	22.1	1.6
Right tilted	10M_QPSK 25RB_13	23800/711	1:1	0.007	0.005	0.14	22.87	23.5	1.156	0.008	0.005	22.1	1.6
Left cheek	10M_QPSK 25RB_13	23780/709	1:1	0.017	0.013	-0.07	22.76	23.5	1.186	0.020	0.015	22.1	1.6
Left cheek	10M_QPSK 25RB_13	23790/710	1:1	0.019	0.015	0.08	22.76	23.5	1.186	0.023	0.018	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_25	23790/710	1:1	0.021	0.016	0.07	23.95	24.5	1.135	0.024	0.018	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_25	23800/711	1:1	0.017	0.012	-0.07	24.03	24.5	1.114	0.019	0.014	22.1	1.6
Back side	10M_QPSK 1RB_25	23800/711	1:1	0.051	0.036	-0.1	24.03	24.5	1.114	0.057	0.040	22.1	1.6
Left side	10M_QPSK 1RB_25	23800/711	1:1	0.018	0.016	0	24.03	24.5	1.114	0.020	0.018	22.1	1.6
Right side	10M_QPSK 1RB_25	23800/711	1:1	0.009	0.009	-0.09	24.03	24.5	1.114	0.010	0.010	22.1	1.6
Bottom side	10M_QPSK 1RB_25	23800/711	1:1	0.033	0.024	-0.05	24.03	24.5	1.114	0.037	0.027	22.1	1.6
Back side	10M_QPSK 1RB_25	23780/709	1:1	0.049	0.037	-0.11	23.93	24.5	1.140	0.056	0.042	22.1	1.6
Back side	10M_QPSK 1RB_25	23790/710	1:1	0.053	0.040	-0.04	23.95	24.5	1.135	<b>0.060</b>	0.045	22.1	1.6
Front side	10M_QPSK 25RB_13	23800/711	1:1	0.013	0.010	-0.03	22.87	23.5	1.156	0.015	0.011	22.1	1.6
Back side	10M_QPSK 25RB_13	23800/711	1:1	0.035	0.028	-0.19	22.87	23.5	1.156	0.040	0.032	22.1	1.6
Left side	10M_QPSK 25RB_13	23800/711	1:1	0.012	0.012	-0.07	22.87	23.5	1.156	0.014	0.014	22.1	1.6
Right side	10M_QPSK 25RB_13	23800/711	1:1	0.007	0.007	0.02	22.87	23.5	1.156	0.008	0.009	22.1	1.6
Bottom side	10M_QPSK 25RB_13	23800/711	1:1	0.023	0.018	0.1	22.87	23.5	1.156	0.027	0.020	22.1	1.6

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Back side	10M_QPSK 25RB_13	23780/709	1:1	0.035	0.026	0.04	22.76	23.5	1.186	0.042	0.030	22.1	1.6
Back side	10M_QPSK 25RB_13	23790/710	1:1	0.036	0.028	0.1	22.76	23.5	1.186	0.043	0.033	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	23790/710	1:1	0.048	0.035	-0.04	23.95	24.5	1.135	0.054	0.040	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_25	23800/711	1:1	0.056	0.042	-0.12	24.03	24.5	1.114	0.063	0.047	22.1	4
Back side	10M_QPSK 1RB_25	23800/711	1:1	0.162	0.098	-0.1	24.03	24.5	1.114	0.181	0.109	22.1	4
Left side	10M_QPSK 1RB_25	23800/711	1:1	0.063	0.047	0.05	24.03	24.5	1.114	0.071	0.052	22.1	4
Right side	10M_QPSK 1RB_25	23800/711	1:1	0.032	0.025	0.05	24.03	24.5	1.114	0.036	0.028	22.1	4
Bottom side	10M_QPSK 1RB_25	23800/711	1:1	0.112	0.080	-0.18	24.03	24.5	1.114	0.125	0.090	22.1	4
Back side	10M_QPSK 1RB_25	23780/709	1:1	0.166	0.104	-0.01	23.93	24.5	1.140	0.189	0.119	22.1	4
Back side	10M_QPSK 1RB_25	23790/710	1:1	0.178	0.106	-0.15	23.95	24.5	1.135	0.202	<b>0.120</b>	22.1	4
Front side	10M_QPSK 25RB_13	23800/711	1:1	0.038	0.030	-0.12	22.87	23.5	1.156	0.044	0.035	22.1	4
Back side	10M_QPSK 25RB_13	23800/711	1:1	0.107	0.077	-0.18	22.87	23.5	1.156	0.123	0.089	22.1	4
Left side	10M_QPSK 25RB_13	23800/711	1:1	0.044	0.033	0.15	22.87	23.5	1.156	0.051	0.038	22.1	4
Right side	10M_QPSK 25RB_13	23800/711	1:1	0.024	0.017	0.08	22.87	23.5	1.156	0.028	0.020	22.1	4
Bottom side	10M_QPSK 25RB_13	23800/711	1:1	0.075	0.053	0.11	22.87	23.5	1.156	0.087	0.061	22.1	4
Back side	10M_QPSK 25RB_13	23780/709	1:1	0.112	0.081	-0.16	22.76	23.5	1.186	0.133	0.096	22.1	4
Back side	10M_QPSK 25RB_13	23790/710	1:1	0.118	0.086	-0.09	22.76	23.5	1.186	0.140	0.102	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	10M_QPSK 1RB_25	23790/710	1:1	0.174	0.124	-0.12	23.95	24.5	1.135	0.198	0.141	22.1	4



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8.2.14 SAR Result Of LTE Band 25

LTE Band 25 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	26365/1882.5	1:1	0.129	0.076	0.02	22.81	23.5	1.172	<b>0.151</b>	0.089	22.3	1.6
Left tilted	20M_QPSK 1RB_50	26365/1882.5	1:1	0.046	0.030	0.08	22.81	23.5	1.172	0.054	0.035	22.3	1.6
Right cheek	20M_QPSK 1RB_50	26365/1882.5	1:1	0.072	0.041	0.19	22.81	23.5	1.172	0.085	0.047	22.3	1.6
Right tilted	20M_QPSK 1RB_50	26365/1882.5	1:1	0.041	0.025	-0.12	22.81	23.5	1.172	0.049	0.030	22.3	1.6
Left cheek	20M_QPSK 1RB_50	26140/1860	1:1	0.116	0.071	-0.18	22.67	23.5	1.211	0.141	0.086	22.3	1.6
Left cheek	20M_QPSK 1RB_50	26590/1905	1:1	0.105	0.064	0.18	22.34	23.5	1.306	0.137	0.083	22.3	1.6
Left cheek	20M_QPSK 50RB_0	26365/1882.5	1:1	0.113	0.067	0.08	21.71	22.5	1.199	0.135	0.080	22.3	1.6
Left tilted	20M_QPSK 50RB_0	26365/1882.5	1:1	0.040	0.027	0.17	21.71	22.5	1.199	0.048	0.032	22.3	1.6
Right cheek	20M_QPSK 50RB_0	26365/1882.5	1:1	0.063	0.035	-0.12	21.71	22.5	1.199	0.076	0.041	22.3	1.6
Right tilted	20M_QPSK 50RB_0	26365/1882.5	1:1	0.035	0.023	0.02	21.71	22.5	1.199	0.042	0.027	22.3	1.6
Left cheek	20M_QPSK 50RB_0	26140/1860	1:1	0.099	0.059	0	21.62	22.5	1.225	0.121	0.073	22.3	1.6
Left cheek	20M_QPSK 50RB_0	26590/1905	1:1	0.091	0.058	-0.18	21.17	22.5	1.358	0.124	0.079	22.3	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	26365/1882.5	1:1	0.112	0.062	-0.17	22.81	23.5	1.172	0.131	0.073	22.3	1.6
Body Test data(Separate 10mm)													
Front side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.091	0.054	0.04	22.81	23.5	1.172	0.107	0.063	22.3	1.6
Back side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.283	0.161	-0.14	22.81	23.5	1.172	<b>0.332</b>	0.189	22.3	1.6
Left side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.101	0.065	-0.17	22.81	23.5	1.172	0.118	0.076	22.3	1.6
Right side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.051	0.036	0.07	22.81	23.5	1.172	0.060	0.042	22.3	1.6
Bottom side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.176	0.102	-0.17	22.81	23.5	1.172	0.206	0.120	22.3	1.6
Back side	20M_QPSK 1RB_50	26140/1860	1:1	0.260	0.147	-0.16	22.67	23.5	1.211	0.314	0.178	22.3	1.6
Back side	20M_QPSK 1RB_50	26590/1905	1:1	0.248	0.122	-0.02	22.34	23.5	1.306	0.324	0.159	22.3	1.6
Front side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.086	0.049	0.06	21.71	22.5	1.199	0.103	0.059	22.3	1.6
Back side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.259	0.150	-0.03	21.71	22.5	1.199	0.310	0.179	22.3	1.6
Left side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.095	0.063	0.07	21.71	22.5	1.199	0.114	0.076	22.3	1.6
Right side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.049	0.038	0.17	21.71	22.5	1.199	0.059	0.045	22.3	1.6
Bottom side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.160	0.095	0.02	21.71	22.5	1.199	0.192	0.114	22.3	1.6

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Back side	20M_QPSK 50RB_0	26140/1860	1:1	0.240	0.137	-0.19	21.62	22.5	1.225	0.293	0.167	22.3	1.6
Back side	20M_QPSK 50RB_0	26590/1905	1:1	0.236	0.136	0.13	21.17	22.5	1.358	0.321	0.185	22.3	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.250	0.147	-0.04	22.81	23.5	1.172	0.293	0.172	22.3	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.502	0.261	-0.06	22.81	23.5	1.172	0.588	0.306	22.3	4
Back side	20M_QPSK 1RB_50	26365/1882.5	1:1	1.67	0.867	-0.17	22.81	23.5	1.172	1.958	<b>1.016</b>	22.3	4
Left side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.605	0.322	0.01	22.81	23.5	1.172	0.709	0.378	22.3	4
Right side	20M_QPSK 1RB_50	26365/1882.5	1:1	0.306	0.194	-0.14	22.81	23.5	1.172	0.359	0.228	22.3	4
Bottom side	20M_QPSK 1RB_50	26365/1882.5	1:1	1.06	0.557	-0.15	22.81	23.5	1.172	1.239	0.653	22.3	4
Back side	20M_QPSK 1RB_50	26140/1860	1:1	1.51	0.782	0.1	22.67	23.5	1.211	1.828	0.947	22.3	4
Back side	20M_QPSK 1RB_50	26590/1905	1:1	1.46	0.756	-0.05	22.34	23.5	1.306	1.901	0.987	22.3	4
Front side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.453	0.238	-0.16	21.71	22.5	1.199	0.544	0.285	22.3	4
Back side	20M_QPSK 50RB_0	26365/1882.5	1:1	1.51	0.782	-0.14	21.71	22.5	1.199	1.805	0.938	22.3	4
Left side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.546	0.293	-0.16	21.71	22.5	1.199	0.655	0.351	22.3	4
Right side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.280	0.181	-0.03	21.71	22.5	1.199	0.335	0.217	22.3	4
Bottom side	20M_QPSK 50RB_0	26365/1882.5	1:1	0.953	0.503	0.14	21.71	22.5	1.199	1.143	0.603	22.3	4
Back side	20M_QPSK 50RB_0	26140/1860	1:1	1.36	0.705	0.18	21.62	22.5	1.225	1.672	0.863	22.3	4
Back side	20M_QPSK 50RB_0	26590/1905	1:1	1.31	0.686	-0.09	21.17	22.5	1.358	1.781	0.932	22.3	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	26365/1882.5	1:1	1.58	0.824	-0.14	22.81	23.5	1.172	1.847	0.966	22.3	4



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8.2.15 SAR Result Of LTE Band 26

LTE Band 26 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	15M_QPSK 1RB_38	26865/831.5	1:1	0.29	0.223	0.19	23.59	24.5	1.233	<b>0.358</b>	0.275	22.1	1.6
Left tilted	15M_QPSK 1RB_38	26865/831.5	1:1	0.108	0.083	-0.02	23.59	24.5	1.233	0.133	0.102	22.1	1.6
Right cheek	15M_QPSK 1RB_38	26865/831.5	1:1	0.158	0.126	-0.13	23.59	24.5	1.233	0.195	0.156	22.1	1.6
Right tilted	15M_QPSK 1RB_38	26865/831.5	1:1	0.092	0.067	-0.18	23.59	24.5	1.233	0.113	0.083	22.1	1.6
Left cheek	15M_QPSK 1RB_38	26775/822.5	1:1	0.259	0.213	-0.12	23.45	24.5	1.274	0.330	0.272	22.1	1.6
Left cheek	15M_QPSK 1RB_38	26965/841.5	1:1	0.250	0.210	0.1	23.49	24.5	1.262	0.316	0.265	22.1	1.6
Left cheek	15M_QPSK 36RB_39	26865/831.5	1:1	0.263	0.202	-0.13	22.7	23.5	1.202	0.316	0.242	22.1	1.6
Left tilted	15M_QPSK 36RB_39	26865/831.5	1:1	0.104	0.081	-0.15	22.7	23.5	1.202	0.125	0.097	22.1	1.6
Right cheek	15M_QPSK 36RB_39	26865/831.5	1:1	0.146	0.115	0.08	22.7	23.5	1.202	0.176	0.138	22.1	1.6
Right tilted	15M_QPSK 36RB_39	26865/831.5	1:1	0.084	0.061	0.14	22.7	23.5	1.202	0.101	0.073	22.1	1.6
Left cheek	15M_QPSK 36RB_39	26775/822.5	1:1	0.234	0.196	-0.08	22.52	23.5	1.253	0.293	0.246	22.1	1.6
Left cheek	15M_QPSK 36RB_39	26965/841.5	1:1	0.230	0.190	-0.07	22.52	23.5	1.253	0.288	0.238	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	15M_QPSK 1RB_38	26865/831.5	1:1	0.253	0.195	-0.05	23.59	24.5	1.233	0.312	0.241	22.1	1.6
Body Test data(Separate 10mm)													
Front side	15M_QPSK 1RB_38	26865/831.5	1:1	0.114	0.071	-0.1	23.59	24.5	1.233	0.141	0.087	22.1	1.6
Back side	15M_QPSK 1RB_38	26865/831.5	1:1	0.422	0.313	-0.06	23.59	24.5	1.233	<b>0.520</b>	0.386	22.1	1.6
Left side	15M_QPSK 1RB_38	26865/831.5	1:1	0.131	0.092	-0.15	23.59	24.5	1.233	0.161	0.114	22.1	1.6
Right side	15M_QPSK 1RB_38	26865/831.5	1:1	0.071	0.050	0.1	23.59	24.5	1.233	0.088	0.061	22.1	1.6
Bottom side	15M_QPSK 1RB_38	26865/831.5	1:1	0.229	0.141	-0.18	23.59	24.5	1.233	0.283	0.174	22.1	1.6
Back side	15M_QPSK 1RB_38	26775/822.5	1:1	0.403	0.294	-0.07	23.45	24.5	1.274	0.513	0.374	22.1	1.6
Back side	15M_QPSK 1RB_38	26965/841.5	1:1	0.411	0.301	0.09	23.49	24.5	1.262	0.519	0.380	22.1	1.6
Front side	15M_QPSK 36RB_39	26865/831.5	1:1	0.105	0.069	-0.09	22.7	23.5	1.202	0.126	0.083	22.1	1.6
Back side	15M_QPSK 36RB_39	26865/831.5	1:1	0.402	0.296	-0.01	22.7	23.5	1.202	0.483	0.356	22.1	1.6
Left side	15M_QPSK 36RB_39	26865/831.5	1:1	0.120	0.087	-0.09	22.7	23.5	1.202	0.144	0.105	22.1	1.6
Right side	15M_QPSK 36RB_39	26865/831.5	1:1	0.067	0.046	-0.15	22.7	23.5	1.202	0.081	0.055	22.1	1.6

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Bottom side	15M_QPSK 36RB_39	26865/831.5	1:1	0.208	0.130	-0.06	22.7	23.5	1.202	0.251	0.157	22.1	1.6
Back side	15M_QPSK 36RB_39	26775/822.5	1:1	0.374	0.279	-0.03	22.52	23.5	1.253	0.469	0.350	22.1	1.6
Back side	15M_QPSK 36RB_39	26965/841.5	1:1	0.381	0.288	0.12	22.52	23.5	1.253	0.477	0.361	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	15M_QPSK 1RB_38	26865/831.5	1:1	0.409	0.302	0.19	23.59	24.5	1.233	0.504	0.372	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	15M_QPSK 1RB_38	26865/831.5	1:1	0.796	0.482	-0.05	23.59	24.5	1.233	0.981	0.595	22.1	4
Back side	15M_QPSK 1RB_38	26865/831.5	1:1	2.61	1.56	-0.03	23.59	24.5	1.233	3.218	<b>1.924</b>	22.1	4
Left side	15M_QPSK 1RB_38	26865/831.5	1:1	0.914	0.639	-0.06	23.59	24.5	1.233	1.127	0.788	22.1	4
Right side	15M_QPSK 1RB_38	26865/831.5	1:1	0.493	0.334	0.11	23.59	24.5	1.233	0.608	0.412	22.1	4
Bottom side	15M_QPSK 1RB_38	26865/831.5	1:1	1.66	0.957	0.07	23.59	24.5	1.233	2.043	1.181	22.1	4
Back side	15M_QPSK 1RB_38	26775/822.5	1:1	2.36	1.41	-0.05	23.45	24.5	1.274	3.001	1.794	22.1	4
Back side	15M_QPSK 1RB_38	26965/841.5	1:1	2.27	1.36	-0.01	23.49	24.5	1.262	2.869	1.718	22.1	4
Front side	15M_QPSK 36RB_39	26865/831.5	1:1	0.723	0.439	0.08	22.7	23.5	1.202	0.869	0.528	22.1	4
Back side	15M_QPSK 36RB_39	26865/831.5	1:1	2.36	1.41	-0.04	22.7	23.5	1.202	2.835	1.696	22.1	4
Left side	15M_QPSK 36RB_39	26865/831.5	1:1	0.830	0.577	-0.1	22.7	23.5	1.202	0.997	0.694	22.1	4
Right side	15M_QPSK 36RB_39	26865/831.5	1:1	0.444	0.306	0.03	22.7	23.5	1.202	0.534	0.368	22.1	4
Bottom side	15M_QPSK 36RB_39	26865/831.5	1:1	1.50	0.868	-0.11	22.7	23.5	1.202	1.801	1.043	22.1	4
Back side	15M_QPSK 36RB_39	26775/822.5	1:1	2.12	1.27	-0.18	22.52	23.5	1.253	2.661	1.593	22.1	4
Back side	15M_QPSK 36RB_39	26965/841.5	1:1	2.05	1.23	-0.04	22.52	23.5	1.253	2.569	1.543	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	15M_QPSK 1RB_38	26865/831.5	1:1	2.23	1.33	-0.05	23.59	24.5	1.233	2.749	1.644	22.1	4



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8.2.16 SAR Result Of LTE Band 30

LTE Band 30 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	10M_QPSK 1RB_25	27710/2310	1:1	0.088	0.051	0.09	22.84	23.5	1.164	<b>0.102</b>	0.059	22.1	1.6
Left tilted	10M_QPSK 1RB_25	27710/2310	1:1	0.035	0.020	-0.09	22.84	23.5	1.164	0.041	0.024	22.1	1.6
Right cheek	10M_QPSK 1RB_25	27710/2310	1:1	0.050	0.030	-0.01	22.84	23.5	1.164	0.058	0.035	22.1	1.6
Right tilted	10M_QPSK 1RB_25	27710/2310	1:1	0.029	0.015	0.04	22.84	23.5	1.164	0.033	0.018	22.1	1.6
Left cheek	10M_QPSK 25RB_13	27710/2310	1:1	0.077	0.045	-0.11	21.73	22.5	1.194	0.091	0.054	22.1	1.6
Left tilted	10M_QPSK 25RB_13	27710/2310	1:1	0.033	0.019	-0.16	21.73	22.5	1.194	0.040	0.022	22.1	1.6
Right cheek	10M_QPSK 25RB_13	27710/2310	1:1	0.044	0.026	-0.16	21.73	22.5	1.194	0.052	0.031	22.1	1.6
Right tilted	10M_QPSK 25RB_13	27710/2310	1:1	0.026	0.014	-0.17	21.73	22.5	1.194	0.031	0.017	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	10M_QPSK 1RB_25	27710/2310	1:1	0.084	0.052	0.07	22.84	23.5	1.164	0.098	0.061	22.1	1.6
Body Test data(Separate 10mm)													
Front side	10M_QPSK 1RB_25	27710/2310	1:1	0.278	0.142	0.12	22.84	23.5	1.164	0.324	0.165	22.1	1.6
Back side	10M_QPSK 1RB_25	27710/2310	1:1	0.882	0.424	-0.1	22.84	23.5	1.164	<b>1.027</b>	0.494	22.1	1.6
Left side	10M_QPSK 1RB_25	27710/2310	1:1	0.317	0.181	0.08	22.84	23.5	1.164	0.369	0.210	22.1	1.6
Right side	10M_QPSK 1RB_25	27710/2310	1:1	0.170	0.085	0.17	22.84	23.5	1.164	0.198	0.099	22.1	1.6
Bottom side	10M_QPSK 1RB_25	27710/2310	1:1	0.574	0.277	-0.05	22.84	23.5	1.164	0.668	0.322	22.1	1.6
Front side	10M_QPSK 25RB_13	27710/2310	1:1	0.256	0.133	-0.09	21.73	22.5	1.194	0.306	0.159	22.1	1.6
Back side	10M_QPSK 25RB_13	27710/2310	1:1	0.841	0.410	-0.07	21.73	22.5	1.194	1.004	0.490	22.1	1.6
Left side	10M_QPSK 25RB_13	27710/2310	1:1	0.293	0.166	-0.03	21.73	22.5	1.194	0.350	0.198	22.1	1.6
Right side	10M_QPSK 25RB_13	27710/2310	1:1	0.159	0.084	0.17	21.73	22.5	1.194	0.190	0.100	22.1	1.6
Bottom side	10M_QPSK 25RB_13	27710/2310	1:1	0.522	0.257	-0.06	21.73	22.5	1.194	0.624	0.307	22.1	1.6
Back side *	10M_QPSK 1RB_25	27710/2310	1:1	0.869	0.415	-0.04	22.84	23.5	1.164	1.012	0.483	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	10M_QPSK 1RB_25	27710/2310	1:1	0.808	0.388	0.04	22.84	23.5	1.164	0.941	0.452	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	10M_QPSK 1RB_25	27710/2310	1:1	0.737	0.321	-0.08	22.84	23.5	1.164	0.858	0.373	22.1	1.6

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Back side	10M_QPSK 1RB_25	27710/2310	1:1	2.330	0.970	-0.03	22.84	23.5	1.164	2.712	<b>1.129</b>	22.1	1.6
Left side	10M_QPSK 1RB_25	27710/2310	1:1	0.829	0.419	-0.03	22.84	23.5	1.164	0.965	0.488	22.1	1.6
Right side	10M_QPSK 1RB_25	27710/2310	1:1	0.469	0.206	-0.06	22.84	23.5	1.164	0.547	0.240	22.1	1.6
Bottom side	10M_QPSK 1RB_25	27710/2310	1:1	1.487	0.623	-0.18	22.84	23.5	1.164	1.731	0.726	22.1	1.6
Front side	10M_QPSK 25RB_13	27710/2310	1:1	0.674	0.296	-0.12	21.73	22.5	1.194	0.805	0.353	22.1	1.6
Back side	10M_QPSK 25RB_13	27710/2310	1:1	2.120	0.885	-0.03	21.73	22.5	1.194	2.531	1.056	22.1	1.6
Left side	10M_QPSK 25RB_13	27710/2310	1:1	0.758	0.384	-0.03	21.73	22.5	1.194	0.905	0.459	22.1	1.6
Right side	10M_QPSK 25RB_13	27710/2310	1:1	0.431	0.191	0.07	21.73	22.5	1.194	0.514	0.228	22.1	1.6
Bottom side	10M_QPSK 25RB_13	27710/2310	1:1	1.357	0.567	-0.1	21.73	22.5	1.194	1.620	0.677	22.1	1.6
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	10M_QPSK 1RB_25	27710/2310	1:1	2.119	0.884	-0.07	22.84	23.5	1.164	2.467	1.029	22.1	1.6



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8.2.17 SAR Result Of LTE Band 38

LTE Band 38 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	38150/2610	1:1	0.050	0.025	0.01	22.74	23.5	1.191	0.059	0.030	22.1	1.6
Left tilted	20M_QPSK 1RB_50	38150/2610	1:1	0.019	0.010	0.06	22.74	23.5	1.191	0.022	0.012	22.1	1.6
Right cheek	20M_QPSK 1RB_50	38150/2610	1:1	0.026	0.015	0.18	22.74	23.5	1.191	0.031	0.018	22.1	1.6
Right tilted	20M_QPSK 1RB_50	38150/2610	1:1	0.015	0.009	-0.04	22.74	23.5	1.191	0.018	0.011	22.1	1.6
Left cheek	20M_QPSK 1RB_50	37850/2580	1:1	0.042	0.018	0.02	22.33	23.5	1.309	0.055	0.024	22.1	1.6
Left cheek	20M_QPSK 1RB_50	38000/2595	1:1	0.048	0.022	-0.18	22.63	23.5	1.222	0.058	0.027	22.1	1.6
Left cheek	20M_QPSK 50RB_25	38150/2610	1:1	0.040	0.020	-0.13	21.73	22.5	1.194	0.048	0.024	22.1	1.6
Left tilted	20M_QPSK 50RB_25	38150/2610	1:1	0.016	0.010	0.17	21.73	22.5	1.194	0.019	0.012	22.1	1.6
Right cheek	20M_QPSK 50RB_25	38150/2610	1:1	0.022	0.013	0.08	21.73	22.5	1.194	0.027	0.015	22.1	1.6
Right tilted	20M_QPSK 50RB_25	38150/2610	1:1	0.014	0.008	0.08	21.73	22.5	1.194	0.016	0.010	22.1	1.6
Left cheek	20M_QPSK 50RB_25	37850/2580	1:1	0.032	0.017	0.03	21.17	22.5	1.358	0.044	0.023	22.1	1.6
Left cheek	20M_QPSK 50RB_25	38000/2595	1:1	0.039	0.022	0.13	21.47	22.5	1.268	0.049	0.027	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	38150/2610	1:1	0.045	0.021	0.01	22.74	23.5	1.191	0.054	0.025	22.1	1.6
Body Test data(Separate 10mm )													
Front side	20M_QPSK 1RB_50	38150/2610	1:1	0.050	0.027	-0.16	22.74	23.5	1.191	0.059	0.032	22.1	1.6
Back side	20M_QPSK 1RB_50	38150/2610	1:1	0.158	0.075	0.07	22.74	23.5	1.191	0.188	0.089	22.1	1.6
Left side	20M_QPSK 1RB_50	38150/2610	1:1	0.057	0.033	-0.15	22.74	23.5	1.191	0.067	0.039	22.1	1.6
Right side	20M_QPSK 1RB_50	38150/2610	1:1	0.032	0.016	-0.19	22.74	23.5	1.191	0.038	0.019	22.1	1.6
Bottom side	20M_QPSK 1RB_50	38150/2610	1:1	0.100	0.051	0.19	22.74	23.5	1.191	0.119	0.061	22.1	1.6
Back side	20M_QPSK 1RB_50	37850/2580	1:1	0.142	0.070	-0.14	22.33	23.5	1.309	0.185	0.092	22.1	1.6
Back side	20M_QPSK 1RB_50	38000/2595	1:1	0.147	0.068	-0.13	22.63	23.5	1.222	0.179	0.083	22.1	1.6
Front side	20M_QPSK 50RB_25	38150/2610	1:1	0.046	0.031	0.08	21.73	22.5	1.194	0.054	0.036	22.1	1.6
Back side	20M_QPSK 50RB_25	38150/2610	1:1	0.147	0.071	0.13	21.73	22.5	1.194	0.175	0.085	22.1	1.6
Left side	20M_QPSK 50RB_25	38150/2610	1:1	0.053	0.034	-0.09	21.73	22.5	1.194	0.063	0.041	22.1	1.6
Right side	20M_QPSK 50RB_25	38150/2610	1:1	0.029	0.014	-0.13	21.73	22.5	1.194	0.035	0.017	22.1	1.6

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Bottom side	20M_QPSK 50RB_25	38150/2610	1:1	0.097	0.048	-0.16	21.73	22.5	1.194	0.115	0.058	22.1	1.6
Back side	20M_QPSK 50RB_25	37850/2580	1:1	0.133	0.068	0.01	21.17	22.5	1.358	0.181	0.093	22.1	1.6
Back side	20M_QPSK 50RB_25	38000/2595	1:1	0.138	0.066	-0.08	21.47	22.5	1.268	0.175	0.084	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	38150/2610	1:1	0.139	0.071	-0.03	22.74	23.5	1.191	0.166	0.085	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	38150/2610	1:1	0.140	0.066	0.17	22.74	23.5	1.191	0.167	0.078	22.1	4
Back side	20M_QPSK 1RB_50	38150/2610	1:1	0.460	0.198	-0.13	22.74	23.5	1.191	0.548	<b>0.236</b>	22.1	4
Left side	20M_QPSK 1RB_50	38150/2610	1:1	0.161	0.080	0.04	22.74	23.5	1.191	0.192	0.095	22.1	4
Right side	20M_QPSK 1RB_50	38150/2610	1:1	0.087	0.038	-0.05	22.74	23.5	1.191	0.103	0.045	22.1	4
Bottom side	20M_QPSK 1RB_50	38150/2610	1:1	0.287	0.128	-0.06	22.74	23.5	1.191	0.341	0.152	22.1	4
Back side	20M_QPSK 1RB_50	37850/2580	1:1	0.402	0.176	-0.09	22.33	23.5	1.309	0.526	0.231	22.1	4
Back side	20M_QPSK 1RB_50	38000/2595	1:1	0.418	0.183	0.17	22.63	23.5	1.222	0.511	0.223	22.1	4
Front side	20M_QPSK 50RB_25	38150/2610	1:1	0.130	0.061	0.13	21.73	22.5	1.194	0.155	0.073	22.1	4
Back side	20M_QPSK 50RB_25	38150/2610	1:1	0.416	0.181	0.02	21.73	22.5	1.194	0.497	0.216	22.1	4
Left side	20M_QPSK 50RB_25	38150/2610	1:1	0.146	0.072	-0.07	21.73	22.5	1.194	0.175	0.086	22.1	4
Right side	20M_QPSK 50RB_25	38150/2610	1:1	0.079	0.039	-0.17	21.73	22.5	1.194	0.094	0.047	22.1	4
Bottom side	20M_QPSK 50RB_25	38150/2610	1:1	0.260	0.117	0.02	21.73	22.5	1.194	0.310	0.140	22.1	4
Back side	20M_QPSK 50RB_25	37850/2580	1:1	0.368	0.159	0.18	21.17	22.5	1.358	0.500	0.217	22.1	4
Back side	20M_QPSK 50RB_25	38000/2595	1:1	0.381	0.170	0.01	21.47	22.5	1.268	0.483	0.215	22.1	4
ExtremityTest data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	38150/2610	1:1	0.393	0.172	0.19	22.74	23.5	1.191	0.468	0.205	22.1	4



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8.2.18 SAR Result Of LTE Band 41

LTE Band 41 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	39750/2506	1:1	0.050	0.025	0.04	22.59	23.5	1.233	0.061	0.031	22.1	1.6
Left tilted	20M_QPSK 1RB_50	39750/2506	1:1	0.019	0.010	-0.14	22.59	23.5	1.233	0.024	0.012	22.1	1.6
Right cheek	20M_QPSK 1RB_50	39750/2506	1:1	0.027	0.015	0.04	22.59	23.5	1.233	0.034	0.019	22.1	1.6
Right tilted	20M_QPSK 1RB_50	39750/2506	1:1	0.015	0.008	0.02	22.59	23.5	1.233	0.019	0.009	22.1	1.6
Left cheek	20M_QPSK 1RB_50	40620/2593	1:1	0.045	0.025	0.01	22.33	23.5	1.309	0.059	0.032	22.1	1.6
Left cheek	20M_QPSK 1RB_50	41490/2680	1:1	0.046	0.025	-0.05	22.54	23.5	1.247	0.058	0.031	22.1	1.6
Left cheek	20M_QPSK 50RB_50	39750/2506	1:1	0.040	0.025	0.1	21.64	22.5	1.219	0.049	0.030	22.1	1.6
Left tilted	20M_QPSK 50RB_50	39750/2506	1:1	0.015	0.009	0.11	21.64	22.5	1.219	0.018	0.011	22.1	1.6
Right cheek	20M_QPSK 50RB_50	39750/2506	1:1	0.025	0.015	0.04	21.64	22.5	1.219	0.031	0.019	22.1	1.6
Right tilted	20M_QPSK 50RB_50	39750/2506	1:1	0.013	0.060	0.05	21.64	22.5	1.219	0.016	0.073	22.1	1.6
Left cheek	20M_QPSK 50RB_50	40620/2593	1:1	0.039	0.019	-0.01	21.4	22.5	1.288	0.050	0.025	22.1	1.6
Left cheek	20M_QPSK 50RB_50	41490/2680	1:1	0.036	0.024	0.14	21.41	22.5	1.285	0.047	0.031	22.1	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	39750/2506	1:1	0.042	0.024	0.06	22.59	23.5	1.233	0.052	0.030	22.1	1.6
Body Test data(Separate 10mm)													
Front side	20M_QPSK 1RB_50	39750/2506	1:1	0.119	0.062	0.15	22.59	23.5	1.233	0.147	0.077	22.1	1.6
Back side	20M_QPSK 1RB_50	39750/2506	1:1	0.373	0.175	0.18	22.59	23.5	1.233	0.460	0.216	22.1	1.6
Left side	20M_QPSK 1RB_50	39750/2506	1:1	0.131	0.072	-0.17	22.59	23.5	1.233	0.162	0.088	22.1	1.6
Right side	20M_QPSK 1RB_50	39750/2506	1:1	0.072	0.043	0.02	22.59	23.5	1.233	0.088	0.053	22.1	1.6
Bottom side	20M_QPSK 1RB_50	39750/2506	1:1	0.234	0.115	-0.03	22.59	23.5	1.233	0.289	0.142	22.1	1.6
Back side	20M_QPSK 1RB_50	40620/2593	1:1	0.334	0.161	0.02	22.33	23.5	1.309	0.437	0.211	22.1	1.6
Back side	20M_QPSK 1RB_50	41490/2680	1:1	0.342	0.169	0.12	22.54	23.5	1.247	0.426	0.211	22.1	1.6
Front side	20M_QPSK 50RB_50	39750/2506	1:1	0.108	0.057	0.02	21.64	22.5	1.219	0.132	0.069	22.1	1.6
Back side	20M_QPSK 50RB_50	39750/2506	1:1	0.338	0.162	-0.02	21.64	22.5	1.219	0.412	0.198	22.1	1.6
Left side	20M_QPSK 50RB_50	39750/2506	1:1	0.124	0.068	0.1	21.64	22.5	1.219	0.151	0.083	22.1	1.6
Right side	20M_QPSK 50RB_50	39750/2506	1:1	0.068	0.039	-0.02	21.64	22.5	1.219	0.083	0.047	22.1	1.6

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Bottom side	20M_QPSK 50RB_50	39750/2506	1:1	0.212	0.104	0.01	21.64	22.5	1.219	0.258	0.127	22.1	1.6
Back side	20M_QPSK 50RB_50	40620/2593	1:1	0.306	0.147	0.13	21.4	22.5	1.288	0.394	0.189	22.1	1.6
Back side	20M_QPSK 50RB_50	41490/2680	1:1	0.309	0.158	0.16	21.41	22.5	1.285	0.397	0.203	22.1	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	39750/2506	1:1	0.351	0.164	0.02	22.59	23.5	1.233	0.433	0.202	22.1	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	39750/2506	1:1	0.688	0.270	-0.13	22.59	23.5	1.233	0.848	0.333	22.1	4
Back side	20M_QPSK 1RB_50	39750/2506	1:1	2.18	0.777	-0.17	22.59	23.5	1.233	2.688	<b>0.958</b>	22.1	4
Left side	20M_QPSK 1RB_50	39750/2506	1:1	0.771	0.328	0.11	22.59	23.5	1.233	0.951	0.405	22.1	4
Right side	20M_QPSK 1RB_50	39750/2506	1:1	0.433	0.173	-0.15	22.59	23.5	1.233	0.534	0.213	22.1	4
Bottom side	20M_QPSK 1RB_50	39750/2506	1:1	1.38	0.524	-0.15	22.59	23.5	1.233	1.702	0.646	22.1	4
Back side	20M_QPSK 1RB_50	40620/2593	1:1	1.94	0.694	-0.02	22.33	23.5	1.309	2.543	0.908	22.1	4
Back side	20M_QPSK 1RB_50	41490/2680	1:1	2.02	0.752	-0.09	22.54	23.5	1.247	2.521	0.939	22.1	4
Front side	20M_QPSK 50RB_50	39750/2506	1:1	0.623	0.246	0.13	21.64	22.5	1.219	0.759	0.300	22.1	4
Back side	20M_QPSK 50RB_50	39750/2506	1:1	1.97	0.701	0.1	21.64	22.5	1.219	2.399	0.855	22.1	4
Left side	20M_QPSK 50RB_50	39750/2506	1:1	0.696	0.298	0.03	21.64	22.5	1.219	0.849	0.363	22.1	4
Right side	20M_QPSK 50RB_50	39750/2506	1:1	0.393	0.159	0.07	21.64	22.5	1.219	0.480	0.194	22.1	4
Bottom side	20M_QPSK 50RB_50	39750/2506	1:1	1.25	0.477	0.02	21.64	22.5	1.219	1.520	0.581	22.1	4
Back side	20M_QPSK 50RB_50	40620/2593	1:1	1.75	0.625	0.09	21.4	22.5	1.288	2.260	0.805	22.1	4
Back side	20M_QPSK 50RB_50	41490/2680	1:1	1.83	0.679	-0.12	21.41	22.5	1.285	2.348	0.873	22.1	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	39750/2506	1:1	2.05	0.757	0.11	22.59	23.5	1.233	2.528	0.933	22.1	4



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8.2.19 SAR Result Of LTE Band 66

LTE Band 66 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	132322/1745	1:1	0.198	0.123	0.07	22.72	23.5	1.197	0.237	0.147	22.2	1.6
Left tilted	20M_QPSK 1RB_50	132322/1745	1:1	0.077	0.060	0.07	22.72	23.5	1.197	0.092	0.072	22.2	1.6
Right cheek	20M_QPSK 1RB_50	132322/1745	1:1	0.111	0.103	0.07	22.72	23.5	1.197	0.133	0.123	22.2	1.6
Right tilted	20M_QPSK 1RB_50	132322/1745	1:1	0.068	0.053	-0.1	22.72	23.5	1.197	0.082	0.064	22.2	1.6
Left cheek	20M_QPSK 1RB_50	132072/1720	1:1	0.180	0.132	0.17	22.51	23.5	1.256	0.226	0.166	22.2	1.6
Left cheek	20M_QPSK 1RB_50	132572/1770	1:1	0.185	0.134	-0.18	22.59	23.5	1.233	0.228	0.165	22.2	1.6
Left cheek	20M_QPSK 50RB_0	132322/1745	1:1	0.178	0.113	-0.09	21.75	22.5	1.189	0.212	0.134	22.2	1.6
Left tilted	20M_QPSK 50RB_0	132322/1745	1:1	0.072	0.058	0.1	21.75	22.5	1.189	0.085	0.069	22.2	1.6
Right cheek	20M_QPSK 50RB_0	132322/1745	1:1	0.106	0.095	-0.07	21.75	22.5	1.189	0.126	0.113	22.2	1.6
Right tilted	20M_QPSK 50RB_0	132322/1745	1:1	0.064	0.051	-0.16	21.75	22.5	1.189	0.077	0.060	22.2	1.6
Left cheek	20M_QPSK 50RB_0	132072/1720	1:1	0.165	0.122	-0.13	21.41	22.5	1.285	0.212	0.157	22.2	1.6
Left cheek	20M_QPSK 50RB_0	132572/1770	1:1	0.173	0.121	-0.14	21.58	22.5	1.236	0.214	0.149	22.2	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	132322/1745	1:1	0.175	0.112	0.09	22.72	23.5	1.197	0.209	0.134	22.2	1.6
Body Test data(Separate 10mm)													
Front side	20M_QPSK 1RB_50	132322/1745	1:1	0.114	0.070	0.05	22.72	23.5	1.197	0.136	0.084	22.2	1.6
Back side	20M_QPSK 1RB_50	132322/1745	1:1	0.372	0.23	-0.03	22.72	23.5	1.197	0.445	0.275	22.2	1.6
Left side	20M_QPSK 1RB_50	132322/1745	1:1	0.136	0.094	0.03	22.72	23.5	1.197	0.162	0.113	22.2	1.6
Right side	20M_QPSK 1RB_50	132322/1745	1:1	0.071	0.052	0.06	22.72	23.5	1.197	0.085	0.063	22.2	1.6
Bottom side	20M_QPSK 1RB_50	132322/1745	1:1	0.234	0.144	0.05	22.72	23.5	1.197	0.280	0.172	22.2	1.6
Back side	20M_QPSK 1RB_50	132072/1720	1:1	0.340	0.211	0.19	22.51	23.5	1.256	0.427	0.265	22.2	1.6
Back side	20M_QPSK 1RB_50	132572/1770	1:1	0.327	0.204	0.17	22.59	23.5	1.233	0.403	0.251	22.2	1.6
Front side	20M_QPSK 50RB_0	132322/1745	1:1	0.109	0.069	-0.12	21.75	22.5	1.189	0.129	0.082	22.2	1.6
Back side	20M_QPSK 50RB_0	132322/1745	1:1	0.341	0.209	-0.06	21.75	22.5	1.189	0.406	0.248	22.2	1.6
Left side	20M_QPSK 50RB_0	132322/1745	1:1	0.126	0.088	-0.13	21.75	22.5	1.189	0.150	0.104	22.2	1.6
Right side	20M_QPSK 50RB_0	132322/1745	1:1	0.066	0.052	-0.12	21.75	22.5	1.189	0.079	0.061	22.2	1.6

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Bottom side	20M_QPSK 50RB_0	132322/1745	1:1	0.211	0.131	0.17	21.75	22.5	1.189	0.251	0.156	22.2	1.6
Back side	20M_QPSK 50RB_0	132072/1720	1:1	0.308	0.190	0.15	21.41	22.5	1.285	0.396	0.245	22.2	1.6
Back side	20M_QPSK 50RB_0	132572/1770	1:1	0.297	0.184	-0.03	21.58	22.5	1.236	0.367	0.227	22.2	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	132322/1745	1:1	0.356	0.220	0.01	22.72	23.5	1.197	0.426	0.264	22.2	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	132322/1745	1:1	0.583	0.322	0.1	22.72	23.5	1.197	0.698	0.385	22.2	4
Back side	20M_QPSK 1RB_50	132322/1745	1:1	1.88	0.983	0.04	22.72	23.5	1.197	2.250	<b>1.176</b>	22.2	4
Left side	20M_QPSK 1RB_50	132322/1745	1:1	0.663	0.377	0.12	22.72	23.5	1.197	0.794	0.451	22.2	4
Right side	20M_QPSK 1RB_50	132322/1745	1:1	0.352	0.189	-0.16	22.72	23.5	1.197	0.421	0.226	22.2	4
Bottom side	20M_QPSK 1RB_50	132322/1745	1:1	1.17	0.631	0.12	22.72	23.5	1.197	1.395	0.755	22.2	4
Back side	20M_QPSK 1RB_50	132072/1720	1:1	1.70	0.886	-0.11	22.51	23.5	1.256	2.130	1.113	22.2	4
Back side	20M_QPSK 1RB_50	132572/1770	1:1	1.63	0.857	-0.04	22.59	23.5	1.233	2.016	1.056	22.2	4
Front side	20M_QPSK 50RB_0	132322/1745	1:1	0.529	0.293	0.03	21.75	22.5	1.189	0.629	0.348	22.2	4
Back side	20M_QPSK 50RB_0	132322/1745	1:1	1.70	0.887	-0.19	21.75	22.5	1.189	2.018	1.054	22.2	4
Left side	20M_QPSK 50RB_0	132322/1745	1:1	0.602	0.342	-0.04	21.75	22.5	1.189	0.715	0.406	22.2	4
Right side	20M_QPSK 50RB_0	132322/1745	1:1	0.323	0.176	0.17	21.75	22.5	1.189	0.384	0.209	22.2	4
Bottom side	20M_QPSK 50RB_0	132322/1745	1:1	1.06	0.574	-0.17	21.75	22.5	1.189	1.255	0.682	22.2	4
Back side	20M_QPSK 50RB_0	132072/1720	1:1	1.53	0.801	0.03	21.41	22.5	1.285	1.965	1.029	22.2	4
Back side	20M_QPSK 50RB_0	132572/1770	1:1	1.48	0.774	0.12	21.58	22.5	1.236	1.825	0.957	22.2	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	132322/1745	1:1	1.78	0.930	-0.19	22.72	23.5	1.197	2.126	1.112	22.2	4



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8.2.20 SAR Result Of LTE Band 71

LTE Band 71 SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power Drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	20M_QPSK 1RB_50	133222/673	1:1	0.022	0.017	0.07	24.07	25	1.239	<b>0.027</b>	0.021	22.2	1.6
Left tilted	20M_QPSK 1RB_50	133222/673	1:1	0.009	0.008	0.1	24.07	25	1.239	0.012	0.009	22.2	1.6
Right cheek	20M_QPSK 1RB_50	133222/673	1:1	0.020	0.012	0.1	24.07	25	1.239	0.025	0.015	22.2	1.6
Right tilted	20M_QPSK 1RB_50	133222/673	1:1	0.010	0.006	0.02	24.07	25	1.239	0.013	0.007	22.2	1.6
Left cheek	20M_QPSK 1RB_50	133322/683	1:1	0.020	0.017	-0.12	24	25	1.259	0.025	0.022	22.2	1.6
Left cheek	20M_QPSK 1RB_50	133372/688	1:1	0.017	0.016	0.18	23.97	25	1.268	0.022	0.020	22.2	1.6
Left cheek	20M_QPSK 50RB_50	133222/673	1:1	0.017	0.013	-0.08	22.93	24	1.279	0.022	0.017	22.2	1.6
Left tilted	20M_QPSK 50RB_50	133222/673	1:1	0.008	0.005	-0.01	22.93	24	1.279	0.010	0.006	22.2	1.6
Right cheek	20M_QPSK 50RB_50	133222/673	1:1	0.017	0.010	-0.14	22.93	24	1.279	0.021	0.013	22.2	1.6
Right tilted	20M_QPSK 50RB_50	133222/673	1:1	0.008	0.005	0.15	22.93	24	1.279	0.010	0.006	22.2	1.6
Left cheek	20M_QPSK 50RB_50	133322/683	1:1	0.017	0.012	0.18	22.83	24	1.309	0.022	0.016	22.2	1.6
Left cheek	20M_QPSK 50RB_50	133372/688	1:1	0.016	0.011	0.17	22.89	24	1.291	0.021	0.014	22.2	1.6
Head Test data at the worst case with SIM2													
Left cheek	20M_QPSK 1RB_50	133222/673	1:1	0.018	0.012	0.01	24.07	25	1.239	0.022	0.015	22.2	1.6
Body Test data(Seperate 10mm)													
Front side	20M_QPSK 1RB_50	133222/673	1:1	0.019	0.014	-0.08	24.07	25	1.239	0.024	0.017	22.2	1.6
Back side	20M_QPSK 1RB_50	133222/673	1:1	0.052	0.039	0.09	24.07	25	1.239	<b>0.064</b>	0.048	22.2	1.6
Left side	20M_QPSK 1RB_50	133222/673	1:1	0.023	0.015	-0.06	24.07	25	1.239	0.029	0.018	22.2	1.6
Right side	20M_QPSK 1RB_50	133222/673	1:1	0.012	0.008	-0.13	24.07	25	1.239	0.015	0.010	22.2	1.6
Bottom side	20M_QPSK 1RB_50	133222/673	1:1	0.032	0.024	0.1	24.07	25	1.239	0.040	0.029	22.2	1.6
Back side	20M_QPSK 1RB_50	133322/683	1:1	0.055	0.034	-0.14	24	25	1.259	0.070	0.043	22.2	1.6
Back side	20M_QPSK 1RB_50	133372/688	1:1	0.056	0.036	0.12	23.97	25	1.268	0.072	0.046	22.2	1.6
Front side	20M_QPSK 50RB_50	133222/673	1:1	0.016	0.012	0.01	22.93	24	1.279	0.021	0.015	22.2	1.6
Back side	20M_QPSK 50RB_50	133222/673	1:1	0.044	0.033	-0.19	22.93	24	1.279	0.057	0.042	22.2	1.6
Left side	20M_QPSK 50RB_50	133222/673	1:1	0.020	0.013	0.17	22.93	24	1.279	0.025	0.016	22.2	1.6
Right side	20M_QPSK 50RB_50	133222/673	1:1	0.010	0.007	0.16	22.93	24	1.279	0.013	0.009	22.2	1.6

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Bottom side	20M_QPSK 50RB_50	133222/673	1:1	0.027	0.016	0.11	22.93	24	1.279	0.035	0.020	22.2	1.6
Back side	20M_QPSK 50RB_50	133322/683	1:1	0.047	0.031	0.15	22.83	24	1.309	0.062	0.040	22.2	1.6
Back side	20M_QPSK 50RB_50	133372/688	1:1	0.048	0.034	0.09	22.89	24	1.291	0.062	0.044	22.2	1.6
Body Test data at the worst case with SIM2(Separate 10mm)													
Back side	20M_QPSK 1RB_50	133222/673	1:1	0.045	0.029	0.09	24.07	25	1.239	0.056	0.036	22.2	1.6
Extremity Test data(Separate 0mm)													
Front side	20M_QPSK 1RB_50	133222/673	1:1	0.053	0.031	-0.17	24.07	25	1.239	0.066	0.038	22.2	4
Back side	20M_QPSK 1RB_50	133222/673	1:1	0.168	0.095	0.05	24.07	25	1.239	0.208	<b>0.118</b>	22.2	4
Left side	20M_QPSK 1RB_50	133222/673	1:1	0.074	0.035	-0.09	24.07	25	1.239	0.091	0.043	22.2	4
Right side	20M_QPSK 1RB_50	133222/673	1:1	0.049	0.036	-0.18	24.07	25	1.239	0.061	0.044	22.2	4
Bottom side	20M_QPSK 1RB_50	133222/673	1:1	0.11	0.071	-0.01	24.07	25	1.239	0.131	0.087	22.2	4
Back side	20M_QPSK 1RB_50	133322/683	1:1	0.16	0.086	0.08	24	25	1.259	0.206	0.108	22.2	4
Back side	20M_QPSK 1RB_50	133372/688	1:1	0.17	0.094	0.09	23.97	25	1.268	0.221	0.119	22.2	4
Front side	20M_QPSK 50RB_50	133222/673	1:1	0.041	0.027	-0.06	22.93	24	1.279	0.053	0.035	22.2	4
Back side	20M_QPSK 50RB_50	133222/673	1:1	0.134	0.077	0.16	22.93	24	1.279	0.171	0.099	22.2	4
Left side	20M_QPSK 50RB_50	133222/673	1:1	0.057	0.028	-0.15	22.93	24	1.279	0.073	0.036	22.2	4
Right side	20M_QPSK 50RB_50	133222/673	1:1	0.040	0.031	0.1	22.93	24	1.279	0.051	0.040	22.2	4
Bottom side	20M_QPSK 50RB_50	133222/673	1:1	0.08	0.059	-0.16	22.93	24	1.279	0.106	0.075	22.2	4
Back side	20M_QPSK 50RB_50	133322/683	1:1	0.128	0.069	0.12	22.83	24	1.309	0.167	0.090	22.2	4
Back side	20M_QPSK 50RB_50	133372/688	1:1	0.139	0.074	-0.04	22.89	24	1.291	0.179	0.095	22.2	4
Extremity Test data at the worst case with SIM2(Separate 0mm)													
Back side	20M_QPSK 1RB_50	133222/673	1:1	0.116	0.061	0.18	24.07	25	1.239	0.144	0.076	22.2	4



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8.2.21 SAR Result Of 2.4GHz Wi-Fi

Wi-Fi 2.4G SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	802.11b	1/2412	99.56%	1.004	0.424	0.214	-0.02	16.38	17.00	1.153	<b>0.491</b>	22.0	1.6
Left tilted	802.11b	1/2412	99.56%	1.004	0.218	0.109	0.06	16.38	17.00	1.153	0.252	22.0	1.6
Right cheek	802.11b	1/2412	99.56%	1.004	0.165	0.091	0.14	16.38	17.00	1.153	0.191	22.0	1.6
Right tilted	802.11b	1/2412	99.56%	1.004	0.119	0.060	0.12	16.38	17.00	1.153	0.138	22.0	1.6
Left cheek	802.11b	6/2437	99.56%	1.004	0.374	0.188	-0.19	15.94	17.00	1.276	0.479	22.0	1.6
Left cheek	802.11b	11/2462	99.57%	1.004	0.392	0.201	0.17	16.20	17.00	1.202	0.473	22.0	1.6
Body Test data (Separate 10mm)													
Front side	802.11b	1/2412	99.56%	1.004	0.100	0.054	0.03	16.38	17.00	1.153	0.115	22.0	1.6
Back side	802.11b	1/2412	99.56%	1.004	0.040	0.024	0.18	16.38	17.00	1.153	0.047	22.0	1.6
Left side	802.11b	1/2412	99.56%	1.004	0.018	0.009	0.09	16.38	17.00	1.153	0.020	22.0	1.6
Right side	802.11b	1/2412	99.56%	1.004	0.121	0.063	0.09	16.38	17.00	1.153	<b>0.140</b>	22.0	1.6
Top side	802.11b	1/2412	99.56%	1.004	0.028	0.017	-0.07	16.38	17.00	1.153	0.033	22.0	1.6
Right side	802.11b	6/2437	99.56%	1.004	0.101	0.052	0.14	15.94	17.00	1.276	0.129	22.0	1.6
Right side	802.11b	11/2462	99.57%	1.004	0.115	0.058	-0.08	16.20	17.00	1.202	0.138	22.0	1.6
Extremity Test data (Separate 0mm)													
Front side	802.11b	1/2412	99.56%	1.004	0.665	0.321	0.04	16.38	17.00	1.153	0.372	22.0	4
Back side	802.11b	1/2412	99.56%	1.004	0.268	0.137	-0.18	16.38	17.00	1.153	0.159	22.0	4
Left side	802.11b	1/2412	99.56%	1.004	0.115	0.048	-0.07	16.38	17.00	1.153	0.056	22.0	4
Right side	802.11b	1/2412	99.56%	1.004	0.813	0.373	-0.19	16.38	17.00	1.153	<b>0.432</b>	22.0	4
Top side	802.11b	1/2412	99.56%	1.004	0.189	0.096	0.02	16.38	17.00	1.153	0.111	22.0	4
Right side	802.11b	6/2437	99.56%	1.004	0.751	0.335	0.01	15.94	17.00	1.276	0.429	22.0	4
Right side	802.11b	11/2462	99.57%	1.004	0.784	0.341	0.07	16.20	17.00	1.202	0.411	22.0	4



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8.2.22 SAR Result Of Bluetooth

Bluetooth SAR Test Record													
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp.	SAR limit (W/kg)
Head Test data													
Left cheek	GFSK	78/2480	76.64%	1.305	0.043	0.021	0.07	9.52	10	1.117	<b>0.063</b>	22.0	1.6
Left tilted	GFSK	78/2480	76.64%	1.305	0.022	0.011	-0.02	9.52	10	1.117	0.033	22.0	1.6
Right cheek	GFSK	78/2480	76.64%	1.305	0.017	0.009	0.15	9.52	10	1.117	0.025	22.0	1.6
Right tilted	GFSK	78/2480	76.64%	1.305	0.013	0.006	-0.09	9.52	10	1.117	0.018	22.0	1.6
Left cheek	GFSK	0/2402	76.64%	1.305	0.021	0.011	-0.10	5.62	7.5	1.542	0.042	22.0	1.6
Left cheek	GFSK	39/2441	76.64%	1.305	0.025	0.013	-0.03	7.13	7.5	1.089	0.036	22.0	1.6
Body Test data (Separate 10mm)													
Front side	GFSK	78/2480	76.64%	1.305	0.029	0.015	0.15	9.52	10	1.117	0.042	22.0	1.6
Back side	GFSK	78/2480	76.64%	1.305	0.013	0.006	0.01	9.52	10	1.117	0.018	22.0	1.6
Left side	GFSK	78/2480	76.64%	1.305	0.007	0.002	0.12	9.52	10	1.117	0.010	22.0	1.6
Right side	GFSK	78/2480	76.64%	1.305	0.033	0.016	0.15	9.52	10	1.117	<b>0.048</b>	22.0	1.6
Top side	GFSK	78/2480	76.64%	1.305	0.008	0.005	-0.05	9.52	10	1.117	0.012	22.0	1.6
Right side	GFSK	0/2402	76.64%	1.305	0.014	0.007	0.15	5.62	7.5	1.542	0.028	22.0	1.6
Right side	GFSK	39/2441	76.64%	1.305	0.017	0.009	0.08	7.13	7.5	1.089	0.024	22.0	1.6
Extremity Test data (Separate 0mm)													
Front side	GFSK	78/2480	76.64%	1.305	0.076	0.037	0.11	9.52	10	1.117	0.053	22.0	4
Back side	GFSK	78/2480	76.64%	1.305	0.032	0.019	-0.01	9.52	10	1.117	0.028	22.0	4
Left side	GFSK	78/2480	76.64%	1.305	0.016	0.009	0.16	9.52	10	1.117	0.014	22.0	4
Right side	GFSK	78/2480	76.64%	1.305	0.088	0.040	-0.11	9.52	10	1.117	<b>0.058</b>	22.0	4
Top side	GFSK	78/2480	76.64%	1.305	0.021	0.013	0.16	9.52	10	1.117	0.019	22.0	4
Right side	GFSK	0/2402	76.64%	1.305	0.039	0.018	0.15	5.62	7.5	1.542	0.036	22.0	4
Right side	GFSK	39/2441	76.64%	1.305	0.043	0.022	0.14	7.13	7.5	1.089	0.031	22.0	4



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8.2.23 SAR Result Of WIFI 5G

Wi-Fi 5G SAR Test Record														
Test position	Test mode	Test Ch./Freq.	Duty Cycle %	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 1-g	Power drift (dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg) 1-g	Scaled SAR (W/kg) 10-g	Liquid Temp.	SAR limit (W/kg)
Head Test data U-NII-1														
Left cheek	802.11a	36/5180	97.08	1.030	0.141	0.038	0.15	10.94	12	1.276	<b>0.185</b>	0.050	22.2	1.6
Left tilted	802.11a	36/5180	97.08	1.030	0.075	0.020	0.04	10.94	12	1.276	0.098	0.026	22.2	1.6
Right cheek	802.11a	36/5180	97.08	1.030	0.055	0.017	0.04	10.94	12	1.276	0.073	0.022	22.2	1.6
Right tilted	802.11a	36/5180	97.08	1.030	0.041	0.011	0.06	10.94	12	1.276	0.054	0.015	22.2	1.6
Left cheek	802.11a	40/5200	97.08	1.030	0.129	0.036	0.01	10.79	12	1.321	0.176	0.048	22.2	1.6
Left cheek	802.11a	48/5240	97.01	1.031	0.132	0.036	-0.18	10.77	12	1.327	0.181	0.050	22.2	1.6
Body Test data U-NII-1(Separate 10mm)														
Front side	802.11a	36/5180	97.08	1.030	0.072	0.025	0.03	10.94	12	1.276	0.095	0.032	22.2	1.6
Back side	802.11a	36/5180	97.08	1.030	0.032	0.013	0.18	10.94	12	1.276	0.042	0.016	22.2	1.6
Left side	802.11a	36/5180	97.08	1.030	0.014	0.006	0.11	10.94	12	1.276	0.019	0.008	22.2	1.6
Right side	802.11a	36/5180	97.08	1.030	0.084	0.028	0.03	10.94	12	1.276	<b>0.110</b>	0.037	22.2	1.6
Top side	802.11a	36/5180	97.08	1.030	0.024	0.011	-0.17	10.94	12	1.276	0.032	0.014	22.2	1.6
Right side	802.11a	40/5200	97.08	1.030	0.078	0.030	-0.1	10.79	12	1.321	0.107	0.041	22.2	1.6
Right side	802.11a	48/5240	97.01	1.031	0.079	0.027	-0.16	10.77	12	1.327	0.108	0.038	22.2	1.6
Extremity Test data U-NII-1(Separate 0mm)														
Front side	802.11a	36/5180	97.08	1.030	0.397	0.114	-0.13	10.94	12	1.276	0.522	0.150	22.2	4
Back side	802.11a	36/5180	97.08	1.030	0.183	0.064	0.13	10.94	12	1.276	0.240	0.084	22.2	4
Left side	802.11a	36/5180	97.08	1.030	0.074	0.021	-0.01	10.94	12	1.276	0.097	0.027	22.2	4
Right side	802.11a	36/5180	97.08	1.030	0.471	0.130	-0.1	10.94	12	1.276	0.619	<b>0.171</b>	22.2	4
Top side	802.11a	36/5180	97.08	1.030	0.126	0.049	0.06	10.94	12	1.276	0.165	0.064	22.2	4
Right side	802.11a	40/5200	97.08	1.030	0.434	0.133	-0.17	10.79	12	1.321	0.590	0.181	22.2	4
Right side	802.11a	48/5240	97.01	1.031	0.451	0.126	-0.11	10.77	12	1.327	0.618	0.172	22.2	4
Head Test data U-NII-3														
Left cheek	802.11a	149/5745	97.01	1.031	0.123	0.0521	-0.06	10.79	12	1.321	<b>0.168</b>	0.071	22.2	1.6
Left tilted	802.11a	149/5745	97.01	1.031	0.064	0.027	0.15	10.79	12	1.321	0.087	0.037	22.2	1.6



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Right cheek	802.11a	149/5745	97.01	1.031	0.048	0.023	-0.15	10.79	12	1.321	0.065	0.031	22.2	1.6
Right tilted	802.11a	149/5745	97.01	1.031	0.036	0.016	-0.03	10.79	12	1.321	0.049	0.022	22.2	1.6
Left cheek	802.11a	157/5785	97.08	1.030	0.113	0.048	-0.18	10.55	12	1.396	0.162	0.070	22.2	1.6
Left cheek	802.11a	165/5825	97.01	1.031	0.114	0.049	-0.01	10.69	12	1.352	0.159	0.069	22.2	1.6
Body Test data U-NII-3(Separate 10mm)														
Front side	802.11a	149/5745	97.01	1.031	0.037	0.012	-0.14	10.79	12	1.321	0.050	0.017	22.2	1.6
Back side	802.11a	149/5745	97.01	1.031	0.015	0.005	0.16	10.79	12	1.321	0.020	0.007	22.2	1.6
Left side	802.11a	149/5745	97.01	1.031	0.007	0.003	0.11	10.79	12	1.321	0.009	0.004	22.2	1.6
Right side	802.11a	149/5745	97.01	1.031	0.043	0.013	0.02	10.79	12	1.321	<b>0.059</b>	0.018	22.2	1.6
Top side	802.11a	149/5745	97.01	1.031	0.011	0.005	-0.11	10.79	12	1.321	0.014	0.006	22.2	1.6
Right side	802.11a	157/5785	97.08	1.030	0.041	0.013	0.07	10.55	12	1.396	0.059	0.019	22.2	1.6
Right side	802.11a	165/5825	97.01	1.031	0.042	0.013	-0.05	10.69	12	1.352	0.058	0.018	22.2	1.6
Extremity Test data U-NII-3(Separate 0mm)														
Front side	802.11a	149/5745	97.01	1.031	0.245	0.074	0.19	10.79	12	1.321	0.334	0.101	22.2	4
Back side	802.11a	149/5745	97.01	1.031	0.113	0.032	0.1	10.79	12	1.321	0.154	0.044	22.2	4
Left side	802.11a	149/5745	97.01	1.031	0.060	0.018	-0.16	10.79	12	1.321	0.082	0.025	22.2	4
Right side	802.11a	149/5745	97.01	1.031	0.296	0.082	-0.04	10.79	12	1.321	0.403	<b>0.112</b>	22.2	4
Top side	802.11a	149/5745	97.01	1.031	0.073	0.030	-0.17	10.79	12	1.321	0.099	0.041	22.2	4
Right side	802.11a	157/5785	97.08	1.030	0.258	0.072	-0.04	10.55	12	1.396	0.371	0.104	22.2	4
Right side	802.11a	165/5825	97.01	1.031	0.292	0.079	0.15	10.69	12	1.352	0.407	0.110	22.2	4



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**8.2.24 Repeated measurements**

Wireless	Test position	First Measure SAR (W/kg)	Second Measure SAR (W/kg)	Radio
LTE Band 30	Back side	0.882	0.869	1.01

- 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  $\geq 0.80$  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  $\geq 1.45$  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  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.



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### 8.3 Multiple Transmitter Evaluation

#### 8.3.1 Simultaneous SAR SAR test evaluation

##### Simultaneous Transmission

NO.	Simultaneous Transmission Configuration	Head	Body	Extremity
1	WWAN + WIFI 2.4GHz	Yes	Yes	Yes
2	WWAN + WIFI 5GHz	Yes	Yes	Yes
3	WWAN + BT	Yes	Yes	Yes
4	WIFI + BT (They share the same antenna and cannot transmit at the same time by design.)	No	No	No

##### Simultaneous Transmission SAR Summation Scenario for Head

WWAN Band	Exposure position	①MAX. WWAN SAR (W/kg)	②MAX. WLAN2.4G SAR (W/kg)	③MAX WLAN 5G (W/kg)	④MAX. BT SAR (W/kg)	Summed SAR ①+②	Summed SAR ①+③	Summed SAR ①+④	Volume scan
GSM850	Left Touch	0.319	0.491	0.185	0.063	0.810	0.504	0.382	NO
	Left Tilt	0.124	0.252	0.098	0.033	0.376	0.222	0.157	NO
	Right Touch	0.173	0.191	0.073	0.025	0.364	0.246	0.198	NO
	Right Tilt	0.1	0.138	0.054	0.018	0.238	0.154	0.118	NO
GSM1900	Left Touch	0.161	0.491	0.185	0.063	0.652	0.346	0.224	NO
	Left Tilt	0.058	0.252	0.098	0.033	0.310	0.156	0.091	NO
	Right Touch	0.087	0.191	0.073	0.025	0.278	0.160	0.112	NO
	Right Tilt	0.047	0.138	0.054	0.018	0.185	0.101	0.065	NO
WCDMA Band II	Left Touch	0.186	0.491	0.185	0.063	0.677	0.371	0.249	NO
	Left Tilt	0.073	0.252	0.098	0.033	0.325	0.171	0.106	NO
	Right Touch	0.103	0.191	0.073	0.025	0.294	0.176	0.128	NO
	Right Tilt	0.054	0.138	0.054	0.018	0.192	0.108	0.072	NO
WCDMA Band IV	Left Touch	0.292	0.491	0.185	0.063	0.783	0.477	0.355	NO
	Left Tilt	0.105	0.252	0.098	0.033	0.357	0.203	0.138	NO
	Right Touch	0.152	0.191	0.073	0.025	0.343	0.225	0.177	NO
	Right Tilt	0.094	0.138	0.054	0.018	0.232	0.148	0.112	NO
WCDMA Band V	Left Touch	0.109	0.491	0.185	0.063	0.600	0.294	0.172	NO
	Left Tilt	0.039	0.252	0.098	0.033	0.291	0.137	0.072	NO
	Right Touch	0.058	0.191	0.073	0.025	0.249	0.131	0.083	NO
	Right Tilt	0.032	0.138	0.054	0.018	0.170	0.086	0.050	NO

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# Compliance Certification Services (Kunshan) Inc.

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LTE Band 2	Left Touch	0.15	0.491	0.185	0.063	0.641	0.335	0.213	NO
	Left Tilt	0.058	0.252	0.098	0.033	0.310	0.156	0.091	NO
	Right Touch	0.086	0.191	0.073	0.025	0.277	0.159	0.111	NO
	Right Tilt	0.049	0.138	0.054	0.018	0.187	0.103	0.067	NO
LTE Band 4	Left Touch	0.247	0.491	0.185	0.063	0.738	0.432	0.310	NO
	Left Tilt	0.098	0.252	0.098	0.033	0.350	0.196	0.131	NO
	Right Touch	0.138	0.191	0.073	0.025	0.329	0.211	0.163	NO
	Right Tilt	0.08	0.138	0.054	0.018	0.218	0.134	0.098	NO
LTE Band 5	Left Touch	0.354	0.491	0.185	0.063	0.845	0.539	0.417	NO
	Left Tilt	0.147	0.252	0.098	0.033	0.399	0.245	0.180	NO
	Right Touch	0.209	0.191	0.073	0.025	0.400	0.282	0.234	NO
	Right Tilt	0.122	0.138	0.054	0.018	0.260	0.176	0.140	NO
LTE Band 7	Left Touch	0.105	0.491	0.185	0.063	0.596	0.290	0.168	NO
	Left Tilt	0.042	0.252	0.098	0.033	0.294	0.140	0.075	NO
	Right Touch	0.056	0.191	0.073	0.025	0.247	0.129	0.081	NO
	Right Tilt	0.033	0.138	0.054	0.018	0.171	0.087	0.051	NO
LTE Band 12	Left Touch	0.025	0.491	0.185	0.063	0.516	0.210	0.088	NO
	Left Tilt	0.01	0.252	0.098	0.033	0.262	0.108	0.043	NO
	Right Touch	0.014	0.191	0.073	0.025	0.205	0.087	0.039	NO
	Right Tilt	0.008	0.138	0.054	0.018	0.146	0.062	0.026	NO
LTE Band 13	Left Touch	0.049	0.491	0.185	0.063	0.540	0.234	0.112	NO
	Left Tilt	0.02	0.252	0.098	0.033	0.272	0.118	0.053	NO
	Right Touch	0.028	0.191	0.073	0.025	0.219	0.101	0.053	NO
	Right Tilt	0.017	0.138	0.054	0.018	0.155	0.071	0.035	NO
LTE Band 14	Left Touch	0.071	0.491	0.185	0.063	0.562	0.256	0.134	NO
	Left Tilt	0.028	0.252	0.098	0.033	0.280	0.126	0.061	NO
	Right Touch	0.04	0.191	0.073	0.025	0.231	0.113	0.065	NO
	Right Tilt	0.023	0.138	0.054	0.018	0.161	0.077	0.041	NO
LTE Band 17	Left Touch	0.026	0.491	0.185	0.063	0.517	0.211	0.089	NO
	Left Tilt	0.002	0.252	0.098	0.033	0.254	0.100	0.035	NO
	Right Touch	0.002	0.191	0.073	0.025	0.193	0.075	0.027	NO
	Right Tilt	0.001	0.138	0.054	0.018	0.139	0.055	0.019	NO
LTE Band 25	Left Touch	0.151	0.491	0.185	0.063	0.642	0.336	0.214	NO
	Left Tilt	0.054	0.252	0.098	0.033	0.306	0.152	0.087	NO
	Right Touch	0.085	0.191	0.073	0.025	0.276	0.158	0.110	NO
	Right Tilt	0.049	0.138	0.054	0.018	0.187	0.103	0.067	NO
LTE Band 26	Left Touch	0.358	0.491	0.185	0.063	0.849	0.543	0.421	NO
	Left Tilt	0.133	0.252	0.098	0.033	0.385	0.231	0.166	NO
	Right Touch	0.195	0.191	0.073	0.025	0.386	0.268	0.220	NO
	Right Tilt	0.113	0.138	0.054	0.018	0.251	0.167	0.131	NO
LTE	Left Touch	0.102	0.491	0.185	0.063	0.593	0.287	0.165	NO

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EMC Laboratory

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Band 30	Left Tilt	0.041	0.252	0.098	0.033	0.293	0.139	0.074	NO
	Right Touch	0.058	0.191	0.073	0.025	0.249	0.131	0.083	NO
	Right Tilt	0.033	0.138	0.054	0.018	0.171	0.087	0.051	NO
LTE Band 38	Left Touch	0.059	0.491	0.185	0.063	0.550	0.244	0.122	NO
	Left Tilt	0.022	0.252	0.098	0.033	0.274	0.120	0.055	NO
	Right Touch	0.031	0.191	0.073	0.025	0.222	0.104	0.056	NO
LTE Band 41	Right Tilt	0.018	0.138	0.054	0.018	0.156	0.072	0.036	NO
	Left Touch	0.061	0.491	0.185	0.063	0.552	0.246	0.124	NO
	Left Tilt	0.024	0.252	0.098	0.033	0.276	0.122	0.057	NO
LTE Band 66	Right Touch	0.034	0.191	0.073	0.025	0.225	0.107	0.059	NO
	Right Tilt	0.019	0.138	0.054	0.018	0.157	0.073	0.037	NO
	Left Touch	0.237	0.491	0.185	0.063	0.728	0.422	0.300	NO
LTE Band 71	Left Tilt	0.092	0.252	0.098	0.033	0.344	0.190	0.125	NO
	Right Touch	0.133	0.191	0.073	0.025	0.324	0.206	0.158	NO
	Right Tilt	0.082	0.138	0.054	0.018	0.220	0.136	0.100	NO
LTE Band 71	Left Touch	0.027	0.491	0.185	0.063	0.518	0.212	0.090	NO
	Left Tilt	0.012	0.252	0.098	0.033	0.264	0.110	0.045	NO
	Right Touch	0.025	0.191	0.073	0.025	0.216	0.098	0.050	NO
	Right Tilt	0.013	0.138	0.054	0.018	0.151	0.067	0.031	NO

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Simultaneous Transmission SAR Summation Scenario for Body

WWAN Band	Exposure position	①MAX. WWAN SAR (W/kg)	②MAX. WLAN2.4G SAR (W/kg)	③MAX. BT SAR (W/kg)	④MAX. WLAN5G SAR (W/kg)	Summed SAR ①+②	Summed SAR ①+③	Summed SAR ①+④	Volume scan
GSM850	Front	0.253	0.115	0.042	0.095	0.368	0.295	0.348	NO
	Back	0.821	0.047	0.018	0.042	0.868	0.839	0.863	NO
	Left	0.289	0.02	0.010	0.019	0.309	0.299	0.308	NO
	Right	0.159	0.14	0.048	0.11	0.299	0.207	0.269	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.52	0	0.000	0	0.520	0.520	0.520	NO
GSM1900	Front	0.248	0.115	0.042	0.095	0.363	0.290	0.343	NO
	Back	0.78	0.047	0.018	0.042	0.827	0.798	0.822	NO
	Left	0.272	0.02	0.010	0.019	0.292	0.282	0.291	NO
	Right	0.144	0.14	0.048	0.11	0.284	0.192	0.254	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.495	0	0.000	0	0.495	0.495	0.495	NO
WCDMA Band II	Front	0.117	0.115	0.042	0.095	0.232	0.159	0.212	NO
	Back	0.372	0.047	0.018	0.042	0.419	0.390	0.414	NO
	Left	0.134	0.02	0.010	0.019	0.154	0.144	0.153	NO
	Right	0.071	0.14	0.048	0.11	0.211	0.119	0.181	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
WCDMA Band IV	Bottom	0.235	0	0.000	0	0.235	0.235	0.235	NO
	Front	0.177	0.115	0.042	0.095	0.292	0.219	0.272	NO
	Back	0.552	0.047	0.018	0.042	0.599	0.570	0.594	NO
	Left	0.192	0.02	0.010	0.019	0.212	0.202	0.211	NO
	Right	0.101	0.14	0.048	0.11	0.241	0.149	0.211	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
WCDMA Band V	Bottom	0.344	0	0.000	0	0.344	0.344	0.344	NO
	Front	0.065	0.115	0.042	0.095	0.180	0.107	0.160	NO
	Back	0.211	0.047	0.018	0.042	0.258	0.229	0.253	NO
	Left	0.071	0.02	0.010	0.019	0.091	0.081	0.090	NO
	Right	0.039	0.14	0.048	0.11	0.179	0.087	0.149	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
LTE Band 2	Bottom	0.131	0	0.000	0	0.131	0.131	0.131	NO
	Front	0.098	0.115	0.042	0.095	0.213	0.140	0.193	NO
	Back	0.328	0.047	0.018	0.042	0.375	0.346	0.370	NO
	Left	0.112	0.02	0.010	0.019	0.132	0.122	0.131	NO
	Right	0.058	0.14	0.048	0.11	0.198	0.106	0.168	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
Bottom	0.203	0	0.000	0	0.203	0.203	0.203	NO	

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LTE Band 4	Front	0.139	0.115	0.042	0.095	0.254	0.181	0.234	NO
	Back	0.462	0.047	0.018	0.042	0.509	0.480	0.504	NO
	Left	0.16	0.02	0.010	0.019	0.180	0.170	0.179	NO
	Right	0.086	0.14	0.048	0.11	0.226	0.134	0.196	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.293	0	0.000	0	0.293	0.293	0.293	NO
LTE Band 5	Front	0.16	0.115	0.042	0.095	0.275	0.202	0.255	NO
	Back	0.514	0.047	0.018	0.042	0.561	0.532	0.556	NO
	Left	0.177	0.02	0.010	0.019	0.197	0.187	0.196	NO
	Right	0.096	0.14	0.048	0.11	0.236	0.144	0.206	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.319	0	0.000	0	0.319	0.319	0.319	NO
LTE Band 7	Front	0.216	0.115	0.042	0.095	0.331	0.258	0.311	NO
	Back	0.701	0.047	0.018	0.042	0.748	0.719	0.743	NO
	Left	0.254	0.02	0.010	0.019	0.274	0.264	0.273	NO
	Right	0.139	0.14	0.048	0.11	0.279	0.187	0.249	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.446	0	0.000	0	0.446	0.446	0.446	NO
LTE Band 12	Front	0.019	0.115	0.042	0.095	0.134	0.061	0.114	NO
	Back	0.061	0.047	0.018	0.042	0.108	0.079	0.103	NO
	Left	0.022	0.02	0.010	0.019	0.042	0.032	0.041	NO
	Right	0.011	0.14	0.048	0.11	0.151	0.059	0.121	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.037	0	0.000	0	0.037	0.037	0.037	NO
LTE Band 13	Front	0.033	0.115	0.042	0.095	0.148	0.075	0.128	NO
	Back	0.106	0.047	0.018	0.042	0.153	0.124	0.148	NO
	Left	0.036	0.02	0.010	0.019	0.056	0.046	0.055	NO
	Right	0.02	0.14	0.048	0.11	0.160	0.068	0.130	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.068	0	0.000	0	0.068	0.068	0.068	NO
LTE Band 14	Front	0.095	0.115	0.042	0.095	0.210	0.137	0.190	NO
	Back	0.301	0.047	0.018	0.042	0.348	0.319	0.343	NO
	Left	0.109	0.02	0.010	0.019	0.129	0.119	0.128	NO
	Right	0.061	0.14	0.048	0.11	0.201	0.109	0.171	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.196	0	0.000	0	0.196	0.196	0.196	NO
LTE Band 17	Front	0.019	0.115	0.042	0.095	0.134	0.061	0.114	NO
	Back	0.06	0.047	0.018	0.042	0.107	0.078	0.102	NO
	Left	0.02	0.02	0.010	0.019	0.040	0.030	0.039	NO
	Right	0.01	0.14	0.048	0.11	0.150	0.058	0.120	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0	0.033	0.012	0.032	0.033	0.012	0.032	NO

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LTE Band 25	Bottom	0.037	0	0.000	0	0.037	0.037	0.037	NO
	Front	0.107	0.115	0.042	0.095	0.222	0.149	0.202	NO
	Back	0.332	0.047	0.018	0.042	0.379	0.350	0.374	NO
	Left	0.118	0.02	0.010	0.019	0.138	0.128	0.137	NO
	Right	0.06	0.14	0.048	0.11	0.200	0.108	0.170	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.206	0	0.000	0	0.206	0.206	0.206	NO
LTE Band 26	Front	0.141	0.115	0.042	0.095	0.256	0.183	0.236	NO
	Back	0.52	0.047	0.018	0.042	0.567	0.538	0.562	NO
	Left	0.161	0.02	0.010	0.019	0.181	0.171	0.180	NO
	Right	0.088	0.14	0.048	0.11	0.228	0.136	0.198	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.283	0	0.000	0	0.283	0.283	0.283	NO
LTE Band 30	Front	0.324	0.115	0.042	0.095	0.439	0.366	0.419	NO
	Back	1.027	0.047	0.018	0.042	1.074	1.045	1.069	NO
	Left	0.369	0.02	0.010	0.019	0.389	0.379	0.388	NO
	Right	0.198	0.14	0.048	0.11	0.338	0.246	0.308	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.668	0	0.000	0	0.668	0.668	0.668	NO
LTE Band 38	Front	0.059	0.115	0.042	0.095	0.174	0.101	0.154	NO
	Back	0.188	0.047	0.018	0.042	0.235	0.206	0.230	NO
	Left	0.067	0.02	0.010	0.019	0.087	0.077	0.086	NO
	Right	0.038	0.14	0.048	0.11	0.178	0.086	0.148	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.119	0	0.000	0	0.119	0.119	0.119	NO
LTE Band 41	Front	0.147	0.115	0.042	0.095	0.262	0.189	0.242	NO
	Back	0.46	0.047	0.018	0.042	0.507	0.478	0.502	NO
	Left	0.162	0.02	0.010	0.019	0.182	0.172	0.181	NO
	Right	0.088	0.14	0.048	0.11	0.228	0.136	0.198	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.289	0	0.000	0	0.289	0.289	0.289	NO
LTE Band 66	Front	0.136	0.115	0.042	0.095	0.251	0.178	0.231	NO
	Back	0.445	0.047	0.018	0.042	0.492	0.463	0.487	NO
	Left	0.162	0.02	0.010	0.019	0.182	0.172	0.181	NO
	Right	0.085	0.14	0.048	0.11	0.225	0.133	0.195	NO
	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.28	0	0.000	0	0.280	0.280	0.280	NO
LTE Band 71	Front	0.024	0.115	0.042	0.095	0.139	0.066	0.119	NO
	Back	0.064	0.047	0.018	0.042	0.111	0.082	0.106	NO
	Left	0.029	0.02	0.010	0.019	0.049	0.039	0.048	NO
	Right	0.015	0.14	0.048	0.11	0.155	0.063	0.125	NO

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	Top	0	0.033	0.012	0.032	0.033	0.012	0.032	NO
	Bottom	0.04	0	0.000	0	0.040	0.040	0.040	NO

**Simultaneous Transmission SAR Summation Scenario for Extremity**

WWAN Band	Exposure position	①MAX. WWAN SAR (W/kg)	②MAX. WLAN2.4G SAR (W/kg)	③MAX. BT SAR (W/kg)	④MAX. WLAN5G SAR (W/kg)	Summed SAR ①+②	Summed SAR ①+③	Summed SAR ①+④	Volume scan
GSM850	Front	0.561	0.372	0.053	0.15	0.933	0.614	0.711	NO
	Back	1.753	0.159	0.028	0.084	1.912	1.781	1.837	NO
	Left	0.697	0.056	0.014	0.027	0.753	0.711	0.724	NO
	Right	0.366	0.432	0.058	0.171	0.798	0.424	0.537	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	1.113	0	0.000	0	1.113	1.113	1.113	NO
GSM1900	Front	0.693	0.372	0.053	0.15	1.065	0.746	0.843	NO
	Back	2.246	0.159	0.028	0.084	2.405	2.274	2.330	NO
	Left	0.864	0.056	0.014	0.027	0.920	0.878	0.891	NO
	Right	0.452	0.432	0.058	0.171	0.884	0.510	0.623	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	1.45	0	0.000	0	1.450	1.450	1.450	NO
WCDMA Band II	Front	0.447	0.372	0.053	0.15	0.819	0.500	0.597	NO
	Back	1.475	0.159	0.028	0.084	1.634	1.503	1.559	NO
	Left	0.605	0.056	0.014	0.027	0.661	0.619	0.632	NO
	Right	0.321	0.432	0.058	0.171	0.753	0.379	0.492	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.907	0	0.000	0	0.907	0.907	0.907	NO
WCDMA Band IV	Front	0.448	0.372	0.053	0.15	0.820	0.501	0.598	NO
	Back	1.489	0.159	0.028	0.084	1.648	1.517	1.573	NO
	Left	0.55	0.056	0.014	0.027	0.606	0.564	0.577	NO
	Right	0.282	0.432	0.058	0.171	0.714	0.340	0.453	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.929	0	0.000	0	0.929	0.929	0.929	NO
WCDMA Band V	Front	0.291	0.372	0.053	0.15	0.663	0.344	0.441	NO
	Back	0.942	0.159	0.028	0.084	1.101	0.970	1.026	NO
	Left	0.368	0.056	0.014	0.027	0.424	0.382	0.395	NO
	Right	0.211	0.432	0.058	0.171	0.643	0.269	0.382	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.577	0	0.000	0	0.577	0.577	0.577	NO
LTE Band 2	Front	0.326	0.372	0.053	0.15	0.698	0.379	0.476	NO
	Back	1.006	0.159	0.028	0.084	1.165	1.034	1.090	NO
	Left	0.407	0.056	0.014	0.027	0.463	0.421	0.434	NO

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	Right	0.192	0.432	0.058	0.171	0.624	0.250	0.363	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.651	0	0.000	0	0.651	0.651	0.651	NO
LTE Band 4	Front	0.395	0.372	0.053	0.15	0.767	0.448	0.545	NO
	Back	1.221	0.159	0.028	0.084	1.380	1.249	1.305	NO
	Left	0.496	0.056	0.014	0.027	0.552	0.510	0.523	NO
	Right	0.233	0.432	0.058	0.171	0.665	0.291	0.404	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.766	0	0.000	0	0.766	0.766	0.766	NO
LTE Band 5	Front	0.603	0.372	0.053	0.15	0.975	0.656	0.753	NO
	Back	1.905	0.159	0.028	0.084	2.064	1.933	1.989	NO
	Left	0.716	0.056	0.014	0.027	0.772	0.730	0.743	NO
	Right	0.419	0.432	0.058	0.171	0.851	0.477	0.590	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	1.206	0	0.000	0	1.206	1.206	1.206	NO
LTE Band 7	Front	0.435	0.372	0.053	0.15	0.807	0.488	0.585	NO
	Back	1.439	0.159	0.028	0.084	1.598	1.467	1.523	NO
	Left	0.573	0.056	0.014	0.027	0.629	0.587	0.600	NO
	Right	0.281	0.432	0.058	0.171	0.713	0.339	0.452	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.92	0	0.000	0	0.920	0.920	0.920	NO
LTE Band 12	Front	0.033	0.372	0.053	0.15	0.405	0.086	0.183	NO
	Back	0.11	0.159	0.028	0.084	0.269	0.138	0.194	NO
	Left	0.041	0.056	0.014	0.027	0.097	0.055	0.068	NO
	Right	0.023	0.432	0.058	0.171	0.455	0.081	0.194	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.069	0	0.000	0	0.069	0.069	0.069	NO
LTE Band 13	Front	0.105	0.372	0.053	0.15	0.477	0.158	0.255	NO
	Back	0.33	0.159	0.028	0.084	0.489	0.358	0.414	NO
	Left	0.136	0.056	0.014	0.027	0.192	0.150	0.163	NO
	Right	0.066	0.432	0.058	0.171	0.498	0.124	0.237	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.211	0	0.000	0	0.211	0.211	0.211	NO
LTE Band 14	Front	0.172	0.372	0.053	0.15	0.544	0.225	0.322	NO
	Back	0.539	0.159	0.028	0.084	0.698	0.567	0.623	NO
	Left	0.228	0.056	0.014	0.027	0.284	0.242	0.255	NO
	Right	0.111	0.432	0.058	0.171	0.543	0.169	0.282	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.355	0	0.000	0	0.355	0.355	0.355	NO
LTE Band 17	Front	0.047	0.372	0.053	0.15	0.419	0.100	0.197	NO
	Back	0.12	0.159	0.028	0.084	0.279	0.148	0.204	NO

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	Left	0.052	0.056	0.014	0.027	0.108	0.066	0.079	NO
	Right	0.028	0.432	0.058	0.171	0.460	0.086	0.199	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.09	0	0.000	0	0.090	0.090	0.090	NO
LTE Band 25	Front	0.306	0.372	0.053	0.15	0.678	0.359	0.456	NO
	Back	1.016	0.159	0.028	0.084	1.175	1.044	1.100	NO
	Left	0.378	0.056	0.014	0.027	0.434	0.392	0.405	NO
	Right	0.228	0.432	0.058	0.171	0.660	0.286	0.399	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.653	0	0.000	0	0.653	0.653	0.653	NO
LTE Band 26	Front	0.595	0.372	0.053	0.15	0.967	0.648	0.745	NO
	Back	1.924	0.159	0.028	0.084	2.083	1.952	2.008	NO
	Left	0.788	0.056	0.014	0.027	0.844	0.802	0.815	NO
	Right	0.412	0.432	0.058	0.171	0.844	0.470	0.583	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	1.181	0	0.000	0	1.181	1.181	1.181	NO
LTE Band 30	Front	0.373	0.372	0.053	0.15	0.745	0.426	0.523	NO
	Back	1.129	0.159	0.028	0.084	1.288	1.157	1.213	NO
	Left	0.488	0.056	0.014	0.027	0.544	0.502	0.515	NO
	Right	0.24	0.432	0.058	0.171	0.672	0.298	0.411	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.726	0	0.000	0	0.726	0.726	0.726	NO
LTE Band 38	Front	0.078	0.372	0.053	0.15	0.450	0.131	0.228	NO
	Back	0.236	0.159	0.028	0.084	0.395	0.264	0.320	NO
	Left	0.095	0.056	0.014	0.027	0.151	0.109	0.122	NO
	Right	0.045	0.432	0.058	0.171	0.477	0.103	0.216	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.152	0	0.000	0	0.152	0.152	0.152	NO
LTE Band 41	Front	0.333	0.372	0.053	0.15	0.705	0.386	0.483	NO
	Back	0.958	0.159	0.028	0.084	1.117	0.986	1.042	NO
	Left	0.405	0.056	0.014	0.027	0.461	0.419	0.432	NO
	Right	0.213	0.432	0.058	0.171	0.645	0.271	0.384	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.646	0	0.000	0	0.646	0.646	0.646	NO
LTE Band 66	Front	0.385	0.372	0.053	0.15	0.757	0.438	0.535	NO
	Back	1.176	0.159	0.028	0.084	1.335	1.204	1.260	NO
	Left	0.451	0.056	0.014	0.027	0.507	0.465	0.478	NO
	Right	0.226	0.432	0.058	0.171	0.658	0.284	0.397	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.755	0	0.000	0	0.755	0.755	0.755	NO
LTE	Front	0.038	0.372	0.053	0.15	0.410	0.091	0.188	NO

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# Compliance Certification Services (Kunshan) Inc.

Report No.: KSCR220500066801

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Band 71	Back	0.118	0.159	0.028	0.084	0.277	0.146	0.202	NO
	Left	0.043	0.056	0.014	0.027	0.099	0.057	0.070	NO
	Right	0.044	0.432	0.058	0.171	0.476	0.102	0.215	NO
	Top	0	0.111	0.019	0.064	0.111	0.019	0.064	NO
	Bottom	0.087	0	0.000	0	0.087	0.087	0.087	NO



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## 9 Equipment list

Test Platform		SPEAG DASY5 Professional				
Location		Compliance Certification Services (Kunshan) Inc.				
Software Reference		DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)				
Hardware Reference						
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration	
<input checked="" type="checkbox"/>	P C	HP	Core(rm)3.16G	CZCO48171H	N/A	N/A
<input checked="" type="checkbox"/>	Signal Generator	Agilent	E5182A	MY50142015	2021/09/24	2022/09/23
<input checked="" type="checkbox"/>	S-Parameter Network Analyzer	Agilent	E5071B	MY42301382	2022/02/20	2023/02/19
<input checked="" type="checkbox"/>	DAK-3.5 probe	SPEAG	DAK-3.5	1102	N/A	N/A
<input checked="" type="checkbox"/>	Wireless Communication Test Set	R&S	CMW500	159275	2021/10/12	2022/10/11
<input checked="" type="checkbox"/>	DAE	SPEAG	DAE4	1245	2022/05/30	2023/05/29
<input checked="" type="checkbox"/>	E-field PROBE	SPEAG	EX3DV4	7346	2022/03/30	2023/03/29
<input checked="" type="checkbox"/>	Dipole	SPEAG	D750V3	1188	2022/03/29	2025/03/28
<input checked="" type="checkbox"/>	Dipole	SPEAG	D835V2	4d114	2022/03/31	2025/03/30
<input checked="" type="checkbox"/>	Dipole	SPEAG	D1800V2	2d170	2022/03/31	2025/03/30
<input checked="" type="checkbox"/>	Dipole	SPEAG	D1900V2	5d136	2022/06/07	2025/06/06
<input checked="" type="checkbox"/>	Dipole	SPEAG	D2300V2	1096	2022/03/31	2025/03/30
<input checked="" type="checkbox"/>	Dipole	SPEAG	D2450V2	817	2022/04/01	2025/03/31
<input checked="" type="checkbox"/>	Dipole	SPEAG	D2600V2	1158	2022/03/31	2025/03/30
<input checked="" type="checkbox"/>	Dipole	SPEAG	D5GHzV2	1145	2022/02/15	2025/02/14
<input checked="" type="checkbox"/>	Electro Thermometer	DTM	DTM3000	3030	2021/10/17	2022/10/16
<input checked="" type="checkbox"/>	Amplifier	Mini-circuits	ZVE-8G	110405	N/A	N/A
<input checked="" type="checkbox"/>	Amplifier	Mini-circuits	ZHL-42	QA1331003	N/A	N/A
<input checked="" type="checkbox"/>	3db ATTENUATOR	MINI	MCL BW-S3W5	0533	N/A	N/A
<input checked="" type="checkbox"/>	DUMMY PROBE	SPEAG	DP_2	SPDP2001AA	N/A	N/A
<input checked="" type="checkbox"/>	Dual Directional Coupler	Woken	20W couple	DOM2BHW1A1	N/A	N/A
<input checked="" type="checkbox"/>	SAM PHANTOM (ELI4 v4.0)	SPEAG	QDOVA001BB	1102	N/A	N/A
<input checked="" type="checkbox"/>	Twin SAM Phantom	SPEAG	QD000P40CD	1609	N/A	N/A
<input checked="" type="checkbox"/>	ROBOT	SPEAG	TX60	F10/5E6AA1/A101	N/A	N/A

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Report No.: KSCR220500066801

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<input checked="" type="checkbox"/>	ROBOT KRC	SPEAG	CS8C	F10/5E6AA1/C101	N/A	N/A
<input checked="" type="checkbox"/>	LIQUID CALIBRATION KIT	ANTENNESSA	41/05 OCP9	00425167	N/A	N/A

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

All measurement facilities used to collect the measurement data are located at

No.10, Weiye Rd., Innovation Park, Eco & Tec. Development Part, Kunshan City, Jiangsu Province, China.



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### 10 Calibration certificate

Please see the Appendix C

### 11 Photographs

Please see the Appendix D

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### Appendix A: Detailed System Check Results

The plots are showing as followings.

### Appendix B: Detailed Test Results

The plots of worse case are showing as followings.

### Appendix C: Calibration certificate

### Appendix D: Photographs

---END---



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