FCC SAR TEST REPORT

Application No.:	XEWM2303000130RG
Applicant:	KonnectONE Inc.
Manufacturer:	KonnectONE Inc.
Product Name:	Moxee T2310
Model No.(EUT):	T2310
Trade Mark:	Moxee
FCC ID:	2APQU-T2310
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2023-04-10
Date of Test:	2023-05-06 to 2023-05-11
Date of Issue:	2023-05-12
Test Result:	**PASS ***

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

Authorized Signature:

Peter Tan

Regulatory Technical Manager

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

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086 t (86–29) 6282 7885 www.sgsgroup.com.cn
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086 t (86–29) 6282 7885 sgs.china@sgs.com

REVISION HISTORY

Report Number	Revision	Description	Issue Date
XEWM2303000130RG06	01	Original	2023-05-12

Prepared By	Yuan Zhao **Yuan Zhao**
Reviewed by	Mark Liu **Mark Liu**

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

TEST SUMMARY

Frequency Band	Test position	Max Report SAR1-g (W/kg)	SAR limit (W/kg)
GSM850	Body	1.15	1.60
GSM1900	Body	1.29	1.60
WCDMA Band II	Body	1.24	1.60
WCDMA Band IV	Body	1.30	1.60
WCDMA Band V	Body	1.04	1.60
LTE Band 2	Body	1.29	1.60
LTE Band 4	Body	1.38	1.60
LTE Band 5	Body	1.09	1.60
LTE Band 12	Body	1.32	1.60
LTE Band 17	Body	1.32	1.60
LTE Band 25	Body	1.29	1.60
LTE Band 26	Body	1.09	1.60
LTE Band 66	Body	1.38	1.60
LTE Band 71	Body	1.39	1.60
WI-FI (2.4GHz)	Body	1.19	1.60
WI-FI (5GHz)	Body	1.06	1.60
BT	Body	0.39	1.60

Maximum Simultaneous Transmission SAR (W/kg)	
Scenario	Body
Sum SAR	1.53
SPLSR	0.02
SPLSR Limited	0.04

Note:

1) According to TCB workshop October,2014 RF Exposure Procedures Update (Overlapping Bands): SAR for LTE Band2(Frequency range:1850 - 1910 MHz)/LTE Band 4(Frequency range:1710 - 1755 MHz)/LTE Band 5(Frequency range:824 - 849 MHz MHz)/LTE Band 17(Frequency range:704 - 716 MHz MHz) is respectively covered by LTE Band 25 (Frequency range:1850 - 1915 MHz)/ LTE Band 66 (Frequency range:1710 - 1780 MHz)/LTE Band 26 (Frequency range:814 - 849 MHz)/LTE Band 12 (Frequency range: 699 - 716 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.
2) The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.

CONTENTS

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086 t (86-29) 6282 7885 www.sgsgroup.com.cn
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086 t (86-29) 6282 7885 sgs.china@sgs.com

1 General Information

1.1 Details of Client

Applicant:	KonnectONE Inc.
Address:	40 Lake Bellevue, Suite 340, Bellevue, WA 98005
Manufacturer:	KonnectONE Inc.
Address:	40 Lake Bellevue, Suite 340, Bellevue, WA 98005

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services (XI 'AN) Co., Ltd.
Address:	1 / F, Unit D, Building 1, Kanghong Orange Science park, No.137 Keyuan 3rd Road, Fengdong New Town, Xi 'an, Shaanxi, China
Post code:	710086
Test Engineer：	Captain Zhou, Yu Wang

1.3 Test Facility

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

• **A2LA (Certificate No. 4854.01)**

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4854.01.

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

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0095

ISED#: 25613.

• **FCC –Designation Number: CN1337**

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. has been recognized as an accredited testing laboratory.

Designation Number: CN1337.

Test Firm Registration Number: 917410

1.4 General Description of EUT

Product Name:	Moxee T2310		
Model No.(EUT):	T2310		
Trade Mark:	Moxee		
Product Phase:	production unit		
Device Type:	portable device		
Exposure Category:	uncontrolled environment / general population		
IMEI:	350119040005666		
FCC ID:	2APQU-T2310		
Hardware Version:	V1.0		
Software Version:	Moxee_T2310_13.0_06		
Antenna Type:	PIFA		
Device Operating Configurations:			
Modulation Mode:	**GSM**: GMSK, 8PSK; **WCDMA**: QPSK; **LTE**: QPSK,16QAM,64QAM **WIFI**: DSSS, OFDM, OFDMA; **BT**: GFSK, π/4DQPSK,8DPSK		
Device Class:	B		
GPRS Multi-slots Class:	12	EGPRS Multi-slots Class:	12
HSDPA UE Category:	24	HSUPA UE Category	6
DC-HSDPA UE Category:	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control "all 1"(WCDMA Band)		
	3, tested with power control Max Power(LTE Band)		

Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 - 849	869 - 894
	GSM1900	1850 - 1910	1930 - 1990
	WCDMA Band II	1850 - 1910	1930 - 1990
	WCDMA Band IV	1710 - 1755	2110 - 2155
	WCDMA Band V	824 - 849	869 - 894
	LTE Band 2	1850 - 1910	1930 - 1990
	LTE Band 4	1710 - 1755	2110 - 2155
	LTE Band 5	824 - 849	869 - 894
	LTE Band 12	699 - 716	729 - 746
	LTE Band 17	704 - 716	734 - 746
	LTE Band 25	1850 - 1915	1930 - 1995
	LTE Band 26	814 - 849	859 - 894
	LTE Band 66	1710 - 1780	2110 - 2200
	LTE Band 71	663 - 698	617 - 652
	WIFI(2.4GHz)	2412 - 2462	2412 - 2462
	WIFI(5GHz)	5150 - 5250	5150 - 5250
		5250 - 5350	5250 - 5350
		5470 - 5725	5470 - 5725
		5725 - 5850	5725 - 5850
	BT	2402 - 2480	2402 - 2480

Battery Information:	Model:	2988128
	Normal Voltage:	3.8V
	Rated capacity:	5000mAh
	Manufacturer	SHENZHEN UTILITY ENERGY CO., LTD.

1.5 Test Specification

Identity	Document Title
FCC 47CFR §2.1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
ANSI/IEEE Std C95.1 – 1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.
IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 941225 D01	3G SAR Measurement Procedures v03r01
KDB 941225 D05	SAR for LTE Devices v02r05
KDB 941225 D05A	LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 248227 D01	SAR Guidance for IEEE 802 11 Wi-Fi SAR v02r02
KDB 616217 D04 v01r02	SAR for laptop and tablets
KDB 447498 D01	General RF Exposure Guidance v06
KDB 447498 D03 v01	Supplement C Cross-Reference
KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
KDB 865664 D02 v01r02	RF Exposure Reporting
KDB 648474 D04	SAR Evaluation Considerations for Wireless Handsets

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

1.6 RF exposure limits

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

Notes:

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

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

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

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

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

2 SAR Measurements System Configuration

2.1 The SAR Measurement System

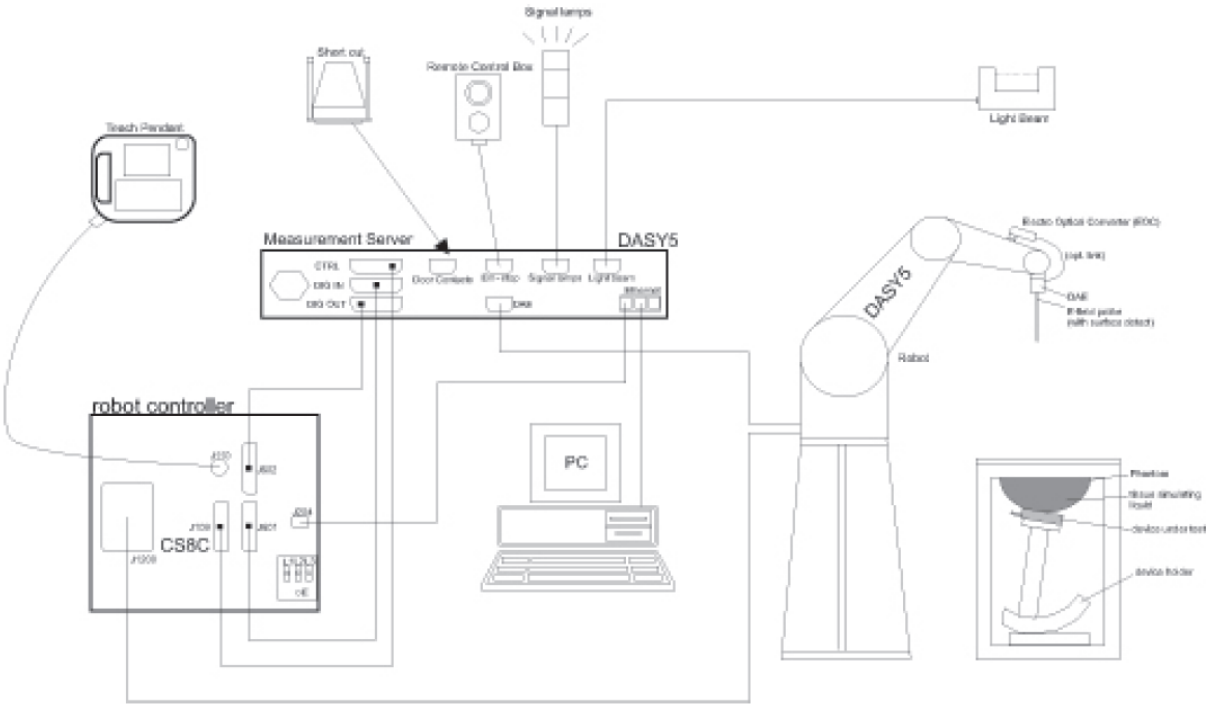
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY5 professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the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

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

A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.

A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

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



F-1. SAR Measurement System Configuration

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

2.2 Isotropic E-field Probe EX3DV4

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

2.3 Data Acquisition Electronics (DAE)

Model	DAE4
Construction	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY4/5 embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.
Measurement Range	-100 to +300 mV (16 bit resolution and two range settings: 4mV,400mV)
Input Offset Voltage	< 5µV (with auto zero)
Input Bias Current	< 50 f A
Dimensions	60 x 60 x 68 mm

2.4 SAM Twin Phantom

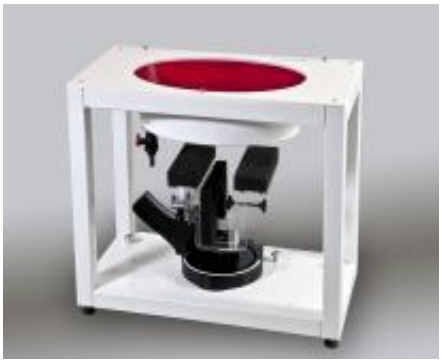
Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx.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

The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.

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

2.5 ELI Phantom

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



Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.

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

2.6 Device Holder for Transmitters

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

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

2.7 Measurement procedure

2.7.1 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 (≤2GHz) and 7x7x7 points (≥2GHz). On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

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

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

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

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.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* 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.

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 %

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

2.7.3 Data Evaluation by SEMCAD

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

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

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

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

If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power.

The formula for each channel can be given as:

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

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

Ui = input signal of channel i (i = x, y, z)

cf = crest factor of exciting field (DASY parameter)

dcp i = diode compression point (DASY parameter)

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

E-field probes:

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

H-field probes:

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

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

Hi = magnetic field strength of channel i in A/m

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

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

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

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

with SAR = local specific absorption rate in mW/g

Etot = total field strength in V/m

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

ε= equivalent tissue density in g/cm3

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

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

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

Htot = total magnetic field strength in A/m

3 Description of Test Position

3.1 The Body Test Position

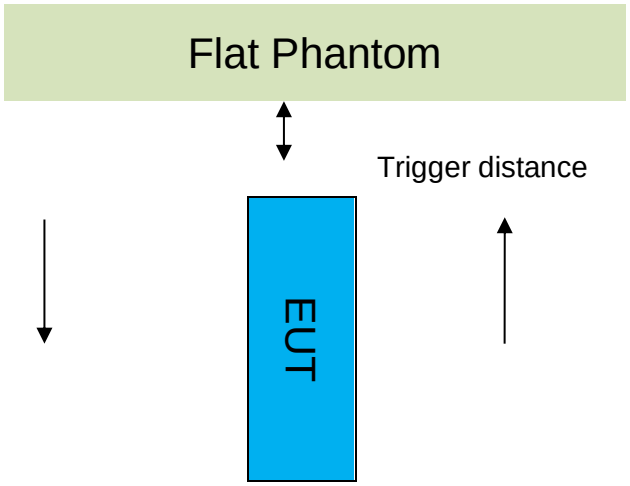
The overall diagonal dimension of the display section of a tablet is > 20 cm, Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. SAR evaluation for the front surface of tablet display screens are generally not necessary. The SAR Exclusion Threshold in KDB 447498 D01 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086 t (86-29) 6282 7885 www.sgsgroup.com.cn
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086 t (86-29) 6282 7885 sgs.china@sgs.com

4 Proximity Sensor Triggering Test

1) Proximity sensor triggering distances

The Proximity sensor triggering was applied to WWAN antenna. Proximity sensor triggering distance testing was performed which the EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.

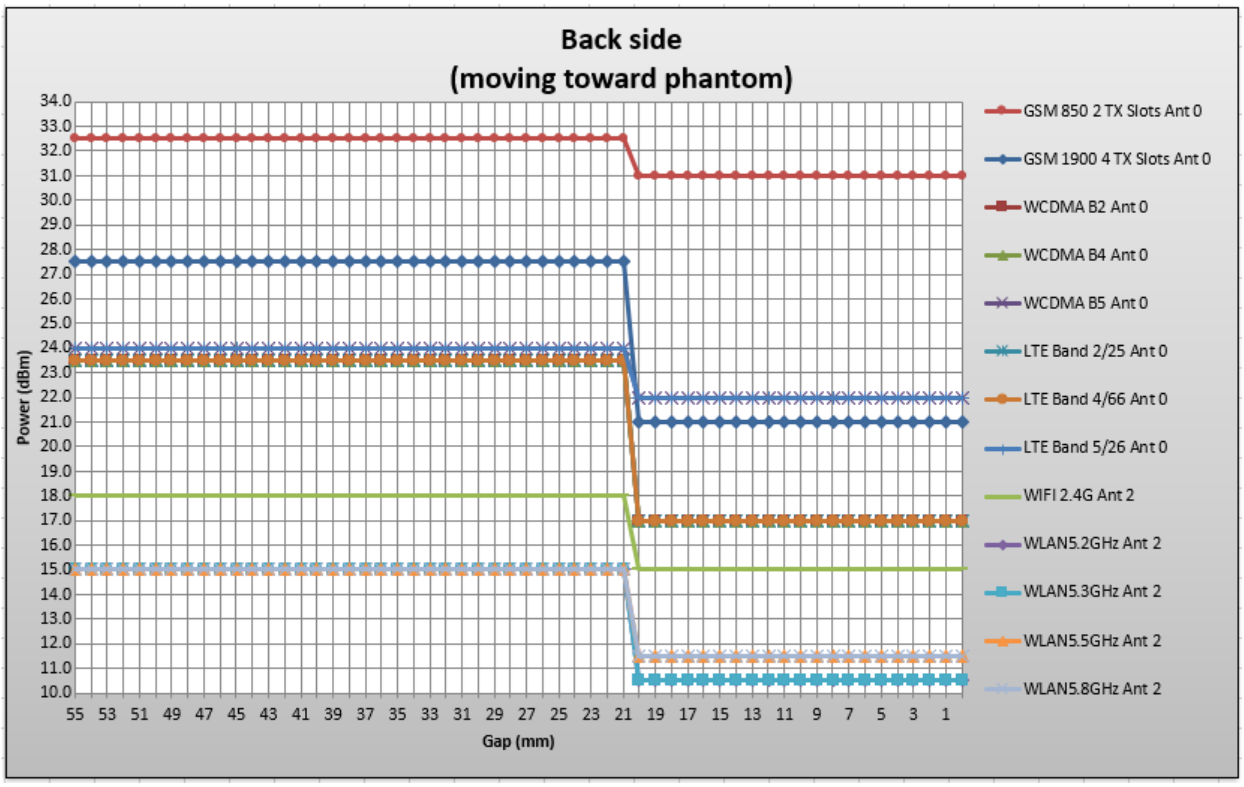


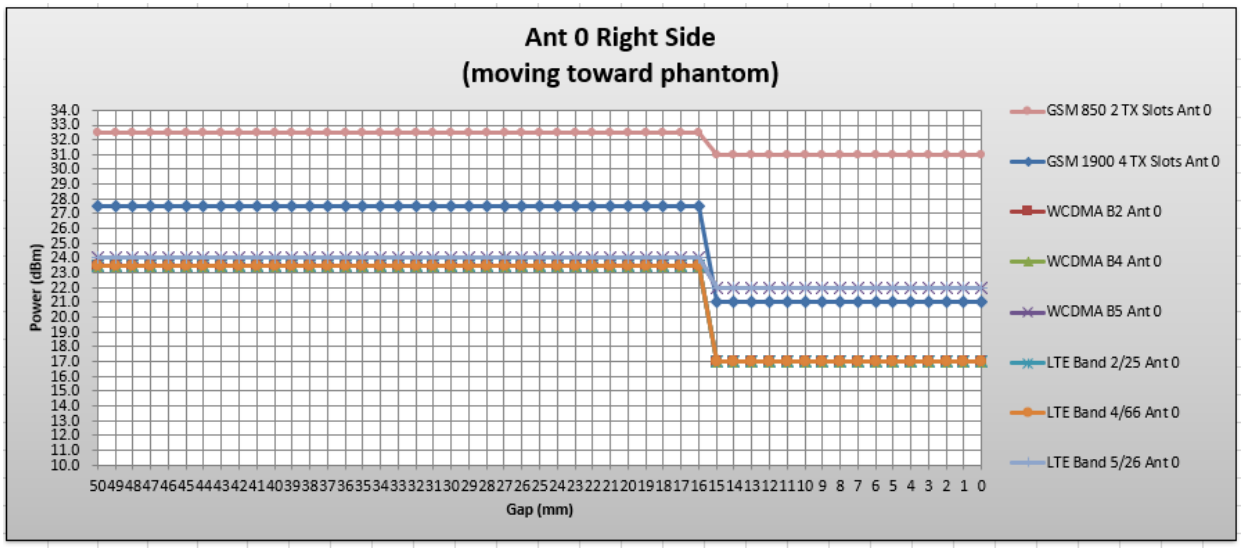
Proximity Sensor Triggering Distance(mm)						
Ant	Ant 0			Ant 2		
Position	Back side	Right side	Bottom side	Back side	Right side	Top side
Minimum	20mm	15mm	15mm	20mm	20mm	10mm
Required SAR Test	19mm	14mm	14mm	19mm	19mm	9mm

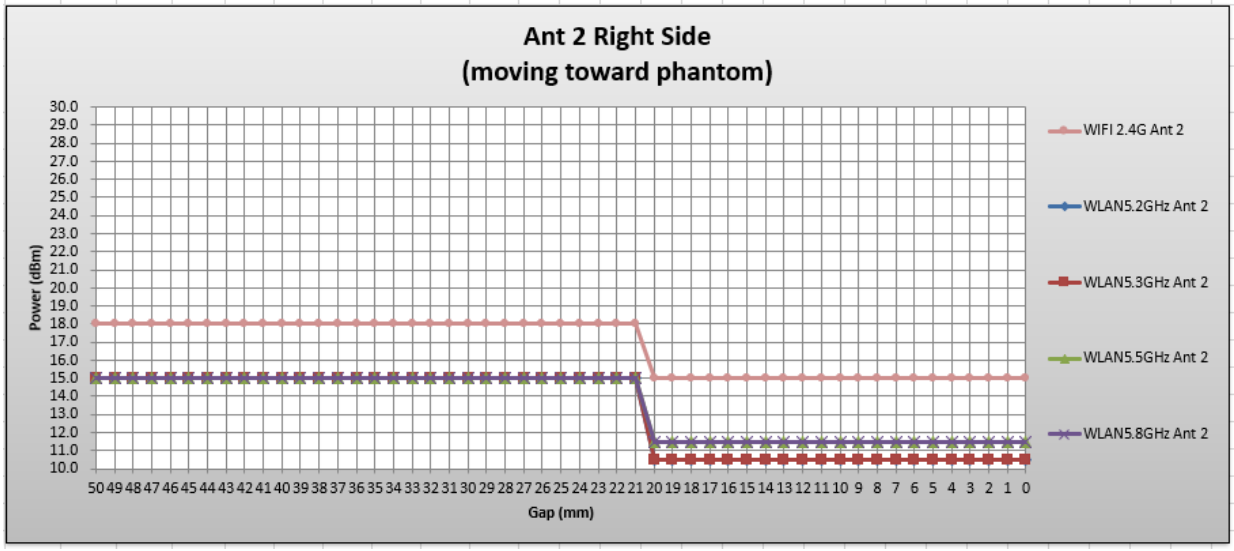
Note:

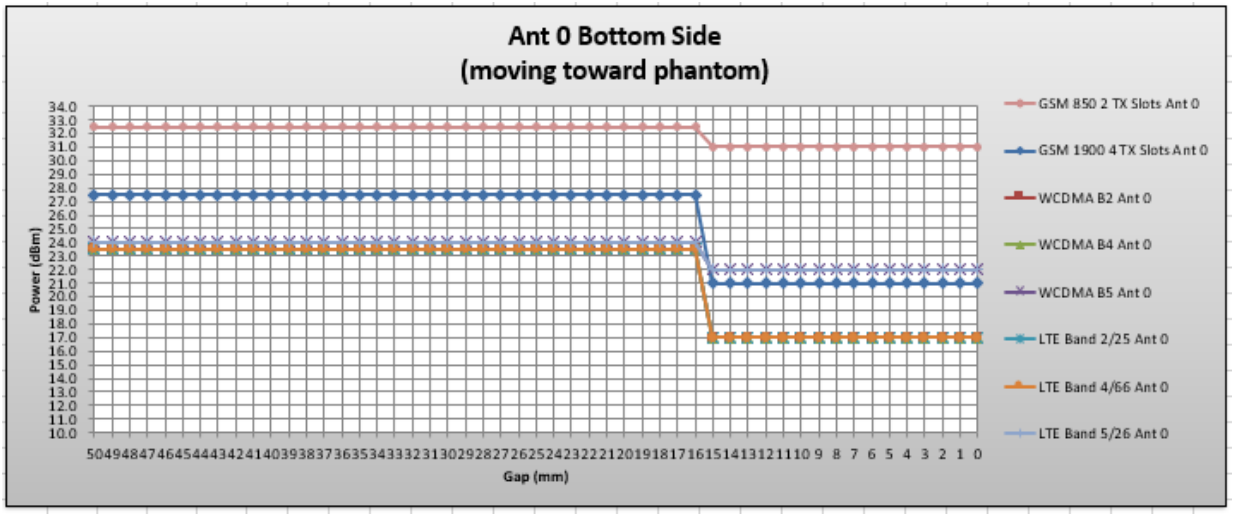
SAR tests with proximity sensor power reduction are only required for the sides of frequency bands in the table above. For the other sides or other frequency bands of the device, SAR is still tested at the maximum power level with sensor off.

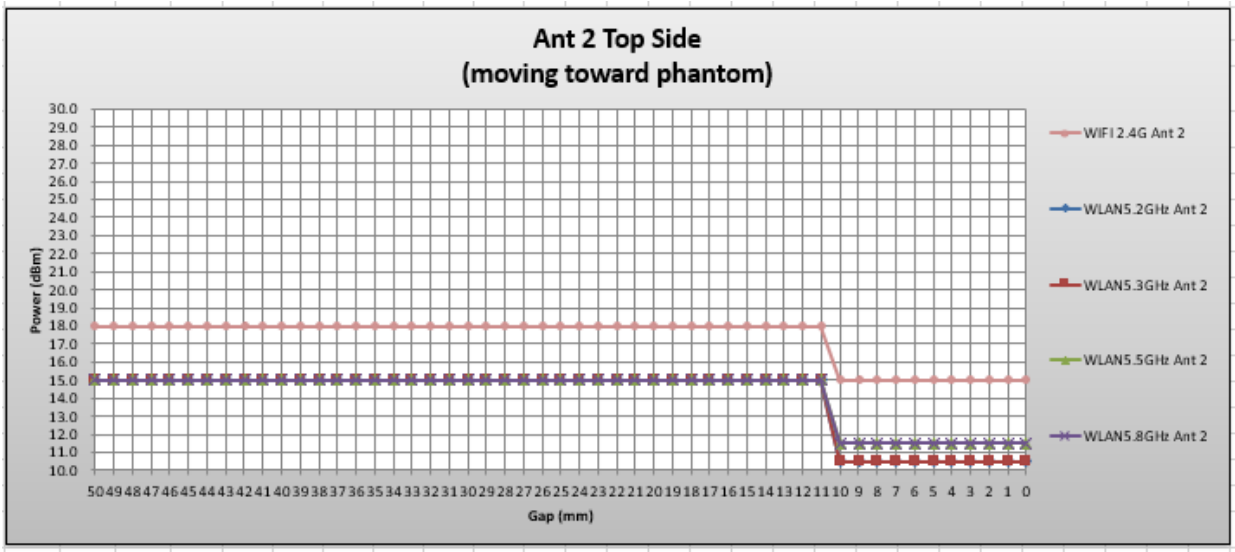
- DUT Moving Toward(Trigger)the Phantom





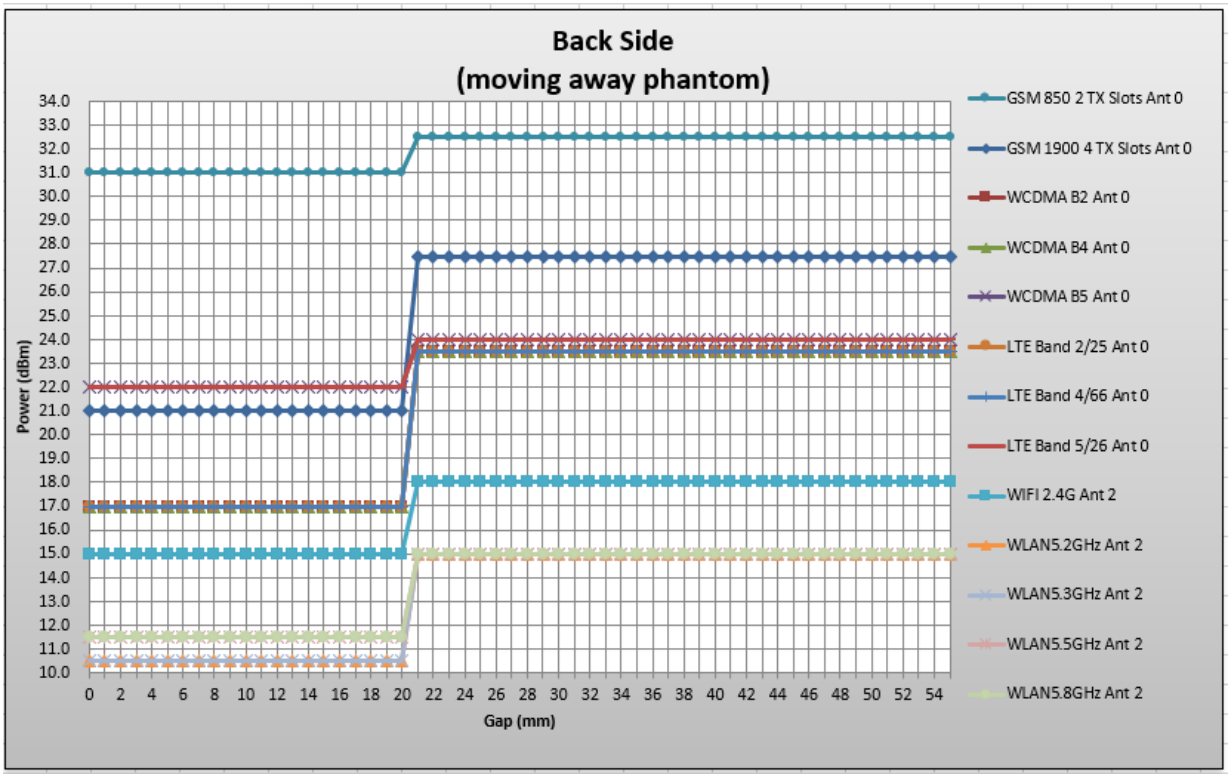


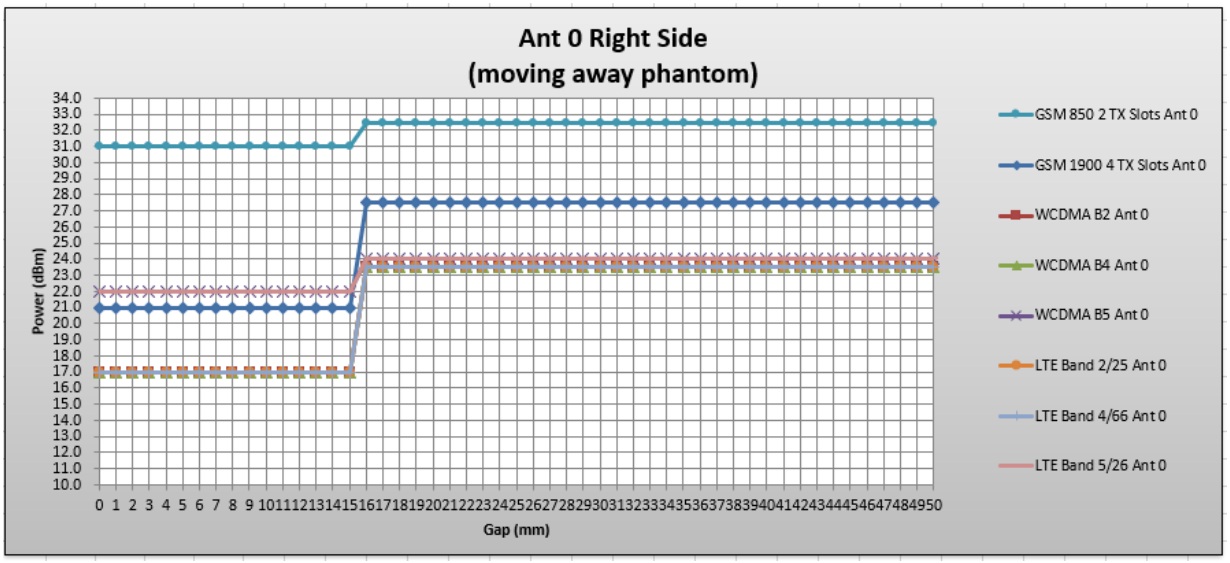


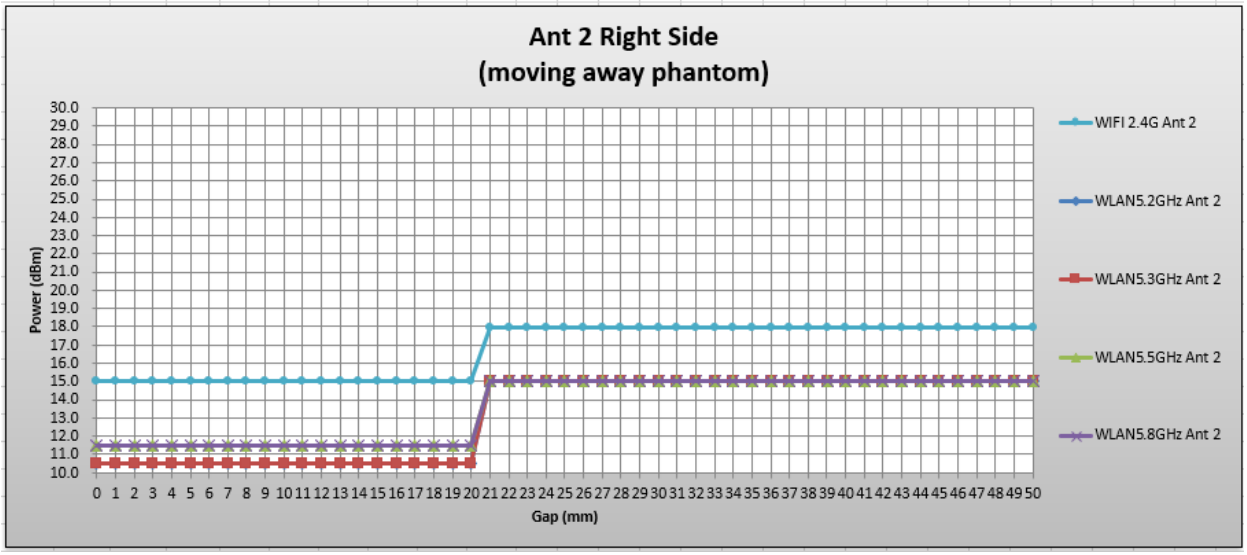


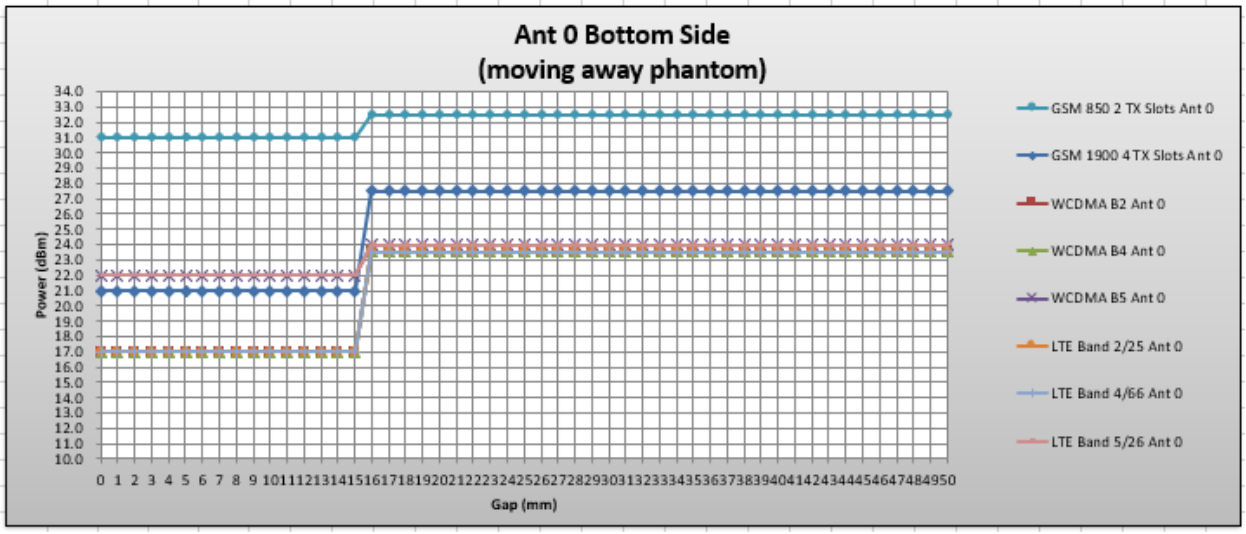
SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

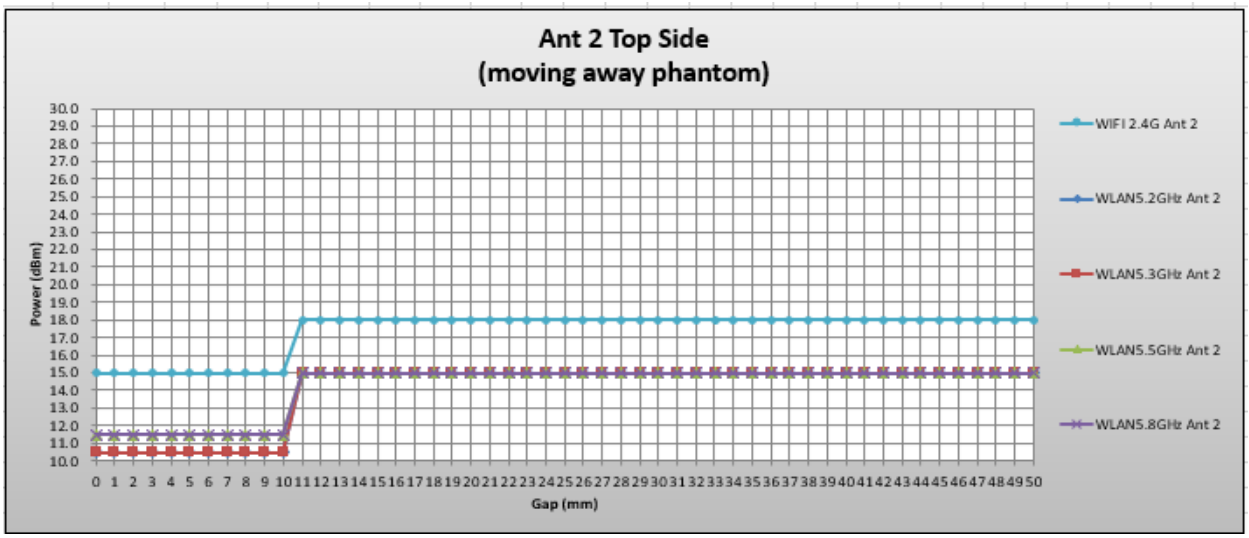
- DUT Moving Away(Release) from the Phantom











2) Proximity sensor coverage

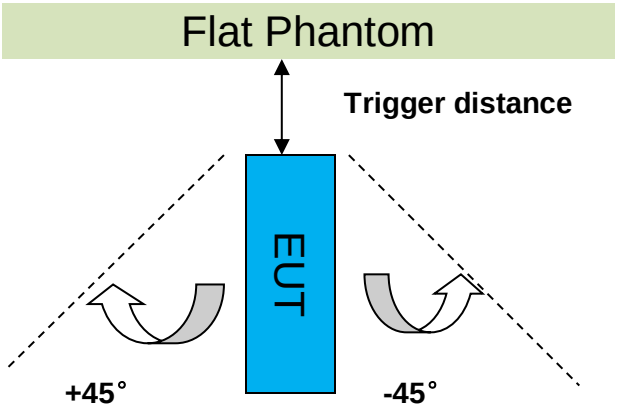
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing,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

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

3) Device tilt angle influences to proximity sensor triggering

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

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



The Sensor Triggering Distance(mm)				
Antenna	Ant0		Ant2	
Position	Right side:15mm	Bottom side:15mm	Right side:20mm	Top side:10mm

Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Bottom Side												
Band	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status										
		-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
Ant0	Right side:15mm	on	on	on	on	on	on	on	on	on	on	on
	Bottom side:15mm	on	on	on	on	on	on	on	on	on	on	on
Ant2	Right side:20mm	on	on	on	on	on	on	on	on	on	on	on
	Top side:10mm	on	on	on	on	on	on	on	on	on	on	on

5 SAR System Verification Procedure

5.1 Tissue Simulate Liquid

5.1.1 Recipes for Tissue Simulate Liquid

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

Ingredients (% by weight)	Frequency (MHz)				
	450	700-900	1800-2000	2300-2500	2500-2700
Water	38.56	40.30	55.24	55.00	54.92
Salt (NaCl)	3.95	1.38	0.31	0.2	0.23
Sucrose	56.32	57.90	0	0	0
HEC	0.98	0.24	0	0	0
Bactericide	0.19	0.18	0	0	0
Tween	0	0	44.45	44.80	44.85
Salt: 99+% Pure Sodium Chloride Water: De-ionized, 16 MΩ+ resistivity Tween: Polyoxyethylene (20) sorbitan monolaurate			Sucrose: 98+% Pure Sucrose HEC: Hydroxyethyl Cellulose		
HSL5GHz is composed of the following ingredients： Water：50-65% Mineral oil：10-30% Emulsifiers：8-25% Sodium salt：0-1.5%					

Table 1： Recipe of Tissue Simulate Liquid

5.1.2 Measurement for Tissue Simulate Liquid

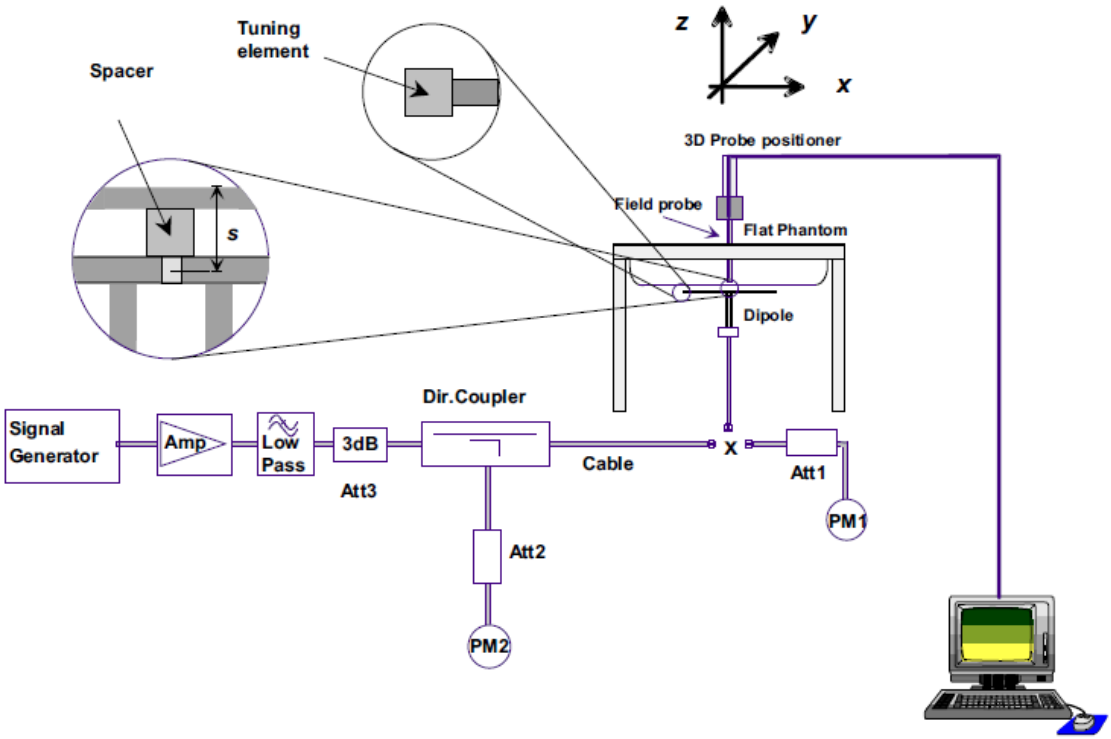
The Conductivity (σ) and Permittivity (ρ) are listed in Table 2. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Tissue Type	Measured Frequency (MHz)	Target Tissue (±5%)		Measured Tissue		Deviation (Within ±5%)		Liquid Temp. (℃)	Test Date
		ε_r	σ(S/m)	ε_r	σ(S/m)	ε_r	σ(S/m)		
750 Head	750	41.90	0.89	42.746	0.891	2.02%	0.11%	22	2023/5/7
835 Head	835	41.50	0.90	41.590	0.911	0.22%	1.22%	22.5	2023/5/6
1750 Head	1750	40.10	1.37	39.406	1.374	-1.73%	0.29%	22.5	2023/5/9
1900 Head	1900	40.00	1.40	40.201	1.396	0.50%	-0.29%	22.5	2023/5/8
2450 Head	2450	39.20	1.80	37.754	1.801	-3.69%	0.06%	22.0	2023/5/10
5250 Head	5250	35.90	4.66	35.918	4.609	0.05%	-1.09%	22.0	2023/5/11
5600 Head	5600	35.50	5.07	35.246	5.075	-0.72%	0.10%	22.0	2023/5/11
5750 Head	5750	35.40	5.22	34.875	5.256	-1.48%	0.69%	22.0	2023/5/11

Table 2： Measurement result of Tissue electric parameters

5.2 SAR System Check

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



F-3. the microwave circuit arrangement used for SAR system check

5.2.1 Justification for Extended SAR Dipole Calibrations

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

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

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

5.2.2 Summary System Validation 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)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (℃)	Test Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10-g(W/kg)		
D750V3	Head	2.06	1.38	8.24	5.52	8.37	5.53	-1.55%	-0.18%	22.0	2023/5/7
D835V2	Head	2.29	1.51	9.16	6.04	9.53	6.29	-3.88%	-3.97%	22.5	2023/5/6
D1750V2	Head	8.45	4.57	33.80	18.28	36.60	19.30	-7.65%	-5.28%	22.5	2023/5/9
D1900V2	Head	9.61	5.16	38.44	20.64	39.50	20.60	-2.68%	0.19%	22.5	2023/5/8
D2450V2	Head	12.50	5.87	50.00	23.48	52.20	24.30	-4.21%	-3.37%	22.0	2023/5/10
Validation Kit		Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (℃)	Test Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10-g(W/kg)		
D5GHzV2	Head(5.25GHz)	7.54	2.14	75.40	21.40	77.30	22.10	-2.46%	-3.17%	22.0	2023/5/11
	Head(5.6GHz)	8.13	2.27	81.30	22.70	81.30	23.10	0.00%	-1.73%	22.0	2023/5/11
	Head(5.75GHz)	7.43	2.12	74.30	21.20	77.10	21.30	-3.63%	-0.47%	22.0	2023/5/11

Table 3： SAR System Check Result

5.2.3 Detailed System Check Results

Please see the Appendix A

6 Test Configuration

6.1 3G SAR Test Reduction Procedure

According to KDB 941225D01, in the following procedures, the mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as "otherwise" in the applicable procedures; SAR measurement is required for the secondary mode.

6.2 Operation Configurations

6.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using CMW500 the power lever is set to "5"and "0" in SAR of GSM 850 and GSM 1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5. The EGPRS class is 12 for this EUT, it has at most 4 timeslots in uplink, and at most 4 timeslots in downlink, the maximum total timeslot is 5.

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

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

6.2.2 WCDMA Test Configuration

1）. Output Power Verification

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

2）. Head SAR

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

3）. Body SAR

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

4）. HSDPA / HSUPA / DC-HSDPA

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

a) HSDPA

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

Sub-test	βc	Bd	βd(SF)	βc/βd	βhs	CM(dB)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0

3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note1: △ACK, △NACK and △CQI= 8 Ahs = βhs/βc=30/15 βhs=30/15*βc

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

7 (Ahs=24/15) with βhs=24/15*βc.

Note3: CM=1 forβc/βd =12/15, βhs/βc=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI"s
Number of HARQ Processes	2 Processes
Information Bit Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

Table 4： settings of required H-Set 1 QPSK acc. to 3GPP 34.121

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

Table 5： HSDPA UE category

b) HSUPA

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (code)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference

Note 3 : For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$

Note 4 : For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$

Note 5 : Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g

Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Table 6： Subtests for UMTS Release 6 HSUPA

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Speading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	10	2SF2&2SF4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF4	22996	?
	4	4	10		20000	?
NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.UE categories 1 to 6 support QPSK only. UE category 7 supports QPSK and 16QAM.(TS25.306-7.3.0).						

Table 7： HSUPA UE category

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

c) DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a Second serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS 34.108 v9.5.0.

A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13.

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

The measurements were performed with a Fixed Reference Channel (FRC) H-Set 12 with QPSK.

Parameter	Value
Nominal average inf. bit rate	60 kbit/s
Inter-TTI Distance	1 TTI's
Number of HARQ Processes	6 Processes
Information Bit Payload	120 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	960 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	3200 SMLs
Coding Rate	0.15
Number of Physical Channel Codes	1

Table 8： settings of required H-Set 12 QPSK acc. to 3GPP 34.121

Note:

1. The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table above.

2. Maximum number of transmission is limited to 1,i.e.,retransmission is not allowed. The redundancy and constellation version 0 shall be used.

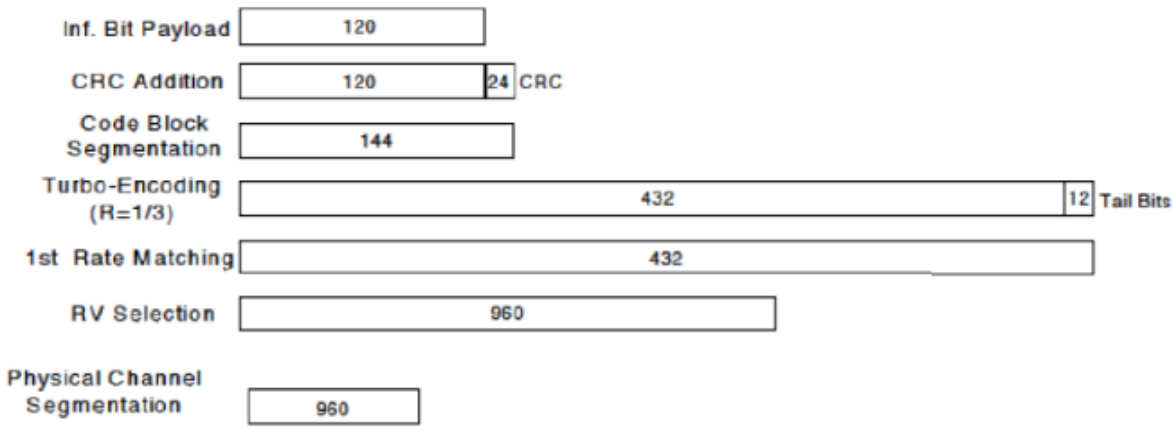


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 5 procedures. A summary of subtest settings are illustrated below:

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

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2: CM=1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$

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

Note:

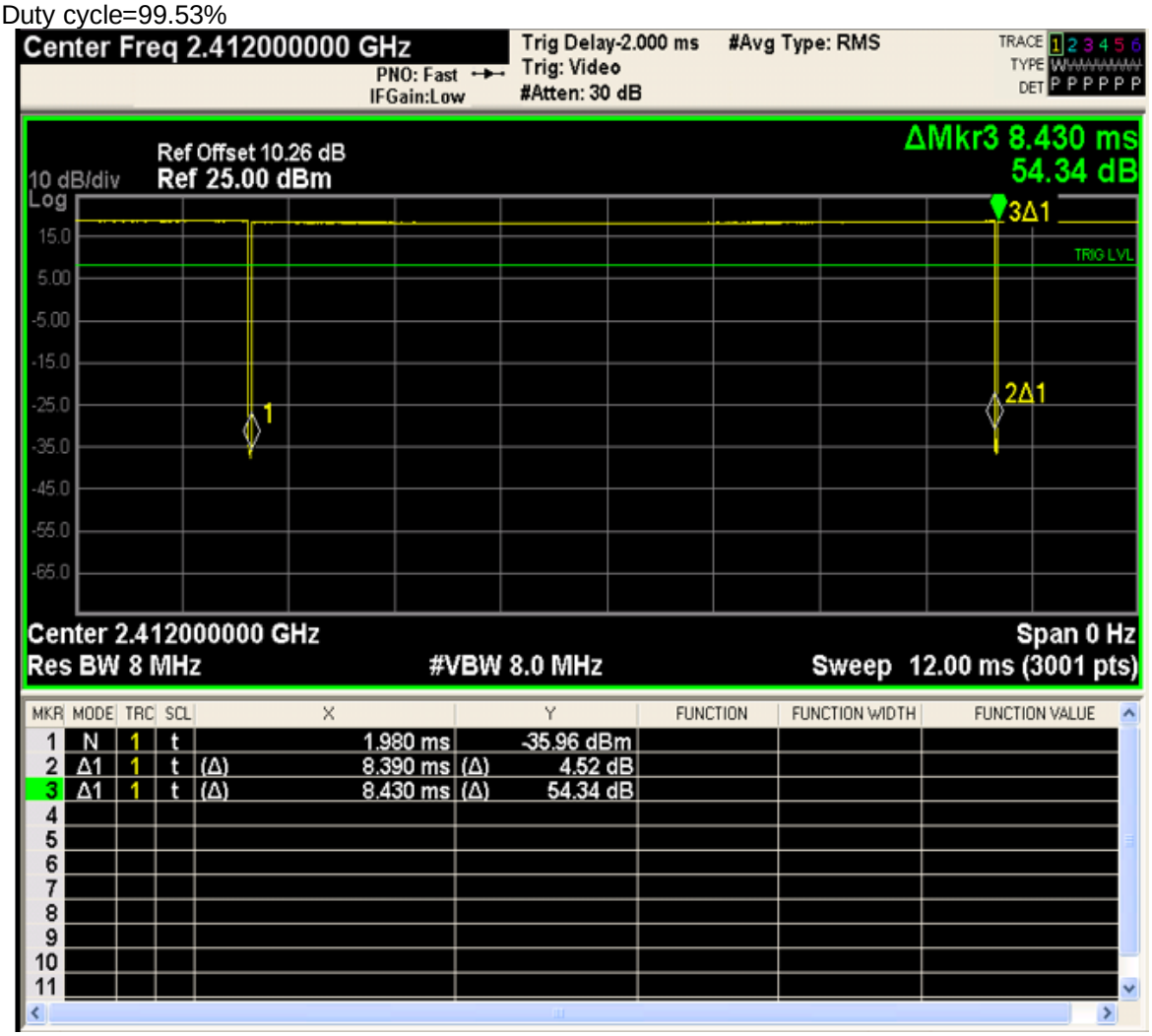
1. The Dual Carriers transmission only applies to HSDPA physical channels
2. The Dual Carriers belong to the same Node and are on adjacent carriers.
3. The Dual Carriers do not support MIMO to serve UEs configured for dual cell operation
4. The Dual Carriers operate in the same frequency band.
5. The device doesn't support the modulation of 16QAM in uplink but 64QAM in downlink for DC-HSDPA mode.
6. The device doesn't support carrier aggregation for it just can operate in Release 8.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

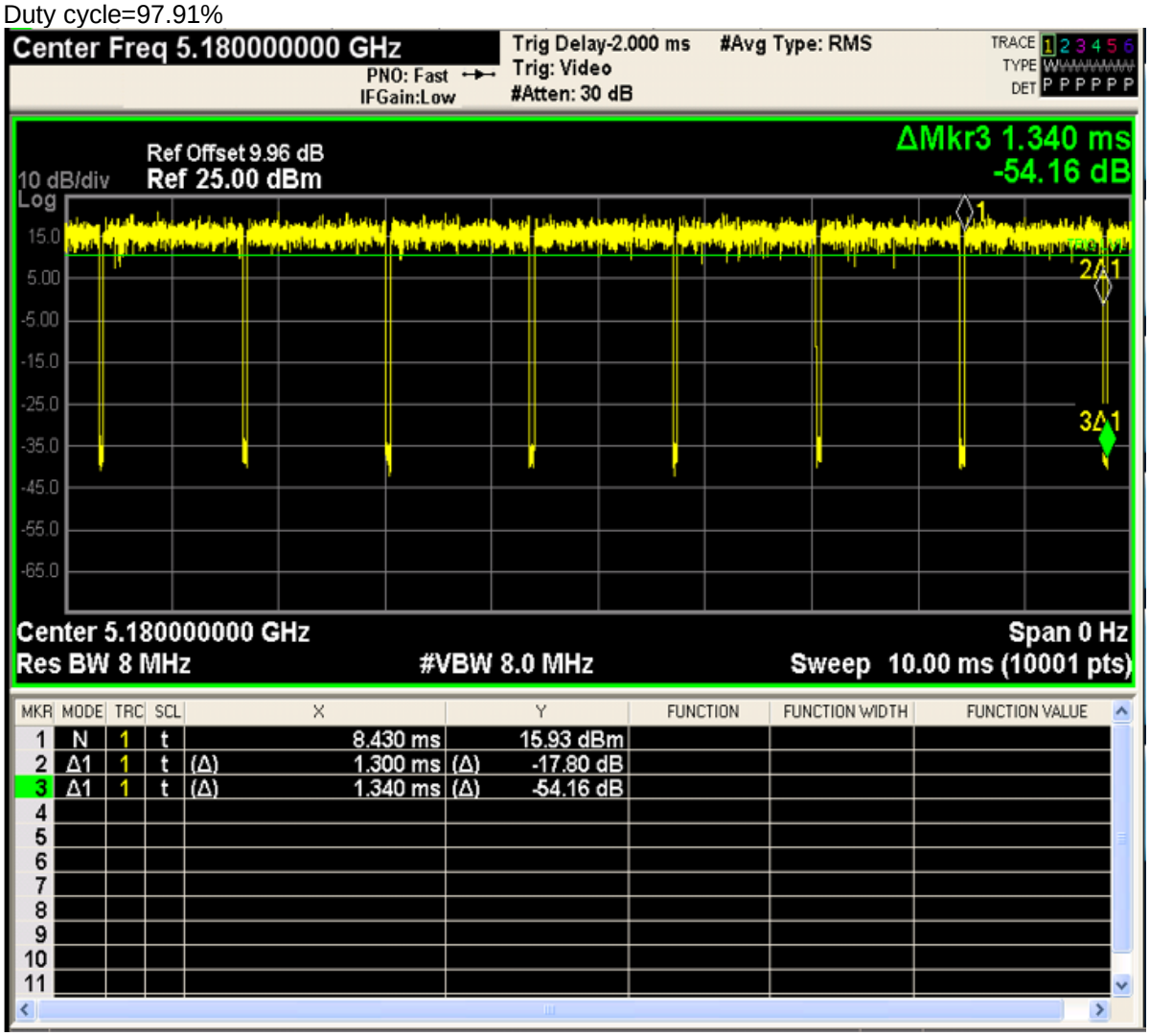
6.2.3 WiFi Test Configuration

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

- 2.4G WIFI
  Duty cycle=99.53%



- 5G WIFI 802.11n-HT20
  Duty cycle=97.91%



6.2.3.1 Initial Test Position SAR Test Reduction Procedure

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

1）. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band. SAR is also not required for that exposure configuration in the subsequent test configuration(s).

2）. When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest extrapolated or estimated 1-g SAR conditions determined by area scans or next closest/smallest test separation distance and maximum RF coupling test positions based on manufacturer justification, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions (left, right, touch, tilt or subsequent surfaces and edges) are tested.

3）. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested. a) Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

6.2.3.2 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.

6.2.3.3 Subsequent Test Configuration Procedures

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

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

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

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

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

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

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

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

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

6.2.3.4 2.4 GHz SAR Procedures

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

- **802.11b DSSS SAR Test Requirements**

SAR is measured for 2.4 GHz 802.11b DSSS using either a fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1）. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2）. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

- **2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements**

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3, including sub-sections). SAR is not required for the following 2.4 GHz OFDM conditions.

1）. When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.

2）. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

6.2.3.5 WiFi 5G SAR Test Procedures

6.2.3.5.1 U-NII-1 and U-NII-2A Bands

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

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

6.2.3.5.2 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.

6.2.3.5.3 OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements

The initial test configuration for 5 GHz OFDM transmission modes is determined by the 802.11 configuration with the highest maximum output power specified for production units, including tune-up tolerance, in each standalone and aggregated frequency band. SAR for the initial test configuration is measured using the highest maximum output power channel determined by the default power measurement procedures. When multiple configurations in a frequency band have the same specified maximum output power, the initial test configuration is determined according to the following steps applied sequentially.

1) The largest channel bandwidth configuration is selected among the multiple configurations with the same specified maximum output power.
2) If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
3) If multiple configurations have the same specified maximum output power, largest channel bandwidth and lowest order modulation, the lowest data rate configuration among these configurations is selected.

4) When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n. After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following. These channel selection procedures apply to both the initial test configuration and subsequent test configuration(s), with respect to the default power measurement procedures or additional power measurements required for further SAR test reduction. The same procedures also apply to subsequent highest output power channel(s) selection.
   - The channel closest to mid-band frequency is selected for SAR measurement.
   - 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.

6.2.3.5.4 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.

6.2.4 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The 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 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

C) A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

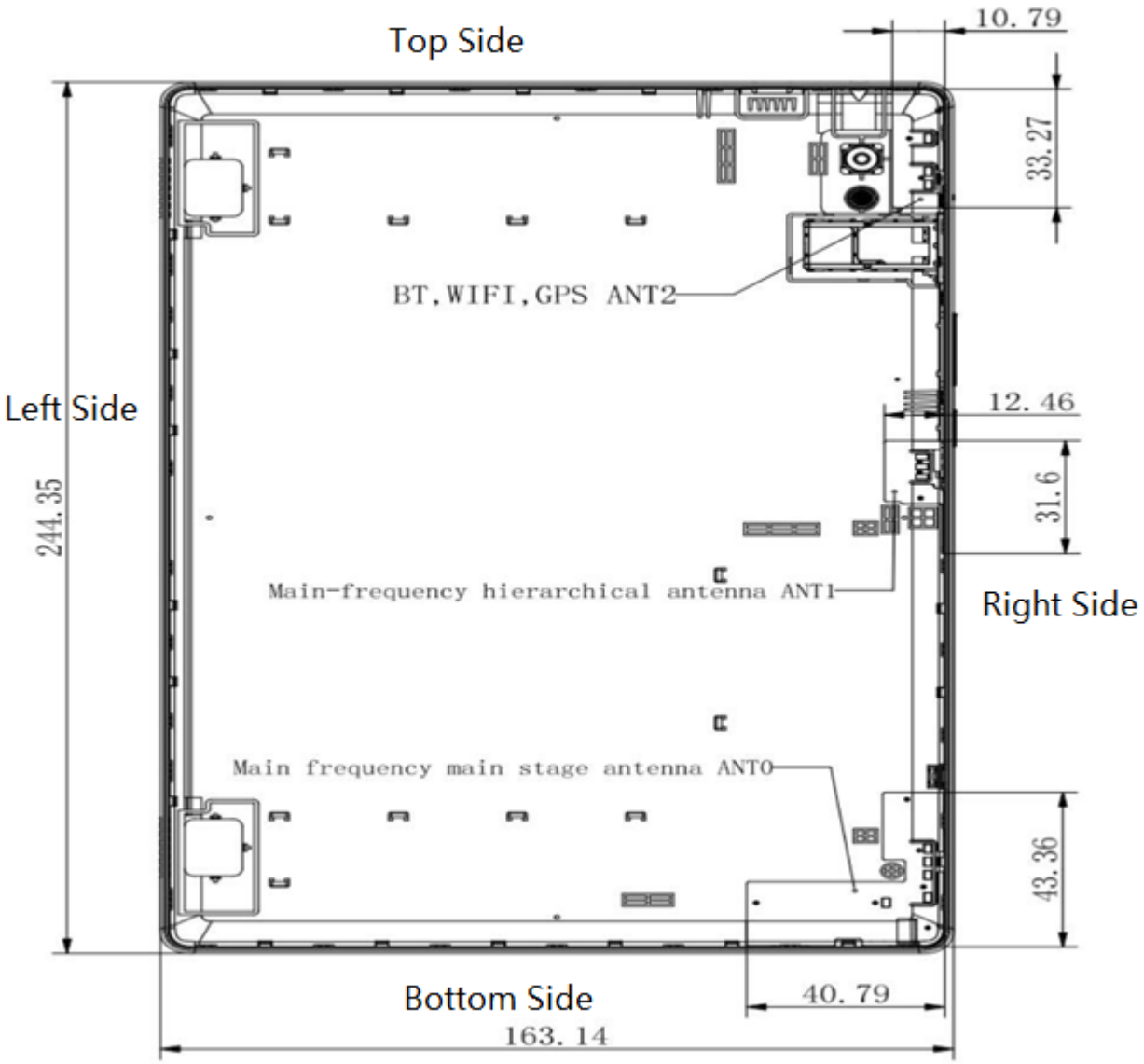
4) Higher order modulations

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

E) Other channel bandwidth standalone SAR test requirements

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

6.2.5 DUT Antenna Locations(Front Veiw)



Note:

1) Per KDB 616217, the diagonal length is 285mm > 200mm, the device is considered a "tablet" device and needed to test 0mm 1-g body SAR.
2) Sensor pad 1 and Ant 0 is a common antenna
3) Sensor pad 2 and Ant 2 is a common antenna

6.2.6 EUT side for SAR Testing

- **Stand-alone SAR test evaluation**

1) Per FCC KDB 447498D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:
• f(GHz) is the RF channel transmit frequency in GHz
• Power and distance are rounded to the nearest mW and mm before calculation
• The result is rounded to one decimal place for comparison
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz
b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

Standalone SAR exclusion calculation

	Wireless Interface	GPRS 850 Class 10	GPRS 1900 Class 12	WCDMA Band V	WCDMA Band IV	WCDMA Band II	LTE Band 71	LTE Band 12	LTE Band 17	LTE Band 5	LTE Band 26	LTE Band 4	LTE Band 66	LTE Band 2	LTE Band 25	BT	2.4GHz WLAN	5GHz WLAN
Exposure Position	Calculated Frequency	848MHz	1909MHz	846MHz	1750MHz	1907MHz	695MHz	715MHz	713MHz	848MHz	848MHz	1754MHz	1779MHz	1909MHz	1914MHz	2480MHz	2462MHz	5825MHz
	Maximum power (dBm)	32.5	27.5	24.00	23.5	23.5	23.5	24	24	24	24	23.5	23.5	23.5	23.5	11	18	15
	Maximum rated power(mW)	1778.0	562.0	251.0	224.0	224.0	224.0	251.0	251.0	251.0	251.0	224.0	224.0	224.0	224.0	13.0	63.0	32.0
Back Side	Separation distance(mm)	5.0														5.0	5.0	5.0
	exclusion threshold	327.5	155.3	46.2	59.3	61.9	37.4	42.5	42.4	46.2	46.2	59.3	59.8	61.9	62.0	4.1	19.8	15.5
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Left Side	Separation distance(mm)	122.4														152.35	152.35	152.35
	exclusion threshold	572.0	832.0	571.0	837.0	832.0	515.0	522.0	522.0	572.0	572.0	837.0	836.0	832.0	832.0	1119.0	1119.0	1086.0
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Right Side	Separation distance(mm)	5.0														5.0	5.0	5.0
	exclusion threshold	327.5	155.3	46.2	59.3	61.9	37.4	42.5	42.4	46.2	46.2	59.3	59.8	61.9	62.0	4.1	19.8	15.5
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Top Side	Separation distance(mm)	200.99														5.0	5.0	5.0
	exclusion threshold	1016.0	1618.0	1015.0	1623.0	1619.0	880.0	897.0	895.0	1016.0	1016.0	1623.0	1622.0	1618.0	1618.0	4.1	19.8	15.5
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Bottom Side	Separation distance(mm)	5.0														211.08	211.08	211.08
	exclusion threshold	327.5	155.3	46.2	59.3	61.9	37.4	42.5	42.4	46.2	46.2	59.3	59.8	61.9	62.0	1706.0	1706.0	1673.0
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No

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

2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distance is > 50 mm.

Band	Exposure Condition	f (GHz)	Test separation distance					Estimated SAR(W/Kg)				
			Back Side	Left side	Right side	Top side	Bottom side	Back Side	Left side	Right side	Top side	Bottom side
GSM 850	Body 0mm	0.848	5mm	122.35mm	5mm	200.99mm	5mm	Measure	Measure	Measure	Measure	Measure
GSM 1900	Body 0mm	1.909	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
WCDMA B2	Body 0mm	1.907	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
WCDMA B4	Body 0mm	1750	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
WCDMA B5	Body 0mm	0.846	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 2	Body 0mm	1.909	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 4	Body 0mm	1.754	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 12	Body 0mm	0.715	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 17	Body 0mm	0.713	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 25	Body 0mm	1.914	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 26	Body 0mm	0.848	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 66	Body 0mm	1.779	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
LTE Band 71	Body 0mm	0.695	5mm	122.35mm	5mm	200.99mm	5mm	Measure	0.40	Measure	0.40	Measure
WLAN2.4G	Body 0mm	2.462	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40
WLAN5.2G	Body 0mm	5.240	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40
WLAN5.3G	Body 0mm	5.320	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40
WLAN5.5G	Body 0mm	5.720	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40
WLAN5.8G	Body 0mm	5.805	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40
BT	Body 0mm	2.480	5mm	152.35mm	5mm	5mm	211.08mm	Measure	0.40	Measure	Measure	0.40

Table 9： Estimated SAR calculation for WiFi and BT

Note:

1) * - maximum possible output power declared by manufacturer

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.3 Measurement of RF conducted Power

6.3.1 Conducted Power of GSM

GSM 850 Sensor Off										
Burst Output Power(dBm)						Division Factors	Frame-Average Output Power(dBm)			
Channel		128	190	251	Tune up		128	190	251	Tune up
GPRS (GMSK)	1 TX Slot	32.40	32.45	32.40	33.50	-9.19	23.21	23.26	23.21	24.31
	2 TX Slots	31.65	31.74	31.68	32.50	-6.18	25.47	25.56	25.50	26.32
	3 TX Slots	30.06	30.10	30.09	30.50	-4.42	25.64	25.68	25.67	26.08
	4 TX Slots	27.61	27.64	27.66	28.50	-3.17	24.44	24.47	24.49	25.33
EGPRS (GMSK)	1 TX Slot	32.36	32.41	32.40	33.50	-9.19	23.17	23.22	23.21	24.31
	2 TX Slots	31.64	31.69	31.66	32.50	-6.18	25.46	25.51	25.48	26.32
	3 TX Slots	30.01	30.10	30.08	30.50	-4.42	25.59	25.68	25.66	26.08
	4 TX Slots	27.61	27.62	27.62	28.50	-3.17	24.44	24.45	24.45	25.33
EGPRS (8PSK)	1 TX Slot	26.60	26.61	26.70	27.50	-9.19	17.41	17.42	17.51	18.31
	2 TX Slots	25.51	25.51	25.59	26.50	-6.18	19.33	19.33	19.41	20.32
	3 TX Slots	23.30	23.38	23.40	24.50	-4.42	18.88	18.96	18.98	20.08
	4 TX Slots	21.20	21.27	21.40	22.50	-3.17	18.03	18.10	18.23	19.33

GSM 850 Sensor On										
Burst Output Power(dBm)						Division Factors	Frame-Average Output Power(dBm)			
Channel		128	190	251	Tune up		128	190	251	Tune up
GPRS (GMSK)	1 TX Slot	31.01	31.11	31.04	32.00	-9.19	21.82	21.92	21.85	22.81
	2 TX Slots	30.39	30.45	30.36	31.00	-6.18	24.21	24.27	24.18	24.82
	3 TX Slots	28.64	28.69	28.60	29.00	-4.42	24.22	24.27	24.18	24.58
	4 TX Slots	26.06	26.16	26.06	27.00	-3.17	22.89	22.99	22.89	23.83
EGPRS (GMSK)	1 TX Slot	31.04	31.10	31.04	32.00	-9.19	21.85	21.91	21.85	22.81
	2 TX Slots	30.32	30.41	30.34	31.00	-6.18	24.14	24.23	24.16	24.82
	3 TX Slots	28.56	28.61	28.54	29.00	-4.42	24.14	24.19	24.12	24.58
	4 TX Slots	26.10	26.15	26.05	27.00	-3.17	22.93	22.98	22.88	23.83
EGPRS (8PSK)	1 TX Slot	25.13	25.21	25.12	26.00	-9.19	15.94	16.02	15.93	16.81
	2 TX Slots	23.94	24.01	23.95	25.00	-6.18	17.76	17.83	17.77	18.82
	3 TX Slots	21.69	21.74	21.68	23.00	-4.42	17.27	17.32	17.26	18.58
	4 TX Slots	19.48	19.56	19.50	21.00	-3.17	16.31	16.39	16.33	17.83

GSM 1900 Sensor Off										
Burst Output Power(dBm)						Division Factors	Frame-Average Output Power(dBm)			
Channel		512	661	810	Tune up		512	661	810	Tune up
GPRS (GMSK)	1 TX Slot	29.14	29.28	29.34	30.50	-9.19	19.95	20.09	20.15	21.31
	2 TX Slots	28.35	28.56	28.61	29.50	-6.18	22.17	22.38	22.43	23.32
	3 TX Slots	26.75	26.86	26.88	28.50	-4.42	22.33	22.44	22.46	24.08
	4 TX Slots	25.88	25.82	25.89	27.50	-3.17	22.71	22.65	22.72	24.33
EGPRS (GMSK)	1 TX Slot	29.14	29.26	29.32	30.50	-9.19	19.95	20.07	20.13	21.31
	2 TX Slots	28.34	28.51	28.60	29.50	-6.18	22.16	22.33	22.42	23.32
	3 TX Slots	26.73	26.83	26.86	28.50	-4.42	22.31	22.41	22.44	24.08
	4 TX Slots	25.85	25.80	25.87	27.50	-3.17	22.68	22.63	22.70	24.33
EGPRS (8PSK)	1 TX Slot	25.45	25.54	25.60	26.50	-9.19	16.26	16.35	16.41	17.31
	2 TX Slots	24.44	24.52	24.61	25.50	-6.18	18.26	18.34	18.43	19.32
	3 TX Slots	22.55	22.57	22.61	24.50	-4.42	18.13	18.15	18.19	20.08
	4 TX Slots	21.61	21.66	21.67	23.50	-3.17	18.44	18.49	18.50	20.33

GSM 1900 Sensor On										
Burst Output Power(dBm)						Division Factors	Frame-Average Output Power(dBm)			
Channel		512	661	810	Tune up		512	661	810	Tune up
GPRS (GMSK)	1 TX Slot	22.65	22.82	22.88	24.00	-9.19	13.46	13.63	13.69	14.81
	2 TX Slots	21.89	22.10	22.15	23.00	-6.18	15.71	15.92	15.97	16.82
	3 TX Slots	20.20	20.34	20.42	22.00	-4.42	15.78	15.92	16.00	17.58
	4 TX Slots	19.34	19.31	19.40	21.00	-3.17	16.17	16.14	16.23	17.83
EGPRS (GMSK)	1 TX Slot	22.62	22.71	22.86	24.00	-9.19	13.43	13.52	13.67	14.81
	2 TX Slots	21.79	22.01	22.08	23.00	-6.18	15.61	15.83	15.90	16.82
	3 TX Slots	20.28	20.33	20.31	22.00	-4.42	15.86	15.91	15.89	17.58
	4 TX Slots	19.37	19.35	19.39	21.00	-3.17	16.20	16.18	16.22	17.83
EGPRS (8PSK)	1 TX Slot	18.93	19.05	19.14	20.00	-9.19	9.74	9.86	9.95	10.81
	2 TX Slots	17.90	17.99	18.13	19.00	-6.18	11.72	11.81	11.95	12.82
	3 TX Slots	16.05	16.05	16.09	18.00	-4.42	11.63	11.63	11.67	13.58
	4 TX Slots	15.08	15.15	15.21	17.00	-3.17	11.91	11.98	12.04	13.83

Table 10：Conducted Power of GSM.

Note:

1）. CMW500 measures GSM peak and average output power for active timeslots. For SAR the time based average power is relevant. The difference in between depends on the duty cycle of the TDMA signal:

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

2）. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8

3）. When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used

6.3.2 Conducted Power of WCDMA

WCDMA Band II Sensor Off					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	22.29	22.34	22.31	23.50
HSDPA	Subtest 1	21.60	21.55	21.65	22.50
	Subtest 2	20.90	20.84	20.85	22.50
	Subtest 3	20.83	20.83	20.81	22.00
	Subtest 4	21.02	20.89	20.98	22.00
HSUPA	Subtest 1	20.98	20.97	21.00	21.50
	Subtest 2	19.88	19.85	19.85	20.50
	Subtest 3	20.42	20.41	20.47	21.50
	Subtest 4	20.16	20.14	20.14	22.00
	Subtest 5	21.16	21.13	21.15	22.50
DC-HSDPA	Subtest 1	21.51	21.46	21.56	22.50
	Subtest 2	21.05	21.03	21.03	22.50
	Subtest 3	20.96	20.94	20.96	22.00
	Subtest 4	21.17	21.08	21.12	22.00

WCDMA Band II Sensor On					
Average Conducted Power(dBm)					
Channel		9262	9400	9538	Tune up
WCDMA	12.2kbps RMC	15.51	15.53	15.54	17.00
HSDPA	Subtest 1	14.68	14.65	14.76	16.00
	Subtest 2	14.60	14.49	14.45	16.00
	Subtest 3	13.97	13.88	13.95	15.50
	Subtest 4	14.09	13.95	14.10	15.50
HSUPA	Subtest 1	14.12	14.07	14.11	15.00
	Subtest 2	13.01	12.97	12.98	14.00
	Subtest 3	13.50	13.52	13.59	15.00
	Subtest 4	14.57	14.50	14.48	15.50
	Subtest 5	14.23	14.26	14.20	16.00
DC-HSDPA	Subtest 1	14.65	14.55	14.62	16.00
	Subtest 2	14.56	14.49	14.47	16.00
	Subtest 3	14.09	14.02	14.04	15.50
	Subtest 4	14.23	14.14	14.19	15.50

WCDMA Band IV Sensor Off					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	22.38	22.48	22.39	23.50
HSDPA	Subtest 1	21.63	21.59	21.71	22.50
	Subtest 2	20.96	20.96	20.91	22.50
	Subtest 3	20.88	20.84	20.91	22.00
	Subtest 4	20.99	20.94	21.00	22.00
HSUPA	Subtest 1	20.95	20.95	20.98	21.50
	Subtest 2	19.88	19.84	19.88	20.50
	Subtest 3	20.47	20.44	20.48	21.50
	Subtest 4	20.15	20.17	20.16	22.00
	Subtest 5	21.14	21.16	21.14	22.50
DC-HSDPA	Subtest 1	21.50	21.49	21.58	22.50
	Subtest 2	21.08	21.08	21.05	22.50
	Subtest 3	20.98	20.98	21.01	22.00
	Subtest 4	21.13	21.08	21.15	22.00

WCDMA Band IV Sensor On					
Average Conducted Power(dBm)					
Channel		1312	1412	1513	Tune up
WCDMA	12.2kbps RMC	15.43	15.55	15.54	17.00
HSDPA	Subtest 1	14.75	14.64	14.84	16.00
	Subtest 2	14.66	14.59	14.55	16.00
	Subtest 3	14.00	13.94	13.97	15.50
	Subtest 4	14.04	14.03	14.10	15.50
HSUPA	Subtest 1	14.08	14.08	14.03	15.00
	Subtest 2	13.00	12.95	13.03	14.00
	Subtest 3	13.57	13.49	13.56	15.00
	Subtest 4	14.60	14.52	14.46	15.50
	Subtest 5	14.20	14.25	14.20	16.00
DC-HSDPA	Subtest 1	14.64	14.63	14.72	16.00
	Subtest 2	14.57	14.54	14.47	16.00
	Subtest 3	14.10	14.07	14.14	15.50
	Subtest 4	14.20	14.16	14.28	15.50

WCDMA Band V Sensor Off					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	22.74	22.80	22.70	24.00
HSDPA	Subtest 1	22.03	22.03	22.07	23.00
	Subtest 2	21.35	21.33	21.34	23.00
	Subtest 3	21.21	21.22	21.27	22.50
	Subtest 4	21.40	21.34	21.41	22.50
HSUPA	Subtest 1	21.39	21.37	21.37	22.00
	Subtest 2	20.28	20.26	20.24	21.00
	Subtest 3	20.83	20.83	20.85	22.00
	Subtest 4	20.55	20.58	20.55	22.50
	Subtest 5	21.57	21.53	21.55	23.00
DC-HSDPA	Subtest 1	21.92	21.88	21.96	23.00
	Subtest 2	21.47	21.47	21.48	23.00
	Subtest 3	21.36	21.33	21.39	22.50
	Subtest 4	21.53	21.48	21.55	22.50

WCDMA Band V Sensor On					
Average Conducted Power(dBm)					
Channel		4132	4182	4233	Tune up
WCDMA	12.2kbps RMC	20.76	20.80	20.72	22.00
HSDPA	Subtest 1	20.01	20.03	20.11	21.00
	Subtest 2	19.34	19.32	19.30	21.00
	Subtest 3	19.19	19.17	19.23	20.50
	Subtest 4	19.40	19.39	19.44	20.50
HSUPA	Subtest 1	19.39	19.36	19.36	20.00
	Subtest 2	18.28	18.31	18.23	19.00
	Subtest 3	18.80	18.88	18.87	20.00
	Subtest 4	18.59	18.59	18.52	20.50
	Subtest 5	19.60	19.58	19.59	21.00
DC-HSDPA	Subtest 1	19.87	19.83	19.96	21.00
	Subtest 2	19.49	19.46	19.45	21.00
	Subtest 3	19.41	19.37	19.43	20.50
	Subtest 4	19.53	19.47	19.54	20.50

Table 11：Conducted Power of WCDMA.

Note:
1) when the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel must be used.

6.3.3 Conducted Power of LTE

LTE Band 2 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	22.57	22.49	22.14	23.50
		1	2	22.68	22.57	22.25	23.50
		1	5	22.57	22.47	22.07	23.50
		3	0	22.66	22.58	22.19	23.50
		3	2	22.70	22.62	22.22	23.50
		3	3	22.66	22.54	22.19	23.50
		6	0	21.67	21.56	21.23	22.50
	16QAM	1	0	21.74	21.55	21.25	22.50
		1	2	21.74	21.64	21.38	22.50
		1	5	21.69	21.44	21.26	22.50
		3	0	21.63	21.53	21.23	22.50
		3	2	21.76	21.56	21.31	22.50
		3	3	21.69	21.49	21.23	22.50
		6	0	20.63	20.58	20.16	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	22.65	22.54	22.18	23.50
		1	7	22.78	22.65	22.25	23.50
		1	14	22.59	22.55	22.18	23.50
		8	0	21.70	21.58	21.21	22.50
		8	4	21.74	21.56	21.21	22.50
		8	7	21.69	21.58	21.17	22.50
		15	0	21.70	21.59	21.22	22.50
	16QAM	1	0	21.88	21.63	21.36	22.50
		1	7	21.88	21.77	21.56	22.50
		1	14	21.89	21.70	21.40	22.50
		8	0	20.65	20.57	20.27	21.50
		8	4	20.69	20.60	20.28	21.50
		8	7	20.76	20.60	20.26	21.50
		15	0	20.66	20.51	20.17	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	22.53	22.44	22.09	23.50
		1	13	22.66	22.51	22.22	23.50
		1	24	22.52	22.43	22.08	23.50
		12	0	21.68	21.58	21.24	22.50
		12	6	21.73	21.61	21.26	22.50
		12	13	21.69	21.59	21.16	22.50
		25	0	21.70	21.59	21.21	22.50
	16QAM	1	0	21.76	21.72	21.32	22.50
		1	13	21.95	21.78	21.51	22.50
		1	24	21.83	21.61	21.36	22.50
		12	0	20.71	20.51	20.28	21.50
		12	6	20.73	20.51	20.21	21.50
		12	13	20.69	20.57	20.24	21.50
		25	0	20.72	20.59	20.27	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	22.63	22.55	22.32	23.50

		1	25	22.71	22.60	22.30	23.50
		1	49	22.66	22.50	22.19	23.50
		25	0	21.75	21.62	21.37	22.50
		25	13	21.68	21.64	21.25	22.50
		25	25	21.73	21.63	21.24	22.50
		50	0	21.75	21.67	21.32	22.50
	16QAM	1	0	21.77	21.69	21.47	22.50
		1	25	21.89	21.72	21.44	22.50
		1	49	21.83	21.62	21.35	22.50
		25	0	20.76	20.63	20.39	21.50
		25	13	20.71	20.59	20.26	21.50
		25	25	20.70	20.62	20.27	21.50
		50	0	20.68	20.60	20.31	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	22.57	22.51	22.33	23.50
		1	38	22.68	22.54	22.32	23.50
		1	74	22.63	22.36	22.08	23.50
		36	0	21.74	21.59	21.43	22.50
		36	18	21.73	21.61	21.35	22.50
		36	39	21.72	21.59	21.27	22.50
		75	0	21.75	21.66	21.35	22.50
	16QAM	1	0	21.77	21.70	21.50	22.50
		1	38	21.96	21.68	21.61	22.50
		1	74	21.91	21.62	21.39	22.50
		36	0	20.69	20.54	20.36	21.50
		36	18	20.71	20.56	20.33	21.50
		36	39	20.73	20.55	20.25	21.50
		75	0	20.71	20.58	20.30	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	22.41	22.40	22.22	23.50
		1	50	22.79	22.61	22.45	23.50
		1	99	22.42	22.19	22.25	23.50
		50	0	21.74	21.59	21.40	22.50
		50	25	21.75	21.66	21.46	22.50
		50	50	21.78	21.56	21.25	22.50
		100	0	21.75	21.54	21.38	22.50
	16QAM	1	0	21.75	21.68	21.58	22.50
		1	50	21.98	21.79	21.74	22.50
		1	99	21.71	21.41	21.29	22.50
		50	0	20.76	20.55	20.43	21.50
		50	25	20.74	20.59	20.39	21.50
		50	50	20.74	20.52	20.26	21.50
		100	0	20.75	20.52	20.40	21.50

LTE Band 2 Sensor On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 18607	Channel 18900	Channel 19193	Tune up
1.4MHz	QPSK	1	0	16.08	15.99	15.65	17.00
		1	2	16.20	16.08	15.78	17.00
		1	5	16.08	15.94	15.58	17.00
		3	0	16.18	16.11	15.71	17.00
		3	2	16.24	16.11	15.69	17.00
		3	3	16.13	16.05	15.70	17.00
		6	0	15.12	15.07	14.70	16.00
	16QAM	1	0	15.24	15.04	14.70	16.00
		1	2	15.22	15.14	14.85	16.00
		1	5	15.16	14.90	14.76	16.00
		3	0	15.08	15.04	14.70	16.00
		3	2	15.31	15.09	14.79	16.00
		3	3	15.14	14.96	14.74	16.00
		6	0	14.11	14.06	13.63	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 18615	Channel 18900	Channel 19185	Tune up
3MHz	QPSK	1	0	16.18	16.06	15.71	17.00
		1	7	16.27	16.16	15.75	17.00
		1	14	16.09	16.04	15.73	17.00
		8	0	15.21	15.12	14.66	16.00
		8	4	15.23	15.10	14.75	16.00
		8	7	15.14	15.12	14.69	16.00
		15	0	15.22	15.05	14.77	16.00
	16QAM	1	0	15.42	15.11	14.89	16.00
		1	7	15.40	15.23	15.04	16.00
		1	14	15.44	15.20	14.88	16.00
		8	0	14.10	14.05	13.79	15.00
		8	4	14.17	14.12	13.78	15.00
		8	7	14.23	14.10	13.80	15.00
		15	0	14.20	14.05	13.65	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 18625	Channel 18900	Channel 19175	Tune up
5MHz	QPSK	1	0	16.08	15.99	15.54	17.00
		1	13	16.16	16.04	15.71	17.00
		1	24	15.98	15.94	15.58	17.00
		12	0	15.19	15.07	14.77	16.00
		12	6	15.27	15.07	14.76	16.00
		12	13	15.23	15.12	14.62	16.00
		25	0	15.23	15.14	14.66	16.00
	16QAM	1	0	15.27	15.17	14.86	16.00
		1	13	15.50	15.23	15.03	16.00
		1	24	15.29	15.06	14.85	16.00
		12	0	14.19	14.01	13.83	15.00
		12	6	14.18	14.03	13.71	15.00
		12	13	14.14	14.05	13.77	15.00
		25	0	14.20	14.11	13.78	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 18650	Channel 18900	Channel 19150	Tune up
10MHz	QPSK	1	0	16.11	16.10	15.80	17.00
		1	25	16.18	16.11	15.83	17.00

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		1	49	16.12	16.04	15.71	17.00
		25	0	15.24	15.08	14.88	16.00
		25	13	15.16	15.19	14.71	16.00
		25	25	15.21	15.12	14.69	16.00
		50	0	15.24	15.15	14.86	16.00
	16QAM	1	0	15.22	15.19	14.98	16.00
		1	25	15.37	15.24	14.89	16.00
		1	49	15.31	15.07	14.84	16.00
		25	0	14.31	14.08	13.89	15.00
		25	13	14.26	14.09	13.73	15.00
		25	25	14.20	14.09	13.77	15.00
		50	0	14.19	14.15	13.84	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18675	18900	19125	
15MHz	QPSK	1	0	16.06	16.04	15.78	17.00
		1	38	16.23	15.99	15.85	17.00
		1	74	16.09	15.91	15.58	17.00
		36	0	15.21	15.12	14.89	16.00
		36	18	15.21	15.16	14.84	16.00
		36	39	15.20	15.11	14.82	16.00
		75	0	15.22	15.12	14.82	16.00
	16QAM	1	0	15.32	15.23	15.03	16.00
		1	38	15.42	15.23	15.08	16.00
		1	74	15.39	15.07	14.88	16.00
		36	0	14.21	14.04	13.87	15.00
		36	18	14.23	14.05	13.88	15.00
		36	39	14.26	14.00	13.73	15.00
		75	0	14.26	14.03	13.77	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				18700	18900	19100	
20MHz	QPSK	1	0	15.95	15.86	15.68	17.00
		1	50	16.30	16.15	15.95	17.00
		1	99	15.90	15.73	15.73	17.00
		50	0	15.21	15.10	14.91	16.00
		50	25	15.30	15.20	14.92	16.00
		50	50	15.30	15.07	14.72	16.00
		100	0	15.26	15.02	14.85	16.00
	16QAM	1	0	15.23	15.19	15.11	16.00
		1	50	15.49	15.31	15.27	16.00
		1	99	15.20	14.90	14.79	16.00
		50	0	14.23	14.01	13.96	15.00
		50	25	14.25	14.08	13.94	15.00
		50	50	14.23	14.06	13.73	15.00
		100	0	14.20	14.02	13.89	15.00

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中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

LTE Band 4 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19957	20175	20393	
1.4MHz	QPSK	1	0	22.14	22.22	22.45	23.50
		1	2	22.24	22.38	22.40	23.50
		1	5	22.11	22.24	22.45	23.50
		3	0	22.21	22.35	22.34	23.50
		3	2	22.24	22.40	22.35	23.50
		3	3	22.20	22.34	22.33	23.50
		6	0	21.18	21.35	21.56	22.50
	16QAM	1	0	21.28	21.41	21.64	22.50
		1	2	21.43	21.51	21.76	22.50
		1	5	21.26	21.37	21.60	22.50
		3	0	21.26	21.33	21.58	22.50
		3	2	21.28	21.43	21.64	22.50
		3	3	21.26	21.31	21.56	22.50
		6	0	20.24	20.38	20.58	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19965	20175	20385	
3MHz	QPSK	1	0	22.13	22.20	22.45	23.50
		1	7	22.36	22.44	22.35	23.50
		1	14	22.11	22.23	22.44	23.50
		8	0	21.13	21.24	21.50	22.50
		8	4	21.18	21.31	21.51	22.50
		8	7	21.13	21.28	21.47	22.50
		15	0	21.09	21.27	21.47	22.50
	16QAM	1	0	21.41	21.50	21.72	22.50
		1	7	21.48	21.68	21.88	22.50
		1	14	21.37	21.51	21.77	22.50
		8	0	20.19	20.32	20.55	21.50
		8	4	20.23	20.33	20.56	21.50
		8	7	20.19	20.32	20.53	21.50
		15	0	20.12	20.23	20.43	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				19975	20175	20375	
5MHz	QPSK	1	0	22.00	22.12	22.33	23.50
		1	13	22.12	22.27	22.46	23.50
		1	24	22.15	22.13	22.34	23.50
		12	0	21.15	21.21	21.46	22.50
		12	6	21.20	21.31	21.53	22.50
		12	13	21.12	21.30	21.45	22.50
		25	0	21.14	21.27	21.52	22.50
	16QAM	1	0	21.38	21.41	21.58	22.50
		1	13	21.50	21.60	21.74	22.50
		1	24	21.31	21.40	21.69	22.50
		12	0	20.18	20.28	20.50	21.50
		12	6	20.16	20.26	20.50	21.50
		12	13	20.17	20.31	20.48	21.50
		25	0	20.18	20.28	20.50	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20000	20175	20350	
10MHz	QPSK	1	0	22.10	22.19	22.34	23.50
		1	25	22.22	22.34	22.33	23.50

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		1	49	22.18	22.25	22.46	23.50
		25	0	21.18	21.26	21.54	22.50
		25	13	21.16	21.33	21.49	22.50
		25	25	21.24	21.37	21.48	22.50
		50	0	21.21	21.34	21.52	22.50
	16QAM	1	0	21.29	21.37	21.51	22.50
		1	25	21.36	21.47	21.70	22.50
		1	49	21.40	21.43	21.65	22.50
		25	0	20.22	20.28	20.54	21.50
		25	13	20.22	20.33	20.51	21.50
		25	25	20.27	20.35	20.50	21.50
		50	0	20.25	20.32	20.51	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	22.07	22.11	22.22	23.50
		1	38	22.20	22.28	22.43	23.50
		1	74	22.14	22.23	22.39	23.50
		36	0	21.19	21.23	21.43	22.50
		36	18	21.22	21.30	21.49	22.50
		36	39	21.29	21.36	21.48	22.50
		75	0	21.26	21.29	21.48	22.50
	16QAM	1	0	21.36	21.42	21.50	22.50
		1	38	21.45	21.53	21.67	22.50
		1	74	21.28	21.37	21.68	22.50
		36	0	20.17	20.20	20.40	21.50
		36	18	20.20	20.31	20.46	21.50
		36	39	20.30	20.31	20.47	21.50
		75	0	20.27	20.32	20.45	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	22.43	22.45	22.45	23.50
		1	50	22.49	22.50	22.51	23.50
		1	99	22.45	22.48	22.41	23.50
		50	0	21.61	21.55	21.78	22.50
		50	25	21.64	21.71	21.83	22.50
		50	50	21.73	21.76	21.78	22.50
		100	0	21.67	21.67	21.77	22.50
	16QAM	1	0	21.72	21.75	21.71	22.50
		1	50	22.06	21.97	22.14	22.50
		1	99	21.72	21.77	21.95	22.50
		50	0	20.61	20.55	20.75	21.50
		50	25	20.66	20.72	20.80	21.50
		50	50	20.75	20.76	20.79	21.50
		100	0	20.72	20.67	20.77	21.50

LTE Band 4 Sensor On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 19957	Channel 20175	Channel 20393	Tune up
1.4MHz	QPSK	1	0	15.66	15.73	15.94	17.00
		1	2	15.76	15.90	15.90	17.00
		1	5	15.62	15.74	15.98	17.00
		3	0	15.69	15.81	15.79	17.00
		3	2	15.72	15.92	15.80	17.00
		3	3	15.65	15.86	15.78	17.00
		6	0	14.73	14.85	15.01	16.00
	16QAM	1	0	14.74	14.87	15.13	16.00
		1	2	14.94	14.97	15.25	16.00
		1	5	14.75	14.89	15.05	16.00
		3	0	14.76	14.82	15.06	16.00
		3	2	14.77	14.90	15.19	16.00
		3	3	14.75	14.77	15.01	16.00
		6	0	13.72	13.89	14.05	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 19965	Channel 20175	Channel 20385	Tune up
3MHz	QPSK	1	0	15.64	15.75	15.92	17.00
		1	7	15.84	15.99	15.82	17.00
		1	14	15.65	15.69	15.93	17.00
		8	0	14.66	14.77	15.01	16.00
		8	4	14.67	14.79	15.02	16.00
		8	7	14.58	14.74	14.99	16.00
		15	0	14.56	14.81	15.02	16.00
	16QAM	1	0	14.87	14.98	15.19	16.00
		1	7	15.03	15.15	15.36	16.00
		1	14	14.89	15.02	15.28	16.00
		8	0	13.73	13.80	14.10	15.00
		8	4	13.72	13.81	14.07	15.00
		8	7	13.69	13.86	14.05	15.00
		15	0	13.63	13.74	13.91	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 19975	Channel 20175	Channel 20375	Tune up
5MHz	QPSK	1	0	15.53	15.66	15.88	17.00
		1	13	15.67	15.75	15.96	17.00
		1	24	15.65	15.58	15.87	17.00
		12	0	14.66	14.67	14.93	16.00
		12	6	14.67	14.84	15.08	16.00
		12	13	14.63	14.81	14.90	16.00
		25	0	14.65	14.76	15.03	16.00
	16QAM	1	0	14.92	14.87	15.05	16.00
		1	13	14.95	15.06	15.21	16.00
		1	24	14.77	14.94	15.20	16.00
		12	0	13.73	13.82	13.96	15.00
		12	6	13.62	13.77	13.95	15.00
		12	13	13.70	13.84	14.00	15.00
		25	0	13.69	13.75	14.04	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 20000	Channel 20175	Channel 20350	Tune up
10MHz	QPSK	1	0	15.63	15.64	15.82	17.00
		1	25	15.73	15.80	15.80	17.00

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		1	49	15.73	15.74	15.96	17.00
		25	0	14.63	14.71	15.06	16.00
		25	13	14.67	14.88	14.97	16.00
		25	25	14.77	14.84	14.93	16.00
		50	0	14.70	14.83	15.05	16.00
	16QAM	1	0	14.77	14.89	14.99	16.00
		1	25	14.82	14.94	15.22	16.00
		1	49	14.88	14.93	15.19	16.00
		25	0	13.76	13.80	14.02	15.00
		25	13	13.74	13.81	13.96	15.00
		25	25	13.80	13.87	13.99	15.00
		50	0	13.75	13.77	13.98	15.00
Bandwidth	Modulation	RB size	RB offset	#VALUE!	#VALUE!	#VALUE!	Tune up
				20025	20175	20325	
15MHz	QPSK	1	0	15.62	15.64	15.73	17.00
		1	38	15.68	15.79	15.89	17.00
		1	74	15.62	15.75	15.86	17.00
		36	0	14.65	14.71	14.89	16.00
		36	18	14.71	14.76	14.95	16.00
		36	39	14.81	14.86	15.01	16.00
		75	0	14.73	14.84	15.01	16.00
	16QAM	1	0	14.83	14.90	14.97	16.00
		1	38	14.99	15.06	15.12	16.00
		1	74	14.75	14.89	15.16	16.00
		36	0	13.63	13.68	13.91	15.00
		36	18	13.67	13.81	13.95	15.00
		36	39	13.81	13.84	14.01	15.00
		75	0	13.77	13.87	14.00	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20050	20175	20300	
20MHz	QPSK	1	0	15.92	15.93	15.99	17.00
		1	50	15.96	15.98	16.03	17.00
		1	99	15.98	15.93	15.95	17.00
		50	0	15.06	15.01	15.24	16.00
		50	25	15.10	15.22	15.30	16.00
		50	50	15.21	15.24	15.24	16.00
		100	0	15.21	15.12	15.31	16.00
	16QAM	1	0	15.22	15.22	15.19	16.00
		1	50	15.55	15.50	15.68	16.00
		1	99	15.26	15.31	15.50	16.00
		50	0	14.12	14.09	14.21	15.00
		50	25	14.18	14.19	14.25	15.00
		50	50	14.27	14.28	14.33	15.00
		100	0	14.25	14.22	14.28	15.00

LTE Band 5 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 20407	Channel 20525	Channel 20643	Tune up
1.4MHz	QPSK	1	0	22.63	22.71	22.85	24.00
		1	2	22.75	22.87	23.01	24.00
		1	5	22.66	22.71	22.85	24.00
		3	0	22.74	22.82	22.97	24.00
		3	2	22.77	22.87	22.98	24.00
		3	3	22.76	22.82	22.94	24.00
		6	0	21.71	21.83	22.02	23.00
	16QAM	1	0	21.80	21.89	21.92	23.00
		1	2	21.90	22.00	22.01	23.00
		1	5	21.83	21.79	21.91	23.00
		3	0	21.69	21.81	21.92	23.00
		3	2	21.76	21.86	21.92	23.00
		3	3	21.63	21.71	21.87	23.00
		6	0	20.72	20.78	20.90	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20415	Channel 20525	Channel 20635	Tune up
3MHz	QPSK	1	0	22.73	22.82	22.91	24.00
		1	7	22.78	22.98	22.98	24.00
		1	14	22.72	22.82	22.90	24.00
		8	0	21.74	21.76	21.95	23.00
		8	4	21.77	21.83	21.95	23.00
		8	7	21.68	21.82	21.94	23.00
		15	0	21.72	21.87	21.94	23.00
	16QAM	1	0	21.97	21.94	22.20	23.00
		1	7	21.96	22.10	22.23	23.00
		1	14	22.09	22.05	22.09	23.00
		8	0	20.77	20.83	20.96	22.00
		8	4	20.75	20.91	20.89	22.00
		8	7	20.78	20.86	20.94	22.00
		15	0	20.64	20.82	20.92	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20425	Channel 20525	Channel 20625	Tune up
5MHz	QPSK	1	0	22.60	22.71	22.84	24.00
		1	13	22.76	22.75	22.89	24.00
		1	24	22.69	22.75	22.89	24.00
		12	0	21.75	21.79	21.96	23.00
		12	6	21.82	21.89	22.02	23.00
		12	13	21.79	21.78	21.93	23.00
		25	0	21.80	21.86	21.96	23.00
	16QAM	1	0	22.01	22.02	22.09	23.00
		1	13	22.05	21.94	22.15	23.00
		1	24	22.00	21.95	21.98	23.00
		12	0	20.81	20.79	20.97	22.00
		12	6	20.76	20.78	20.94	22.00
		12	13	20.83	20.80	20.97	22.00
		25	0	20.82	20.83	20.98	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	22.70	22.79	22.82	24.00
		1	25	22.92	22.91	22.97	24.00

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		1	49	22.84	22.86	22.92	24.00
		25	0	21.86	21.81	22.05	23.00
		25	13	21.89	21.94	22.00	23.00
		25	25	22.02	21.90	22.06	23.00
		50	0	21.92	21.83	22.14	23.00
	16QAM	1	0	21.80	21.96	21.99	23.00
		1	25	21.94	22.01	22.11	23.00
		1	49	21.89	22.01	21.83	23.00
		25	0	20.90	20.79	21.09	22.00
		25	13	20.94	20.86	21.00	22.00
		25	25	20.95	20.87	21.09	22.00
		50	0	20.90	20.82	21.09	22.00

LTE Band 5 Sensor On				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20407	20525	20643	
1.4MHz	QPSK	1	0	20.58	20.76	20.88	22.00
		1	2	20.80	20.85	21.00	22.00
		1	5	20.65	20.76	20.89	22.00
		3	0	20.76	20.85	20.92	22.00
		3	2	20.77	20.89	20.98	22.00
		3	3	20.80	20.81	20.92	22.00
		6	0	19.67	19.83	20.04	21.00
	16QAM	1	0	19.82	19.92	19.92	21.00
		1	2	19.94	19.96	20.00	21.00
		1	5	19.80	19.79	19.93	21.00
		3	0	19.69	19.78	19.87	21.00
		3	2	19.71	19.82	19.95	21.00
		3	3	19.60	19.70	19.92	21.00
		6	0	18.74	18.80	18.92	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20415	20525	20635	
3MHz	QPSK	1	0	20.73	20.84	20.95	22.00
		1	7	20.79	21.03	20.97	22.00
		1	14	20.74	20.79	20.94	22.00
		8	0	19.78	19.71	19.92	21.00
		8	4	19.77	19.79	19.99	21.00
		8	7	19.64	19.86	19.89	21.00
		15	0	19.68	19.82	19.96	21.00
	16QAM	1	0	20.02	19.99	20.24	21.00
		1	7	19.99	20.07	20.27	21.00
		1	14	20.04	20.01	20.05	21.00
		8	0	18.75	18.79	18.92	20.00
		8	4	18.70	18.87	18.86	20.00
		8	7	18.81	18.83	18.90	20.00
		15	0	18.68	18.87	18.93	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				20425	20525	20625	
5MHz	QPSK	1	0	20.63	20.68	20.86	22.00
		1	13	20.76	20.75	20.88	22.00
		1	24	20.68	20.79	20.87	22.00
		12	0	19.73	19.84	20.00	21.00

		12	6	19.79	19.91	19.97	21.00
		12	13	19.76	19.78	19.89	21.00
		25	0	19.83	19.83	19.96	21.00
	16QAM	1	0	20.05	20.03	20.13	21.00
		1	13	20.10	19.89	20.16	21.00
		1	24	19.95	19.97	19.96	21.00
		12	0	18.80	18.75	18.99	20.00
		12	6	18.80	18.73	18.97	20.00
		12	13	18.86	18.78	19.01	20.00
		25	0	18.78	18.88	18.97	20.00
Bandwidth	Modulation	RB size	RB offset	Channel 20450	Channel 20525	Channel 20600	Tune up
10MHz	QPSK	1	0	20.66	20.80	20.83	22.00
		1	25	20.92	20.88	20.94	22.00
		1	49	20.85	20.82	20.93	22.00
		25	0	19.85	19.84	20.02	21.00
		25	13	19.93	19.93	19.97	21.00
		25	25	20.07	19.95	20.03	21.00
		50	0	19.96	19.87	20.16	21.00
	16QAM	1	0	19.77	19.91	20.00	21.00
		1	25	19.97	20.01	20.08	21.00
		1	49	19.85	19.98	19.84	21.00
		25	0	18.94	18.79	19.06	20.00
		25	13	18.93	18.81	19.01	20.00
		25	25	18.93	18.89	19.08	20.00
		50	0	18.86	18.77	19.10	20.00

LTE FDD Band 12 Sensor Off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 23017	Channel 23095	Channel 23173	Tune up
1.4MHz	QPSK	1	0	22.62	22.68	22.58	24.00
		1	2	22.77	22.75	22.67	24.00
		1	5	22.66	22.64	22.53	24.00
		3	0	22.69	22.76	22.64	24.00
		3	2	22.80	22.77	22.69	24.00
		3	3	22.72	22.72	22.67	24.00
		6	0	21.73	21.75	21.75	23.00
	16QAM	1	0	21.71	21.82	21.74	23.00
		1	2	21.88	21.96	21.70	23.00
		1	5	21.82	21.69	21.66	23.00
		3	0	21.70	21.75	21.72	23.00
		3	2	21.79	21.78	21.76	23.00
		3	3	21.71	21.75	21.65	23.00
		6	0	20.70	20.70	20.70	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 23025	Channel 23095	Channel 23165	Tune up
3MHz	QPSK	1	0	22.68	22.68	22.63	24.00
		1	7	22.78	22.90	22.71	24.00
		1	14	22.71	22.63	22.64	24.00
		8	0	21.69	21.68	21.68	23.00
		8	4	21.77	21.74	21.75	23.00
		8	7	21.74	21.69	21.69	23.00
		15	0	21.72	21.68	21.66	23.00
	16QAM	1	0	21.92	21.98	21.94	23.00
		1	7	22.04	22.09	21.95	23.00

		1	14	21.97	21.88	21.79	23.00
		8	0	20.72	20.72	20.72	22.00
		8	4	20.77	20.74	20.74	22.00
		8	7	20.77	20.69	20.65	22.00
		15	0	20.68	20.71	20.64	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23035	23095	23155	
5MHz	QPSK	1	0	22.60	22.56	22.57	24.00
		1	13	22.69	22.63	22.60	24.00
		1	24	22.61	22.57	22.52	24.00
		12	0	21.73	21.72	21.71	23.00
		12	6	21.77	21.72	21.75	23.00
		12	13	21.76	21.72	21.65	23.00
		25	0	21.71	21.75	21.71	23.00
	16QAM	1	0	21.90	21.93	21.84	23.00
		1	13	21.97	22.01	21.92	23.00
		1	24	21.97	21.86	21.70	23.00
		12	0	20.73	20.73	20.69	22.00
		12	6	20.75	20.68	20.64	22.00
		12	13	20.75	20.70	20.70	22.00
		25	0	20.74	20.68	20.68	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23060	23095	23130	
10MHz	QPSK	1	0	22.70	22.65	22.67	24.00
		1	25	22.71	22.79	22.77	24.00
		1	49	22.62	22.66	22.65	24.00
		25	0	21.78	21.79	21.77	23.00
		25	13	21.58	21.57	21.59	23.00
		25	25	21.61	21.57	21.51	23.00
		50	0	21.60	21.59	21.55	23.00
	16QAM	1	0	21.63	21.65	21.61	23.00
		1	25	21.78	21.78	21.73	23.00
		1	49	21.62	21.65	21.53	23.00
		25	0	20.72	20.70	20.80	22.00
		25	13	20.82	20.76	20.73	22.00
		25	25	20.78	20.76	20.69	22.00
		50	0	20.76	20.72	20.74	22.00

LTE FDD Band 17 Sensor Off				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23755	23790	23825	
5MHz	QPSK	1	0	22.61	22.62	22.48	24.00
		1	13	22.66	22.66	22.62	24.00
		1	24	22.58	22.51	22.54	24.00
		12	0	21.68	21.68	21.73	23.00
		12	6	21.76	21.73	21.72	23.00
		12	13	21.72	21.64	21.60	23.00
		25	0	21.66	21.70	21.69	23.00
	16QAM	1	0	21.93	21.87	21.86	23.00
		1	13	21.99	21.99	21.92	23.00
		1	24	21.88	21.79	21.79	23.00
		12	0	20.65	20.63	20.66	22.00
		12	6	20.64	20.65	20.67	22.00
		12	13	20.69	20.64	20.64	22.00
		25	0	20.70	20.68	20.62	22.00

Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				23780	23790	23800	
10MHz	QPSK	1	0	22.43	22.48	22.52	24.00
		1	25	22.59	22.51	22.57	24.00
		1	49	22.44	22.42	22.44	24.00
		25	0	21.59	21.58	21.59	23.00
		25	13	21.54	21.51	21.54	23.00
		25	25	21.55	21.51	21.46	23.00
		50	0	21.54	21.54	21.56	23.00
	16QAM	1	0	21.60	21.64	21.65	23.00
		1	25	21.75	21.70	21.71	23.00
		1	49	21.59	21.54	21.56	23.00
		25	0	20.77	20.78	20.80	22.00
		25	13	20.70	20.73	20.68	22.00
		25	25	20.72	20.69	20.69	22.00
		50	0	20.74	20.72	20.70	22.00

LTE Band 26 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26697	26865	27033	
1.4MHz	QPSK	1	0	22.72	22.82	22.99	24.00
		1	2	22.79	22.94	23.07	24.00
		1	5	22.64	22.82	22.96	24.00
		3	0	22.78	22.96	23.08	24.00
		3	2	22.83	22.99	23.14	24.00
		3	3	22.78	22.95	23.11	24.00
		6	0	21.79	21.94	22.08	23.00
	16QAM	1	0	21.80	21.97	22.03	23.00
		1	2	21.97	22.05	22.17	23.00
		1	5	21.84	21.93	22.05	23.00
		3	0	21.82	21.92	22.07	23.00
		3	2	21.82	21.99	22.09	23.00
		3	3	21.80	21.89	21.95	23.00
		6	0	20.84	20.93	21.09	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26705	26865	27025	
3MHz	QPSK	1	0	22.75	22.86	23.00	24.00
		1	7	22.97	22.99	23.00	24.00
		1	14	22.74	22.85	22.98	24.00
		8	0	21.72	21.92	22.06	23.00
		8	4	21.80	21.94	22.11	23.00
		8	7	21.81	21.89	22.04	23.00
		15	0	21.77	21.87	22.05	23.00
	16QAM	1	0	22.02	22.13	22.24	23.00
		1	7	22.20	22.33	22.36	23.00
		1	14	21.96	22.10	22.14	23.00
		8	0	20.81	20.91	21.08	22.00
		8	4	20.82	21.00	21.04	22.00
		8	7	20.84	20.98	20.96	22.00
		15	0	20.72	20.86	21.01	22.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26715	26865	27015	
5MHz	QPSK	1	0	22.86	22.94	23.11	24.00
		1	13	22.97	23.00	23.00	24.00
		1	24	22.80	22.96	23.11	24.00

		12	0	21.93	22.09	22.27	23.00
		12	6	22.05	22.19	22.34	23.00
		12	13	22.03	22.17	22.22	23.00
		25	0	22.01	22.14	22.28	23.00
	16QAM	1	0	22.20	22.32	22.48	23.00
		1	13	22.26	22.41	22.44	23.00
		1	24	22.09	22.26	22.27	23.00
		12	0	21.01	21.12	21.25	22.00
		12	6	21.01	21.15	21.27	22.00
		12	13	21.00	21.12	21.24	22.00
		25	0	21.00	21.13	21.29	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 26750	Channel 26865	Channel 26990	Tune up
10MHz	QPSK	1	0	22.61	22.69	22.88	24.00
		1	25	22.77	22.89	22.80	24.00
		1	49	22.56	22.72	22.86	24.00
		25	0	21.71	21.87	22.02	23.00
		25	13	21.85	21.98	22.09	23.00
		25	25	21.80	21.96	22.01	23.00
		50	0	21.77	21.90	22.05	23.00
	16QAM	1	0	21.95	22.11	22.28	23.00
		1	25	22.04	22.18	22.22	23.00
		1	49	21.88	22.05	22.06	23.00
		25	0	20.77	20.92	21.02	22.00
		25	13	20.80	20.95	21.02	22.00
		25	25	20.80	20.91	21.00	22.00
		50	0	20.76	20.93	21.04	22.00
Bandwidth	Modulation	RB size	RB offset	Channel 26775	Channel 26865	Channel 26965	Tune up
15MHz	QPSK	1	0	22.76	22.84	22.92	24.00
		1	38	22.80	22.93	23.09	24.00
		1	74	22.78	22.89	22.99	24.00
		36	0	21.65	21.87	22.20	23.00
		36	18	21.80	22.00	22.15	23.00
		36	39	21.80	22.04	22.21	23.00
		75	0	21.75	21.98	22.20	23.00
	16QAM	1	0	21.90	21.95	22.06	23.00
		1	38	21.90	22.09	22.25	23.00
		1	74	21.96	21.99	22.09	23.00
		36	0	20.69	20.91	21.21	22.00
		36	18	20.84	21.01	21.16	22.00
		36	39	20.79	21.00	21.13	22.00
		75	0	20.72	20.95	21.15	22.00

LTE Band 26 Sensor On				**Conducted Power(dBm)**			
Bandwidth	Modulation	RB size	RB offset	Channel 26697	Channel 26865	Channel 27033	Tune up
1.4MHz	QPSK	1	0	20.70	20.85	21.00	22.00
		1	2	20.78	20.99	21.10	22.00
		1	5	20.64	20.83	20.94	22.00
		3	0	20.83	20.98	21.13	22.00
		3	2	20.80	20.96	21.11	22.00
		3	3	20.73	20.99	21.15	22.00
		6	0	19.78	19.92	20.13	21.00
	16QAM	1	0	19.76	19.95	20.08	21.00

		1	2	19.97	20.09	20.16	21.00
		1	5	19.87	19.97	20.10	21.00
		3	0	19.87	19.89	20.04	21.00
		3	2	19.83	19.94	20.04	21.00
		3	3	19.84	19.91	19.97	21.00
		6	0	18.85	18.91	19.10	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26705	26865	27025	
3MHz	QPSK	1	0	20.79	20.88	21.01	22.00
		1	7	20.98	21.01	21.04	22.00
		1	14	20.76	20.87	21.01	22.00
		8	0	19.74	19.96	20.10	21.00
		8	4	19.79	19.90	20.13	21.00
		8	7	19.81	19.90	20.09	21.00
		15	0	19.80	19.82	20.00	21.00
	16QAM	1	0	20.02	20.09	20.22	21.00
		1	7	20.17	20.35	20.34	21.00
		1	14	19.99	20.14	20.13	21.00
		8	0	18.82	18.91	19.12	20.00
		8	4	18.83	18.96	19.05	20.00
		8	7	18.88	19.02	19.00	20.00
		15	0	18.70	18.85	18.99	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26715	26865	27015	
5MHz	QPSK	1	0	20.88	20.96	21.14	22.00
		1	13	20.99	20.98	21.01	22.00
		1	24	20.83	20.98	21.07	22.00
		12	0	19.91	20.05	20.30	21.00
		12	6	20.05	20.18	20.29	21.00
		12	13	20.05	20.20	20.17	21.00
		25	0	20.01	20.18	20.28	21.00
	16QAM	1	0	20.15	20.34	20.45	21.00
		1	13	20.21	20.43	20.39	21.00
		1	24	20.05	20.27	20.31	21.00
		12	0	19.06	19.10	19.21	20.00
		12	6	19.03	19.19	19.28	20.00
		12	13	19.05	19.17	19.22	20.00
		25	0	18.99	19.17	19.26	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26750	26865	26990	
10MHz	QPSK	1	0	20.63	20.65	20.89	22.00
		1	25	20.80	20.91	20.75	22.00
		1	49	20.56	20.76	20.87	22.00
		25	0	19.68	19.84	20.02	21.00
		25	13	19.82	19.99	20.14	21.00
		25	25	19.75	19.95	20.05	21.00
		50	0	19.77	19.95	20.00	21.00
	16QAM	1	0	19.91	20.16	20.32	21.00
		1	25	20.09	20.18	20.19	21.00
		1	49	19.88	20.01	20.09	21.00
		25	0	18.74	18.89	19.05	20.00
		25	13	18.78	18.94	19.04	20.00
		25	25	18.79	18.92	19.01	20.00
		50	0	18.76	18.92	19.05	20.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26765	26865	26965	
15MHz	QPSK	1	0	20.74	20.82	20.96	22.00

		1	38	20.89	20.94	21.09	22.00
		1	74	20.81	20.94	21.03	22.00
		36	0	19.69	19.87	20.19	21.00
		36	18	19.84	19.96	20.13	21.00
		36	39	19.79	20.00	20.24	21.00
		75	0	19.80	19.93	20.20	21.00
	16QAM	1	0	19.88	19.90	20.02	21.00
		1	38	19.94	20.13	20.29	21.00
		1	74	19.92	20.02	20.09	21.00
		36	0	18.70	18.93	19.20	20.00
		36	18	18.85	18.98	19.20	20.00
		36	39	18.77	18.97	19.17	20.00
		75	0	18.69	18.92	19.12	20.00

LTE Band 66 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 131979	Channel 132322	Channel 132665	Tune up
1.4MHz	QPSK	1	0	22.14	22.40	22.30	23.50
		1	2	22.26	22.56	22.39	23.50
		1	5	22.15	22.42	22.28	23.50
		3	0	22.24	22.51	22.39	23.50
		3	1	22.26	22.57	22.39	23.50
		3	3	22.23	22.51	22.40	23.50
		6	0	21.22	21.49	21.41	22.50
	16QAM	1	0	21.30	21.59	21.45	22.50
		1	2	21.49	21.68	21.61	22.50
		1	5	21.34	21.58	21.46	22.50
		3	0	21.31	21.50	21.42	22.50
		3	1	21.37	21.59	21.47	22.50
		3	3	21.27	21.55	21.37	22.50
		6	0	20.25	20.52	20.43	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 131987	Channel 132322	Channel 132657	Tune up
3MHz	QPSK	1	0	22.16	22.40	22.28	23.50
		1	7	22.37	22.58	22.36	23.50
		1	14	22.12	22.40	22.25	23.50
		8	0	21.15	21.42	21.27	22.50
		8	4	21.19	21.48	21.33	22.50
		8	7	21.18	21.44	21.27	22.50
		15	0	21.14	21.42	21.28	22.50
	16QAM	1	0	21.45	21.65	21.62	22.50
		1	7	21.50	21.81	21.72	22.50
		1	14	21.48	21.70	21.60	22.50
		8	0	20.23	20.48	20.38	21.50
		8	4	20.25	20.50	20.41	21.50
		8	7	20.22	20.49	20.38	21.50
		15	0	20.13	20.43	20.26	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 131997	Channel 132322	Channel 132647	Tune up
5MHz	QPSK	1	0	22.04	22.30	22.37	23.50
		1	13	22.14	22.39	22.52	23.50
		1	24	22.02	22.34	22.45	23.50
		12	0	21.17	21.41	21.52	22.50
		12	6	21.21	21.46	21.56	22.50
		12	13	21.16	21.39	21.51	22.50

		25	0	21.19	21.41	21.51	22.50
	16QAM	1	0	21.42	21.58	21.69	22.50
		1	13	21.53	21.68	21.84	22.50
		1	24	21.39	21.61	21.72	22.50
		12	0	20.21	20.40	20.54	21.50
		12	6	20.22	20.40	20.55	21.50
		12	13	20.24	20.39	20.53	21.50
		25	0	20.23	20.40	20.54	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132022	132322	132622	
10MHz	QPSK	1	0	22.29	22.37	22.11	23.50
		1	25	22.46	22.57	22.23	23.50
		1	49	22.39	22.49	22.17	23.50
		25	0	21.41	21.57	21.21	22.50
		25	13	21.42	21.50	21.19	22.50
		25	25	21.40	21.51	21.21	22.50
		50	0	21.43	21.52	21.20	22.50
	16QAM	1	0	21.48	21.55	21.32	22.50
		1	25	21.65	21.77	21.49	22.50
		1	49	21.57	21.65	21.41	22.50
		25	0	20.42	20.60	20.25	21.50
		25	13	20.40	20.55	20.25	21.50
		25	25	20.40	20.55	20.27	21.50
		50	0	20.37	20.57	20.25	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	22.03	22.22	22.32	23.50
		1	38	22.11	22.35	22.44	23.50
		1	74	22.10	22.31	22.40	23.50
		36	0	21.13	21.36	21.49	22.50
		36	18	21.15	21.41	21.49	22.50
		36	39	21.21	21.40	21.49	22.50
		75	0	21.15	21.39	21.50	22.50
	16QAM	1	0	21.22	21.41	21.59	22.50
		1	38	21.39	21.59	21.69	22.50
		1	74	21.35	21.62	21.67	22.50
		36	0	20.14	20.31	20.49	21.50
		36	18	20.15	20.37	20.49	21.50
		36	39	20.21	20.40	20.49	21.50
		75	0	20.21	20.37	20.51	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	22.30	22.13	22.24	23.50
		1	50	22.63	22.53	22.56	23.50
		1	99	22.33	22.27	22.25	23.50
		50	0	21.20	21.45	21.58	22.50
		50	25	21.29	21.51	21.54	22.50
		50	50	21.33	21.40	21.52	22.50
		100	0	21.25	21.43	21.51	22.50
	16QAM	1	0	21.32	21.40	21.50	22.50
		1	50	21.56	21.81	21.89	22.50
		1	99	21.35	21.47	21.46	22.50
		50	0	20.23	20.39	20.58	21.50
		50	25	20.25	20.45	20.55	21.50
		50	50	20.36	20.38	20.50	21.50
		100	0	20.27	20.39	20.58	21.50

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

LTE Band 66 Sensor On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 131979	Channel 132322	Channel 132665	Tune up
1.4MHz	QPSK	1	0	15.68	15.85	15.81	17.00
		1	2	15.78	16.08	15.92	17.00
		1	5	15.67	15.88	15.81	17.00
		3	0	15.77	16.04	15.84	17.00
		3	1	15.72	16.09	15.87	17.00
		3	3	15.76	16.02	15.85	17.00
		6	0	14.75	14.96	14.86	16.00
	16QAM	1	0	14.84	15.13	14.98	16.00
		1	2	14.95	15.15	15.09	16.00
		1	5	14.79	15.03	14.96	16.00
		3	0	14.79	15.04	14.88	16.00
		3	1	14.91	15.11	14.95	16.00
		3	3	14.78	15.00	14.89	16.00
		6	0	13.73	14.03	13.93	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 131987	Channel 132322	Channel 132657	Tune up
3MHz	QPSK	1	0	15.66	15.87	15.76	17.00
		1	7	15.84	16.10	15.85	17.00
		1	14	15.64	15.86	15.71	17.00
		8	0	14.69	14.88	14.76	16.00
		8	4	14.66	15.03	14.86	16.00
		8	7	14.69	14.94	14.76	16.00
		15	0	14.66	14.92	14.75	16.00
	16QAM	1	0	14.93	15.19	15.15	16.00
		1	7	15.03	15.31	15.19	16.00
		1	14	15.01	15.16	15.12	16.00
		8	0	13.78	14.01	13.93	15.00
		8	4	13.79	14.00	13.94	15.00
		8	7	13.67	13.94	13.86	15.00
		15	0	13.62	13.92	13.74	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 131997	Channel 132322	Channel 132647	Tune up
5MHz	QPSK	1	0	15.55	15.75	15.82	17.00
		1	13	15.60	15.85	15.98	17.00
		1	24	15.49	15.79	15.94	17.00
		12	0	14.65	14.90	14.97	16.00
		12	6	14.70	15.00	15.05	16.00
		12	13	14.71	14.93	15.02	16.00
		25	0	14.64	14.88	15.03	16.00
	16QAM	1	0	14.94	15.11	15.20	16.00
		1	13	15.07	15.14	15.30	16.00
		1	24	14.91	15.07	15.17	16.00
		12	0	13.76	13.92	14.00	15.00
		12	6	13.69	13.85	14.09	15.00
		12	13	13.75	13.88	13.98	15.00
		25	0	13.72	13.92	13.99	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 132022	Channel 132322	Channel 132622	Tune up
10MHz	QPSK	1	0	15.75	15.86	15.61	17.00
		1	25	16.01	16.11	15.76	17.00
		1	49	15.90	15.97	15.70	17.00
		25	0	14.95	15.03	14.71	16.00

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		25	13	14.89	15.04	14.73	16.00
		25	25	14.89	15.01	14.75	16.00
		50	0	14.88	15.06	14.68	16.00
	16QAM	1	0	14.97	15.07	14.87	16.00
		1	25	15.12	15.28	15.03	16.00
		1	49	15.07	15.10	14.96	16.00
		25	0	13.93	14.14	13.79	15.00
		25	13	13.89	14.08	13.75	15.00
		25	25	13.94	14.03	13.78	15.00
		50	0	13.82	14.06	13.70	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132047	132322	132597	
15MHz	QPSK	1	0	15.50	15.73	15.82	17.00
		1	38	15.56	15.89	15.99	17.00
		1	74	15.57	15.81	15.95	17.00
		36	0	14.66	14.86	14.99	16.00
		36	18	14.60	14.92	14.95	16.00
		36	39	14.76	14.87	15.01	16.00
		75	0	14.65	14.91	14.99	16.00
	16QAM	1	0	14.74	14.88	15.06	16.00
		1	38	14.87	15.12	15.21	16.00
		1	74	14.86	15.10	15.15	16.00
		36	0	13.60	13.78	13.98	15.00
		36	18	13.61	13.84	13.94	15.00
		36	39	13.72	13.88	13.94	15.00
		75	0	13.71	13.86	14.03	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				132072	132322	132572	
20MHz	QPSK	1	0	15.85	15.59	15.77	17.00
		1	50	16.14	16.08	16.08	17.00
		1	99	15.83	15.75	15.73	17.00
		50	0	14.82	15.05	15.08	16.00
		50	25	14.80	14.95	15.07	16.00
		50	50	14.72	14.86	15.01	16.00
		100	0	14.80	14.90	15.00	16.00
	16QAM	1	0	14.83	14.94	14.96	16.00
		1	50	15.11	15.29	15.41	16.00
		1	99	14.82	14.94	15.01	16.00
		50	0	13.69	13.90	14.09	15.00
		50	25	13.70	13.90	14.02	15.00
		50	50	13.88	13.84	13.98	15.00
		100	0	13.72	13.87	14.05	15.00

LTE Band 25 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26047	26365	26683	
1.4MHz	QPSK	1	0	22.38	22.39	22.32	23.50
		1	2	22.52	22.53	22.45	23.50
		1	5	22.37	22.40	22.31	23.50
		3	0	22.56	22.52	22.42	23.50
		3	1	22.61	22.61	22.48	23.50
		3	3	22.47	22.50	22.39	23.50
		6	0	21.48	21.49	21.39	22.50
	16QAM	1	0	21.51	21.53	21.49	22.50
		1	2	21.65	21.67	21.63	22.50
		1	5	21.50	21.50	21.47	22.50
		3	0	21.50	21.52	21.47	22.50
		3	1	21.54	21.54	21.51	22.50
		3	3	21.50	21.54	21.42	22.50
		6	0	20.52	20.53	20.43	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26055	26365	26675	
3MHz	QPSK	1	0	22.44	22.44	22.41	23.50
		1	8	22.56	22.54	22.56	23.50
		1	14	22.44	22.42	22.30	23.50
		8	0	21.46	21.51	21.44	22.50
		8	4	21.49	21.48	21.42	22.50
		8	7	21.42	21.47	21.34	22.50
		15	0	21.49	21.46	21.39	22.50
	16QAM	1	0	21.65	21.62	21.69	22.50
		1	8	21.77	21.73	21.71	22.50
		1	14	21.63	21.67	21.58	22.50
		8	0	20.45	20.49	20.45	21.50
		8	4	20.54	20.57	20.45	21.50
		8	7	20.48	20.49	20.41	21.50
		15	0	20.39	20.38	20.39	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26065	26365	26665	
5MHz	QPSK	1	0	22.48	22.47	22.36	23.50
		1	12	22.56	22.55	22.44	23.50
		1	24	22.40	22.43	22.24	23.50
		12	0	21.51	21.47	21.49	22.50
		12	6	21.47	21.45	21.49	22.50
		12	13	21.44	21.45	21.40	22.50
		25	0	21.49	21.45	21.44	22.50
	16QAM	1	0	21.65	21.61	21.69	22.50
		1	12	21.76	21.75	21.75	22.50
		1	24	21.66	21.66	21.57	22.50
		12	0	20.46	20.45	20.46	21.50
		12	6	20.53	20.53	20.46	21.50
		12	13	20.49	20.52	20.45	21.50
		25	0	20.42	20.40	20.46	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26090	26365	26640	
10MHz	QPSK	1	0	22.47	22.44	22.45	23.50
		1	24	22.53	22.53	22.60	23.50
		1	49	22.44	22.39	22.39	23.50
		25	0	21.48	21.51	21.64	22.50

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		25	12	21.48	21.48	21.49	22.50
		25	25	21.47	21.45	21.48	22.50
		50	0	21.47	21.50	21.56	22.50
	16QAM	1	0	21.64	21.64	21.61	22.50
		1	24	21.77	21.75	21.76	22.50
		1	49	21.62	21.65	21.55	22.50
		25	0	20.50	20.45	20.65	21.50
		25	12	20.54	20.54	20.51	21.50
		25	25	20.47	20.47	20.50	21.50
		50	0	20.42	20.43	20.56	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26115	26365	26615	
15MHz	QPSK	1	0	22.49	22.47	22.51	23.50
		1	38	22.56	22.53	22.56	23.50
		1	74	22.42	22.43	22.29	23.50
		38	0	21.47	21.47	21.62	22.50
		38	18	21.45	21.50	21.58	22.50
		38	37	21.44	21.46	21.51	22.50
		75	0	21.50	21.46	21.59	22.50
	16QAM	1	0	21.60	21.65	21.77	22.50
		1	38	21.73	21.75	21.76	22.50
		1	74	21.67	21.67	21.57	22.50
		38	0	20.48	20.45	20.58	21.50
		38	18	20.53	20.54	20.58	21.50
		38	37	20.47	20.48	20.49	21.50
		75	0	20.39	20.43	20.55	21.50
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26140	26365	26590	
20MHz	QPSK	1	0	22.49	22.49	22.49	23.50
		1	50	22.61	22.51	22.59	23.50
		1	99	22.40	22.44	22.17	23.50
		50	0	21.49	21.49	21.58	22.50
		50	25	21.48	21.47	21.58	22.50
		50	50	21.65	21.51	21.60	22.50
		100	0	21.45	21.49	21.50	22.50
	16QAM	1	0	21.63	21.64	21.83	22.50
		1	49	21.74	21.75	21.81	22.50
		1	99	21.62	21.65	21.46	22.50
		50	0	20.48	20.45	20.59	21.50
		50	25	20.54	20.54	20.59	21.50
		50	50	20.49	20.50	20.39	21.50
		100	0	20.42	20.41	20.53	21.50

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

LTE Band 25 Sensor On				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 26047	Channel 26365	Channel 26683	Tune up
1.4MHz	QPSK	1	0	15.88	15.91	15.79	17.00
		1	2	15.97	16.04	15.94	17.00
		1	5	15.82	15.92	15.84	17.00
		3	0	16.01	15.98	15.93	17.00
		3	1	16.06	16.07	15.96	17.00
		3	3	15.98	16.02	15.93	17.00
		6	0	14.95	15.01	14.93	16.00
	16QAM	1	0	15.06	15.03	14.97	16.00
		1	2	15.17	15.12	15.14	16.00
		1	5	15.02	14.97	14.92	16.00
		3	0	14.99	14.98	15.01	16.00
		3	1	15.04	14.99	15.01	16.00
		3	3	15.02	15.00	14.93	16.00
		6	0	14.00	14.03	13.97	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 26055	Channel 26365	Channel 26675	Tune up
3MHz	QPSK	1	0	15.89	15.97	15.90	17.00
		1	8	16.05	16.06	16.07	17.00
		1	14	15.94	15.94	15.85	17.00
		8	0	15.00	14.97	14.95	16.00
		8	4	14.95	14.98	14.89	16.00
		8	7	14.90	14.92	14.84	16.00
		15	0	15.00	14.91	14.93	16.00
	16QAM	1	0	15.12	15.14	15.17	16.00
		1	8	15.25	15.19	15.19	16.00
		1	14	15.18	15.15	15.05	16.00
		8	0	13.96	13.99	13.92	15.00
		8	4	14.04	14.11	13.95	15.00
		8	7	13.97	14.01	13.95	15.00
		15	0	13.87	13.87	13.90	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 26065	Channel 26365	Channel 26665	Tune up
5MHz	QPSK	1	0	15.93	15.92	15.88	17.00
		1	12	16.02	16.00	15.89	17.00
		1	24	15.91	15.90	15.75	17.00
		12	0	15.00	15.02	14.98	16.00
		12	6	14.92	14.92	14.96	16.00
		12	13	14.92	14.92	14.93	16.00
		25	0	14.97	14.91	14.93	16.00
	16QAM	1	0	15.15	15.07	15.15	16.00
		1	12	15.31	15.25	15.23	16.00
		1	24	15.16	15.18	15.02	16.00
		12	0	13.98	13.95	13.98	15.00
		12	6	14.01	14.01	13.99	15.00
		12	13	13.96	14.02	13.90	15.00
		25	0	13.94	13.85	13.96	15.00
Bandwidth	Modulation	RB size	RB offset	Channel 26090	Channel 26365	Channel 26640	Tune up
10MHz	QPSK	1	0	15.95	15.97	15.93	17.00
		1	24	16.01	16.08	16.06	17.00
		1	49	15.94	15.90	15.88	17.00
		25	0	14.99	15.05	15.14	16.00

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1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

		25	12	15.00	14.98	15.01	16.00
		25	25	14.92	14.95	15.03	16.00
		50	0	14.98	15.00	15.01	16.00
	16QAM	1	0	15.15	15.17	15.15	16.00
		1	24	15.32	15.28	15.26	16.00
		1	49	15.08	15.15	15.00	16.00
		25	0	14.03	13.94	14.10	15.00
		25	12	14.06	14.05	14.03	15.00
		25	25	14.00	13.99	13.95	15.00
		50	0	13.92	13.88	14.09	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26115	26365	26615	
15MHz	QPSK	1	0	16.00	15.94	15.99	17.00
		1	38	16.02	16.05	16.01	17.00
		1	74	15.96	15.92	15.81	17.00
		38	0	14.99	14.98	15.17	16.00
		38	18	14.99	15.03	15.04	16.00
		38	37	14.93	15.01	14.98	16.00
		75	0	14.97	14.95	15.07	16.00
	16QAM	1	0	15.14	15.16	15.26	16.00
		1	38	15.20	15.28	15.29	16.00
		1	74	15.21	15.16	15.04	16.00
		38	0	13.97	13.91	14.03	15.00
		38	18	13.99	14.01	14.05	15.00
		38	37	13.99	13.97	14.04	15.00
		75	0	13.93	13.92	14.03	15.00
Bandwidth	Modulation	RB size	RB offset	Channel	Channel	Channel	Tune up
				26140	26365	26590	
20MHz	QPSK	1	0	16.01	15.99	16.04	17.00
		1	50	16.14	16.04	16.07	17.00
		1	99	15.85	15.99	15.66	17.00
		50	0	14.98	14.99	15.07	16.00
		50	25	15.00	15.01	15.12	16.00
		50	50	15.14	15.04	15.13	16.00
		100	0	14.93	14.96	14.99	16.00
	16QAM	1	0	15.11	15.17	15.36	16.00
		1	49	15.24	15.28	15.28	16.00
		1	99	15.14	15.20	14.92	16.00
		50	0	13.96	13.96	14.10	15.00
		50	25	14.04	14.05	14.06	15.00
		50	50	14.03	14.03	13.93	15.00
		100	0	13.90	13.94	14.04	15.00

LTE Band 71 Sensor Off				Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel 133147	Channel 133247	Channel 133447	Tune up
5MHz	QPSK	1	0	22.32	22.30	22.28	23.50
		1	12	22.50	22.36	22.34	23.50
		1	24	22.36	22.27	22.24	23.50
		12	0	21.44	21.43	21.38	22.50
		12	6	21.53	21.44	21.44	22.50
		12	13	21.53	21.45	21.38	22.50
		25	0	21.50	21.42	21.37	22.50
	16QAM	1	0	21.56	21.62	21.57	22.50
		1	12	21.83	21.65	21.67	22.50
		1	24	21.55	21.51	21.50	22.50
		12	0	20.41	20.42	20.34	21.50
		12	6	20.40	20.42	20.33	21.50
		12	13	20.46	20.42	20.36	21.50
		25	0	20.44	20.43	20.33	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 133172	Channel 133272	Channel 133422	Tune up
10MHz	QPSK	1	0	22.42	22.36	22.32	23.50
		1	24	22.53	22.49	22.45	23.50
		1	49	22.40	22.36	22.31	23.50
		25	0	21.48	21.52	21.50	22.50
		25	12	21.48	21.46	21.45	22.50
		25	25	21.49	21.44	21.46	22.50
		50	0	21.55	21.51	21.46	22.50
	16QAM	1	0	21.56	21.49	21.52	22.50
		1	24	21.65	21.66	21.61	22.50
		1	49	21.52	21.53	21.50	22.50
		25	0	20.45	20.47	20.43	21.50
		25	12	20.50	20.45	20.43	21.50
		25	25	20.48	20.45	20.46	21.50
		50	0	20.46	20.43	20.46	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 133197	Channel 133297	Channel 133397	Tune up
15MHz	QPSK	1	0	22.45	22.36	22.34	23.50
		1	38	22.46	22.38	22.43	23.50
		1	74	22.32	22.28	22.30	23.50
		38	0	21.49	21.45	21.49	22.50
		38	18	21.50	21.45	21.48	22.50
		38	37	21.49	21.43	21.44	22.50
		75	0	21.46	21.45	21.44	22.50
	16QAM	1	0	21.62	21.58	21.51	22.50
		1	38	21.72	21.58	21.67	22.50
		1	74	21.59	21.52	21.54	22.50
		38	0	20.40	20.38	20.43	21.50
		38	18	20.45	20.46	20.41	21.50
		38	37	20.44	20.30	20.38	21.50
		75	0	20.41	20.39	20.44	21.50
Bandwidth	Modulation	RB size	RB offset	Channel 133222	Channel 133322	Channel 133372	Tune up
20MHz	QPSK	1	0	22.31	22.25	22.23	23.50
		1	50	22.52	22.58	22.38	23.50
		1	99	22.10	22.11	22.12	23.50
		50	0	21.45	21.53	21.52	22.50

		50	25	21.42	21.47	21.45	22.50
		50	50	21.41	21.40	21.48	22.50
		100	0	21.41	21.44	21.55	22.50
	16QAM	1	0	21.55	21.55	21.45	22.50
		1	49	21.74	21.74	21.73	22.50
		1	99	21.39	21.39	21.37	22.50
		50	0	20.41	20.48	20.51	21.50
		50	25	20.46	20.45	20.44	21.50
		50	50	20.43	20.35	20.41	21.50
		100	0	20.42	20.44	20.50	21.50

Table 12：Conducted Power of LTE.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.3.4 Conducted Power of WIFI

WIFI 2.4G Sensor off					
Mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11b	1	2412	1	17.01	18.00
	6	2437		17.33	18.00
	11	2462		17.24	18.00
802.11g	1	2412	6	17.22	18.00
	6	2437		17.35	18.00
	11	2462		17.25	18.00
802.11n HT20	1	2412	6.5	16.12	17.00
	6	2437		16.28	17.00
	11	2462		16.26	17.00

WIFI 2.4 GSensor on					
Mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11b	1	2412	1	14.60	15.00
	6	2437		14.63	15.00
	11	2462		14.58	15.00
802.11g	1	2412	6	14.30	15.00
	6	2437		14.51	15.00
	11	2462		14.43	15.00
802.11n HT20	1	2412	6.5	13.47	14.00
	6	2437		13.62	14.00
	11	2462		13.53	14.00

WIFI 5G Sensor off						
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11a	U-NII-1	36	5180	6	14.31	15.00
		40	5200		14.33	15.00
		44	5220		14.32	15.00
		48	5240		14.35	15.00
	U-NII-2A	52	5260		14.65	15.00
		56	5280		14.56	15.00
		60	5300		14.48	15.00
		64	5320		14.46	15.00
	U-NII-2C	100	5500		14.51	15.00
		104	5520		14.50	15.00
		108	5540		14.32	15.00
		112	5560		14.33	15.00
		116	5580		14.41	15.00
		120	5600		14.42	15.00
		124	5620		14.28	15.00
		128	5640		14.39	15.00
		132	5660		14.50	15.00
		136	5680		14.40	15.00
		140	5700		14.47	15.00
		144	5720		14.52	15.00
	U-NII-3	149	5745		14.55	15.00
		153	5765		14.38	15.00
		157	5785		14.51	15.00
		161	5805		14.42	15.00
		165	5825		14.47	15.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT20	U-NII-1	36	5180	MCS0	14.27	15.50
		40	5200		14.23	15.50
		44	5220		14.35	15.50
		48	5240		14.31	15.50
	U-NII-2A	52	5260		14.33	15.50
		56	5280		14.36	15.50
		60	5300		14.38	15.50
		64	5320		14.47	15.50
	U-NII-2C	100	5500		14.32	15.50
		104	5520		14.40	15.50
		108	5540		14.39	15.50
		112	5560		14.33	15.50

		116	5580		14.33	15.50
		120	5600		14.38	15.50
		124	5620		14.40	15.50
		128	5640		14.42	15.50
		132	5660		14.31	15.50
		136	5680		14.39	15.50
		140	5700		14.32	15.50
		144	5720		14.29	15.50
	U-NII-3	149	5745		14.38	15.50
		153	5765		14.35	15.50
		157	5785		14.31	15.50
		161	5805		14.38	15.50
		165	5825		14.34	15.50
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT40	U-NII-1	38	5190	MCS0	13.13	14.00
		46	5230		13.25	14.00
	U-NII-2A	54	5270		13.38	14.00
		62	5310		13.31	14.00
	U-NII-2C	102	5510		13.32	14.00
		110	5550		13.25	14.00
		118	5590		13.35	14.00
		126	5630		13.38	14.00
		134	5670		13.42	14.00
		142	5710		13.45	14.00
	U-NII-3	151	5755		13.37	14.00
		159	5795		13.32	14.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-20	U-NII-1	36	5180	MCS0	13.13	14.50
		40	5200		13.25	14.50
		44	5220		13.38	14.50
		48	5240		13.35	14.50
	U-NII-2A	52	5260		13.34	14.50
		56	5280		13.37	14.50
		60	5300		13.29	14.50
		64	5320		13.38	14.50
	U-NII-2C	100	5500		13.23	14.50
		104	5520		13.36	14.50
		108	5540		13.27	14.50
		112	5560		13.31	14.50
		116	5580		13.24	14.50

		120	5600		13.34	14.50
		124	5620		13.28	14.50
		128	5640		13.34	14.50
		132	5660		13.28	14.50
		136	5680		13.41	14.50
		140	5700		13.42	14.50
		144	5720		13.39	14.50
	U-NII-3	149	5745		13.25	14.50
		153	5765		13.32	14.50
		157	5785		13.32	14.50
		161	5805		13.24	14.50
		165	5825		13.32	14.50
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-40	U-NII-1	38	5190	MCS0	11.12	12.50
		46	5230		11.21	12.50
	U-NII-2A	54	5270		11.32	12.50
		62	5310		11.21	12.50
	U-NII-2C	102	5510		11.27	12.50
		110	5550		11.35	12.50
		118	5590		11.37	12.50
		126	5630		11.29	12.50
		134	5670		11.31	12.50
		142	5710		11.28	12.50
	U-NII-3	151	5755		11.38	12.50
		159	5795		11.35	12.50
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 80M	U-NII-1	42	5210	MCS0	11.32	12.00
	U-NII-2A	58	5290		11.36	12.00
	U-NII-2C	106	5530		11.25	12.00
		122	5610		11.31	12.00
		138	5690		11.38	12.00
	U-NII-3	155	5775		11.41	12.00

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086 t (86-29) 6282 7885 www.sgsgroup.com.cn
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086 t (86-29) 6282 7885 sgs.china@sgs.com

WIFI 5G Sensor on						
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11a	U-NII-1	36	5180	6	9.36	10.50
		40	5200		9.37	10.50
		44	5220		9.30	10.50
		48	5240		9.37	10.50
	U-NII-2A	52	5260		9.70	10.50
		56	5280		9.53	10.50
		60	5300		9.49	10.50
		64	5320		9.58	10.50
	U-NII-2C	100	5500		10.54	11.50
		104	5520		10.50	11.50
		108	5540		10.31	11.50
		112	5560		10.37	11.50
		116	5580		10.36	11.50
		120	5600		10.39	11.50
		124	5620		10.33	11.50
		128	5640		10.37	11.50
		132	5660		10.53	11.50
		136	5680		10.42	11.50
		140	5700		10.46	11.50
		144	5720		10.56	11.50
	U-NII-3	149	5745		10.55	11.50
		153	5765		10.50	11.50
		157	5785		10.44	11.50
		161	5805		10.43	11.50
		165	5825		10.38	11.50
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT20	U-NII-1	36	5180	MCS0	9.52	11.00
		40	5200		9.51	11.00
		44	5220		9.60	11.00
		48	5240		9.57	11.00
	U-NII-2A	52	5260		9.66	11.00
		56	5280		9.60	11.00
		60	5300		9.59	11.00
		64	5320		9.64	11.00
	U-NII-2C	100	5500		10.78	12.00
		104	5520		10.69	12.00
		108	5540		10.72	12.00
		112	5560		10.63	12.00

		116	5580		10.61	12.00
		120	5600		10.63	12.00
		124	5620		10.70	12.00
		128	5640		10.70	12.00
		132	5660		10.64	12.00
		136	5680		10.66	12.00
		140	5700		10.62	12.00
		144	5720		10.80	12.00
	U-NII-3	149	5745		10.73	12.00
		153	5765		10.70	12.00
		157	5785		10.63	12.00
		161	5805		10.69	12.00
		165	5825		10.59	12.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11n-HT40	U-NII-1	38	5190	MCS0	8.42	9.50
		46	5230		8.54	9.50
	U-NII-2A	54	5270		8.67	9.50
		62	5310		8.62	9.50
	U-NII-2C	102	5510		9.65	10.50
		110	5550		9.53	10.50
		118	5590		9.65	10.50
		126	5630		9.67	10.50
		134	5670		9.71	10.50
		142	5710		9.74	10.50
	U-NII-3	151	5755		9.62	10.50
		159	5795		9.58	10.50
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-20	U-NII-1	36	5180	MCS0	8.44	10.00
		40	5200		8.58	10.00
		44	5220		8.66	10.00
		48	5240		8.61	10.00
	U-NII-2A	52	5260		8.63	10.00
		56	5280		8.71	10.00
		60	5300		8.56	10.00
		64	5320		8.69	10.00
	U-NII-2C	100	5500		9.55	11.00
		104	5520		9.63	11.00
		108	5540		9.59	11.00
		112	5560		9.59	11.00
		116	5580		9.50	11.00

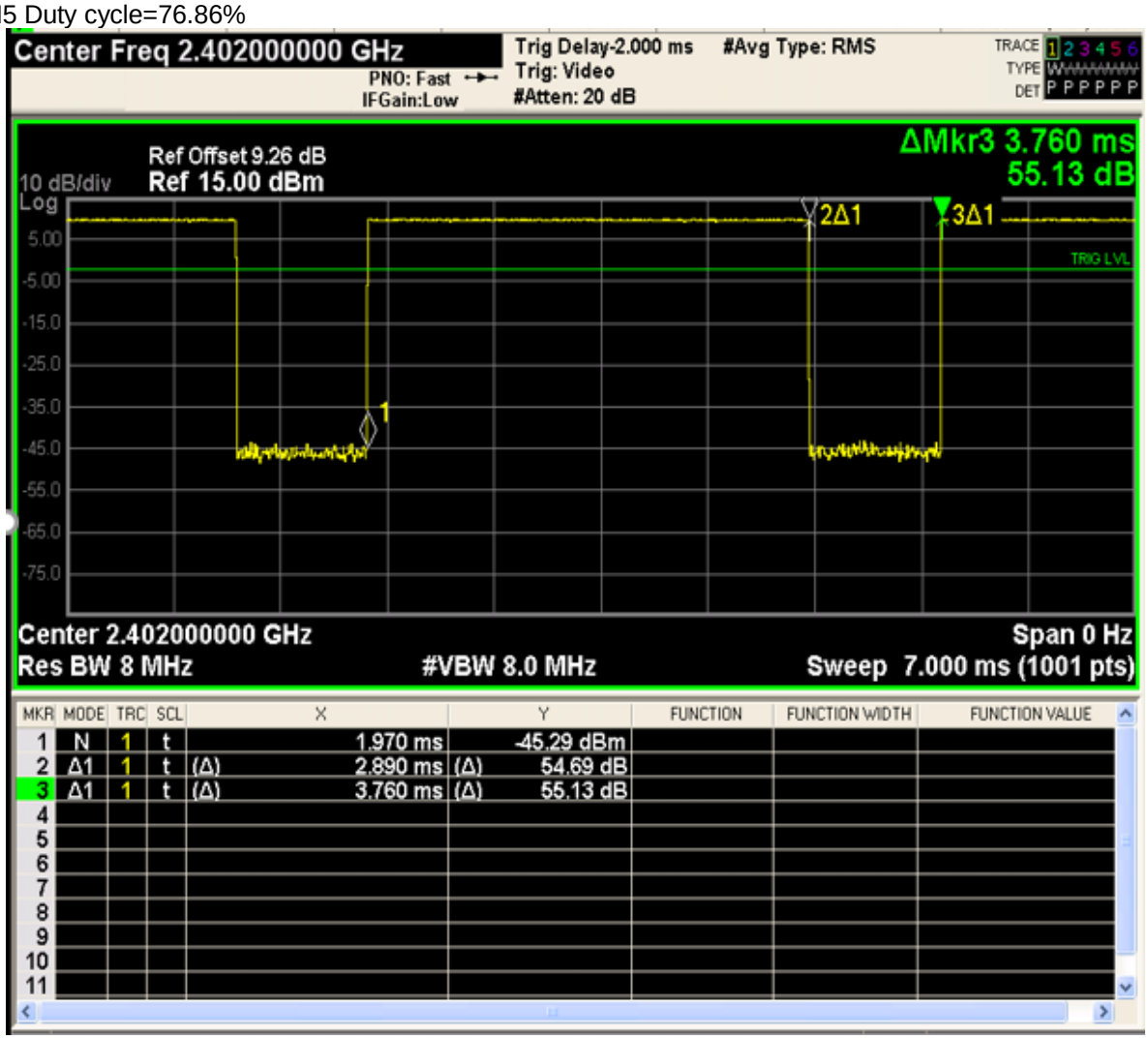
		120	5600		9.63	11.00
		124	5620		9.58	11.00
		128	5640		9.68	11.00
		132	5660		9.62	11.00
		136	5680		9.76	11.00
		140	5700		9.74	11.00
		144	5720		9.68	11.00
	U-NII-3	149	5745		9.50	11.00
		153	5765		9.65	11.00
		157	5785		9.57	11.00
		161	5805		9.54	11.00
		165	5825		9.57	11.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac-40	U-NII-1	38	5190	MCS0	6.38	8.00
		46	5230		6.51	8.00
	U-NII-2A	54	5270		6.60	8.00
		62	5310		6.54	8.00
	U-NII-2C	102	5510		7.56	9.00
		110	5550		7.60	9.00
		118	5590		7.66	9.00
		126	5630		7.63	9.00
		134	5670		7.61	9.00
		142	5710		7.54	9.00
	U-NII-3	151	5755		7.67	9.00
		159	5795		7.65	9.00
5GHz	mode	Channel	Frequency(MHz)	Data Rate(Mbps)	Average Power (dBm)	Tune up
802.11ac 80M	U-NII-1	42	5210	MCS0	6.65	7.50
	U-NII-2A	58	5290		6.62	7.50
	U-NII-2C	106	5530		7.53	8.50
		122	5610		7.65	8.50
		138	5690		7.67	8.50
	U-NII-3	155	5775		7.67	8.50

Table 13：Conducted Power of WIFI.

6.3.5 Conducted Power of BT

BT		Average Conducted Power(dBm)			
Band	Channel	0	39	78	Tune Up
BT	GFSK	9.34	9.24	10.99	11.00
	π/4DQPSK	6.58	7.03	8.26	8.50
	8DPSK	6.59	7.13	8.25	8.50
Band	Channel	0	19	39	Tune Up
BLE 1M	GFSK	-3.36	-1.70	-2.82	-1.00
BLE 2M	GFSK	-2.83	-1.37	-2.74	-1.00

Table 14：Conducted Power of BT.
BT DH5 Duty cycle=76.86%



6.4 Measurement of SAR Data

Note:

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

2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

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

WiFi 2.4G:

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

WiFi 5G:

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

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.4.1 SAR Result of GSM850

GSM850 SAR Test Record Ant 0										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Body Test data Sensor on(Separate 0mm)										
Back side	GPRS 2TS	190/836.6	1:4.15	0.971	0.04	30.45	31.00	1.135	1.102	22.5
Right side	GPRS 2TS	190/836.6	1:4.15	0.295	0.06	30.45	31.00	1.135	0.335	22.5
Bottom side	GPRS 2TS	190/836.6	1:4.15	0.504	0.19	30.45	31.00	1.135	0.572	22.5
Back side	GPRS 2TS	128/824.2	1:4.15	0.899	0.02	30.39	31.00	1.151	1.035	22.5
Back side	GPRS 2TS	251/848.8	1:4.15	0.988	-0.02	30.36	31.00	1.159	**1.145**	22.5
Back side Repeat	GPRS 2TS	251/848.8	1:4.15	0.967	-0.01	30.36	31.00	1.159	1.121	22.5
Body Test data Sensor off										
Back side-19mm	GPRS 2TS	190/836.6	1:4.15	0.193	0.05	31.74	32.50	1.191	0.230	22.5
Left side-0mm	GPRS 2TS	190/836.6	1:4.15	0.027	0.06	30.45	31.00	1.135	0.031	22.5
Rightt side-14mm	GPRS 2TS	190/836.6	1:4.15	0.062	0.00	31.74	32.50	1.191	0.074	22.5
Bottom side-14mm	GPRS 2TS	190/836.6	1:4.15	0.132	0.01	31.74	32.50	1.191	0.157	22.5
Top side-0mm	GPRS 2TS	190/836.6	1:4.15	0.035	0.07	30.45	31.00	1.135	0.040	22.5

Table 15：SAR of GSM850 for Body.

Test Position	**Channel/ Frequency**	**Measured SAR (1g)**	**1st Repeated**	**Ratio**	**2nd Repeated**	**3rd Repeated**
	(MHz)		**SAR (1g)**		**SAR (1g)**	**SAR (1g)**
Back side	251/848.8	0.988	0.967	1.022	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

6.4.2 SAR Result of GSM1900

GSM1900 SAR Test Record Ant 0										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm)										
Back side	GPRS 4TS	661/1880	1:2.075	0.829	0.06	19.31	21.00	1.476	1.223	22.5
Right side	GPRS 4TS	661/1880	1:2.075	0.776	0.01	19.31	21.00	1.476	1.145	22.5
Bottom side	GPRS 4TS	661/1880	1:2.075	0.341	0.07	19.31	21.00	1.476	0.503	22.5
Back side	GPRS 4TS	512/1850.2	1:2.075	0.881	-0.07	19.34	21.00	1.466	1.291	22.5
Back side	GPRS 4TS	810/1909.8	1:2.075	0.801	0.07	19.40	21.00	1.445	1.158	22.5
Right side	GPRS 4TS	512/1850.2	1:2.075	0.819	0.07	19.34	21.00	1.466	1.200	22.5
Right side	GPRS 4TS	810/1909.8	1:2.075	0.635	0.09	19.40	21.00	1.445	0.918	22.5
Body Test data Sensor off										
Back side-19mm	GPRS 4TS	661/1880	1:2.075	0.327	0.08	25.82	27.50	1.472	0.481	22.5
Rightt side-14mm	GPRS 4TS	661/1880	1:2.075	0.223	0.03	25.82	27.50	1.472	0.328	22.5
Bottom side-14mm	GPRS 4TS	661/1880	1:2.075	0.185	0.06	25.82	27.50	1.472	0.272	22.5

Table 16：SAR of GSM1900 for Body.

6.4.3 SAR Result of WCDMA B2

WB2 SAR Test Record Ant 0										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm)										
Back side	RMC	9400/1880	1:1	0.863	0.01	15.53	17.00	1.403	1.211	22.5
Right side	RMC	9400/1880	1:1	0.479	-0.07	15.53	17.00	1.403	0.672	22.5
Bottom side	RMC	9400/1880	1:1	0.325	0.02	15.53	17.00	1.403	0.456	22.5
Back side	RMC	9262/1852.4	1:1	0.864	0.06	15.51	17.00	1.409	1.218	22.5
Back side	RMC	9538/1907.6	1:1	0.887	-0.06	15.54	17.00	1.400	**1.241**	22.5
Body Test data Sensor off										
Back side-19mm	RMC	9400/1880	1:1	0.254	0.06	22.34	23.50	1.306	0.332	22.5
Rightt side-14mm	RMC	9400/1880	1:1	0.264	0.06	22.34	23.50	1.306	0.345	22.5
Bottom side-14mm	RMC	9400/1880	1:1	0.239	0.04	22.34	23.50	1.306	0.312	22.5

Table 17：SAR of WCDMA B2 for Body.

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086 t (86-29) 6282 7885 www.sgsgroup.com.cn
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086 t (86-29) 6282 7885 sgs.china@sgs.com

6.4.4 SAR Result of WCDMA B4

WB4 SAR Test Record Ant 0										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm)										
Back side	RMC	1412/1732.4	1:1	0.876	0.14	15.55	17.00	1.396	1.223	22.5
Right side	RMC	1412/1732.4	1:1	0.752	-0.09	15.55	17.00	1.396	1.050	22.5
Bottom side	RMC	1412/1732.4	1:1	0.545	0.01	15.55	17.00	1.396	0.761	22.5
Back side	RMC	1312/1712.4	1:1	0.884	0.07	15.43	17.00	1.435	1.269	22.5
Back side	RMC	1513/1752.6	1:1	0.929	-0.17	15.54	17.00	1.400	**1.300**	22.5
Right side	RMC	1312/1712.4	1:1	0.715	-0.02	15.43	17.00	1.435	1.026	22.5
Right side	RMC	1513/1752.6	1:1	0.794	0.04	15.54	17.00	1.400	1.111	22.5
Body Test data Sensor off										
Back side-19mm	RMC	1412/1732.4	1:1	0.351	0.04	22.48	23.50	1.265	0.444	22.5
Rightt side-14mm	RMC	1412/1732.4	1:1	0.203	-0.10	22.48	23.50	1.265	0.257	22.5
Bottom side-14mm	RMC	1412/1732.4	1:1	0.218	0.09	22.48	23.50	1.265	0.276	22.5

Table 18：SAR of WCDMA B4 for Body.

6.4.5 SAR Result of WCDMA B5

WB5 SAR Test Record Ant 0										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm)										
Back side	RMC	4182/836.4	1:1	0.791	0.04	20.80	22.00	1.318	**1.043**	22.5
Right side	RMC	4182/836.4	1:1	0.203	0.00	20.80	22.00	1.318	0.268	22.5
Bottom side	RMC	4182/836.4	1:1	0.355	0.01	20.80	22.00	1.318	0.468	22.5
Back side	RMC	4132/826.4	1:1	0.733	0.05	20.76	22.00	1.330	0.975	22.5
Back side	RMC	4233/846.6	1:1	0.730	-0.12	20.72	22.00	1.343	0.980	22.5
Body Test data Sensor off										
Back side-19mm	RMC	4182/836.4	1:1	0.137	0.07	22.80	24.00	1.318	0.181	22.5
Rightt side-14mm	RMC	4182/836.4	1:1	0.061	0.00	22.80	24.00	1.318	0.081	22.5
Bottom side-14mm	RMC	4182/836.4	1:1	0.129	0.11	22.80	24.00	1.318	0.170	22.5

Table 19：SAR of WCDMA B5 for Body.

6.4.6 SAR Result of LTE Band 12

LTE Band 12 SAR Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor off(Separate 0mm 1RB)											
Back side	10	QPSK 1_25	23095/707.5	1:1	0.950	0.02	22.79	24.00	1.321	1.255	22.5
Right side	10	QPSK 1_25	23095/707.5	1:1	0.230	0.02	22.79	24.00	1.321	0.304	22.5
Bottom side	10	QPSK 1_25	23095/707.5	1:1	0.671	0.04	22.79	24.00	1.321	0.887	22.5
Bottom side	10	QPSK 1_25	23060/704	1:1	0.654	-0.02	22.71	24.00	1.346	0.880	22.5
Bottom side	10	QPSK 1_25	23130/711	1:1	0.657	-0.01	22.77	24.00	1.327	0.872	22.5
Back side	10	QPSK 1_25	23060/704	1:1	0.910	0.06	22.71	24.00	1.346	1.225	22.5
Back side	10	QPSK 1_25	23130/711	1:1	0.996	0.17	22.77	24.00	1.327	**1.322**	22.5
Body Test data Sensor off(Separate 0mm 50%RB)											
Back side	10	QPSK 25_0	23095/707.5	1:1	0.905	0.03	21.79	23.00	1.321	1.196	22.5
Right side	10	QPSK 25_0	23095/707.5	1:1	0.257	0.02	21.79	23.00	1.321	0.340	22.5
Bottom side	10	QPSK 25_0	23095/707.5	1:1	0.559	-0.06	21.79	23.00	1.321	0.739	22.5
Back side	10	QPSK 25_0	23060/704	1:1	0.910	0.04	21.78	23.00	1.324	1.205	22.5
Back side	10	QPSK 25_0	23130/711	1:1	0.950	0.01	21.79	23.00	1.321	1.255	22.5
Body Test data Sensor off(Separate 0mm 100%RB)											
Back side	10	QPSK 50_0	23095/707.5	1:1	0.955	0.05	21.76	23.00	1.330	1.271	22.5
Bottom side	10	QPSK 50_0	23095/707.5	1:1	0.533	-0.02	21.76	23.00	1.330	0.709	22.5

Table 20：SAR of LTE Band 12 for Body.

6.4.7 SAR Result of LTE Band 25

LTE Band 25 SAR Test Record Ant 0											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm 1RB)											
Back side	20	QPSK 1_50	26140/1860	1:1	1.020	0.07	16.14	17.00	1.219	1.243	22.5
Right side	20	QPSK 1_50	26140/1860	1:1	0.620	-0.07	16.14	17.00	1.219	0.756	22.5
Bottom side	20	QPSK 1_50	26140/1860	1:1	0.387	0.07	16.14	17.00	1.219	0.472	22.5
Back side	20	QPSK 1_50	26365/1882.5	1:1	1.010	0.01	16.04	17.00	1.247	1.260	22.5
Back side	20	QPSK 1_50	26590/1905	1:1	1.040	0.19	16.07	17.00	1.239	1.288	22.5
Back side Repeat	20	QPSK 1_50	26590/1905	1:1	1.030	0.01	16.07	17.00	1.239	1.276	22.5
Body Test data Sensor on(Separate 0mm 50%RB)											
Back side	20	QPSK 50_50	26140/1860	1:1	0.808	0.01	15.14	16.00	1.219	0.985	22.5
Right side	20	QPSK 50_50	26140/1860	1:1	0.518	-0.07	15.14	16.00	1.219	0.631	22.5
Bottom side	20	QPSK 50_50	26140/1860	1:1	0.290	0.14	15.14	16.00	1.219	0.354	22.5
Back side	20	QPSK 50_50	26365/1882.5	1:1	0.802	0.03	15.04	16.00	1.247	1.000	22.5
Back side	20	QPSK 50_50	26590/1905	1:1	0.799	0.04	15.13	16.00	1.222	0.976	22.5
Body Test data Sensor on(Separate 0mm 100%RB)											
Back side	20	QPSK 100_0	26590/1905	1:1	0.785	0.03	14.99	16.00	1.262	0.991	22.5
Body Test data Sensor off(1RB)											
Back side-19mm	20	QPSK 1_50	26140/1860	1:1	0.233	0.01	22.61	23.50	1.227	0.286	22.5
Rightt side-14mm	20	QPSK 1_50	26140/1860	1:1	0.237	-0.03	22.61	23.50	1.227	0.291	22.5
Bottom side-14mm	20	QPSK 1_50	26140/1860	1:1	0.199	0.03	22.61	23.50	1.227	0.244	22.5
Body Test data Sensor off(50%RB)											
Back side-19mm	20	QPSK 50_50	26140/1860	1:1	0.179	0.01	21.65	22.50	1.216	0.218	22.5
Rightt side-14mm	20	QPSK 50_50	26140/1860	1:1	0.197	-0.03	21.65	22.50	1.216	0.240	22.5
Bottom side-14mm	20	QPSK 50_50	26140/1860	1:1	0.161	0.03	21.65	22.50	1.216	0.196	22.5

Table 21：SAR of LTE Band 25 for Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Back side	26590/1905	1.04	1.03	1.010	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

6.4.8 SAR Result of LTE Band 26

LTE Band 26 SAR Test Record Ant 0											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm 1RB)											
Back side	15	QPSK 1_38	26965/841.5	1:1	0.880	0.05	21.09	22.00	1.233	1.085	22.5
Right side	15	QPSK 1_38	26965/841.5	1:1	0.203	-0.05	21.09	22.00	1.233	0.250	22.5
Bottom side	15	QPSK 1_38	26965/841.5	1:1	0.271	0.05	21.09	22.00	1.233	0.334	22.5
Back side	15	QPSK 1_38	26765/821.5	1:1	0.791	0.08	20.89	22.00	1.291	1.021	22.5
Back side	15	QPSK 1_38	26865/831.5	1:1	0.803	0.01	20.94	22.00	1.276	1.025	22.5
Body Test data Sensor on(Separate 0mm 50%RB)											
Back side	15	QPSK 36_39	26965/841.5	1:1	0.629	0.08	20.24	21.00	1.191	0.749	22.5
Right side	15	QPSK 36_39	26965/841.5	1:1	0.210	-0.07	20.24	21.00	1.191	0.250	22.5
Bottom side	15	QPSK 36_39	26965/841.5	1:1	0.219	0.09	20.24	21.00	1.191	0.261	22.5
Body Test data Sensor on(Separate 0mm 100%RB)											
Back side	15	QPSK 75_0	26965/841.5	1:1	0.615	0.01	20.20	21.00	1.202	0.739	22.5
Body Test data Sensor off(1RB)											
Back side-19mm	15	QPSK 1_38	26965/841.5	1:1	0.157	0.08	23.09	24.00	1.233	0.194	22.5
Rightt side-14mm	15	QPSK 1_38	26965/841.5	1:1	0.057	0.09	23.09	24.00	1.233	0.071	22.5
Bottom side-14mm	15	QPSK 1_38	26965/841.5	1:1	0.120	0.04	23.09	24.00	1.233	0.148	22.5
Body Test data Sensor off(50%RB)											
Back side-19mm	15	QPSK 36_39	26965/841.5	1:1	0.125	0.08	22.21	23.00	1.199	0.150	22.5
Rightt side-14mm	15	QPSK 36_39	26965/841.5	1:1	0.044	0.01	22.21	23.00	1.199	0.052	22.5
Bottom side-14mm	15	QPSK 36_39	26965/841.5	1:1	0.091	0.08	22.21	23.00	1.199	0.109	22.5

Table 22：SAR of LTE Band 26 for Body.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.4.1 SAR Result of LTE Band 66

LTE Band 66 SAR Test Record Ant 0											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm 1RB)											
Back side	20	QPSK 1_50	132072/1720	1:1	1.060	0.14	16.14	17.00	1.219	1.292	22.5
Right side	20	QPSK 1_50	132072/1720	1:1	0.839	0.06	16.14	17.00	1.219	1.023	22.5
Bottom side	20	QPSK 1_50	132072/1720	1:1	0.569	0.02	16.14	17.00	1.219	0.694	22.5
Right side	20	QPSK 1_50	132322/1745	1:1	0.887	0.06	16.08	17.00	1.236	1.096	22.5
Right side	20	QPSK 1_50	132572/1770	1:1	0.921	-0.07	16.08	17.00	1.236	1.138	22.5
Back side	20	QPSK 1_50	132322/1745	1:1	1.070	0.15	16.08	17.00	1.236	1.322	22.5
Back side	20	QPSK 1_50	132572/1770	1:1	1.120	0.08	16.08	17.00	1.236	1.384	22.5
Back side Repeat	20	QPSK 1_50	132572/1770	1:1	1.100	0.04	16.08	17.00	1.236	1.360	22.5
Body Test data Sensor on(Separate 0mm 50%RB)											
Back side	20	QPSK 50_0	132572/1770	1:1	0.913	0.09	15.08	16.00	1.236	1.128	22.5
Right side	20	QPSK 50_0	132572/1770	1:1	0.759	0.13	15.08	16.00	1.236	0.938	22.5
Bottom side	20	QPSK 50_0	132572/1770	1:1	0.453	0.05	15.08	16.00	1.236	0.560	22.5
Back side	20	QPSK 50_0	132072/1720	1:1	0.823	0.05	14.82	16.00	1.312	1.080	22.5
Back side	20	QPSK 50_0	132322/1745	1:1	0.846	0.15	15.05	16.00	1.245	1.053	22.5
Right side	20	QPSK 50_0	132072/1720	1:1	0.630	0.04	14.82	16.00	1.312	0.827	22.5
Right side	20	QPSK 50_0	132322/1745	1:1	0.713	0.03	15.05	16.00	1.245	0.887	22.5
Body Test data Sensor on(Separate 0mm 100%RB)											
Back side	20	QPSK 100_0	132572/1770	1:1	0.880	0.05	15.00	16.00	1.259	1.108	22.5
Right side	20	QPSK 100_0	132572/1770	1:1	0.732	-0.03	15.00	16.00	1.259	0.922	22.5
Body Test data Sensor off(1RB)											
Back side-19mm	20	QPSK 1_50	132072/1720	1:1	0.306	0.08	22.63	23.50	1.222	0.374	22.5
Rightt side-14mm	20	QPSK 1_50	132072/1720	1:1	0.208	0.03	22.63	23.50	1.222	0.254	22.5
Bottom side-14mm	20	QPSK 1_50	132072/1720	1:1	0.174	0.02	22.63	23.50	1.222	0.213	22.5
Body Test data Sensor off(50%RB)											
Back side-19mm	20	QPSK 50_0	132572/1770	1:1	0.231	0.01	21.58	22.50	1.236	0.286	22.5
Rightt side-14mm	20	QPSK 50_0	132572/1770	1:1	0.157	0.07	21.58	22.50	1.236	0.194	22.5
Bottom side-14mm	20	QPSK 50_0	132572/1770	1:1	0.177	0.14	21.58	22.50	1.236	0.219	22.5

Table 23：SAR of LTE Band 66 for Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back side	132572/1770	1.12	1.1	1.018	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

6.4.1 SAR Result of LTE Band 71

LTE Band 71 SAR Test Record Ant 0											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor off(Separate 0mm 1RB)											
Back side	20	QPSK 1_50	133322/683	1:1	1.060	0.08	22.58	23.50	1.236	1.310	22
Right side	20	QPSK 1_50	133322/683	1:1	0.200	0.08	22.58	23.50	1.236	0.247	22
Bottom side	20	QPSK 1_50	133322/683	1:1	0.621	0.04	22.58	23.50	1.236	0.768	22
Back side	20	QPSK 1_50	133222/673	1:1	1.020	0.02	22.52	23.50	1.253	1.278	22
Back side	20	QPSK 1_50	133372/688	1:1	1.070	0.06	22.38	23.50	1.294	1.385	22
Back side Repeat	20	QPSK 1_50	133372/688	1:1	1.040	0.04	22.38	23.50	1.294	1.346	22
Body Test data Sensor off(Separate 0mm 50%RB)											
Back side	20	QPSK 50_0	133322/683	1:1	0.884	0.05	21.53	22.50	1.250	1.105	22
Right side	20	QPSK 50_0	133322/683	1:1	0.203	0.06	21.53	22.50	1.250	0.254	22
Bottom side	20	QPSK 50_0	133322/683	1:1	0.465	0.10	21.53	22.50	1.250	0.581	22
Back side	20	QPSK 50_0	133222/673	1:1	0.867	0.08	21.45	22.50	1.274	1.104	22
Back side	20	QPSK 50_0	133372/688	1:1	0.830	0.11	21.52	22.50	1.253	1.040	22
Body Test data Sensor off(Separate 0mm 100%RB)											
Back side	20	QPSK 100_0	133372/688	1:1	0.810	0.01	21.55	22.50	1.245	1.008	22

Table 24：SAR of LTE Band 71 for Body.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.4.2 SAR Result of WIFI 2.4G

Wi-Fi 2.4G SAR Test Record Ant 2											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data Sensor on(Separate 0mm)											
Back side	802.11b	6/2437	99.53%	1.005	0.507	0.09	14.63	15.00	1.089	0.555	22
Right side	802.11b	6/2437	99.53%	1.005	1.090	-0.08	14.63	15.00	1.089	1.193	22
Right side Repeat	802.11b	6/2437	99.53%	1.005	1.060	-0.04	14.63	15.00	1.089	1.160	22
Right side	802.11b	1/2412	99.53%	1.005	0.654	0.01	14.60	15.00	1.096	0.721	22
Top side	802.11b	6/2437	99.53%	1.005	0.368	0.06	14.63	15.00	1.089	0.403	22
Body Test data Sensor off											
Back side-19mm	802.11b	6/2437	100.00%	1.000	0.076	0.03	17.33	18.00	1.167	0.088	22
Right side-14mm	802.11b	6/2437	100.00%	1.000	0.097	-0.01	17.33	18.00	1.167	0.113	22
Right side-19mm	802.11b	6/2437	100.00%	1.000	0.066	0.09	17.33	18.00	1.167	0.076	22
Top side-9mm	802.11b	6/2437	100.00%	1.000	0.167	-0.08	17.33	18.00	1.167	0.195	22

Table 25：SAR of WIFI 2.4G for Body.

Note:

1)Per KDB 248227 D01, for Body SAR test of WiFi 2.4G, SAR is measured for 2.4 GHz 802.11b DSSS using the initial test position procedure. As the 802.11b highest reported SAR is smaller than 1.2 W/kg , and the tune-up of the other 802.11 modes are not higher than 802.11b,therefore the adjusted SAR is ≤ 1.2 W/kg for other 802.11 modes, SAR test for the other 802.11 modes are not required.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right side	6/2437	1.09	1.06	1.028	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

6.4.3 SAR Result of WIFI 5G

Wi-Fi 5G SAR Test Record Ant 2											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data of U-NII-2A Sensor on(Separate 0mm)											
Back side	802.11n	52/5260	97.91%	1.021	0.390	0.00	10.20	11.00	1.202	0.479	22
Right side	802.11n	52/5260	97.91%	1.021	0.700	0.00	10.20	11.00	1.202	0.860	22
Top side	802.11n	52/5260	97.91%	1.021	0.118	0.03	10.20	11.00	1.202	0.145	22
Right side	802.11n	64/5320	97.91%	1.021	0.689	0.00	10.08	11.00	1.236	0.870	22
Body Test data of U-NII-2C Sensor on(Separate 0mm)											
Back side	802.11n	144/5720	97.91%	1.021	0.490	0.14	11.06	12.00	1.242	0.621	22
Right side	802.11n	144/5720	97.91%	1.021	0.721	0.01	11.06	12.00	1.242	0.914	22
Right side	802.11n	100/5500	97.91%	1.021	0.833	0.00	11.04	12.00	1.247	1.061	22
Top side	802.11n	144/5720	97.91%	1.021	0.068	0.02	11.06	12.00	1.242	0.086	22
Body Test data of U-NII-3 Sensor on(Separate 0mm)											
Back side	802.11n	149/5745	97.91%	1.021	0.519	0.15	11.05	12.00	1.245	0.660	22
Right side	802.11n	149/5745	97.91%	1.021	0.730	0.00	11.05	12.00	1.245	0.928	22
Top side	802.11n	149/5745	97.91%	1.021	0.076	0.09	11.05	12.00	1.245	0.096	22
Right side	802.11n	153/5765	97.91%	1.021	0.730	0.07	11.00	12.00	1.259	0.939	22
Body Test data of U-NII-2A Sensor off											
Back side-19mm	802.11n	52/5260	97.91%	1.021	0.103	0.08	14.65	15.00	1.084	0.114	22
Right side-14mm	802.11n	52/5260	97.91%	1.021	0.078	-0.05	14.65	15.00	1.084	0.087	22
Right side-19mm	802.11n	52/5260	97.91%	1.021	0.056	0.09	14.65	15.00	1.084	0.062	22
Top side-9mm	802.11n	52/5260	97.91%	1.021	0.024	0.01	14.65	15.00	1.084	0.026	22
Body Test data of U-NII-2C Sensor off											
Back side-19mm	802.11n	144/5720	97.91%	1.021	0.112	0.00	14.52	15.00	1.117	0.128	22
Right side-14mm	802.11n	144/5720	97.91%	1.021	0.085	0.07	14.52	15.00	1.117	0.097	22
Right side-19mm	802.11n	144/5720	97.91%	1.021	0.058	0.00	14.52	15.00	1.117	0.066	22
Top side-9mm	802.11n	144/5720	97.91%	1.021	0.056	0.02	14.52	15.00	1.117	0.064	22
Body Test data of U-NII-3 Sensor off											
Back side-19mm	802.11n	149/5745	97.91%	1.021	0.138	0.00	14.55	15.00	1.109	0.156	22
Right side-14mm	802.11n	149/5745	97.91%	1.021	0.094	-0.08	14.55	15.00	1.109	0.107	22
Right side-19mm	802.11n	149/5745	97.91%	1.021	0.047	0.01	14.55	15.00	1.109	0.053	22
Top side-9mm	802.11n	149/5745	97.91%	1.021	0.053	0.03	14.55	15.00	1.109	0.060	22

Table 26：SAR of WIFI 5G for Body.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

Note:

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. As the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration;

2) Per KDB248227D01,as the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR test for the other 802.11 modes are not required.

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

6.4.1 SAR Result of BT

Bluetooth SAR Test Record Ant 2											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body Test data (Separate 0mm)											
Back side	DH5	78/2480	76.86%	1.301	0.118	0.01	10.99	11.00	1.002	0.154	22
Right side	DH5	78/2480	76.86%	1.301	0.295	0.07	10.99	11.00	1.002	0.385	22
Top side	DH5	78/2480	76.86%	1.301	0.109	-0.01	10.99	11.00	1.002	0.142	22

Table 27：SAR of BT for Body.

6.5 Multiple Transmitter Evaluation

6.5.1 Simultaneous SAR SAR test evaluation

- **Simultaneous Transmission Possibilities**

NO	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product specific 10g SAR
1	WWAN+BT	Y	Y	Y	Y
2	WWAN+WIFI 2.4G	Y	Y	Y	Y
3	WWAN+WIFI 5G	Y	Y	Y	Y

Note:

1) The device support DTM function.

1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant0	WiFi 2.4G	WiFi 5G	BT					
		1	2	3	4	1+2	SPLRS	1+3	SPLRS	1+4
GSM 850	Back side	1.145	0.555	0.660	0.154	1.700	1	1.805	16	1.299
	Right side	0.000	1.193	1.061	0.385	1.193	/	1.061	/	0.385
	Left side	0.031	0.400	0.400	0.400	0.431	/	0.800	/	0.431
	Top side	0.040	0.403	0.145	0.142	0.443	/	0.287	/	0.182
	Bottom side	0.572	0.400	0.400	0.400	0.972	/	0.800	/	0.972
GSM 1900	Back side	1.291	0.555	0.660	0.154	1.846	2	1.951	17	1.445
	Right side	1.200	1.193	1.061	0.385	2.393	3	2.261	18	1.585
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.503	0.400	0.400	0.400	0.903	/	0.800	/	0.903
WCDMA B2	Back side	1.241	0.555	0.660	0.154	1.796	4	1.901	19	1.395
	Right side	0.672	1.193	1.061	0.385	1.865	5	1.733	20	1.057
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.456	0.400	0.400	0.400	0.856	/	0.800	/	0.856
WCDMA B4	Back side	1.300	0.555	0.660	0.154	1.855	6	1.960	21	1.454
	Right side	1.111	1.193	1.061	0.385	2.304	7	2.172	22	1.496
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.761	0.400	0.400	0.400	1.161	/	0.800	/	1.161
WCDMA B5	Back side	1.043	0.555	0.660	0.154	1.598	8	1.703	23	1.197
	Right side	0.268	1.193	1.061	0.385	1.461	/	1.329	/	0.653
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.468	0.400	0.400	0.400	0.868	/	0.800	/	0.868
LTE B12	Back side	1.322	0.555	0.660	0.154	1.877	9	1.982	24	1.476
	Right side	0.338	1.193	1.061	0.385	1.531	/	1.399	/	0.725
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.898	0.400	0.400	0.400	1.298	/	0.800	/	1.287
LTE B25	Back side	1.288	0.555	0.660	0.154	1.843	10	1.948	25	1.442
	Right side	0.756	1.193	1.061	0.385	1.949	11	1.817	26	1.141
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.472	0.400	0.400	0.400	0.872	/	0.800	/	0.872
LTE B26	Back side	1.085	0.555	0.660	0.154	1.640	12	1.745	27	1.239
	Right side	0.250	1.193	1.061	0.385	1.443	/	1.311	/	0.635
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.334	0.400	0.400	0.400	0.734	/	0.800	/	0.734
LTE B66	Back side	1.384	0.555	0.660	0.154	1.939	13	2.044	28	1.538
	Right side	1.138	1.193	1.061	0.385	2.331	14	2.199	29	1.523
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.694	0.400	0.400	0.400	1.094	/	0.800	/	1.094
LTE B71	Back side	1.385	0.555	0.660	0.154	1.940	15	2.045	30	1.539
	Right side	0.254	1.193	1.061	0.385	1.447	/	1.315	/	0.639
	Left side	0.400	0.400	0.400	0.400	0.800	/	0.800	/	0.800
	Top side	0.400	0.403	0.145	0.142	0.803	/	0.287	/	0.542
	Bottom side	0.768	0.400	0.400	0.400	1.168	/	0.800	/	1.168

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

Test position		SARmax (W/kg)				Summed SAR		
		Main Ant0	WiFi 2.4G	WiFi 5G	BT			
		1	2	3	4	1+2	1+3	1+4
GSM 850	Back side-19mm	0.230	0.088	0.156	0.000	0.318	0.386	0.23
	Right side-14mm	0.074	0.113	0.107	0.000	0.187	0.181	0.07
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.157	/	/	/	/	/	/
GSM 1900	Back side-19mm	0.481	0.088	0.156	0.000	0.569	0.637	0.48
	Right side-14mm	0.328	0.113	0.107	0.000	0.441	0.435	0.33
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.272	/	/	/	/	/	/
WCDMA B2	Back side-19mm	0.332	0.088	0.156	0.000	0.420	0.488	0.33
	Right side-14mm	0.345	0.113	0.107	0.000	0.458	0.452	0.35
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.312	/	/	/	/	/	/
WCDMA B4	Back side-19mm	0.444	0.088	0.156	0.000	0.532	0.600	0.44
	Right side-14mm	0.257	0.113	0.107	0.000	0.370	0.364	0.26
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.276	/	/	/	/	/	/
WCDMA B5	Back side-19mm	0.181	0.088	0.156	0.000	0.269	0.337	0.18
	Right side-14mm	0.081	0.113	0.107	0.000	0.194	0.188	0.08
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.170	/	/	/	/	/	/
LTE B25	Back side-19mm	0.286	0.088	0.156	0.000	0.374	0.442	0.29
	Right side-14mm	0.291	0.113	0.107	0.000	0.404	0.398	0.29
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.244	/	/	/	/	/	/
LTE B26	Back side-19mm	0.194	0.088	0.156	0.000	0.282	0.350	0.19
	Right side-14mm	0.071	0.113	0.107	0.000	0.184	0.178	0.07
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.148	/	/	/	/	/	/
LTE B66	Back side-19mm	0.374	0.088	0.156	0.000	0.462	0.530	0.37
	Right side-14mm	0.254	0.113	0.107	0.000	0.367	0.361	0.25
	Top side-9mm	/	0.195	0.064	0.000	/	/	/
	Bottom side-14mm	0.219	/	/	/	/	/	/

6.5.2 SPLSR Evaluation Analysis

According to KDB447498 D01v06, When the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio(SPLSR).When the SAR to peak location ratio for each pair of antennas is ≤1-g 0.04 and 10-g 0.10，simultaneous SAR evaluation is not required.

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

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

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

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
1	GSM850	Back side	1.145	-29	119.9	-2.63	230.6	1.70	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
2	GSM1900	Back side	1.291	-6.37	87.1	-2.59	196.9	1.85	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
3	GSM1900	Right side	1.23	-7.6	81.1	-2.68	181.9	2.39	0.02	Not required
	Wi-Fi 2.4G		1.193	-8.8	-100.8	-0.36				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
4	WCDMA Band II	Back side	1.241	-8	89.1	-2.53	198.9	1.80	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
5	WCDMA Band II	Right side	0.672	-6.2	87.7	-2.58	188.5	1.87	0.01	Not required
	Wi-Fi 2.4G		1.193	-8.8	-100.8	-0.36				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
6	WCDMA Band IV	Back side	1.3	-8	90.6	-2.52	200.4	1.86	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
7	WCDMA Band IV	Right side	1.111	-4.6	96.3	-2.51	197.2	2.30	0.02	Not required
	Wi-Fi 2.4G		1.193	-8.8	-100.8	-0.36				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
8	WCDMA Band V	Back side	1.043	-10.1	98.9	-2.49	208.7	1.60	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
9	LTE Band 17	Back side	1.322	-36.8	113.3	-2.61	224.9	1.88	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
10	LTE Band 25	Back side	1.288	-8	83	-2.57	192.8	1.84	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
11	LTE Band 25	Right side	0.756	0.6	97.3	-2.5	198.3	1.95	0.01	Not required
	Wi-Fi 2.4G		1.193	-8.8	-100.8	-0.36				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
12	LTE Band 26	Back side	1.085	-9.8	103.4	-2.51	213.2	1.64	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
13	LTE Band 66	Back side	1.384	-9.8	84.4	-2.62	194.2	1.98	0.01	Not required
	Wi-Fi 2.4G		0.594	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
14	LTE Band 66	Right side	1.138	-9	82.7	-2.59	183.5	2.33	0.02	Not required
	Wi-Fi 2.4G		1.193	-8.8	-100.8	-0.36				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

15	LTE Band 71	Back side	1.385	-19	116.4	-2.54	226.5	1.94	0.01	Not required
	Wi-Fi 2.4G		0.555	-8.2	-109.8	-3.6				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
16	GSM850	Back side	1.145	-29	119.9	-2.63	227.6	1.81	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
17	GSM1900	Back side	1.291	-6.37	87.1	-2.59	193.5	1.95	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
18	GSM1900	Right side	1.20	-7.6	81.1	-2.68	181.7	2.26	0.02	Not required
	Wi-Fi 5G		1.061	-3.8	-100.6	-3.53				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
19	WCDMA Band II	Back side	1.241	-8	89.1	-2.53	195.5	1.90	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
20	WCDMA Band II	Right side	0.672	-6.2	87.7	-2.58	188.3	1.73	0.01	Not required
	Wi-Fi 5G		1.061	-3.8	-100.6	-3.53				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
21	WCDMA Band IV	Back side	1.3	-8	90.6	-2.52	197.0	1.96	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
22	WCDMA Band IV	Right side	1.111	-4.6	96.3	-2.51	196.9	2.17	0.02	Not required
	Wi-Fi 5G		1.061	-3.8	-100.6	-3.53				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
23	WCDMA Band V	Back side	1.043	-10.1	98.9	-2.49	205.4	1.70	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
24	LTE Band 17	Back side	1.322	-36.8	113.3	-2.61	222.0	1.98	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
25	LTE Band 25	Back side	1.288	-8	83	-2.57	189.4	1.95	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
26	LTE Band 25	Right side	0.756	0.6	97.3	-2.5	198.0	1.82	0.01	Not required
	Wi-Fi 5G		1.061	-3.8	-100.6	-3.53				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
27	LTE Band 26	Back side	1.085	-9.8	103.4	-2.51	209.9	1.75	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

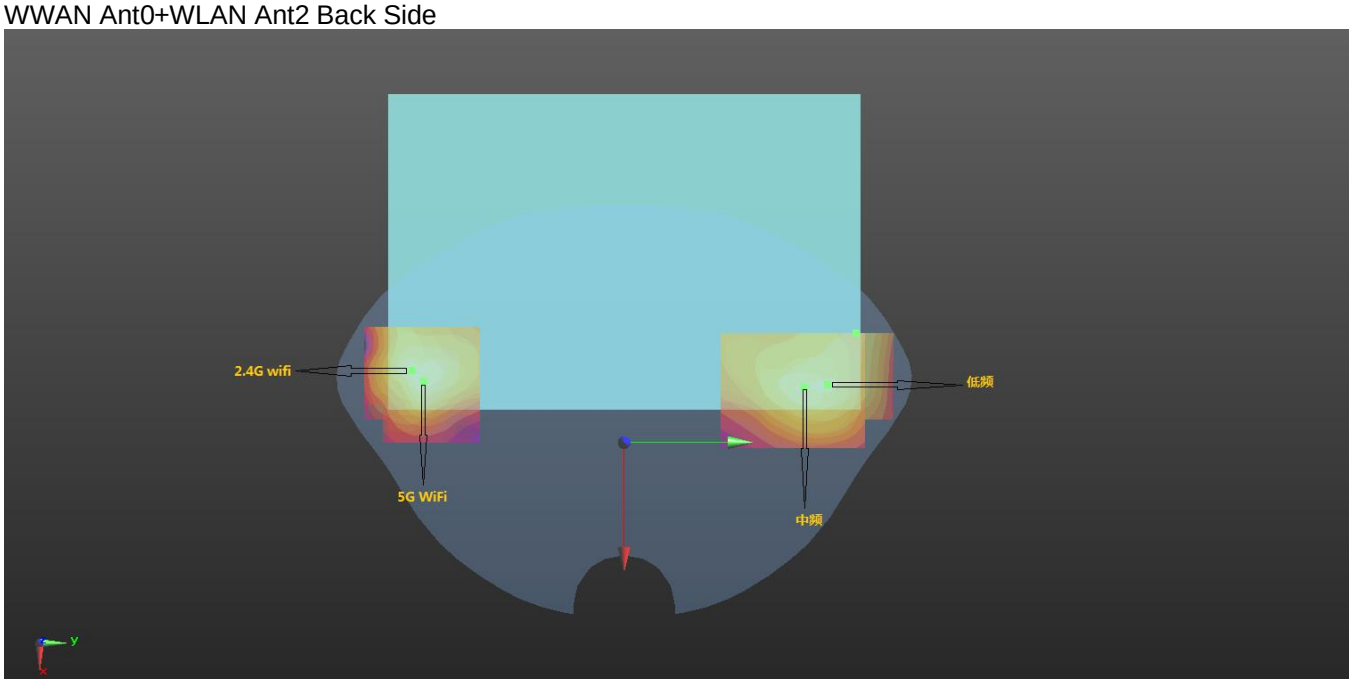
Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
28	LTE Band 66	Back side	1.384	-9.8	84.4	-2.62	190.9	2.04	0.02	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
29	LTE Band 66	Right side	1.138	-9	82.7	-2.59	183.4	2.20	0.02	Not required
	Wi-Fi 5G		1.061	-3.8	-100.6	-3.53				

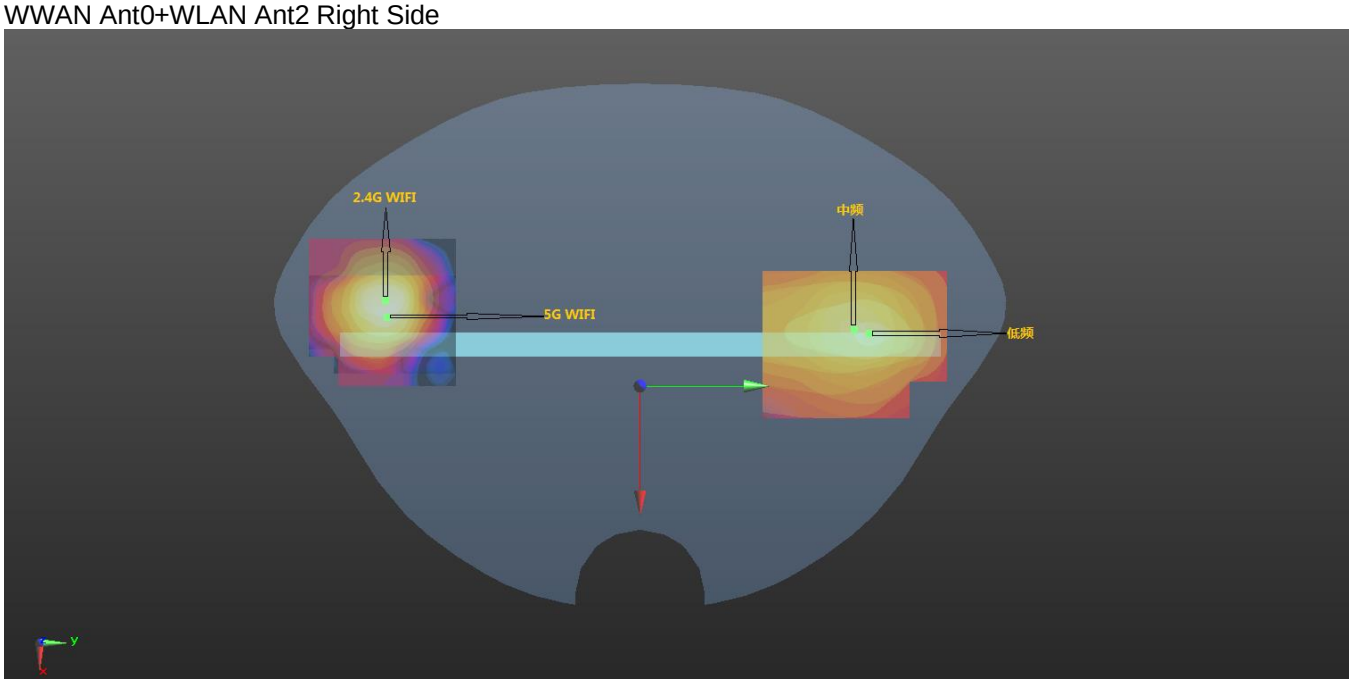
Case No.	Band	Position	SAR (W/kg)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				X	Y	Z				
30	LTE Band 71	Back side	1.385	-19	116.4	-2.54	223.3	2.05	0.01	Not required
	Wi-Fi 5G		0.66	-4.6	-106.4	-2.05				

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

WWAN Ant0+WLAN Ant2 Back Side



WWAN Ant0+WLAN Ant2 Right Side



SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

7 Equipment list

Test Platform		SPEAG DASY5 Professional				
Description		SAR Test System (Frequency range 300MHz-6GHz)				
Software Reference		DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)				
Hardware Reference						
Equipment		Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM 7	1702	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 8	1824	NCR	NCR
☒	DAE	SPEAG	DAE3	414	2023-01-30	2024-01-29
☒	DAE	SPEAG	DAE4	1327	2022-11-18	2023-11-17
☒	E-Field Probe	SPEAG	EX3DV4	3923	2023-02-28	2024-02-27
☒	E-Field Probe	SPEAG	EX3DV4	3962	2022-05-26	2023-05-25
☒	Validation Kits	SPEAG	D750V3	1214	2022-02-07	2025-02-06
☒	Validation Kits	SPEAG	D835V2	4d161	2020-08-28	2023-08-27
☒	Validation Kits	SPEAG	D1750V2	1038	2021-12-16	2024-12-15
☒	Validation Kits	SPEAG	D1900V2	5d028	2022-11-02	2025-11-01
☒	Validation Kits	SPEAG	D2450V2	922	2020-08-27	2023-08-26
☒	Validation Kits	SPEAG	D5GHzV2	1174	2020-08-27	2023-08-26
☒	Vector Network Analyzer and Vector Reflectometer	SPEAG	DAKS-VNA R140	21460031	2023-03-20	2024-03-19
☒	Dielectric parameter probes	SPEAG	DAKS-3.5	1148	2023-03-20	2024-03-19
☒	Universal Radio Communication Tester	R&S	CMW500	124587	2023-02-16	2024-02-15
☒	Radio Communication Analyze	Anritsu	MT8821C	6201588568	2022-11-07	2023-11-06
☒	RF Bi-Directional Coupler	QIJI	QJOR31015001	6606_SMA-50-1	NCR	NCR
☒	Signal Generator	R&S	SMR20	1001189	2022-09-08	2023-09-07
☒	Radio Communication Analyzer	Anritsu	MT8820C	6200951859	2022-10-26	2023-10-25
☒	Preamplifier	QIJI	YX28982103	20211121063175	NCR	NCR
☒	Power Meter	Agilent	E4419B	GB43318103	2022-05-24	2023-05-23
☒	Power Sensor	Agilent	E9031H	MY41495605	2022-05-24	2023-05-23
☒	Power Sensor	Agilent	E9031A	MY41496508	2022-05-24	2023-05-23
☒	Coaxial low pass filter	Mini Circuits	VLF-3000+	15542	NCR	NCR
☒	Attenuator	Zhengchang Libo	3dB 8G	NA	NCR	NCR

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, Xi'an, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

☒	Temperature and humidity meter	MingGao	T809	NA	2022-09-18	2023-09-17

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

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SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

8 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.

9 Calibration certificate

Please see the Appendix C

10 Photographs

Please see the Appendix D

SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com

Appendix A: Detailed System Check Results

Appendix B: Detailed Test Results

Appendix C: Calibration certificate

Appendix D: Photographs

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SGS-CSTC Standards Technical Services (Xi'an) Co., Ltd. Wireless Laboratory
1/F, Unit D, Building 1, Kanghong Orange Science Park, No.137, Keyuan 3rd Road, Fengdong New Town, XTan, Shaanxi, China 710086
中国·西安·沣东新城科源三路137号康鸿橙方科技园1号楼D单元1层 邮编: 710086
t (86-29) 6282 7885 www.sgsgroup.com.cn
t (86-29) 6282 7885 sgs.china@sgs.com