SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

FCC SAR TEST REPORT

Application No.:	ZEWM2304000551RG
Applicant:	vivo Mobile Communication Co., Ltd.
Manufacturer:	vivo Mobile Communication Co., Ltd.
Product Name:	Mobile Phone
Model No.(EUT):	V2248
Trade Mark:	vivo
FCC ID:	2AUCY-V2248
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2023/05/09
Date of Test:	2023/05/09 to 2023/06/07
Date of Issue:	2023/06/07
Test conclusion:	**PASS ***

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

Authorized Signature:

Ervin Li

Regulatory Manager

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

REVISION HISTORY

Report Number	Revision	Description	Issue Date
ZEWM2304000551RG01	01	Original	2023/06/07

Prepared By	Vito Wang **Vito Wang**
Checked By	Roman Pan **Roman Pan**

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	0.95	0.21	0.41	/
GSM1900	0.99	0.51	0.67	0.94
WCDMA Band II	0.94	0.77	0.60	1.12
WCDMA Band IV	0.50	0.45	0.58	0.78
WCDMA Band V	0.64	0.27	0.30	/
LTE Band 2	0.94	0.79	0.60	1.35
LTE Band 4	0.82	0.48	0.38	1.67
LTE Band 5	0.70	0.24	0.31	/
LTE Band 7	0.68	0.47	0.48	/
LTE Band 12/17	0.99	0.25	0.24	/
LTE Band 13	0.36	0.23	0.24	/
LTE Band 26/18/19	0.92	0.25	0.31	/
LTE Band 38	0.86	0.65	0.66	1.01
LTE Band 41	0.60	0.34	0.40	/
LTE Band 66	**0.99**	0.48	0.42	1.24
NR Band n2	0.79	0.83	0.47	0.84
NR Band n5	0.98	0.29	0.42	/
NR Band n7	0.47	0.43	0.49	/
NR Band n26	0.69	0.28	0.24	/
NR Band n38	0.59	0.39	0.68	/
NR Band n41	0.38	0.41	0.58	/
NR Band n66	0.97	0.44	0.36	0.93
NR Band 77/78	0.81	0.65	0.40	1.99
WI-FI (2.4GHz)	0.49	0.20	0.40	/
WI-FI (5GHz)	0.44	**0.88**	**0.99**	**2.40**
BT	0.22	0.03	0.08	/
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.39	1.30	1.39	2.42
SPLSR	/	/	/	/
SPLSR Limited	0.04			0.1

Note:
1) The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.
2) According to TCB workshop (Overlapping LTE Bands): SAR in LTE band 17 (frequency range: 704-716 MHz) is covered by LTE band 12 (frequency range: 699-716 MHz). SAR in LTE band 18 (frequency range: 815-830 MHz) and LTE band 19 (frequency range: 830-845 MHz) are covered by LTE band 26 (frequency range: 814-849 MHz). The SAR in NR band 78 (frequency range: 3450-3550 MHz, 3700-3800MHz) is covered by NR band 77 (frequency range: 3450-3550 MHz, 3700-3980MHz). Because the frequency range is similar, the maximum tuning limit is the same, and the channel bandwidth and other operating parameters for the smaller band is fully supported by the larger band.

CONTENTS

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

1 General Information

1.1 Details of Client

Applicant:	vivo Mobile Communication Co., Ltd.
Address:	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Manufacturer:	vivo Mobile Communication Co., Ltd.
Address:	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
Address:	No. 1 Workshop, M-10, Middle section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China
Post code:	518057
Test engineer:	Lyons Liang, Charley Yi, Mike Li, Durant Lin, Bernie Zhuang, Messi Chen, James Zheng, Ethan Li

1.3 Test Facility

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

• A2LA (Certificate No. 3816.01)

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

• Innovation, Science and Economic Development Canada

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

CAB identifier: CN0006.

IC#: 4620C.

• FCC –Designation Number: CN1336

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

Designation Number: CN1336. Test Firm Registration Number: 787754.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

1.4 General Description of EUT

Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
Product Name:	Mobile Phone		
Model No.(EUT):	V2248		
FCC ID:	2AUCY-V2248		
Trade Mark:	vivo		
Product Phase:	Identical Prototype		
IMEI:	860233069986293, 860233069986491, 860233069985592, 860233069986939, 860233069985758, 860233069986392		
Hardware Version:	MP_0.1		
Software Version:	PD2279F_EX_A_13.0.2.6.W30		
Antenna Type:	PIFA Antenna		
Device Operating Configurations :			
Modulation Mode:	**GSM:** GMSK, 8PSK; **WCDMA:** QPSK, 16QAM(HSPA+); **LTE:** QPSK,16QAM,64QAM; **5G NR:** DFT-s-OFDM (PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM), CP-OFDM (QPSK, 16QAM, 64QAM, 256QAM) **WIFI:** DSSS, OFDM; **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	7
DC-HSDPA UE Category:	24		
Power Class:	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band)		
	3, tested with power control Max Power(LTE Band)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	WCDMA Band II	1850~1910	1930~1990
	WCDMA Band IV	1710~1755	2110~2155
	WCDMA Band V	824~849	869~894
	LTE Band 2	1850 ~1910	1930 ~1990
	LTE Band 4	1710~1755	2110~2155
	LTE Band 5	824~849	869-894
	LTE Band 7	2500~2570	2620~2690
	LTE Band 12	699~716	729~746
	LTE Band 13	777~787	746~756
	LTE Band 17	704-716	734-746
	LTE Band 18	815~830	860~875
	LTE Band 19	830~845	875~890
	LTE Band 26	814~849	859~894
	LTE Band 38	2570~2620	2570~2620
	LTE Band 41	2496~2690	2496~2690

	LTE Band 66	1710~1780	2110~2180
	NR Band n2	1850 ~1910	1930 ~1990
	NR Band n5	824~849	869-894
	NR Band n7	2500~2570	2620~2690
	NR Band n26	814~849	859~894
	NR Band n38	2570~2620	2570~2620
	NR Band n41	2496~2690	2496~2690
	NR Band n66	1710~1780	1710~1780
	NR Band n77	3450~3550	3450~3550
		3700~3980	3700~3980
	NR Band n78	3450~3550	3450~3550
		3700~3800	3700~3800
	Bluetooth	2400~2483.5	2400~2483.5
	Wi-Fi 2.4G	2412~2462	2412~2462
	Wi-Fi 5G	5150~5250	5150~5250
		5250~5350	5250~5350
		5470~5725	5470~5725
		5725~5850	5725~5850
RF Cable:	☒ Provided by the applicant ☐ Provided by the laboratory		
Battery Information:	Model:	B-Z5	
	Normal Voltage:	+3.89V	
	Rated capacity:	4900mAh	
	Manufacturer:	Dongguan NVT Technology Co., Ltd.	

Note: *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, SGS is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
Remark:
As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

Note:
1) Wi-Fi 5G does not support TDWR channel (CH:114/118/120/122/124/126/128).

1.4.1 DUT Antenna Locations (Back View)

The DUT Antenna Locations can be referred to Appendix F.
Note:
1) The test device is a smart phone. The overall diagonal dimension of this device is 175.3mm. Per KDB 648474 D04, because the diagonal distance of this device is ≥160mm, so it is a phablet.

According to the distance between all TX antennas and the sides of the EUT we can draw the conclusion that:

Distance of the Antenna to the EUT surface/edge						
Mode	Front	Back	Left	Right	Top	Bottom
Ant11	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant12	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant13	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant21	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant22	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant23	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant31	≤25mm	≤25mm	≤25mm	≤25mm	>25mm	≤25mm

Table 1： Distance of the Antenna to the EUT surface/edge
Note:
1) When the antenna-to-edge distance is greater than 25mm, such position does not need to be tested.

1.4.2 Power reduction specification

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

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

2) A fixed level power reduction is applied for some frequency bands when simultaneously transmitting with the other antennas in certain simultaneous transmission conditions.

3) This device uses the receiver to indicate whether the user is making a voice call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. A fixed level power reduction is applied for some frequency bands when the audio receiver is on.

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

The detailed power reduction information can be referred to Appendix E (Conducted RF Output Power).

1.5 Test Specification

Identity	Document Title
FCC 47CFR §2.1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
ANSI/IEEE C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.
IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 941225 D01	3G SAR Measurement Procedures v03r01
KDB 941225 D05	SAR for LTE Devices v02r05
KDB 941225 D05A	LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 941225 D06	Hotspot Mode SAR v02r01
KDB 248227 D01	SAR Guidance for IEEE 802 11 Wi-Fi SAR v02r02
KDB 648474 D04	Handset SAR v01r03
KDB 447498 D01	General RF Exposure Guidance v06
KDB 865664 D01	SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02	RF Exposure Reporting v01r02
KDB 690783 D01	SAR Listings on Grants v01r03
KDB 616217 D04	SAR for laptop and tablets v01r02

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 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.)

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

2 Laboratory Environment

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

Table 2： The Ambient Conditions

3 SAR Measurements System Configuration

3.1 The SAR Measurement System

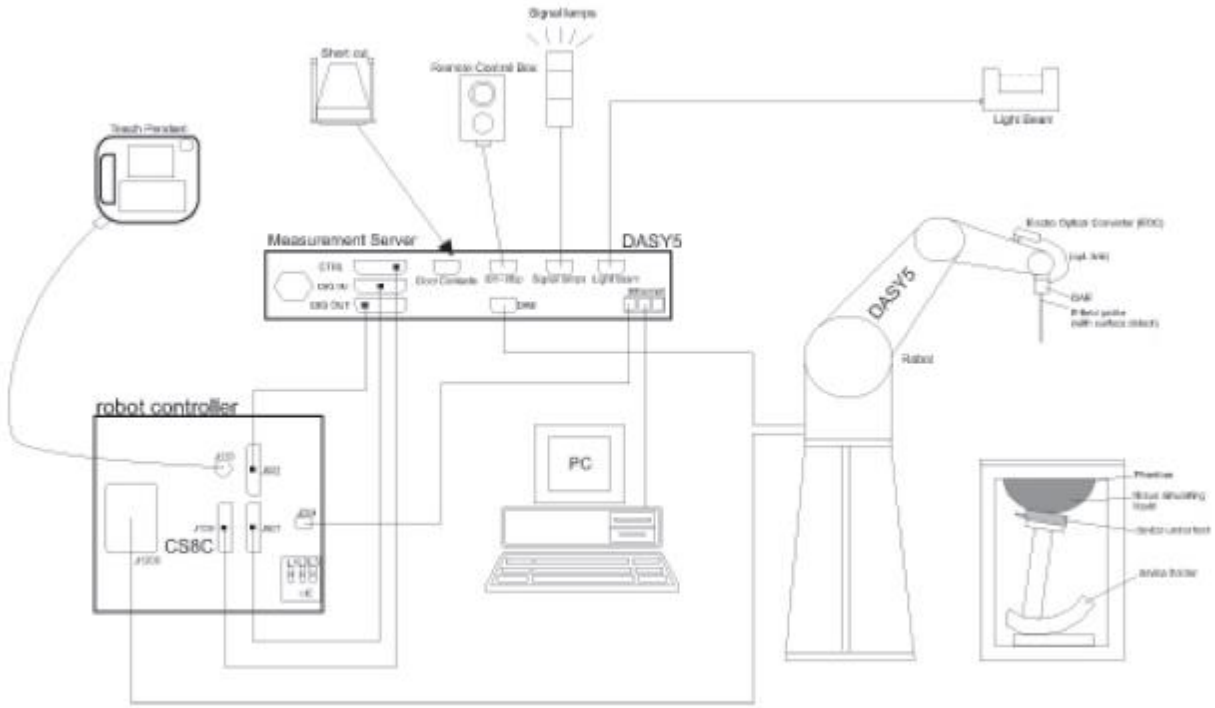
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY5 professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the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

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

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

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

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



F-1. SAR Measurement System Configuration

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

3.2 Isotropic E-field Probe EX3DV4

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

3.3 Data Acquisition Electronics (DAE)

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

3.4 SAM Twin Phantom

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

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

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

3.5 ELI Phantom

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

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

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

3.6 Device Holder for Transmitters

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

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

3.7 Measurement procedure

3.7.1 Scanning procedure

Step 1: Power reference measurement

The “reference” and “drift” measurements are located at the beginning and end of the batch process. They measure the field drift at one single point in the liquid over the complete procedure.

Step 2: *Area scan*

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

Step 3: *Zoom scan*

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

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

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

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

Step 4: Power reference measurement (drift)

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

3.7.2 Data Storage

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

3.7.3 Data Evaluation by SEMCAD

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

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

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

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

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

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

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

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

E-field probes:

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

H-field probes:

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

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

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

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

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

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

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

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

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

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

4 SAR measurement variability and uncertainty

4.1 SAR measurement variability

Per KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

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

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

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

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

4.2 SAR measurement uncertainty

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

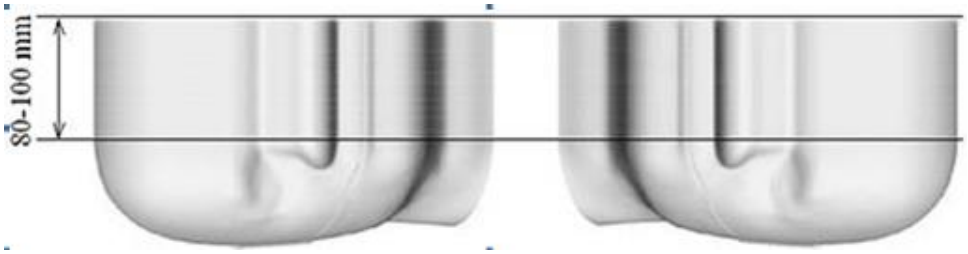
5 Description of Test Position

5.1 Head Exposure Condition

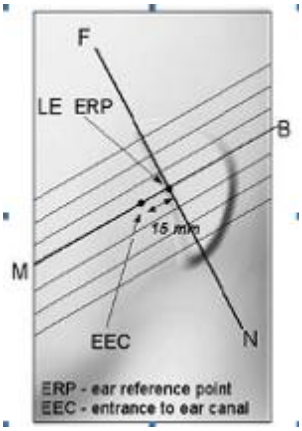
5.1.1 SAM Phantom Shape

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

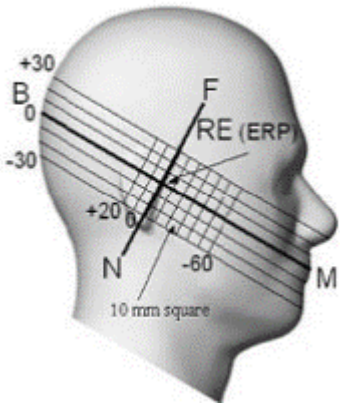
Note: The centre strip including the nose region has a different thickness tolerance.



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

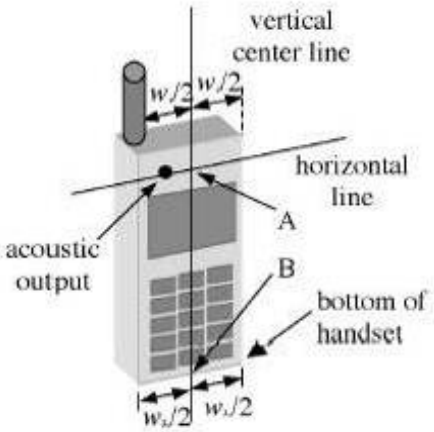


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

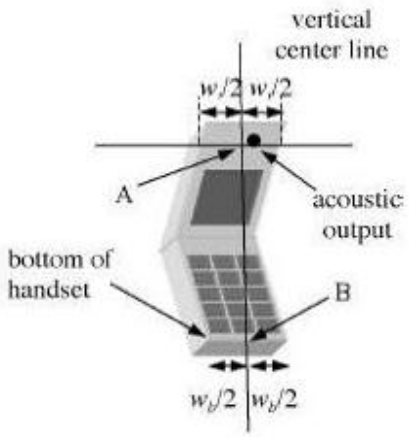


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

5.1.2 EUT constructions



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



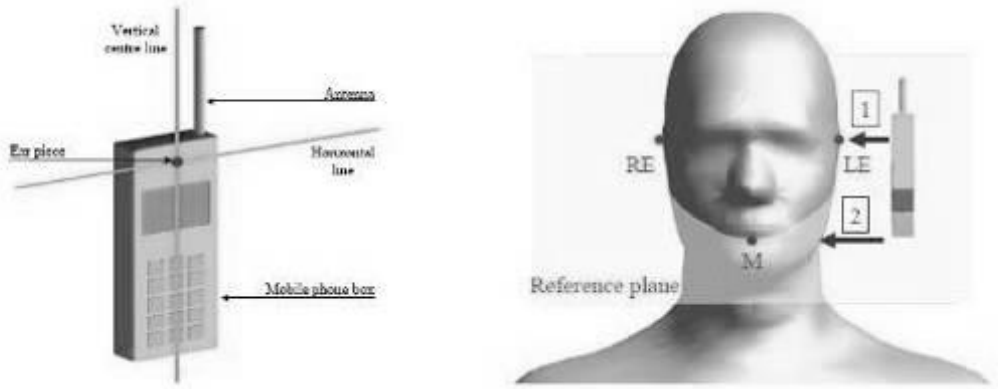
F-8. Handset vertical and horizontal reference lines-“clam-shell case”

5.1.3 Definition of the “cheek” position

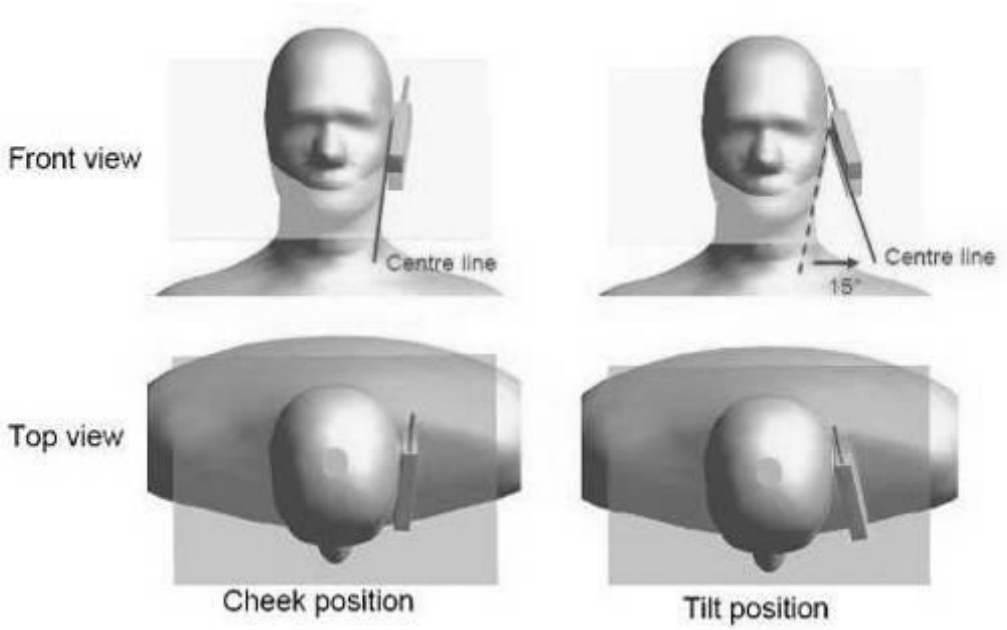
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the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

5.1.4 Definition of the “tilted” position

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



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



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

5.2 Body Exposure Condition

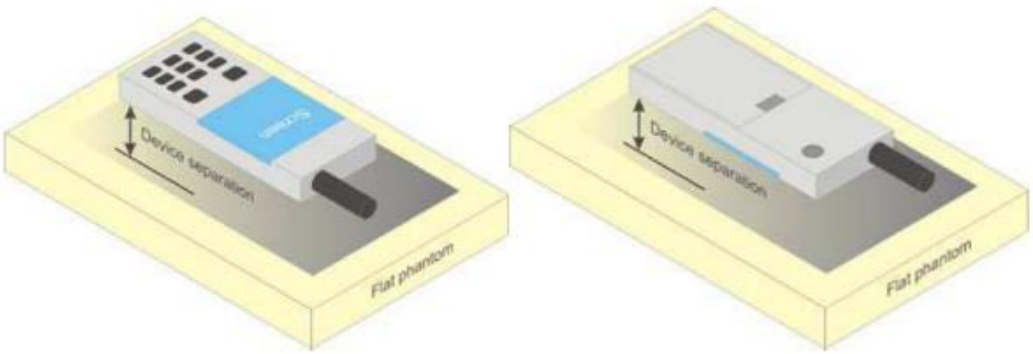
5.2.1 Body-worn accessory exposure conditions

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

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

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

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



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

5.2.2 Wireless Router exposure conditions

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

5.3 Extremity exposure conditions

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

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

GSM 1900 (Ant13):

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	GPRS 2TS	661/1880	1:4.15	0.303	-0.06	23.40	29.00	3.631	1.100	Yes
Back side	GPRS 2TS	661/1880	1:4.15	0.423	0.01	23.40	29.00	3.631	1.536	NO
Left side	GPRS 2TS	661/1880	1:4.15	0.069	0.03	23.40	29.00	3.631	0.251	Yes
Top side	GPRS 2TS	661/1880	1:4.15	0.585	-0.06	23.40	29.00	3.631	2.124	NO

WCDMA Band II (Ant13):

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.240	-0.03	15.66	23.00	5.420	1.301	NO
Back side	RMC	9400/1880	1:1	0.286	-0.13	15.66	23.00	5.420	1.550	NO
Left side	RMC	9400/1880	1:1	0.053	-0.09	15.66	23.00	5.420	0.287	Yes
Top side	RMC	9400/1880	1:1	0.437	-0.10	15.66	23.00	5.420	2.369	NO

WCDMA Band IV (Ant13):

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.103	0.02	15.87	24.50	7.295	0.751	Yes
Back side	RMC	1412/1732.4	1:1	0.118	0.13	15.87	24.50	7.295	0.861	Yes
Left side	RMC	1412/1732.4	1:1	0.020	0.04	15.87	24.50	7.295	0.142	Yes
Top side	RMC	1412/1732.4	1:1	0.166	-0.05	15.87	24.50	7.295	1.211	NO

LTE Band 2 (Ant13):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	18900/1880	1:1	0.179	0.06	14.95	22.40	5.559	0.995	Yes
Back side	20	QPSK 1_50	18900/1880	1:1	0.236	-0.18	14.95	22.40	5.559	1.312	NO
Left side	20	QPSK 1_50	18900/1880	1:1	0.040	0.01	14.95	22.40	5.559	0.221	Yes
Top side	20	QPSK 1_50	18900/1880	1:1	0.337	0.02	14.95	22.40	5.559	1.873	NO
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.176	-0.02	14.95	22.40	5.559	0.978	Yes
Back side	20	QPSK 50_0	18900/1880	1:1	0.230	-0.10	14.95	22.40	5.559	1.279	NO
Left side	20	QPSK 50_0	18900/1880	1:1	0.037	-0.11	14.95	22.40	5.559	0.207	Yes
Top side	20	QPSK 50_0	18900/1880	1:1	0.330	0.04	14.95	22.40	5.559	1.834	NO

LTE Band 4 (Ant13):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	20300/1745	1:1	0.109	0.05	15.59	24.50	7.780	0.848	Yes
Back side	20	QPSK 1_50	20300/1745	1:1	0.132	0.17	15.59	24.50	7.780	1.027	Yes
Left side	20	QPSK 1_50	20300/1745	1:1	0.020	-0.02	15.59	24.50	7.780	0.155	Yes
Top side	20	QPSK 1_50	20300/1745	1:1	0.186	0.02	15.59	24.50	7.780	1.447	NO
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	20050/1720	1:1	0.093	-0.11	15.65	24.50	7.674	0.711	Yes
Back side	20	QPSK 50_50	20050/1720	1:1	0.109	0.13	15.65	24.50	7.674	0.836	Yes
Left side	20	QPSK 50_50	20050/1720	1:1	0.021	-0.05	15.65	24.50	7.674	0.158	Yes
Top side	20	QPSK 50_50	20050/1720	1:1	0.154	0.06	15.65	24.50	7.674	1.182	Yes

LTE Band 38 (Ant13):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	37850/2580	1:1.58	0.125	-0.14	19.31	25.00	3.707	0.463	Yes
Back side	20	QPSK 1_50	37850/2580	1:1.58	0.373	-0.04	19.31	25.00	3.707	1.383	NO
Left side	20	QPSK 1_50	37850/2580	1:1.58	0.114	-0.01	19.31	25.00	3.707	0.423	Yes
Top side	20	QPSK 1_50	37850/2580	1:1.58	0.474	0.02	19.31	25.00	3.707	1.757	NO
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_25	37850/2580	1:1.58	0.124	-0.05	19.34	25.00	3.681	0.456	Yes
Back side	20	QPSK 50_25	37850/2580	1:1.58	0.373	-0.05	19.34	25.00	3.681	1.373	NO
Left side	20	QPSK 50_25	37850/2580	1:1.58	0.114	-0.06	19.34	25.00	3.681	0.420	Yes
Top side	20	QPSK 50_25	37850/2580	1:1.58	0.507	0.06	19.34	25.00	3.681	1.866	NO

LTE Band 66 (Ant13):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	132322/1745	1:1	0.100	0.01	15.21	24.50	8.492	0.846	Yes
Back side	20	QPSK 1_50	132322/1745	1:1	0.121	0.15	15.21	24.50	8.492	1.028	Yes
Left side	20	QPSK 1_50	132322/1745	1:1	0.021	0.11	15.21	24.50	8.492	0.174	Yes
Top side	20	QPSK 1_50	132322/1745	1:1	0.170	0.01	15.21	24.50	8.492	1.444	NO
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	132072/1720	1:1	0.080	-0.04	15.36	24.50	8.204	0.660	Yes
Back side	20	QPSK 50_50	132072/1720	1:1	0.097	0.14	15.36	24.50	8.204	0.796	Yes
Left side	20	QPSK 50_50	132072/1720	1:1	0.020	0.06	15.36	24.50	8.204	0.164	Yes
Top side	20	QPSK 50_50	132072/1720	1:1	0.136	-0.08	15.36	24.50	8.204	1.116	Yes

N2 (Ant13):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_26	372000/1860	100%	0.133	0.05	14.99	22.80	6.039	0.803	Yes
Back side	20	QPSK 1_26	372000/1860	100%	0.154	0.02	14.99	22.80	6.039	0.930	Yes
Left side	20	QPSK 1_26	372000/1860	100%	0.050	0.02	14.99	22.80	6.039	0.303	Yes
Top side	20	QPSK 1_26	372000/1860	100%	0.241	0.07	14.99	22.80	6.039	1.456	NO
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 25_13	380000/1900	100%	0.165	0.03	15.08	22.80	5.916	0.976	Yes
Back side	20	QPSK 25_13	380000/1900	100%	0.223	0.04	15.08	22.80	5.916	1.319	NO
Left side	20	QPSK 25_13	380000/1900	100%	0.043	0.05	15.08	22.80	5.916	0.251	Yes
Top side	20	QPSK 25_13	380000/1900	100%	0.356	0.14	15.08	22.80	5.916	2.106	NO

N66 (Ant11):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_53	349000/1745	100%	0.113	-0.02	16.95	24.00	5.070	0.573	Yes
Back side	40	QPSK 1_53	349000/1745	100%	0.212	-0.05	16.95	24.00	5.070	1.075	Yes
Left side	40	QPSK 1_53	349000/1745	100%	0.253	-0.04	16.95	24.00	5.070	1.283	NO
Top side	40	QPSK 1_53	349000/1745	100%	0.013	-0.06	16.95	24.00	5.070	0.066	Yes
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	349000/1745	100%	0.129	-0.01	17.03	24.00	4.977	0.642	Yes
Back side	40	QPSK 50_28	349000/1745	100%	0.202	-0.13	17.03	24.00	4.977	1.005	Yes
Left side	40	QPSK 50_28	349000/1745	100%	0.291	-0.01	17.03	24.00	4.977	**1.448**	NO
Top side	40	QPSK 50_28	349000/1745	100%	0.013	-0.08	17.03	24.00	4.977	0.065	Yes

N77 (Ant11):
(3450-3550):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	100%	0.099	0.18	14.61	25.00	10.940	1.082	Yes
Back side	100	QPSK 1_137	633334/3500	100%	0.150	0.12	14.61	25.00	10.940	1.641	NO
Left side	100	QPSK 1_137	633334/3500	100%	0.292	0.09	14.61	25.00	10.940	3.194	NO
Top side	100	QPSK 1_137	633334/3500	100%	0.019	0.05	14.61	25.00	10.940	0.208	Yes
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	100%	0.085	-0.18	14.62	25.00	10.914	0.931	Yes
Back side	100	QPSK 135_69	633334/3500	100%	0.118	0.05	14.62	25.00	10.914	1.288	NO
Left side	100	QPSK 135_69	633334/3500	100%	0.298	-0.02	14.62	25.00	10.914	3.252	NO
Top side	100	QPSK 135_69	633334/3500	100%	0.018	0.09	14.62	25.00	10.914	0.192	Yes

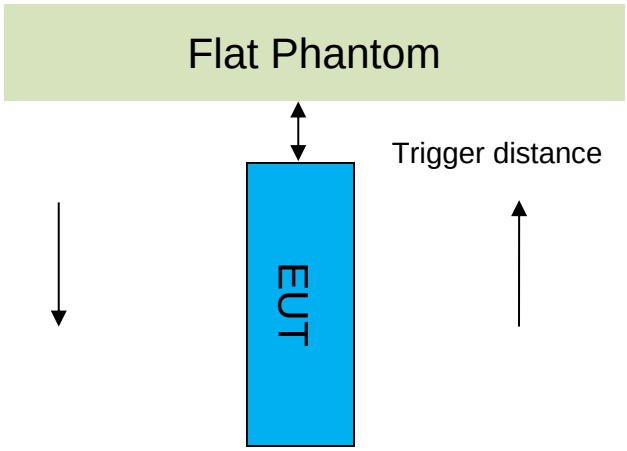
N77 (Ant11):
(3700-3980):

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	659600/3894	100%	0.094	0.09	14.66	25.00	10.814	1.015	Yes
Back side	100	QPSK 1_137	659600/3894	100%	0.119	0.09	14.66	25.00	10.814	1.287	NO
Left side	100	QPSK 1_137	659600/3894	100%	0.196	0.09	14.66	25.00	10.814	2.120	NO
Top side	100	QPSK 1_137	659600/3894	100%	0.016	0.02	14.66	25.00	10.814	0.172	Yes
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	662000/3930	100%	0.099	0.02	14.76	25.00	10.568	1.043	Yes
Back side	100	QPSK 135_69	662000/3930	100%	0.121	0.05	14.76	25.00	10.568	1.279	NO
Left side	100	QPSK 135_69	662000/3930	100%	0.237	0.05	14.76	25.00	10.568	**2.505**	NO
Top side	100	QPSK 135_69	662000/3930	100%	0.015	0.08	14.76	25.00	10.568	0.163	Yes

5.4 Proximity Sensor Triggering Test

Proximity sensor triggering distances:

The Proximity sensor triggering was applied to WWAN antenna. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.

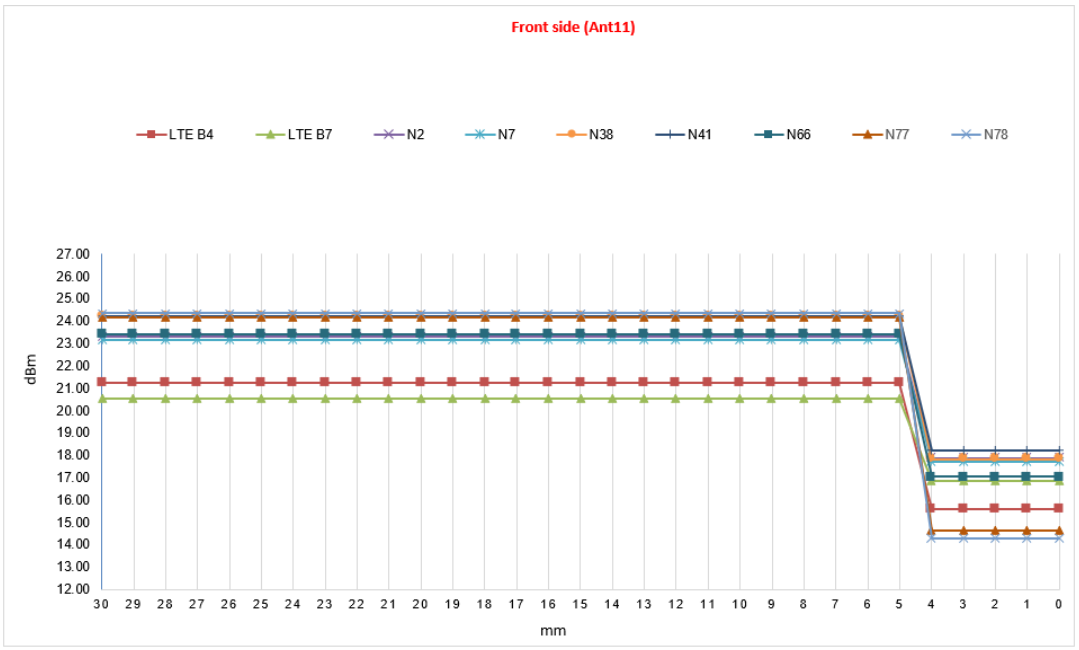


Proximity Sensor Triggering Distance(mm)		
Ant	Ant11	Ant13
Band	LTE B4/7 SA N2/7/66/38/41/77/78	GSM 850/1900 WCDMA B2/4/5 LTE B2/4/5/7/12/13/17/18/19/26/66/38/41 SA N2/5/26/66
Position	Front Side 4mm Back Side 9mm Left Side 9mm	Front Side 7mm Back Side 11mm Top Side 11mm

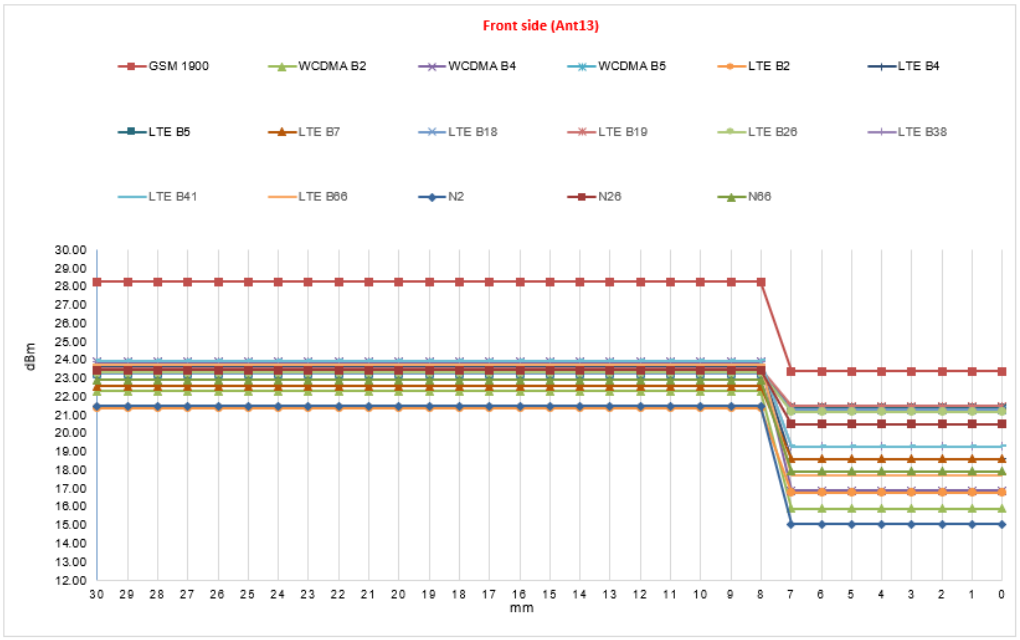
Note:

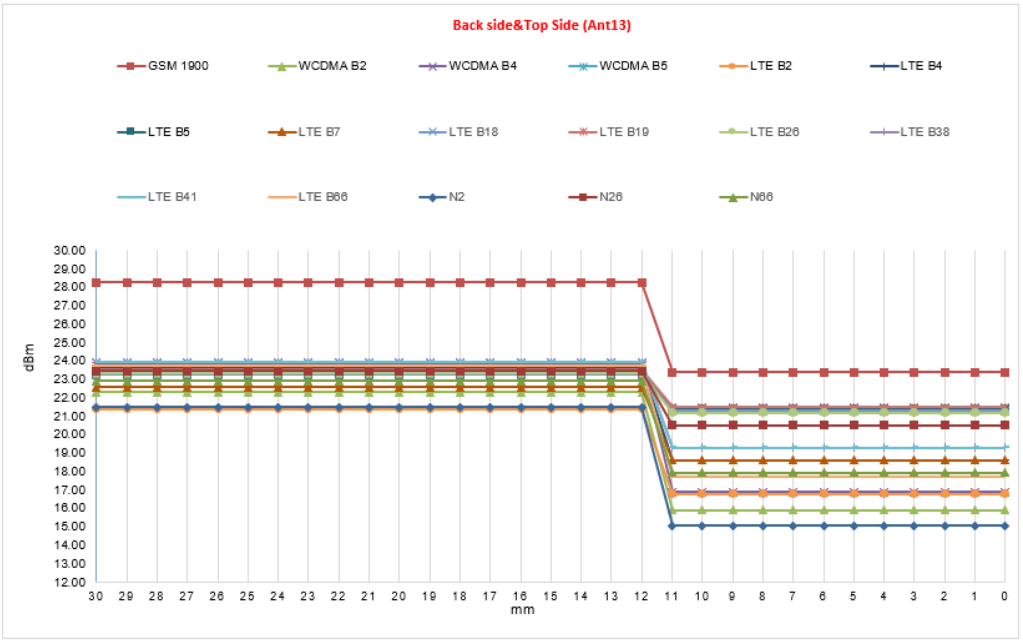
SAR tests with proximity sensor power reduction are only required for the sides of frequency bands in the table above. For the other sides or other frequency bands of the device, SAR is still tested at the maximum power level with sensor off.

- DUT Moving Toward(Trigger)the Phantom

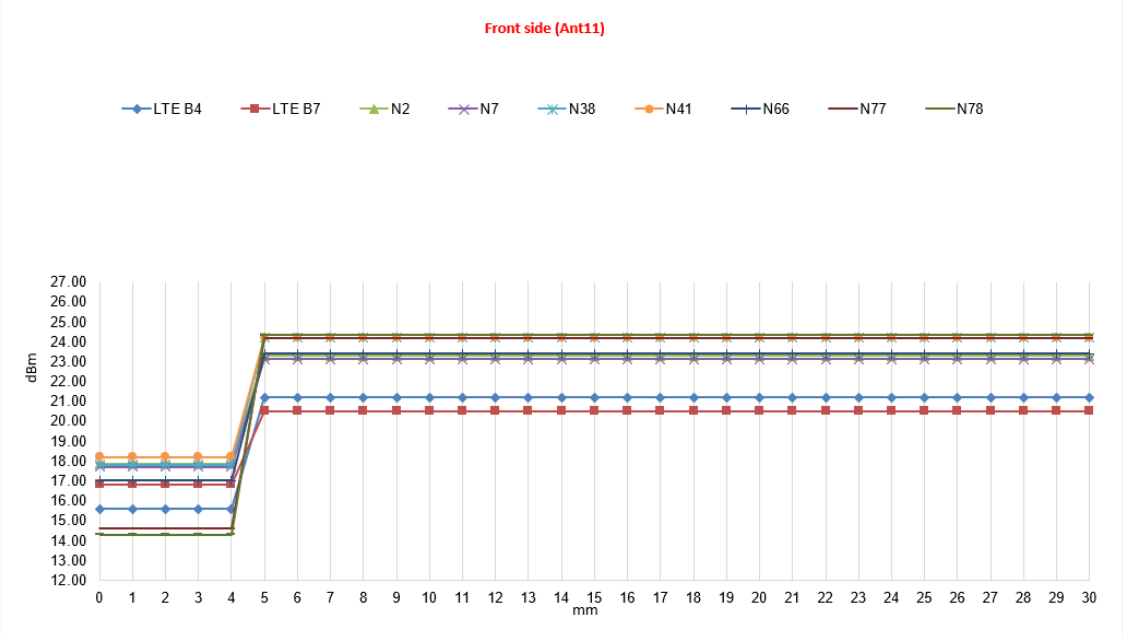


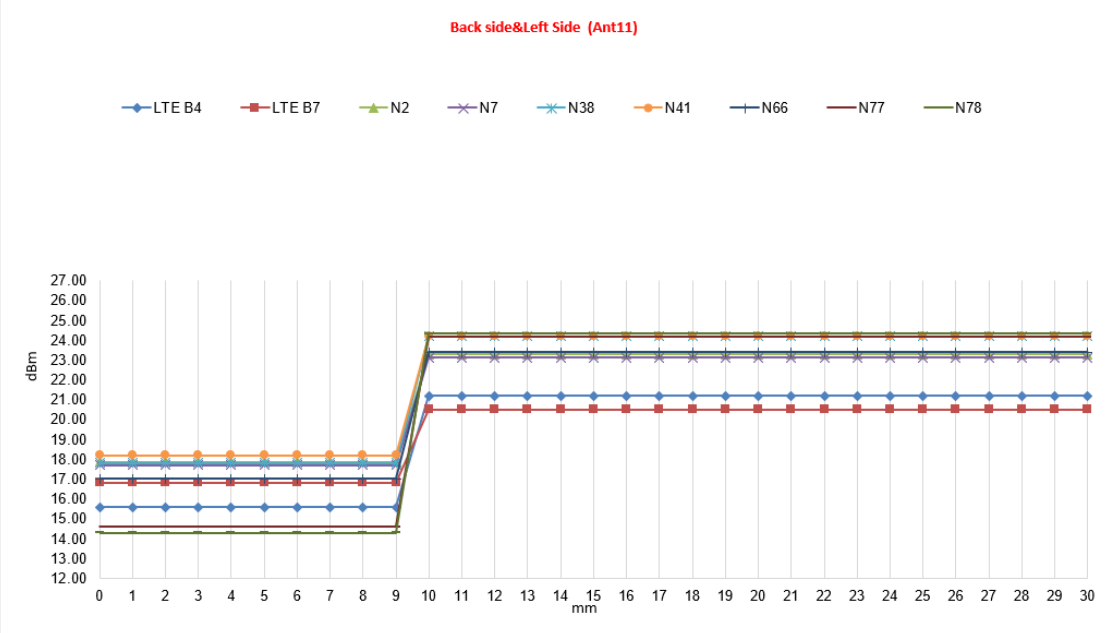
No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

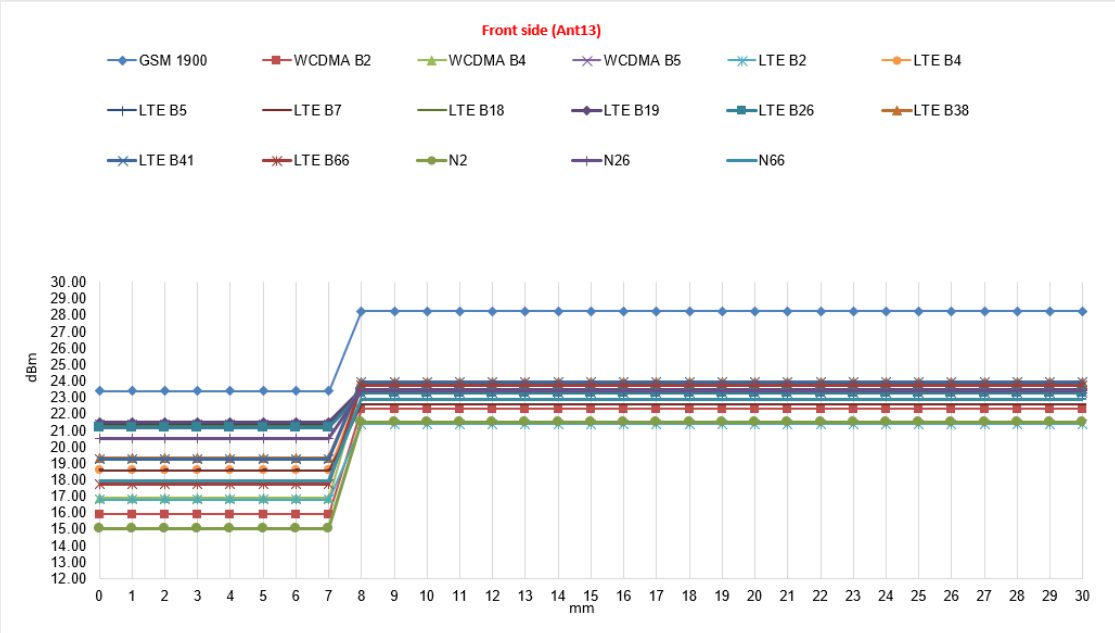


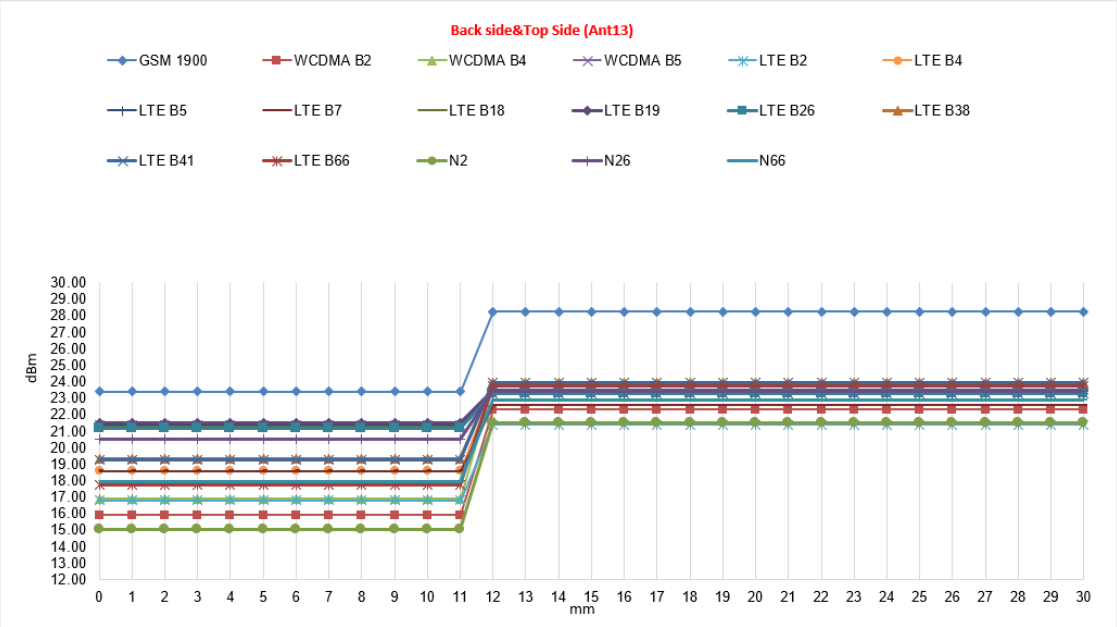


- DUT Moving Away(Release) from the Phantom









Proximity sensor coverage

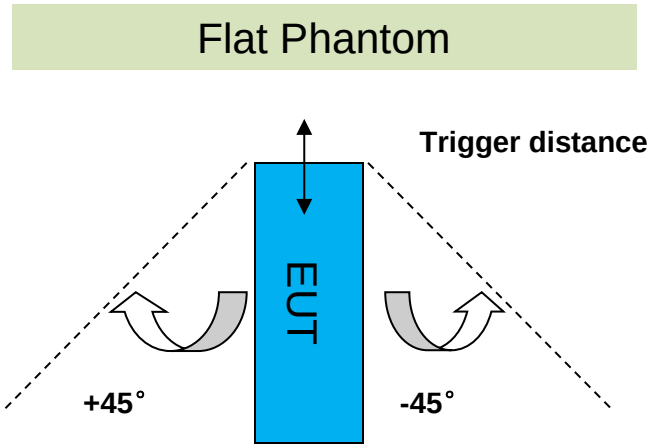
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user, but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage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

Device tilt angle influences on 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.



Summary of Tablet Tilt Angle Influence on Proximity Sensor Triggering for Edge Side												
Band (MHz)	Minimum trigger distance Per KDB616217§6.2	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status									
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
Ant 11: LTE B4/7 SA N2/7/66/38/41/77/78	Left side:9mm	Left side:9mm	on	on	on	on	on	on	on	on	on	on	on
Ant 13: GSM 850/1900 WCDMA B2/4/5 LTE B2/4/5/7/12/13/17/18/19/26/66/38/41 SA N2/5/26/66	Top side:11mm	Top side:11mm	on	on	on	on	on	on	on	on	on	on	on

6 SAR System Verification Procedure

6.1 Tissue Simulate Liquid

6.1.1 Recipes for Tissue Simulate Liquid

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

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

Table 3： Recipe of Tissue Simulate Liquid

6.1.2 Measurement for Tissue Simulate Liquid

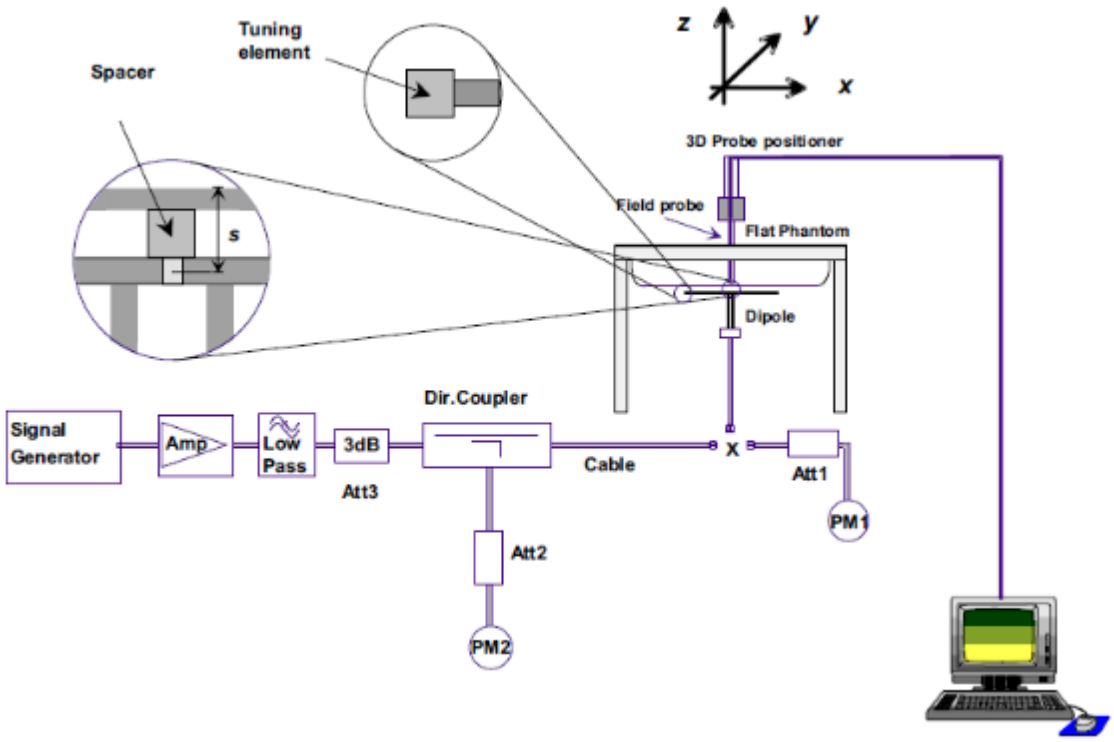
The Conductivity (σ) and Permittivity (ε_r) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Tissue Type	Measured Frequency (MHz)	Target Tissue (±5%)		Measured Tissue		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	41.664	0.895	-0.56%	0.56%	22.2	2023/5/10
835 Head	835	41.50	0.90	42.242	0.905	1.79%	0.56%	22.1	2023/5/9
835 Head	835	41.50	0.90	42.233	0.904	1.77%	0.44%	22.0	2023/5/11
835 Head	835	41.50	0.90	43.316	0.902	4.38%	0.22%	22.3	2023/5/17
835 Head	835	41.50	0.90	43.346	0.913	4.45%	1.44%	22.3	2023/5/28
1750 Head	1750	40.10	1.37	40.150	1.320	0.12%	-3.65%	21.8	2023/5/11
1750 Head	1750	40.10	1.37	40.186	1.324	0.21%	-3.36%	21.9	2023/5/13
1900 Head	1900	40.00	1.40	40.178	1.357	0.44%	-3.07%	22.2	2023/5/13
1900 Head	1900	40.00	1.40	40.445	1.403	1.11%	0.21%	21.8	2023/5/25
1900 Head	1900	40.00	1.40	40.648	1.427	1.62%	1.93%	22.3	2023/5/30
2450 Head	2450	39.20	1.80	39.960	1.775	1.94%	-1.39%	22.3	2023/5/30
2600 Head	2600	39.00	1.96	39.684	1.966	1.75%	0.31%	22.1	2023/5/10
2600 Head	2600	39.00	1.96	39.709	1.940	1.82%	-1.02%	22.4	2023/5/11
2600 Head	2600	39.00	1.96	39.681	1.966	1.75%	0.31%	22.2	2023/5/14
2600 Head	2600	39.00	1.96	39.680	1.965	1.74%	0.26%	22.3	2023/5/16
2600 Head	2600	39.00	1.96	39.367	1.936	0.94%	-1.22%	22.1	2023/6/4
3500 Head	3500	37.90	2.91	38.533	2.888	1.67%	-0.76%	22.1	2023/5/29
3500 Head	3500	37.90	2.91	38.493	2.890	1.56%	-0.69%	21.9	2023/6/1
3700 Head	3700	37.70	3.12	37.334	3.095	-0.97%	-0.80%	22.2	2023/5/30
3700 Head	3700	37.70	3.12	37.833	3.070	0.35%	-1.60%	22.4	2023/6/2
3900 Head	3900	37.50	3.32	36.574	3.294	-2.47%	-0.78%	22.0	2023/5/31
3900 Head	3900	37.50	3.32	36.644	3.311	-2.28%	-0.27%	21.9	2023/6/3
5250 Head	5250	35.90	4.66	37.304	4.682	3.91%	0.47%	22.3	2023/6/1
5250 Head	5250	35.90	4.66	36.421	4.621	1.45%	-0.84%	22.2	2023/6/7
5600 Head	5600	35.50	5.07	36.864	5.004	3.84%	-1.30%	22.1	2023/6/2
5600 Head	5600	35.50	5.07	36.855	5.012	3.82%	-1.14%	22.1	2023/6/7
5750 Head	5750	35.40	5.22	36.521	5.275	3.17%	1.05%	22.6	2023/6/3

Table 4： Measurement result of Tissue electric parameters

6.2 SAR System Check

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



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

6.2.1 Justification for Extended SAR Dipole Calibrations

1) Referring to KDB865664 D01 requirements for dipole calibration, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.
a) There is no physical damage on the dipole;
b) System check with specific dipole is within 10% of calibrated value;
c) Return-loss is within 10% of calibrated measurement;
d) Impedance is within 5Ω from the previous measurement.

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

6.2.2 Summary System Check Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	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	1.99	1.30	7.96	5.20	8.37	5.53	-4.90%	-5.97%	22.2	2023/5/10
D835V2	Head	2.37	1.54	9.48	6.16	9.53	6.29	-0.52%	-2.07%	22.1	2023/5/9
D835V2	Head	2.34	1.52	9.36	6.08	9.53	6.29	-1.78%	-3.34%	22.0	2023/5/11
D835V2	Head	2.48	1.57	9.92	6.28	9.53	6.29	4.09%	-0.16%	22.3	2023/5/17
D835V2	Head	2.38	1.53	9.52	6.12	9.53	6.29	-0.10%	-2.70%	22.3	2023/5/28
D1750V2	Head	8.86	4.72	35.44	18.88	36.60	19.30	-3.17%	-2.18%	21.8	2023/5/11
D1750V2	Head	9.07	4.84	36.28	19.36	36.60	19.30	-0.87%	0.31%	21.9	2023/5/13
D1900V2	Head	9.77	5.07	39.08	20.28	39.50	20.60	-1.06%	-1.55%	22.2	2023/5/13
D1900V2	Head	9.25	4.79	37.00	19.16	39.50	20.60	-6.33%	-6.99%	21.8	2023/5/25
D1900V2	Head	9.70	5.02	38.80	20.08	39.50	20.60	-1.77%	-2.52%	22.3	2023/5/30
D2450V2	Head	12.90	5.93	51.60	23.72	52.20	24.30	-1.15%	-2.39%	22.3	2023/5/30
D2600V2	Head	14.30	6.28	57.20	25.12	57.70	25.80	-0.87%	-2.64%	22.1	2023/5/10
D2600V2	Head	14.40	6.47	57.60	25.88	57.70	25.80	-0.17%	0.31%	22.4	2023/5/11
D2600V2	Head	14.80	6.66	59.20	26.64	57.70	25.80	2.60%	3.26%	22.2	2023/5/14
D2600V2	Head	14.30	6.66	57.20	26.64	57.70	25.80	-0.87%	3.26%	22.3	2023/5/16
D2600V2	Head	14.00	6.19	56.00	24.76	57.70	25.80	-2.95%	-4.03%	22.1	2023/6/4
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)**		
D3500V2	Head(3.5GHz)	6.96	2.67	69.60	26.70	65.80	25.70	5.78%	3.89%	22.1	2023/5/29
	Head(3.5GHz)	6.21	2.38	62.10	23.80	65.80	25.70	-5.62%	-7.39%	21.9	2023/6/1
D3700V2	Head(3.7GHz)	6.99	2.61	69.90	26.10	66.10	24.70	5.75%	5.67%	22.2	2023/5/30
	Head(3.7GHz)	6.88	2.57	68.80	25.70	66.10	24.70	4.08%	4.05%	22.4	2023/6/2
D3900V2	Head(3.9GHz)	7.04	2.52	70.40	25.20	66.70	23.80	5.55%	5.88%	22.0	2023/5/31
	Head(3.9GHz)	7.25	2.58	72.50	25.80	66.70	23.80	8.70%	8.40%	21.9	2023/6/3
D5GHzV2	Head(5.25GHz)	7.55	2.28	75.50	22.80	77.30	22.10	-2.33%	3.17%	22.3	2023/6/1
	Head(5.25GHz)	7.68	2.23	76.80	22.30	77.30	22.10	-0.65%	0.90%	22.2	2023/6/7
	Head(5.6GHz)	7.68	2.31	76.80	23.10	81.30	23.10	-5.54%	0.00%	22.1	2023/6/2
	Head(5.6GHz)	8.11	2.33	81.10	23.30	81.30	23.10	-0.25%	0.87%	22.1	2023/6/7
	Head(5.75GHz)	7.53	2.15	75.30	21.50	77.10	21.30	-2.33%	0.94%	22.6	2023/6/3

Table 5： SAR System Check Result

6.2.3 Detailed System Check Results

Please see the Appendix A

7 Test Configuration

7.1 3G SAR Test Reduction Procedure

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

7.2 Operation Configurations

7.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using Radio Communication Analyzer, 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

7.2.2 WCDMA Test Configuration

1）. Output Power Verification

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

2）. Head SAR

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

3）. Body SAR

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

4）. HSDPA / HSUPA / DC-HSDPA

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

a) HSDPA

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

Sub-test	βc	Bd	βd(SF)	βc/βd	βhs	CM(dB)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note1: △ACK, △NACK and △CQI= 8 Ahs = βhs/βc=30/15 βhs=30/15*βc
Note2: For the HS-DPCCH power mask requirement test in clause 5.2C,5.7A,and the Error Vector Magnitude(EVM) with HS-DPCCH test in clause 5.13.1.A,and HSDPA EVM with phase discontinuity in clause 5.13.1AA, △ACK and △NACK= 8 (Ahs=30/15) with βhs=30/15*βc,and △CQI=
7 (Ahs=24/15) with βhs=24/15*βc.
Note3: CM=1 forβc/βd =12/15, βhs/βc=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

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

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

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

Table 7： HSDPA UE category

b) HSUPA

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

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

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

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

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

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

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

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

Table 8： Subtests for UMTS Release 6 HSUPA

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Speading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	10	2SF2&2SF4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.UE categories 1 to 6 support QPSK only. UE category 7 supports QPSK and 16QAM.(TS25.306-7.3.0).

Table 9： HSUPA UE category

c) DC-HSDPA

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

Table E.5.0: Levels for HSDPA connection setup

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

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13.
The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.
The measurements were performed with a Fixed Reference Channel (FRC) H-Set 12 with QPSK.

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

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

Note:
1. The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table above.
2. Maximum number of transmission is limited to 1,i.e.,retransmission is not allowed. The redundancy and constellation version 0 shall be used.

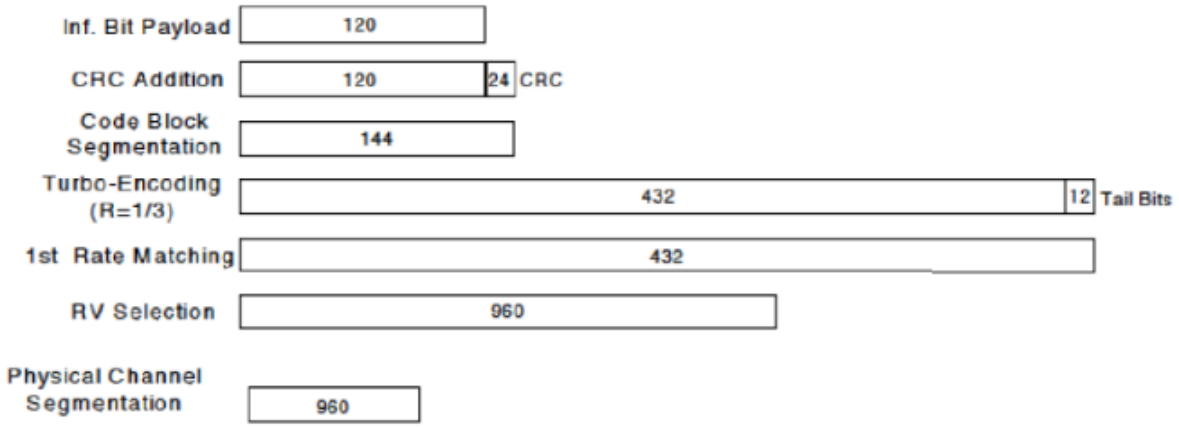


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

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

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

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

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

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

Note:

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

d) HSPA+

Per KDB941225D01, SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode. Power is measured for HSPA+ that supports uplink 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

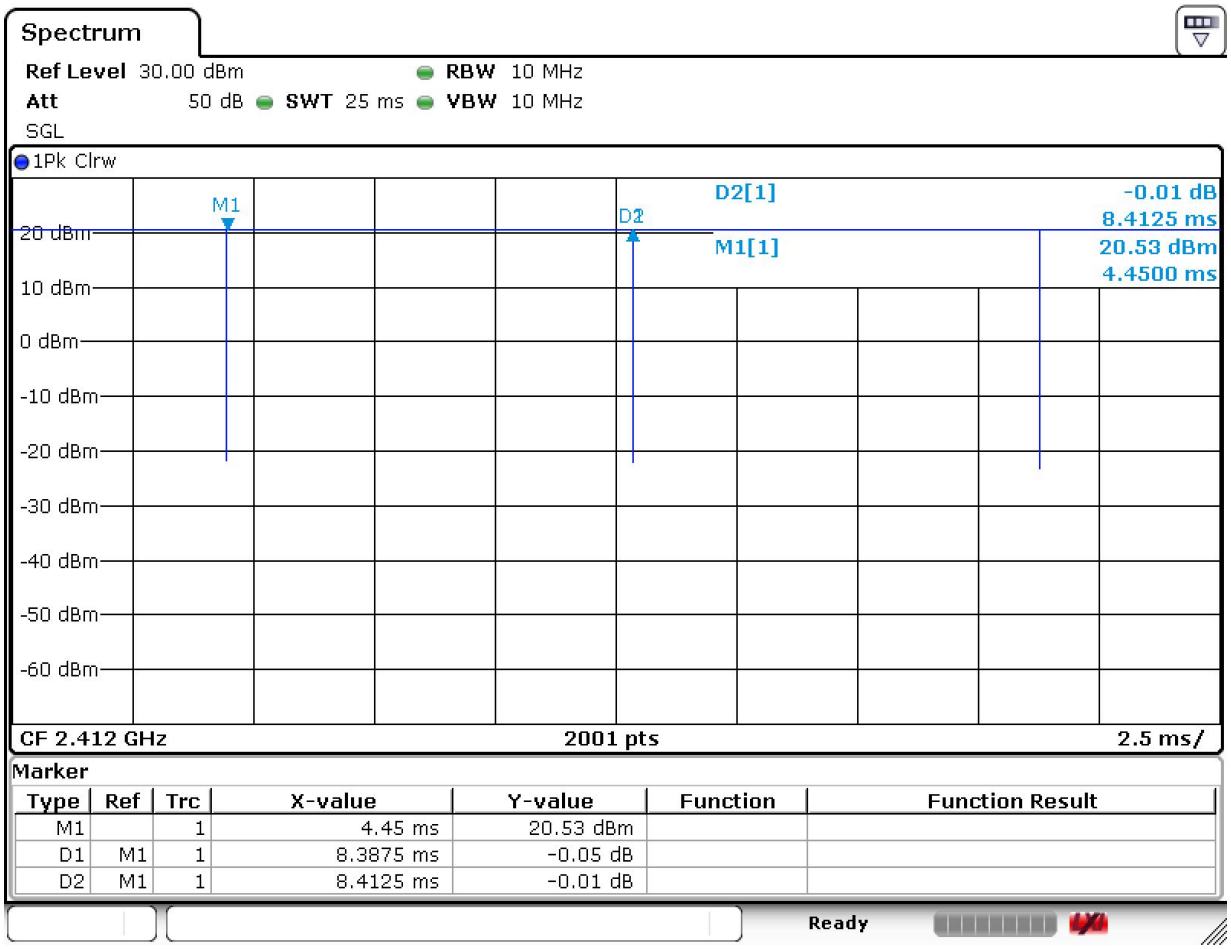
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.

7.2.3 WiFi Test Configuration

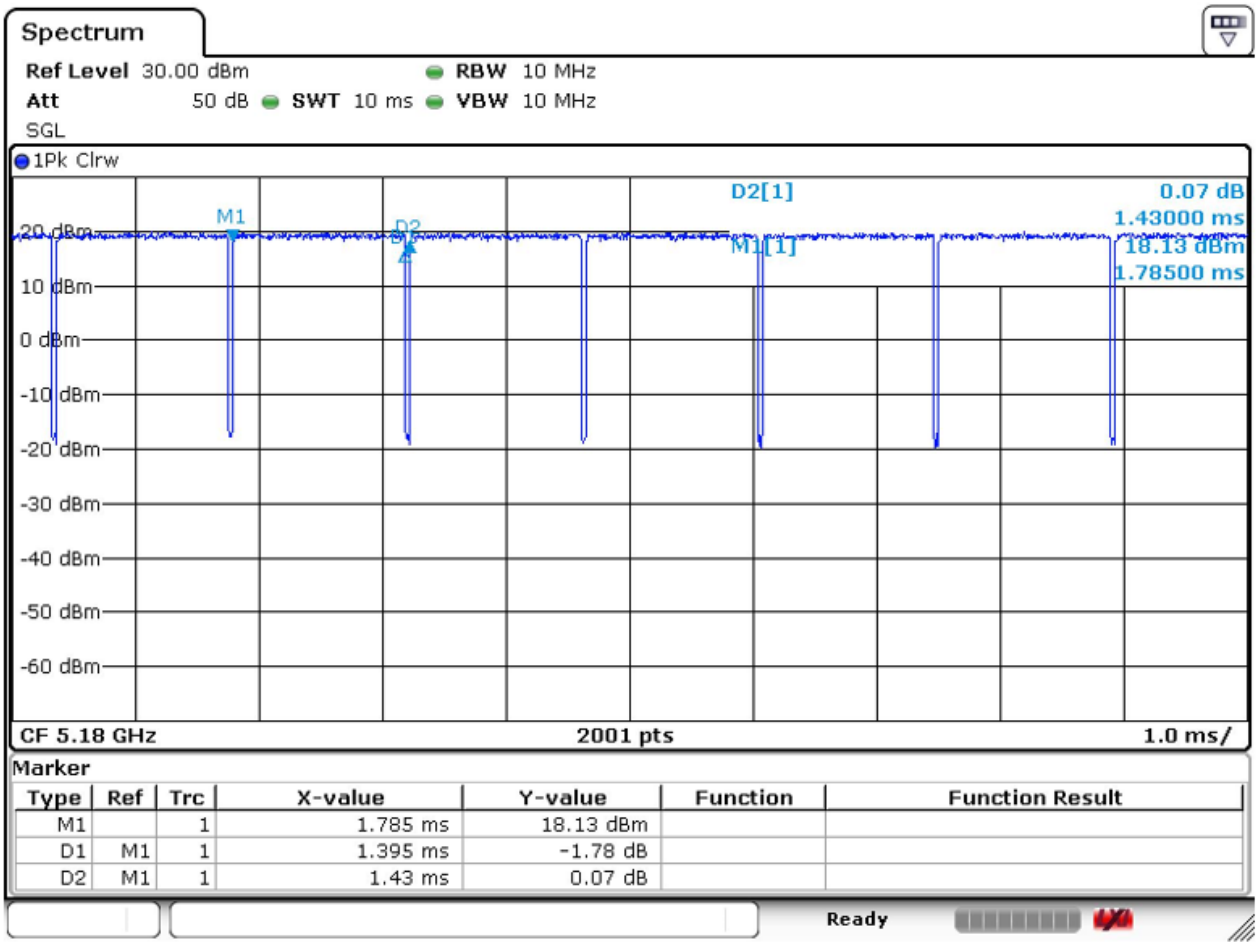
A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

7.2.3.1 Duty cycle

1) Wi-Fi 2.4GHz 802.11b:
Duty cycle=8.3875/8.4125=99.70%



2) Wi-Fi 5GHz 802.11a:
Duty cycle=1.395/1.43=97.55%



7.2.3.2 Initial Test Position SAR Test Reduction Procedure

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

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

7.2.3.3 Initial Test Configuration Procedures

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

7.2.3.4 Subsequent Test Configuration Procedures

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

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

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

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

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

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

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

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

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

7.2.3.5 2.4 GHz WiFi SAR Procedures

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

- **802.11b DSSS SAR Test Requirements**

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

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

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

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

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

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

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

- **SAR Test Requirements for OFDM configurations**

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

7.2.3.6 5 GHz WiFi SAR Procedures

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

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

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

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

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

- **SAR Test Requirements for OFDM configurations**

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

7.2.4 LTE Test Configuration

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

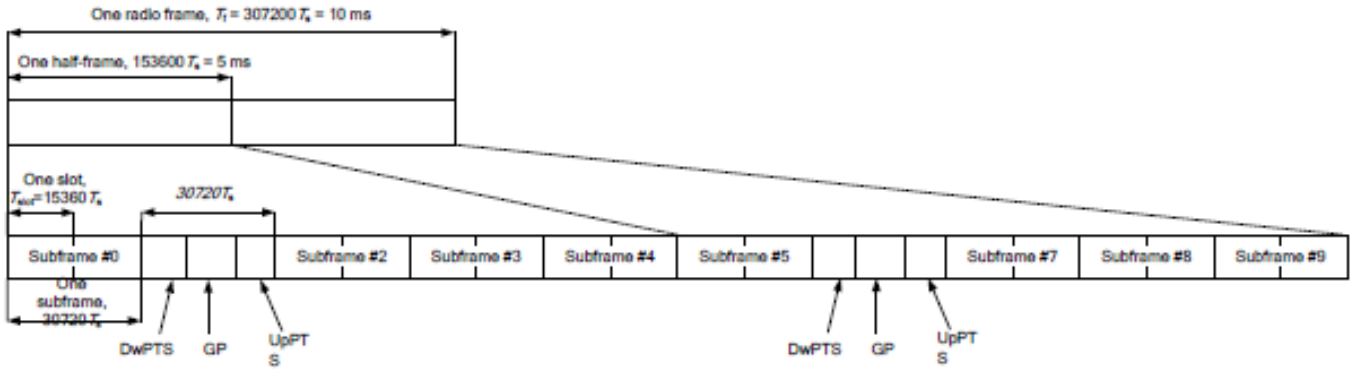
TDD LTE test consideration

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Band support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Frame structure type 2:



Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

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

Uplink-downlink configurations.

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

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

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

A) Spectrum Plots for RB Configurations

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

B) MPR

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

Modulation	Channel bandwidth/Transmission bandwidth						MPR (dB)
	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	0
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3
256QAM	≥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.

F) LTE CA additional specification

The device supports intra-band contiguous and inter-band contiguous uplink and downlink LTE Carrier Aggregation (CA). When carrier aggregation applies, implementation and measurement details for the following are necessary.

a) Intra-band carrier aggregation requirements for uplink.

b) Intra-band and inter-band carrier aggregation requirements for downlink.

The possible downlink and uplink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.101 V15.4.0. The conducted power measurement results of downlink and uplink LTE CA are provided in Appendix E (Conducted RF Output Power). The downlink LTE CA SAR test is not required since the maximum output power for downlink LTE CA was not more than 0.25dB higher than the maximum output power for without downlink LTE CA.

DL LTE CA
CA_7C
CA_38C
CA_40C
CA_41C
CA_66C
CA_4A-4A
CA_7A-7A
CA_38A-38A
CA_41A-41A
CA_66A-66A
CA_2A-4A
CA_2A-5A
CA_2A-7A
CA_2A-66A
CA_4A-5A
CA_4A-7A
CA_5A-7A
CA_5A-41A
CA_2A-2A
CA_2A-38A
CA_5A-38A
CA_5A-66A
CA_7A-26A
CA_7A-66A
CA_26A-41A

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

UL LTE CA
CA_7C
CA_38C
CA_41C
CA_4A-5A
CA_4A-7A
CA_5A-7A

SAR test procedure for intra-band contiguous UL LTE CA is as below:

1)Maximum output power is measured for each UL CA configuration for the required test channels described in KDB 941225 D05

- UL PCC configuration is determined by the required test channel

- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

2)SAR for UL CA is required in each exposure condition and frequency band combination

3)For this device , as the maximum output for Intra-band uplink LTE CA is ≤ standalone LTE mode (without CA),

- PCC is configured according to the highest standalone SAR configuration tested.

- SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.) similar to that used for the PCC

4)When the reported SAR for UL CA configuration, described above, is > 1.2 W/kg, UL CA SAR is also required for all required test channels (PCC based)

5)UL CA SAR is also required for standalone SAR configurations > 1.2 W/kg when they are scaled to the UL CA power level.

c) Inter-band carrier aggregation requirements for uplink.

1. For Inter-band uplink CA mode SAR, as the existing SAR test system cannot test the multiple different frequency bands simultaneous Transmission SAR at the same time, we suggest that the conservative “max + max” multi-Tx and SAR scaling method can be used to evaluate the inter-band Uplink CA SAR from standalone SAR test results of each LTE component band and the conservative “max + max” multi-Tx method to combine the scaled SAR value from each Inter-band uplink CA component band as the inter-band Uplink CA SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report.

The Inter band Uplink CA as below table:

Band/Antenna		LTE Band 4			LTE Band 7		
		ant11	ant13	ant31	ant11	ant13	ant31
B4	ant13				√		
	ant31				√		
B5	ant13	√			√		
	ant31	√			√		

7.2.5 NR Band Test Configuration

2. NR Band n2/n5/n7/n26/n38/n41/n66/n77/n78 support SA mode and n5/n7/n26/n38/n41/n66/n78 support NSA mode. LTE+NR Band operations are possible only with LTE under EN-DC mode and the operations are possible as following table:

Band/Antenna		LTE Band 2		LTE Band 4		LTE Band 5		LTE Band 7			LTE Band 38		LTE Band 41		LTE Band 66	
		ant13	ant31	ant13	ant31	ant13	ant31	ant11	ant13	ant31	ant13	ant31	ant13	ant31	ant13	ant31
n5	ant13							√								
	ant31							√								
n7	ant11	√	√			√	√								√	√
n26	ant13							√								
	ant31							√								
n38	ant11			√	√										√	√
n41	ant11			√	√										√	√
n66	ant11	√	√			√	√		√	√						
n78	ant11	√	√	√	√	√	√		√	√	√	√	√	√	√	√
	ant12	√	√	√	√	√	√		√	√	√	√	√	√	√	√

3. The general information supported by the NR band is as following table:

Band			n2	n5	n7	n26	n38	n41	n66	n77 Ant11/12	n77 Ant21/23	n78 Ant11/12	n78 Ant21/23
Modulation	DFT-s-OFDM	PI/2 BPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CP-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max Duty Cycle			100%	100%	100%	100%	100%	100%	100%	100%	8.5%	100%	8.5%

Band	SCS	Bandwidth												
		5Mhz	10Mhz	15Mhz	20Mhz	25Mhz	30Mhz	40Mhz	50Mhz	60Mhz	70Mhz	80Mhz	90Mhz	100Mhz
n2	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n5	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n7	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n26	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n38	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n41	15KHZ	N/A	Yes	Yes	Yes	N/A	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
n66	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A
n77	15KHZ	N/A	Yes	Yes	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes
n78	15KHZ	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 3GPP 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, for PI/2 BPSK/16QAM/64QMA/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the PI/2 BPSK/16QAM/64QMA/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest SCS and 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.
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. 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 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.
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller SCS/bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device

5. 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 TS 38.101-1 Section 6.2.2 under Table 6.2.2 -1.

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	PI/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		
NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability powerBoosting-pi2BPSK and if the IE powerBoostPi2BPSK is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26dBm.				
NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE powerBoostPi2BPSK is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.				

6. For FDD NR Band operation does not have the fixed UL/DL frame structure, but during the transmitting/ receiving it can be operated in the slot structure of 100% UL duty cycle, we are proposing the conservative way to evaluate SAR at 100% duty cycle. For the purpose of test NR Band standalone SAR, and also test SAR level at 100% TX duty cycle.

7. For 5G NR Sub6GHz SISO Mode, SAR Test plan as below:

1) For 5G NR NSA mode with the same UL EN_DC combination but different DL EN_DC combinations, eg: EN-DC configuration: UL DC_7A_n5 (UL two bands) with DL DC_7C_n5 (DL two bands)

a) The UL EN-DC configuration, including the Tx antenna configuration, RF path, the channel bandwidth and other operating parameters are the same.

b) The maximum output power, including tolerance, for the UL EN-DC configuration with DL two or more bands must be ≤ the same UL EN-DC configuration with DL two bands only to qualify for the SAR test exclusion.

8. For EN-DC SAR, as the existing SAR test system cannot test the multiple different frequency bands simultaneous Transmission SAR at the same time, we suggest that the conservative “max + max” multi-Tx and SAR scaling method can be used to evaluate the inter-band Uplink EN-DC SAR from standalone SAR test results of each LTE and NR EN-DC component band and the conservative “max + max” multi-Tx method to combine the scaled SAR value from each EN-DC component band as the inter-band Uplink EN-DC SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report.

9. When the reported SAR for and EN DC configuration is greater than 1.2 W/kg, EN DC SAR is also required for other NR based test channels.

10. EN DC SAR is also required for standalone NR configurations greater than 1.2 W/kg when scaled to the EN DC power level.

11. For n77/78 antenna 21/23 support SRS, the max duty cycle is 8.5%.

8 Test Result

8.1 Measurement of RF conducted Power

The detailed conducted power can be referred to Appendix E.

Note:

1）. 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.

4）. According to FCC guidance, the output power with uplink CA active was measured for the high / middle / low channel configuration with the highest reported SAR for each exposure condition, the power was measured with wideband signal integration over both component carriers.

5）. In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs.

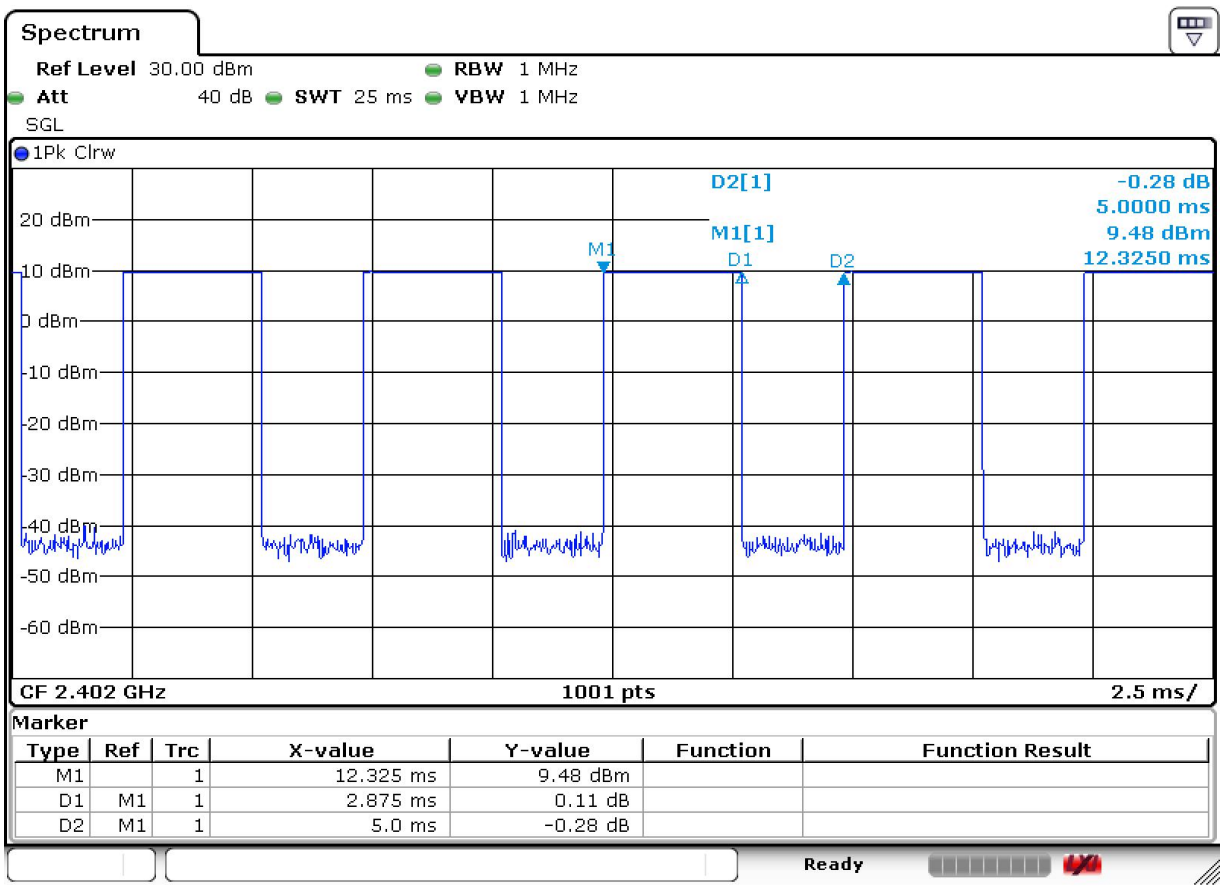
6）. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05.

7）. Conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A.Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive, therefore SAR evaluation with downlink carrier aggregation can be excluded.
The possible downlink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.101 V15.4.0. The detailed conducted power measurement results of downlink LTE CA are provided in the SAR report per 3GPP TS 36.521-1 V14.4.0. According to KDB 941225 D05A, the downlink only carrier aggregation conditions for this device can be excluded from SAR testing.
The conducted power measurement results of downlink LTE CA Conducted Power are as Appendix E conducted RF output power, so the downlink only carrier aggregation conditions for this device can be excluded from SAR testing.

8）. For conducted power of WIFI must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band. For each transmission mode configuration, power must be measured for the highest and lowest channels; and at the mid-band channel(s) when there are at least 3 channels. For configurations with multiple mid-band channels, due to an even number of channels, both channels should be measured. Power measurement is required for the transmission mode configuration with the highest maximum output power specified for production units.
1) When the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured.

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

9）. The conducted power of BT is measured with RMS detector. BT DH5 Duty Cycle=2.875/5.0=57.50%



8.2 Measurement of SAR Data

Note:

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

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

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

WiFi 2.4G:

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

WiFi 5G:

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

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

8.2.1 SAR Result of GSM850

Ant 13 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 2TS	190/836.6	1:4.15	0.793	-0.18	28.95	29.50	1.135	0.900	22.2
Left tilted	GPRS 2TS	190/836.6	1:4.15	0.621	0.05	28.95	29.50	1.135	0.705	22.2
Right cheek	GPRS 2TS	190/836.6	1:4.15	0.760	0.00	28.95	29.50	1.135	0.863	22.2
Right tilted	GPRS 2TS	190/836.6	1:4.15	0.833	-0.06	28.95	29.50	1.135	**0.945**	22.2
Right cheek	GPRS 2TS	128/824.2	1:4.15	0.598	0.17	28.96	29.50	1.132	0.677	22.2
Right cheek	GPRS 2TS	251/848.8	1:4.15	0.841	0.14	29.03	29.50	1.114	0.937	22.2
Right tilted	GPRS 2TS	128/824.2	1:4.15	0.741	-0.08	28.96	29.50	1.132	0.839	22.2
Right tilted	GPRS 2TS	251/848.8	1:4.15	0.792	-0.02	29.03	29.50	1.114	0.883	22.2
Left cheek	GPRS 2TS	128/824.2	1:4.15	0.699	-0.08	28.96	29.50	1.132	0.792	22.2
Left cheek	GPRS 2TS	251/848.8	1:4.15	0.775	0.11	29.03	29.50	1.114	0.864	22.2
Right cheek-Repeated	GPRS 2TS	251/848.8	1:4.15	0.822	0.14	29.03	29.50	1.114	0.916	22.2
Head Test Data Simultaneous										
Left cheek	GPRS 2TS	190/836.6	1:4.15	0.793	-0.18	28.95	27.50	0.716	0.568	22.2
Left tilted	GPRS 2TS	190/836.6	1:4.15	0.621	0.05	28.95	27.50	0.716	0.445	22.2
Right cheek	GPRS 2TS	190/836.6	1:4.15	0.760	0.00	28.95	27.50	0.716	0.544	22.2
Right tilted	GPRS 2TS	190/836.6	1:4.15	0.833	-0.06	28.95	27.50	0.716	0.597	22.2
Right cheek	GPRS 2TS	128/824.2	1:4.15	0.598	0.17	28.96	27.50	0.714	0.427	22.2
Right cheek	GPRS 2TS	251/848.8	1:4.15	0.841	0.14	29.03	27.50	0.703	0.591	22.2
Right tilted	GPRS 2TS	128/824.2	1:4.15	0.741	-0.08	28.96	27.50	0.714	0.529	22.2
Right tilted	GPRS 2TS	251/848.8	1:4.15	0.792	-0.02	29.03	27.50	0.703	0.557	22.2
Left cheek	GPRS 2TS	128/824.2	1:4.15	0.699	-0.08	28.96	27.50	0.714	0.499	22.2
Left cheek	GPRS 2TS	251/848.8	1:4.15	0.775	0.11	29.03	27.50	0.703	0.545	22.2
Right cheek-Repeated	GPRS 2TS	251/848.8	1:4.15	0.822	0.14	29.03	27.50	0.703	0.578	22.2
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.127	0.11	33.34	34.00	1.164	0.148	22.2
Back side	GSM	190/836.6	1:8.3	0.180	-0.05	33.34	34.00	1.164	**0.210**	22.2
Hotspot Test data(Separate 10mm)										
Front side	GPRS 2TS	190/836.6	1:4.15	0.241	-0.10	30.89	31.50	1.151	0.277	22.2
Back side	GPRS 2TS	190/836.6	1:4.15	0.355	-0.12	30.89	31.50	1.151	**0.409**	22.2
Left side	GPRS 2TS	190/836.6	1:4.15	0.156	0.02	30.89	31.50	1.151	0.180	22.2
Top side	GPRS 2TS	190/836.6	1:4.15	0.237	-0.06	30.89	31.50	1.151	0.273	22.2
Ant 31 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 2TS	190/836.6	1:4.15	0.145	0.03	31.65	32.50	1.216	0.176	22.2
Left tilted	GPRS 2TS	190/836.6	1:4.15	0.067	-0.03	31.65	32.50	1.216	0.082	22.2
Right cheek	GPRS 2TS	190/836.6	1:4.15	0.151	-0.05	31.65	32.50	1.216	0.184	22.2
Right tilted	GPRS 2TS	190/836.6	1:4.15	0.066	-0.06	31.65	32.50	1.216	0.080	22.2
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.082	0.01	33.18	34.00	1.208	0.099	22.2
Back side	GSM	190/836.6	1:8.3	0.090	-0.09	33.18	34.00	1.208	0.109	22.2

Hotspot Test data(Separate 10mm)										
Front side	GPRS 2TS	190/836.6	1:4.15	0.147	-0.04	31.07	32.00	1.239	0.182	22.2
Back side	GPRS 2TS	190/836.6	1:4.15	0.214	-0.10	31.07	32.00	1.239	0.265	22.2
Left side	GPRS 2TS	190/836.6	1:4.15	0.130	-0.02	31.07	32.00	1.239	0.161	22.2
Right side	GPRS 2TS	190/836.6	1:4.15	0.089	-0.11	31.07	32.00	1.239	0.111	22.2
Bottom side	GPRS 2TS	190/836.6	1:4.15	0.129	-0.19	31.07	32.00	1.239	0.160	22.2

Table 11： SAR of GSM850 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	251/848.8	0.841	0.822	1.023	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						
5) The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds. The repeated measurement results must be clearly identified in the SAR report.						

8.2.2 SAR Result of GSM1900

Ant 13 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 2TS	661/1880	1:4.15	0.474	-0.01	20.43	21.00	1.140	0.540	21.8
Left tilted	GPRS 2TS	661/1880	1:4.15	0.614	0.04	20.43	21.00	1.140	0.700	21.8
Right cheek	GPRS 2TS	661/1880	1:4.15	0.817	-0.11	20.43	21.00	1.140	0.932	21.8
Right cheek	GPRS 2TS	512/1850.2	1:4.15	0.803	-0.01	20.20	21.00	1.202	0.965	21.8
Right cheek	GPRS 2TS	810/1909.8	1:4.15	0.832	-0.10	20.68	21.00	1.076	0.896	21.8
Right tilted	GPRS 2TS	661/1880	1:4.15	0.869	0.01	20.43	21.00	1.140	**0.991**	21.8
Right tilted	GPRS 2TS	512/1850.2	1:4.15	0.762	0.04	20.20	21.00	1.202	0.916	21.8
Right tilted	GPRS 2TS	810/1909.8	1:4.15	0.910	0.04	20.68	21.00	1.076	0.980	21.8
Right tilted-Repeated	GPRS 2TS	810/1909.8	1:4.15	0.876	0.15	20.68	21.00	1.140	0.943	21.8
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.332	-0.04	29.80	30.50	1.175	0.390	21.8
Back side	GSM	661/1880	1:8.3	0.432	0.02	29.80	30.50	1.175	**0.508**	21.8
Hotspot Test data(Separate 10mm)										
Front side	GPRS 2TS	661/1880	1:4.15	0.303	-0.06	23.40	24.00	1.148	0.348	21.8
Back side	GPRS 2TS	661/1880	1:4.15	0.423	0.01	23.40	24.00	1.148	0.486	21.8
Left side	GPRS 2TS	661/1880	1:4.15	0.069	0.03	23.40	24.00	1.148	0.079	21.8
Top side	GPRS 2TS	661/1880	1:4.15	0.585	-0.06	23.40	24.00	1.148	**0.672**	21.8
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm) Sensor on										
Back side	GPRS 2TS	661/1880	1:4.15	0.771	0.01	23.40	24.00	1.148	0.885	21.8
Top side	GPRS 2TS	661/1880	1:4.15	0.732	0.00	23.40	24.00	1.148	0.840	21.8
Product specific 10g SAR Test data Sensor off										
Back side-10mm	GPRS 2TS	661/1880	1:4.15	0.608	-0.19	28.27	29.00	1.183	0.719	21.8
Top side-10mm	GPRS 2TS	661/1880	1:4.15	0.797	-0.08	28.27	29.00	1.183	**0.943**	21.8
Ant 31 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 2TS	661/1880	1:4.15	0.048	0.01	28.31	29.00	1.172	0.056	21.8
Left tilted	GPRS 2TS	661/1880	1:4.15	0.032	-0.03	28.31	29.00	1.172	0.037	21.8
Right cheek	GPRS 2TS	661/1880	1:4.15	0.049	-0.06	28.31	29.00	1.172	0.058	21.8
Right tilted	GPRS 2TS	661/1880	1:4.15	0.034	-0.12	28.31	29.00	1.172	0.040	21.8
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.065	0.03	28.06	28.50	1.107	0.071	21.8
Back side	GSM	661/1880	1:8.3	0.126	0.08	28.06	28.50	1.107	0.139	21.8
Hotspot Test data(Separate 10mm)										
Front side	GPRS 2TS	661/1880	1:4.15	0.118	-0.05	25.51	26.00	1.119	0.132	21.8
Back side	GPRS 2TS	661/1880	1:4.15	0.287	0.06	25.51	26.00	1.119	0.321	21.8
Left side	GPRS 2TS	661/1880	1:4.15	0.034	0.01	25.51	26.00	1.119	0.038	21.8
Right side	GPRS 2TS	661/1880	1:4.15	0.075	-0.05	25.51	26.00	1.119	0.084	21.8
Bottom side	GPRS 2TS	661/1880	1:4.15	0.299	-0.04	25.51	26.00	1.119	0.335	21.8

Table 12： SAR of GSM1900 for Head and Body and Product specific 10g SAR.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right tilted	810/1909.8	0.910	0.876	1.039	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						
5) The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds. The repeated measurement results must be clearly identified in the SAR report.						

8.2.3 SAR Result of WCDMA Band II

Ant 13 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.278	0.05	12.91	14.00	1.285	0.357	22.3
Left tilted	RMC	9400/1880	1:1	0.421	-0.07	12.91	14.00	1.285	0.541	22.3
Right cheek	RMC	9400/1880	1:1	0.550	-0.16	12.91	14.00	1.285	0.707	22.3
Right tilted	RMC	9400/1880	1:1	0.644	-0.04	12.91	14.00	1.285	0.828	22.3
Right tilted	RMC	9262/1852.4	1:1	0.645	-0.17	13.08	14.00	1.236	0.797	22.3
Right tilted	RMC	9538/1907.6	1:1	0.777	-0.08	13.17	14.00	1.211	**0.941**	22.3
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.437	0.07	22.05	23.00	1.245	0.544	22.3
Back side	RMC	9400/1880	1:1	0.621	0.07	22.05	23.00	1.245	**0.773**	22.3
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.240	-0.03	15.66	16.50	1.213	0.291	22.3
Back side	RMC	9400/1880	1:1	0.286	-0.13	15.66	16.50	1.213	0.347	22.3
Left side	RMC	9400/1880	1:1	0.053	-0.09	15.66	16.50	1.213	0.064	22.3
Top side	RMC	9400/1880	1:1	0.437	-0.10	15.66	16.50	1.213	0.530	22.3
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm) Sensor on										
Front side	RMC	9400/1880	1:1	0.733	0.02	15.66	16.50	1.213	0.889	22.3
Back side	RMC	9400/1880	1:1	0.674	0.07	15.66	16.50	1.213	0.818	22.3
Top side	RMC	9400/1880	1:1	0.919	-0.15	15.66	16.50	1.213	**1.115**	22.3
Product specific 10g SAR Test data Sensor off										
Front side-6mm	RMC	9400/1880	1:1	0.816	0.10	22.05	23.00	1.245	1.016	22.3
Back side-10mm	RMC	9400/1880	1:1	0.622	0.02	22.05	23.00	1.245	0.774	22.3
Top side-10mm	RMC	9400/1880	1:1	0.804	-0.13	22.05	23.00	1.245	1.001	22.3
Ant 31 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.098	-0.02	23.60	24.50	1.230	0.120	22.3
Left tilted	RMC	9400/1880	1:1	0.046	0.01	23.60	24.50	1.230	0.056	22.3
Right cheek	RMC	9400/1880	1:1	0.097	0.06	23.60	24.50	1.230	0.120	22.3
Right tilted	RMC	9400/1880	1:1	0.079	0.03	23.60	24.50	1.230	0.098	22.3
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.116	-0.12	20.47	21.50	1.268	0.147	22.3
Back side	RMC	9400/1880	1:1	0.225	0.01	20.47	21.50	1.268	0.285	22.3
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.202	0.00	20.47	21.50	1.268	0.256	22.3
Back side	RMC	9400/1880	1:1	0.445	-0.03	20.47	21.50	1.268	0.564	22.3
Left side	RMC	9400/1880	1:1	0.067	-0.01	20.47	21.50	1.268	0.085	22.3
Right side	RMC	9400/1880	1:1	0.128	0.01	20.47	21.50	1.268	0.162	22.3
Bottom side	RMC	9400/1880	1:1	0.472	-0.07	20.47	21.50	1.268	**0.598**	22.3

Table 13： SAR of WCDMA Band II for Head and Body and Product specific 10g SAR.

8.2.4 SAR Result of WCDMA Band IV

Ant 13 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.255	0.10	14.91	15.50	1.146	0.292	21.8
Left tilted	RMC	1412/1732.4	1:1	0.293	0.02	14.91	15.50	1.146	0.336	21.8
Right cheek	RMC	1412/1732.4	1:1	0.316	-0.03	14.91	15.50	1.146	0.362	21.8
Right tilted	RMC	1412/1732.4	1:1	0.438	0.11	14.91	15.50	1.146	**0.502**	21.8
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.330	0.06	23.89	24.50	1.151	0.380	21.8
Back side	RMC	1412/1732.4	1:1	0.392	0.08	23.89	24.50	1.151	**0.451**	21.8
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.103	0.02	15.87	16.50	1.156	0.119	21.8
Back side	RMC	1412/1732.4	1:1	0.118	0.13	15.87	16.50	1.156	0.136	21.8
Left side	RMC	1412/1732.4	1:1	0.020	0.04	15.87	16.50	1.156	0.023	21.8
Top side	RMC	1412/1732.4	1:1	0.166	-0.05	15.87	16.50	1.156	0.192	21.8
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm) Sensor on										
Top side	RMC	1412/1732.4	1:1	0.641	-0.12	16.90	17.50	1.148	0.736	21.8
Product specific 10g SAR Test data Sensor off										
Top side-10mm	RMC	1412/1732.4	1:1	0.677	-0.03	23.89	24.50	1.151	**0.779**	21.8
Ant 31 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.099	0.15	23.67	24.50	1.211	0.119	21.8
Left tilted	RMC	1412/1732.4	1:1	0.064	-0.03	23.67	24.50	1.211	0.078	21.8
Right cheek	RMC	1412/1732.4	1:1	0.100	0.01	23.67	24.50	1.211	0.120	21.8
Right tilted	RMC	1412/1732.4	1:1	0.075	0.05	23.67	24.50	1.211	0.090	21.8
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.108	0.05	20.73	21.50	1.194	0.129	21.8
Back side	RMC	1412/1732.4	1:1	0.191	0.11	20.73	21.50	1.194	0.228	21.8
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.222	0.02	20.73	21.50	1.194	0.265	21.8
Back side	RMC	1412/1732.4	1:1	0.455	0.02	20.73	21.50	1.194	0.543	21.8
Left side	RMC	1412/1732.4	1:1	0.060	0.06	20.73	21.50	1.194	0.071	21.8
Right side	RMC	1412/1732.4	1:1	0.123	-0.06	20.73	21.50	1.194	0.147	21.8
Bottom side	RMC	1412/1732.4	1:1	0.486	-0.03	20.73	21.50	1.194	**0.580**	21.8

Table 14： SAR of WCDMA Band IV for Head and Body and Product specific 10g SAR.

8.2.5 SAR Result of WCDMA Band V

Ant 13 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.380	0.01	20.38	21.50	1.294	0.492	22.5
Left tilted	RMC	4182/836.4	1:1	0.309	0.01	20.38	21.50	1.294	0.400	22.5
Right cheek	RMC	4182/836.4	1:1	0.496	-0.08	20.38	21.50	1.294	**0.642**	22.5
Right tilted	RMC	4182/836.4	1:1	0.346	0.02	20.38	21.50	1.294	0.448	22.5
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.178	-0.05	23.31	24.50	1.315	0.234	22.5
Back side	RMC	4182/836.4	1:1	0.207	0.08	23.31	24.50	1.315	**0.272**	22.5
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.170	0.02	21.38	22.50	1.294	0.220	22.5
Back side	RMC	4182/836.4	1:1	0.231	0.10	21.38	22.50	1.294	**0.299**	22.5
Left side	RMC	4182/836.4	1:1	0.108	0.01	21.38	22.50	1.294	0.140	22.5
Top side	RMC	4182/836.4	1:1	0.175	-0.07	21.38	22.50	1.294	0.226	22.5
Ant 31 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.006	0.04	23.95	24.50	1.135	0.007	22.6
Left tilted	RMC	4182/836.4	1:1	0.022	0.05	23.95	24.50	1.135	0.025	22.6
Right cheek	RMC	4182/836.4	1:1	0.023	-0.08	23.95	24.50	1.135	0.026	22.6
Right tilted	RMC	4182/836.4	1:1	0.018	0.05	23.95	24.50	1.135	0.021	22.6
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.034	0.11	23.95	24.50	1.135	0.039	22.5
Back side	RMC	4182/836.4	1:1	0.039	0.04	23.95	24.50	1.135	0.045	22.5
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.044	0.02	23.95	24.50	1.135	0.050	22.5
Back side	RMC	4182/836.4	1:1	0.076	0.01	23.95	24.50	1.135	0.086	22.5
Left side	RMC	4182/836.4	1:1	0.047	0.02	23.95	24.50	1.135	0.053	22.5
Right side	RMC	4182/836.4	1:1	0.031	0.05	23.95	24.50	1.135	0.036	22.5
Bottom side	RMC	4182/836.4	1:1	0.046	0.02	23.95	24.50	1.135	0.052	22.5

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

8.2.6 SAR Result of LTE Band 2

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	19100/1900	1:1	0.352	-0.01	12.89	13.90	1.262	0.444	22.3
Left tilted	20	QPSK 1_50	19100/1900	1:1	0.430	0.04	12.89	13.90	1.262	0.543	22.3
Right cheek	20	QPSK 1_50	19100/1900	1:1	0.576	-0.02	12.89	13.90	1.262	0.727	22.3
Right tilted	20	QPSK 1_50	19100/1900	1:1	0.685	0.04	12.89	13.90	1.262	0.864	22.3
Right tilted	20	QPSK 1_50	18700/1860	1:1	0.557	-0.04	12.84	13.90	1.276	0.711	22.3
Right tilted	20	QPSK 1_50	18900/1880	1:1	0.637	0.02	12.89	13.90	1.262	0.804	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	19100/1900	1:1	0.333	0.03	12.66	13.90	1.330	0.443	22.3
Left tilted	20	QPSK 50_25	19100/1900	1:1	0.401	0.05	12.66	13.90	1.330	0.534	22.3
Right cheek	20	QPSK 50_25	19100/1900	1:1	0.587	-0.07	12.66	13.90	1.330	0.781	22.3
Right tilted	20	QPSK 50_25	19100/1900	1:1	0.652	-0.03	12.66	13.90	1.330	0.867	22.3
Right tilted	20	QPSK 50_50	18700/1860	1:1	0.635	-0.01	12.56	13.90	1.361	0.865	22.3
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.701	-0.04	12.65	13.90	1.334	**0.935**	22.3
Head Test Data(100%RB)											
Right tilted	20	QPSK 100_0	18700/1860	1:1	0.621	-0.02	12.55	13.90	1.365	0.847	22.3
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_50	19100/1900	1:1	0.352	-0.01	12.89	10.90	0.632	0.223	22.3
Left tilted	20	QPSK 1_50	19100/1900	1:1	0.430	0.04	12.89	10.90	0.632	0.272	22.3
Right cheek	20	QPSK 1_50	19100/1900	1:1	0.576	-0.02	12.89	10.90	0.632	0.364	22.3
Right tilted	20	QPSK 1_50	19100/1900	1:1	0.685	0.04	12.89	10.90	0.632	0.433	22.3
Right tilted	20	QPSK 1_50	18700/1860	1:1	0.557	-0.04	12.84	10.90	0.640	0.356	22.3
Right tilted	20	QPSK 1_50	18900/1880	1:1	0.637	0.02	12.89	10.90	0.632	0.403	22.3
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_25	19100/1900	1:1	0.333	0.03	12.66	10.90	0.667	0.222	22.3
Left tilted	20	QPSK 50_25	19100/1900	1:1	0.401	0.05	12.66	10.90	0.667	0.267	22.3
Right cheek	20	QPSK 50_25	19100/1900	1:1	0.587	-0.07	12.66	10.90	0.667	0.391	22.3
Right tilted	20	QPSK 50_25	19100/1900	1:1	0.652	-0.03	12.66	10.90	0.667	0.435	22.3
Right tilted	20	QPSK 50_50	18700/1860	1:1	0.635	-0.01	12.56	10.90	0.682	0.433	22.3
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.701	-0.04	12.65	10.90	0.668	0.469	22.3
Head Test Data(100%RB) ENDC Standalone											
Right tilted	20	QPSK 100_0	18700/1860	1:1	0.621	-0.02	12.55	10.90	0.684	0.425	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_99	19100/1900	1:1	0.432	0.19	21.48	22.40	1.236	0.534	22.3
Back side	20	QPSK 1_99	19100/1900	1:1	0.638	-0.11	21.48	22.40	1.236	**0.789**	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_25	18700/1860	1:1	0.360	0.05	21.63	22.40	1.194	0.430	22.3
Back side	20	QPSK 50_25	18700/1860	1:1	0.470	0.02	21.63	22.40	1.194	0.561	22.3
Body worn Test data(Separate 15mm 1RB) ENDC Standalone											

Front side	20	QPSK 1_99	19100/1900	1:1	0.432	0.19	21.48	18.90	0.552	0.238	22.3
Back side	20	QPSK 1_99	19100/1900	1:1	0.638	-0.11	21.48	18.90	0.552	0.352	22.3
Body worn Test data(Separate 15mm 50%RB) ENDC Standalone											
Front side	20	QPSK 50_25	18700/1860	1:1	0.360	0.05	21.63	18.90	0.533	0.192	22.3
Back side	20	QPSK 50_25	18700/1860	1:1	0.470	0.02	21.63	18.90	0.533	0.251	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	18900/1880	1:1	0.179	0.06	14.95	15.90	1.245	0.223	22.3
Back side	20	QPSK 1_50	18900/1880	1:1	0.236	-0.18	14.95	15.90	1.245	0.294	22.3
Left side	20	QPSK 1_50	18900/1880	1:1	0.040	0.01	14.95	15.90	1.245	0.050	22.3
Top side	20	QPSK 1_50	18900/1880	1:1	0.337	0.02	14.95	15.90	1.245	**0.419**	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.176	-0.02	14.95	15.90	1.245	0.219	22.3
Back side	20	QPSK 50_0	18900/1880	1:1	0.230	-0.10	14.95	15.90	1.245	0.286	22.3
Left side	20	QPSK 50_0	18900/1880	1:1	0.037	-0.11	14.95	15.90	1.245	0.046	22.3
Top side	20	QPSK 50_0	18900/1880	1:1	0.330	0.04	14.95	15.90	1.245	0.411	22.3
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Back side	20	QPSK 1_99	19100/1900	1:1	0.920	-0.15	16.93	17.90	1.250	1.150	22.3
Top side	20	QPSK 1_99	19100/1900	1:1	1.040	-0.06	16.93	17.90	1.250	1.300	22.3
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											
Back side	20	QPSK 50_25	19100/1900	1:1	0.981	-0.13	16.96	17.90	1.242	1.218	22.3
Top side	20	QPSK 50_25	19100/1900	1:1	1.090	-0.04	16.96	17.90	1.242	**1.353**	22.3
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Back side-10mm	20	QPSK 1_99	19100/1900	1:1	0.634	0.02	21.48	22.40	1.236	0.784	22.3
Top side-10mm	20	QPSK 1_99	19100/1900	1:1	0.827	-0.10	21.48	22.40	1.236	1.022	22.3
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Back side-10mm	20	QPSK 50_25	18700/1860	1:1	0.475	0.03	21.63	22.40	1.194	0.567	22.3
Top side-10mm	20	QPSK 50_25	18700/1860	1:1	0.644	-0.08	21.63	22.40	1.194	0.769	22.3
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	18700/1860	1:1	0.096	0.01	23.24	23.90	1.164	0.111	22.3
Left tilted	20	QPSK 1_50	18700/1860	1:1	0.039	0.07	23.24	23.90	1.164	0.046	22.3
Right cheek	20	QPSK 1_50	18700/1860	1:1	0.082	0.06	23.24	23.90	1.164	0.096	22.3
Right tilted	20	QPSK 1_50	18700/1860	1:1	0.055	-0.08	23.24	23.90	1.164	0.064	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	19100/1900	1:1	0.056	0.03	22.16	22.90	1.186	0.067	22.3
Left tilted	20	QPSK 50_25	19100/1900	1:1	0.033	0.10	22.16	22.90	1.186	0.039	22.3
Right cheek	20	QPSK 50_25	19100/1900	1:1	0.061	-0.12	22.16	22.90	1.186	0.072	22.3
Right tilted	20	QPSK 50_25	19100/1900	1:1	0.041	0.04	22.16	22.90	1.186	0.049	22.3
Body worn Test data(Separate 15mm 1RB)											

Front side	20	QPSK 1_50	19100/1900	1:1	0.092	0.05	20.15	20.90	1.189	0.109	22.3
Back side	20	QPSK 1_50	19100/1900	1:1	0.183	-0.15	20.15	20.90	1.189	0.217	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_25	18700/1860	1:1	0.122	0.01	20.12	20.90	1.197	0.146	22.3
Back side	20	QPSK 50_25	18700/1860	1:1	0.234	0.13	20.12	20.90	1.197	0.280	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	18900/1880	1:1	0.116	0.11	18.17	18.90	1.183	0.137	22.3
Back side	20	QPSK 1_50	18900/1880	1:1	0.259	0.03	18.17	18.90	1.183	0.306	22.3
Left side	20	QPSK 1_50	18900/1880	1:1	0.033	0.06	18.17	18.90	1.183	0.040	22.3
Right side	20	QPSK 1_50	18900/1880	1:1	0.068	-0.13	18.17	18.90	1.183	0.080	22.3
Bottom side	20	QPSK 1_50	18900/1880	1:1	0.257	0.08	18.17	18.90	1.183	0.304	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	18900/1880	1:1	0.109	0.04	18.12	18.90	1.197	0.130	22.3
Back side	20	QPSK 50_50	18900/1880	1:1	0.227	-0.04	18.12	18.90	1.197	0.272	22.3
Left side	20	QPSK 50_50	18900/1880	1:1	0.031	0.18	18.12	18.90	1.197	0.037	22.3
Right side	20	QPSK 50_50	18900/1880	1:1	0.064	0.12	18.12	18.90	1.197	0.076	22.3
Bottom side	20	QPSK 50_50	18900/1880	1:1	0.242	0.11	18.12	18.90	1.197	0.290	22.3

Table 16：SAR of LTE Band 2 for Head and Body and Product specific 10g SAR.

8.2.7 SAR Result of LTE Band 4

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	20300/1745	1:1	0.301	0.11	16.09	17.00	1.233	0.371	22.5
Left tilted	20	QPSK 1_50	20300/1745	1:1	0.382	0.04	16.09	17.00	1.233	0.471	22.5
Right cheek	20	QPSK 1_50	20300/1745	1:1	0.556	0.01	16.09	17.00	1.233	0.686	22.5
Right tilted	20	QPSK 1_50	20300/1745	1:1	0.664	0.07	16.09	17.00	1.233	**0.819**	22.5
Right tilted	20	QPSK 1_50	20050/1720	1:1	0.551	0.01	16.02	17.00	1.253	0.690	22.5
Right tilted	20	QPSK 1_50	20175/1732.5	1:1	0.609	0.05	16.06	17.00	1.242	0.756	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20300/1745	1:1	0.270	-0.08	16.11	17.00	1.227	0.331	22.5
Left tilted	20	QPSK 50_0	20300/1745	1:1	0.376	0.12	16.11	17.00	1.227	0.462	22.5
Right cheek	20	QPSK 50_0	20300/1745	1:1	0.518	0.01	16.11	17.00	1.227	0.636	22.5
Right tilted	20	QPSK 50_0	20300/1745	1:1	0.640	0.08	16.11	17.00	1.227	0.786	22.5
Head Test Data(100%RB)											
Right tilted	20	QPSK 100_0	20300/1745	1:1	0.651	0.09	16.06	17.00	1.242	0.808	22.5
Head Test Data(1RB) Inter-band UL CA Simultaneous											
Left cheek	20	QPSK 1_50	20300/1745	1:1	0.301	0.11	16.09	14.00	0.618	0.186	22.5
Left tilted	20	QPSK 1_50	20300/1745	1:1	0.382	0.04	16.09	14.00	0.618	0.236	22.5
Right cheek	20	QPSK 1_50	20300/1745	1:1	0.556	0.01	16.09	14.00	0.618	0.344	22.5
Right tilted	20	QPSK 1_50	20300/1745	1:1	0.664	0.07	16.09	14.00	0.618	0.410	22.5
Right tilted	20	QPSK 1_50	20050/1720	1:1	0.551	0.01	16.02	14.00	0.628	0.346	22.5
Right tilted	20	QPSK 1_50	20175/1732.5	1:1	0.609	0.05	16.06	14.00	0.622	0.379	22.5
Head Test Data(50%RB) Inter-band UL CA Simultaneous											
Left cheek	20	QPSK 50_0	20300/1745	1:1	0.270	-0.08	16.11	14.00	0.615	0.166	22.5
Left tilted	20	QPSK 50_0	20300/1745	1:1	0.376	0.12	16.11	14.00	0.615	0.231	22.5
Right cheek	20	QPSK 50_0	20300/1745	1:1	0.518	0.01	16.11	14.00	0.615	0.319	22.5
Right tilted	20	QPSK 50_0	20300/1745	1:1	0.640	0.08	16.11	14.00	0.615	0.394	22.5
Head Test Data(100%RB) Inter-band UL CA Simultaneous											
Right tilted	20	QPSK 100_0	20300/1745	1:1	0.651	0.09	16.06	14.00	0.622	0.405	22.5
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_50	20300/1745	1:1	0.301	0.11	16.09	13.00	0.491	0.148	22.5
Left tilted	20	QPSK 1_50	20300/1745	1:1	0.382	0.04	16.09	13.00	0.491	0.188	22.5
Right cheek	20	QPSK 1_50	20300/1745	1:1	0.556	0.01	16.09	13.00	0.491	0.273	22.5
Right tilted	20	QPSK 1_50	20300/1745	1:1	0.664	0.07	16.09	13.00	0.491	0.326	22.5
Right tilted	20	QPSK 1_50	20050/1720	1:1	0.551	0.01	16.02	13.00	0.499	0.275	22.5
Right tilted	20	QPSK 1_50	20175/1732.5	1:1	0.609	0.05	16.06	13.00	0.494	0.301	22.5
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_0	20300/1745	1:1	0.270	-0.08	16.11	13.00	0.489	0.132	22.5
Left tilted	20	QPSK 50_0	20300/1745	1:1	0.376	0.12	16.11	13.00	0.489	0.184	22.5
Right cheek	20	QPSK 50_0	20300/1745	1:1	0.518	0.01	16.11	13.00	0.489	0.253	22.5

Right tilted	20	QPSK 50_0	20300/1745	1:1	0.640	0.08	16.11	13.00	0.489	0.313	22.5
Head Test Data(100%RB) ENDC Standalone											
Right tilted	20	QPSK 100_0	20300/1745	1:1	0.651	0.09	16.06	13.00	0.494	0.322	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	20300/1745	1:1	0.340	0.02	23.71	24.50	1.199	0.408	21.8
Back side	20	QPSK 1_50	20300/1745	1:1	0.402	0.03	23.71	24.50	1.199	**0.482**	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_25	20300/1745	1:1	0.271	-0.07	22.70	23.50	1.202	0.326	21.8
Back side	20	QPSK 50_25	20300/1745	1:1	0.316	0.02	22.70	23.50	1.202	0.380	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	20300/1745	1:1	0.109	0.05	15.59	16.50	1.233	0.134	21.8
Back side	20	QPSK 1_50	20300/1745	1:1	0.132	0.17	15.59	16.50	1.233	0.163	21.8
Left side	20	QPSK 1_50	20300/1745	1:1	0.020	-0.02	15.59	16.50	1.233	0.025	21.8
Top side	20	QPSK 1_50	20300/1745	1:1	0.186	0.02	15.59	16.50	1.233	0.229	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	20050/1720	1:1	0.093	-0.11	15.65	16.50	1.216	0.113	21.8
Back side	20	QPSK 50_50	20050/1720	1:1	0.109	0.13	15.65	16.50	1.216	0.133	21.8
Left side	20	QPSK 50_50	20050/1720	1:1	0.021	-0.05	15.65	16.50	1.216	0.025	21.8
Top side	20	QPSK 50_50	20050/1720	1:1	0.154	0.06	15.65	16.50	1.216	0.187	21.8
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Top side	20	QPSK 1_50	20300/1745	1:1	1.360	-0.07	18.65	19.50	1.216	1.654	21.8
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											
Top side	20	QPSK 50_25	20300/1745	1:1	1.370	-0.07	18.65	19.50	1.216	**1.666**	21.8
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Top side-10mm	20	QPSK 1_50	20300/1745	1:1	0.537	0.12	23.71	24.50	1.199	0.644	21.8
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Top side-10mm	20	QPSK 50_25	20300/1745	1:1	0.426	0.10	22.70	23.50	1.202	0.512	21.8
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	20175/1732.5	1:1	0.103	-0.02	23.73	24.50	1.194	0.123	21.8
Left tilted	20	QPSK 1_50	20175/1732.5	1:1	0.048	0.11	23.73	24.50	1.194	0.058	21.8
Right cheek	20	QPSK 1_50	20175/1732.5	1:1	0.091	0.15	23.73	24.50	1.194	0.108	21.8
Right tilted	20	QPSK 1_50	20175/1732.5	1:1	0.068	0.08	23.73	24.50	1.194	0.082	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	20300/1745	1:1	0.088	0.02	22.67	23.50	1.211	0.106	21.8
Left tilted	20	QPSK 50_25	20300/1745	1:1	0.039	-0.15	22.67	23.50	1.211	0.047	21.8
Right cheek	20	QPSK 50_25	20300/1745	1:1	0.081	0.01	22.67	23.50	1.211	0.098	21.8
Right tilted	20	QPSK 50_25	20300/1745	1:1	0.054	0.01	22.67	23.50	1.211	0.065	21.8
Body worn Test data(Separate 15mm 1RB)											

Front side	20	QPSK 1_50	20175/1732.5	1:1	0.121	0.11	20.66	21.50	1.213	0.147	21.8
Back side	20	QPSK 1_50	20175/1732.5	1:1	0.214	0.04	20.66	21.50	1.213	0.260	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	20300/1745	1:1	0.121	0.06	20.73	21.50	1.194	0.144	21.8
Back side	20	QPSK 50_0	20300/1745	1:1	0.215	-0.04	20.73	21.50	1.194	0.257	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_99	20050/1720	1:1	0.126	-0.04	18.73	19.50	1.194	0.150	21.8
Back side	20	QPSK 1_99	20050/1720	1:1	0.268	0.01	18.73	19.50	1.194	0.320	21.8
Left side	20	QPSK 1_99	20050/1720	1:1	0.035	-0.05	18.73	19.50	1.194	0.042	21.8
Right side	20	QPSK 1_99	20050/1720	1:1	0.078	-0.15	18.73	19.50	1.194	0.093	21.8
Bottom side	20	QPSK 1_99	20050/1720	1:1	0.318	-0.05	18.73	19.50	1.194	**0.380**	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	20050/1720	1:1	0.124	0.04	18.68	19.50	1.208	0.150	21.8
Back side	20	QPSK 50_50	20050/1720	1:1	0.261	-0.02	18.68	19.50	1.208	0.315	21.8
Left side	20	QPSK 50_50	20050/1720	1:1	0.032	-0.06	18.68	19.50	1.208	0.039	21.8
Right side	20	QPSK 50_50	20050/1720	1:1	0.078	0.07	18.68	19.50	1.208	0.095	21.8
Bottom side	20	QPSK 50_50	20050/1720	1:1	0.315	0.12	18.68	19.50	1.208	**0.380**	21.8
Ant 11 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	20300/1745	1:1	0.196	0.07	16.76	17.00	1.057	0.207	21.8
Left tilted	20	QPSK 1_50	20300/1745	1:1	0.062	0.09	16.76	17.00	1.057	0.065	21.8
Right cheek	20	QPSK 1_50	20300/1745	1:1	0.369	0.03	16.76	17.00	1.057	0.390	21.8
Right tilted	20	QPSK 1_50	20300/1745	1:1	0.084	0.10	16.76	17.00	1.057	0.089	21.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.145	0.18	16.72	17.00	1.067	0.155	21.8
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.074	0.17	16.72	17.00	1.067	0.079	21.8
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.374	0.06	16.72	17.00	1.067	0.399	21.8
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.094	-0.02	16.72	17.00	1.067	0.100	21.8
Head Test Data(1RB) Simultaneous transmission											
Left cheek	20	QPSK 1_50	20300/1745	1:1	0.196	0.07	16.76	17.00	1.057	0.207	21.8
Left tilted	20	QPSK 1_50	20300/1745	1:1	0.062	0.09	16.76	17.00	1.057	0.065	21.8
Right cheek	20	QPSK 1_50	20300/1745	1:1	0.369	0.03	16.76	17.00	1.057	0.390	21.8
Right tilted	20	QPSK 1_50	20300/1745	1:1	0.084	0.10	16.76	17.00	1.057	0.089	21.8
Head Test Data(50%RB) Simultaneous transmission											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.145	0.18	16.72	17.00	1.067	0.155	21.8
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.074	0.17	16.72	17.00	1.067	0.079	21.8
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.374	0.06	16.72	17.00	1.067	0.399	21.8
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.094	-0.02	16.72	17.00	1.067	0.100	21.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	20175/1732.5	1:1	0.133	0.17	21.22	21.50	1.067	0.142	21.8
Back side	20	QPSK 1_50	20175/1732.5	1:1	0.225	-0.11	21.22	21.50	1.067	0.240	21.8
Body worn Test data(Separate 15mm 50%RB)											

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Front side	20	QPSK 50_50	20175/1732.5	1:1	0.101	0.02	20.17	20.50	1.079	0.109	21.8
Back side	20	QPSK 50_50	20175/1732.5	1:1	0.154	0.10	20.17	20.50	1.079	0.166	21.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	20175/1732.5	1:1	0.073	-0.04	15.75	16.00	1.059	0.077	21.8
Back side	20	QPSK 1_50	20175/1732.5	1:1	0.121	0.01	15.75	16.00	1.059	0.128	21.8
Left side	20	QPSK 1_50	20175/1732.5	1:1	0.169	-0.06	15.75	16.00	1.059	0.179	21.8
Top side	20	QPSK 1_50	20175/1732.5	1:1	0.008	-0.11	15.75	16.00	1.059	0.008	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.082	0.05	15.74	16.00	1.062	0.087	21.8
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.138	0.06	15.74	16.00	1.062	0.147	21.8
Left side	20	QPSK 50_0	20175/1732.5	1:1	0.169	0.08	15.74	16.00	1.062	0.179	21.8
Top side	20	QPSK 50_0	20175/1732.5	1:1	0.008	0.08	15.74	16.00	1.062	0.008	21.8

Table 17：SAR of LTE Band 4 for Head and Body and Product specific 10g SAR.

8.2.1 SAR Result of LTE Band 5

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_49	20600/844	1:1	0.369	-0.01	20.67	21.50	1.211	0.447	22.5
Left tilted	10	QPSK 1_49	20600/844	1:1	0.300	-0.14	20.67	21.50	1.211	0.363	22.5
Right cheek	10	QPSK 1_49	20600/844	1:1	0.540	-0.04	20.67	21.50	1.211	0.654	22.5
Right tilted	10	QPSK 1_49	20600/844	1:1	0.421	0.07	20.67	21.50	1.211	0.510	22.5
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_13	20600/844	1:1	0.387	0.05	20.64	21.50	1.219	0.472	22.5
Left tilted	10	QPSK 25_13	20600/844	1:1	0.320	0.00	20.64	21.50	1.219	0.390	22.5
Right cheek	10	QPSK 25_13	20600/844	1:1	0.575	-0.07	20.64	21.50	1.219	**0.701**	22.5
Right tilted	10	QPSK 25_13	20600/844	1:1	0.526	0.02	20.64	21.50	1.219	0.641	22.5
Head Test Data(1RB) ENDC Standalone&Inter-band UL CA Simultaneous											
Left cheek	10	QPSK 1_49	20600/844	1:1	0.369	-0.01	20.67	19.00	0.681	0.251	22.5
Left tilted	10	QPSK 1_49	20600/844	1:1	0.300	-0.14	20.67	19.00	0.681	0.204	22.5
Right cheek	10	QPSK 1_49	20600/844	1:1	0.540	-0.04	20.67	19.00	0.681	0.368	22.5
Right tilted	10	QPSK 1_49	20600/844	1:1	0.421	0.07	20.67	19.00	0.681	0.287	22.5
Head Test Data(50%RB) ENDC Standalone&Inter-band UL CA Simultaneous											
Left cheek	10	QPSK 25_13	20600/844	1:1	0.387	0.05	20.64	19.00	0.685	0.265	22.5
Left tilted	10	QPSK 25_13	20600/844	1:1	0.320	0.00	20.64	19.00	0.685	0.219	22.5
Right cheek	10	QPSK 25_13	20600/844	1:1	0.575	-0.07	20.64	19.00	0.685	0.394	22.5
Right tilted	10	QPSK 25_13	20600/844	1:1	0.526	0.02	20.64	19.00	0.685	0.361	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_49	20600/844	1:1	0.185	-0.01	23.65	24.50	1.216	0.225	22.5
Back side	10	QPSK 1_49	20600/844	1:1	0.199	0.06	23.65	24.50	1.216	**0.242**	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_13	20600/844	1:1	0.149	-0.02	22.51	23.50	1.256	0.187	22.5
Back side	10	QPSK 25_13	20600/844	1:1	0.168	0.13	22.51	23.50	1.256	0.211	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_49	20600/844	1:1	0.214	0.02	21.61	22.50	1.227	0.263	22.5
Back side	10	QPSK 1_49	20600/844	1:1	0.253	-0.15	21.61	22.50	1.227	**0.311**	22.5
Left side	10	QPSK 1_49	20600/844	1:1	0.095	0.02	21.61	22.50	1.227	0.116	22.5
Top side	10	QPSK 1_49	20600/844	1:1	0.175	0.05	21.61	22.50	1.227	0.215	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	20600/844	1:1	0.209	0.01	21.60	22.50	1.230	0.257	22.5
Back side	10	QPSK 25_0	20600/844	1:1	0.244	-0.01	21.60	22.50	1.230	0.300	22.5
Left side	10	QPSK 25_0	20600/844	1:1	0.101	0.01	21.60	22.50	1.230	0.124	22.5
Top side	10	QPSK 25_0	20600/844	1:1	0.178	0.05	21.60	22.50	1.230	0.219	22.5
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	20525/836.5	1:1	0.039	0.09	24.23	24.50	1.064	0.042	22.6
Left tilted	10	QPSK 1_0	20525/836.5	1:1	0.017	0.09	24.23	24.50	1.064	0.018	22.6
Right cheek	10	QPSK 1_0	20525/836.5	1:1	0.036	0.12	24.23	24.50	1.064	0.038	22.6
Right tilted	10	QPSK 1_0	20525/836.5	1:1	0.015	0.06	24.23	24.50	1.064	0.016	22.6
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	20525/836.5	1:1	0.031	0.09	23.14	23.50	1.086	0.034	22.6
Left tilted	10	QPSK 25_0	20525/836.5	1:1	0.014	0.10	23.14	23.50	1.086	0.015	22.6
Right cheek	10	QPSK 25_0	20525/836.5	1:1	0.029	0.06	23.14	23.50	1.086	0.032	22.6
Right tilted	10	QPSK 25_0	20525/836.5	1:1	0.012	0.04	23.14	23.50	1.086	0.013	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.034	0.04	24.23	24.50	1.064	0.036	22.5
Back side	10	QPSK 1_0	20525/836.5	1:1	0.034	-0.09	24.23	24.50	1.064	0.036	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.026	0.02	23.14	23.50	1.086	0.029	22.5
Back side	10	QPSK 25_0	20525/836.5	1:1	0.029	0.03	23.14	23.50	1.086	0.031	22.5

Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.044	0.04	24.23	24.50	1.064	0.047	22.5
Back side	10	QPSK 1_0	20525/836.5	1:1	0.069	0.02	24.23	24.50	1.064	0.074	22.5
Left side	10	QPSK 1_0	20525/836.5	1:1	0.038	-0.02	24.23	24.50	1.064	0.040	22.5
Right side	10	QPSK 1_0	20525/836.5	1:1	0.028	-0.09	24.23	24.50	1.064	0.029	22.5
Bottom side	10	QPSK 1_0	20525/836.5	1:1	0.045	-0.03	24.23	24.50	1.064	0.048	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.036	0.10	23.14	23.50	1.086	0.039	22.5
Back side	10	QPSK 25_0	20525/836.5	1:1	0.054	0.11	23.14	23.50	1.086	0.059	22.5
Left side	10	QPSK 25_0	20525/836.5	1:1	0.030	0.06	23.14	23.50	1.086	0.032	22.5
Right side	10	QPSK 25_0	20525/836.5	1:1	0.022	0.04	23.14	23.50	1.086	0.024	22.5
Bottom side	10	QPSK 25_0	20525/836.5	1:1	0.037	-0.06	23.14	23.50	1.086	0.040	22.5

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

8.2.2 SAR Result of LTE Band 7

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_99	20850/2510	1:1	0.190	-0.13	16.88	17.90	1.265	0.240	22.1
Left tilted	20	QPSK 1_99	20850/2510	1:1	0.348	0.04	16.88	17.90	1.265	0.440	22.1
Right cheek	20	QPSK 1_99	20850/2510	1:1	0.524	-0.05	16.88	17.90	1.265	0.663	22.1
Right tilted	20	QPSK 1_99	20850/2510	1:1	0.536	0.03	16.88	17.90	1.265	**0.678**	22.1
Right tilted	20	PCC 1_99	20850/2510	1:1	0.524	0.01	16.83	17.90	1.279	0.670	22.1
		SCC 1_0	21048/2529.8								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_50	20850/2510	1:1	0.234	-0.01	16.86	17.90	1.271	0.297	22.1
Left tilted	20	QPSK 50_50	20850/2510	1:1	0.329	0.02	16.86	17.90	1.271	0.418	22.1
Right cheek	20	QPSK 50_50	20850/2510	1:1	0.525	-0.03	16.86	17.90	1.271	0.667	22.1
Right tilted	20	QPSK 50_50	20850/2510	1:1	0.528	0.02	16.86	17.90	1.271	0.671	22.1
Head Test Data(1RB) ENDC Simultaneous											
Left cheek	20	QPSK 1_99	20850/2510	1:1	0.190	-0.13	16.88	15.90	0.798	0.152	22.1
Left tilted	20	QPSK 1_99	20850/2510	1:1	0.348	0.04	16.88	15.90	0.798	0.278	22.1
Right cheek	20	QPSK 1_99	20850/2510	1:1	0.524	-0.05	16.88	15.90	0.798	0.418	22.1
Right tilted	20	QPSK 1_99	20850/2510	1:1	0.536	0.03	16.88	15.90	0.798	0.428	22.1
Head Test Data(50%RB) ENDC Simultaneous											
Left cheek	20	QPSK 50_50	20850/2510	1:1	0.234	-0.01	16.86	15.90	0.802	0.188	22.1
Left tilted	20	QPSK 50_50	20850/2510	1:1	0.329	0.02	16.86	15.90	0.802	0.264	22.1
Right cheek	20	QPSK 50_50	20850/2510	1:1	0.525	-0.03	16.86	15.90	0.802	0.421	22.1
Right tilted	20	QPSK 50_50	20850/2510	1:1	0.528	0.02	16.86	15.90	0.802	0.423	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_99	21350/2560	1:1	0.164	0.03	22.93	23.90	1.250	0.205	22.1
Back side	20	QPSK 1_99	21350/2560	1:1	0.378	0.12	22.93	23.90	1.250	**0.473**	22.1
Back side	20	PCC 1_0	21350/2560	1:1	0.361	0.02	22.75	23.90	1.303	0.470	22.1
		SCC 1_99	21152/2540.2								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_50	21350/2560	1:1	0.138	0.05	21.88	22.90	1.265	0.175	22.1
Back side	20	QPSK 50_50	21350/2560	1:1	0.331	0.01	21.88	22.90	1.265	0.419	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_99	21350/2560	1:1	0.086	-0.05	17.90	18.90	1.259	0.108	22.2
Back side	20	QPSK 1_99	21350/2560	1:1	0.273	0.05	17.90	18.90	1.259	0.344	22.2
Left side	20	QPSK 1_99	21350/2560	1:1	0.115	-0.03	17.90	18.90	1.259	0.145	22.2
Top side	20	QPSK 1_99	21350/2560	1:1	0.275	0.14	17.90	18.90	1.259	0.346	22.2
Top side	20	PCC 1_0	21350/2560	1:1	0.291	0.15	17.85	18.90	1.274	0.371	22.1
		SCC 1_99	21152/2540.2								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	21350/2560	1:1	0.093	-0.02	17.89	18.90	1.262	0.117	22.2
Back side	20	QPSK 50_50	21350/2560	1:1	0.291	-0.01	17.89	18.90	1.262	0.367	22.2
Left side	20	QPSK 50_50	21350/2560	1:1	0.124	-0.02	17.89	18.90	1.262	0.156	22.2
Top side	20	QPSK 50_50	21350/2560	1:1	0.295	0.03	17.89	18.90	1.262	0.372	22.2
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)

Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.178	-0.09	23.25	23.90	1.161	0.207	22
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.182	0.04	23.25	23.90	1.161	0.211	22
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.366	-0.02	23.25	23.90	1.161	0.425	22
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.177	0.07	23.25	23.90	1.161	0.206	22
Right cheek	20	PCC 1_99	21100/2535	1:1	0.352	-0.07	23.07	23.90	1.211	0.426	22.1
		SCC 1_0	21298/2553.9								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.138	-0.11	21.94	22.90	1.247	0.172	22
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.138	0.06	21.94	22.90	1.247	0.172	22
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.288	0.02	21.94	22.90	1.247	0.359	22
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.145	0.08	21.94	22.90	1.247	0.181	22
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.185	0.12	20.92	21.90	1.253	0.232	22.1
Back side	20	QPSK 1_0	21100/2535	1:1	0.269	0.06	20.92	21.90	1.253	0.337	22.1
Back side	20	PCC 1_0	21350/2560	1:1	0.253	0.08	20.88	21.90	1.265	0.320	22.1
		SCC 1_99	21152/2540.2								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.192	0.05	20.89	21.90	1.262	0.242	22.1
Back side	20	QPSK 50_0	21100/2535	1:1	0.281	0.11	20.89	21.90	1.262	0.355	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.202	-0.18	19.44	20.40	1.247	0.252	22.1
Back side	20	QPSK 1_0	21100/2535	1:1	0.368	0.07	19.44	20.40	1.247	0.459	22.1
Left side	20	QPSK 1_0	21100/2535	1:1	0.038	-0.01	19.44	20.40	1.247	0.048	22.1
Right side	20	QPSK 1_0	21100/2535	1:1	0.160	-0.07	19.44	20.40	1.247	0.200	22.1
Bottom side	20	QPSK 1_0	21100/2535	1:1	0.173	0.06	19.44	20.40	1.247	0.216	22.1
Back side	20	PCC 1_0	21350/2560	1:1	0.331	0.08	19.38	20.40	1.265	0.419	22.1
		SCC 1_99	21152/2540.2								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.211	-0.01	19.43	20.40	1.250	0.264	22.1
Back side	20	QPSK 50_0	21100/2535	1:1	0.381	-0.03	19.43	20.40	1.250	**0.476**	22.1
Left side	20	QPSK 50_0	21100/2535	1:1	0.041	-0.02	19.43	20.40	1.250	0.051	22.1
Right side	20	QPSK 50_0	21100/2535	1:1	0.170	-0.08	19.43	20.40	1.250	0.213	22.1
Bottom side	20	QPSK 50_0	21100/2535	1:1	0.180	-0.10	19.43	20.40	1.250	0.225	22.1

Ant 11 Test Record

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	21100/2535	1:1	0.147	0.03	16.45	17.00	1.135	0.167	22.5
Left tilted	20	QPSK 1_50	21100/2535	1:1	0.045	0.04	16.45	17.00	1.135	0.052	22.5
Right cheek	20	QPSK 1_50	21100/2535	1:1	0.446	-0.08	16.45	17.00	1.135	0.506	22.5
Right tilted	20	QPSK 1_50	21100/2535	1:1	0.105	0.02	16.45	17.00	1.135	0.119	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	21100/2535	1:1	0.149	0.15	16.43	17.00	1.140	0.170	22.5
Left tilted	20	QPSK 50_25	21100/2535	1:1	0.048	-0.07	16.43	17.00	1.140	0.055	22.5
Right cheek	20	QPSK 50_25	21100/2535	1:1	0.384	0.08	16.43	17.00	1.140	0.438	22.5
Right tilted	20	QPSK 50_25	21100/2535	1:1	0.089	0.08	16.43	17.00	1.140	0.101	22.5
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_50	21100/2535	1:1	0.147	0.03	16.45	12.90	0.442	0.065	22.5
Left tilted	20	QPSK 1_50	21100/2535	1:1	0.045	0.04	16.45	12.90	0.442	0.020	22.5
Right cheek	20	QPSK 1_50	21100/2535	1:1	0.446	-0.08	16.45	12.90	0.442	0.197	22.5

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Right tilted	20	QPSK 1_50	21100/2535	1:1	0.105	0.02	16.45	12.90	0.442	0.046	22.5
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_25	21100/2535	1:1	0.149	0.15	16.43	12.90	0.444	0.066	22.5
Left tilted	20	QPSK 50_25	21100/2535	1:1	0.048	-0.07	16.43	12.90	0.444	0.021	22.5
Right cheek	20	QPSK 50_25	21100/2535	1:1	0.384	0.08	16.43	12.90	0.444	0.170	22.5
Right tilted	20	QPSK 50_25	21100/2535	1:1	0.089	0.08	16.43	12.90	0.444	0.039	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	21100/2535	1:1	0.118	-0.09	20.47	20.90	1.104	0.130	22.5
Back side	20	QPSK 1_50	21100/2535	1:1	0.180	-0.03	20.47	20.90	1.104	0.199	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21350/2560	1:1	0.107	0.01	20.45	20.90	1.109	0.119	22.5
Back side	20	QPSK 50_0	21350/2560	1:1	0.167	-0.04	20.45	20.90	1.109	0.185	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	21100/2535	1:1	0.084	0.02	16.45	17.00	1.135	0.095	22.5
Back side	20	QPSK 1_50	21100/2535	1:1	0.157	0.18	16.45	17.00	1.135	0.178	22.5
Left side	20	QPSK 1_50	21100/2535	1:1	0.143	0.14	16.45	17.00	1.135	0.162	22.5
Top side	20	QPSK 1_50	21100/2535	1:1	0.015	0.06	16.45	17.00	1.135	0.017	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_25	21100/2535	1:1	0.095	0.09	16.43	17.00	1.140	0.108	22.5
Back side	20	QPSK 50_25	21100/2535	1:1	0.156	-0.05	16.43	17.00	1.140	0.178	22.5
Left side	20	QPSK 50_25	21100/2535	1:1	0.135	0.14	16.43	17.00	1.140	0.154	22.5
Top side	20	QPSK 50_25	21100/2535	1:1	0.017	-0.01	16.43	17.00	1.140	0.019	22.5

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

8.2.3 SAR Result of LTE Band 12

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_49	23130/711	1:1	0.483	-0.08	22.86	24.00	1.300	0.628	22.5
Left tilted	10	QPSK 1_49	23130/711	1:1	0.423	0.08	22.86	24.00	1.300	0.550	22.5
Right cheek	10	QPSK 1_49	23130/711	1:1	0.734	-0.05	22.86	24.00	1.300	0.954	22.5
Right tilted	10	QPSK 1_49	23130/711	1:1	0.614	-0.04	22.86	24.00	1.300	0.798	22.5
Right cheek	10	QPSK 1_49	23060/704	1:1	0.655	0.19	22.83	24.00	1.309	0.858	22.5
Right cheek	10	QPSK 1_49	23095/707.5	1:1	0.750	0.12	22.80	24.00	1.318	**0.989**	22.5
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_25	23060/704	1:1	0.297	0.04	21.68	23.00	1.355	0.402	22.5
Left tilted	10	QPSK 25_25	23060/704	1:1	0.268	0.01	21.68	23.00	1.355	0.363	22.5
Right cheek	10	QPSK 25_25	23060/704	1:1	0.480	-0.06	21.68	23.00	1.355	0.650	22.5
Right tilted	10	QPSK 25_25	23060/704	1:1	0.447	0.07	21.68	23.00	1.355	0.606	22.5
Head Test Data(100%RB)											
Right cheek	10	QPSK 50_0	23060/704	1:1	0.461	0.17	21.69	23.00	1.352	0.623	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_49	23130/711	1:1	0.151	-0.01	22.86	24.00	1.300	0.196	22.5
Back side	10	QPSK 1_49	23130/711	1:1	0.191	0.02	22.86	24.00	1.300	**0.248**	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_25	23060/704	1:1	0.080	0.07	21.68	23.00	1.355	0.109	22.5
Back side	10	QPSK 25_25	23060/704	1:1	0.111	0.02	21.68	23.00	1.355	0.150	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_49	23130/711	1:1	0.143	0.04	22.86	24.00	1.300	0.186	22.5
Back side	10	QPSK 1_49	23130/711	1:1	0.188	-0.02	22.86	24.00	1.300	**0.244**	22.5
Left side	10	QPSK 1_49	23130/711	1:1	0.164	0.03	22.86	24.00	1.300	0.213	22.5
Top side	10	QPSK 1_49	23130/711	1:1	0.109	0.05	22.86	24.00	1.300	0.142	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_25	23060/704	1:1	0.077	-0.02	21.68	23.00	1.355	0.104	22.5
Back side	10	QPSK 25_25	23060/704	1:1	0.119	0.03	21.68	23.00	1.355	0.161	22.5
Left side	10	QPSK 25_25	23060/704	1:1	0.097	0.04	21.68	23.00	1.355	0.131	22.5
Top side	10	QPSK 25_25	23060/704	1:1	0.062	0.07	21.68	23.00	1.355	0.084	22.5
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	23060/704	1:1	0.015	0.06	22.98	24.00	1.265	0.019	22.6
Left tilted	10	QPSK 1_0	23060/704	1:1	0.008	0.03	22.98	24.00	1.265	0.011	22.6
Right cheek	10	QPSK 1_0	23060/704	1:1	0.016	0.11	22.98	24.00	1.265	0.020	22.6
Right tilted	10	QPSK 1_0	23060/704	1:1	0.006	0.19	22.98	24.00	1.265	0.008	22.6
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	23060/704	1:1	0.011	0.06	21.98	23.00	1.265	0.014	22.6
Left tilted	10	QPSK 25_0	23060/704	1:1	0.006	0.08	21.98	23.00	1.265	0.008	22.6
Right cheek	10	QPSK 25_0	23060/704	1:1	0.012	0.09	21.98	23.00	1.265	0.015	22.6
Right tilted	10	QPSK 25_0	23060/704	1:1	0.004	0.01	21.98	23.00	1.265	0.006	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	23060/704	1:1	0.023	0.08	22.98	24.00	1.265	0.028	22.5

Back side	10	QPSK 1_0	23060/704	1:1	0.026	0.04	22.98	24.00	1.265	0.033	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	23060/704	1:1	0.018	0.13	21.98	23.00	1.265	0.022	22.5
Back side	10	QPSK 25_0	23060/704	1:1	0.020	0.01	21.98	23.00	1.265	0.025	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	23060/704	1:1	0.021	0.13	22.98	24.00	1.265	0.027	22.5
Back side	10	QPSK 1_0	23060/704	1:1	0.024	0.10	22.98	24.00	1.265	0.031	22.5
Left side	10	QPSK 1_0	23060/704	1:1	0.036	0.00	22.98	24.00	1.265	0.045	22.5
Right side	10	QPSK 1_0	23060/704	1:1	0.025	0.06	22.98	24.00	1.265	0.032	22.5
Bottom side	10	QPSK 1_0	23060/704	1:1	0.009	0.11	22.98	24.00	1.265	0.011	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	23060/704	1:1	0.016	0.12	21.98	23.00	1.265	0.020	22.5
Back side	10	QPSK 25_0	23060/704	1:1	0.019	0.12	21.98	23.00	1.265	0.023	22.5
Left side	10	QPSK 25_0	23060/704	1:1	0.027	0.02	21.98	23.00	1.265	0.034	22.5
Right side	10	QPSK 25_0	23060/704	1:1	0.019	0.06	21.98	23.00	1.265	0.025	22.5
Bottom side	10	QPSK 25_0	23060/704	1:1	0.007	-0.01	21.98	23.00	1.265	0.008	22.5

Table 20：SAR of LTE Band 12 for Head and Body.

8.2.4 SAR Result of LTE Band 13

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_49	23230/782	1:1	0.146	0.05	22.77	24.00	1.327	0.194	22.5
Left tilted	10	QPSK 1_49	23230/782	1:1	0.122	0.07	22.77	24.00	1.327	0.162	22.5
Right cheek	10	QPSK 1_49	23230/782	1:1	0.268	0.01	22.77	24.00	1.327	**0.356**	22.5
Right tilted	10	QPSK 1_49	23230/782	1:1	0.188	-0.01	22.77	24.00	1.327	0.250	22.5
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_25	23230/782	1:1	0.118	0.05	21.82	23.00	1.312	0.155	22.5
Left tilted	10	QPSK 25_25	23230/782	1:1	0.104	0.06	21.82	23.00	1.312	0.136	22.5
Right cheek	10	QPSK 25_25	23230/782	1:1	0.217	0.04	21.82	23.00	1.312	0.285	22.5
Right tilted	10	QPSK 25_25	23230/782	1:1	0.151	0.10	21.82	23.00	1.312	0.198	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_49	23230/782	1:1	0.045	0.10	22.77	24.00	1.327	0.060	22.5
Back side	10	QPSK 1_49	23230/782	1:1	0.058	0.02	22.77	24.00	1.327	0.077	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_25	23230/782	1:1	0.038	0.08	21.82	23.00	1.312	0.050	22.5
Back side	10	QPSK 25_25	23230/782	1:1	0.049	0.12	21.82	23.00	1.312	0.064	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_49	23230/782	1:1	0.055	0.09	22.77	24.00	1.327	0.073	22.5
Back side	10	QPSK 1_49	23230/782	1:1	0.070	0.03	22.77	24.00	1.327	0.093	22.5
Left side	10	QPSK 1_49	23230/782	1:1	0.054	0.07	22.77	24.00	1.327	0.072	22.5
Top side	10	QPSK 1_49	23230/782	1:1	0.046	0.06	22.77	24.00	1.327	0.061	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_25	23230/782	1:1	0.045	0.14	21.82	23.00	1.312	0.059	22.5
Back side	10	QPSK 25_25	23230/782	1:1	0.059	0.06	21.82	23.00	1.312	0.078	22.5
Left side	10	QPSK 25_25	23230/782	1:1	0.045	0.14	21.82	23.00	1.312	0.060	22.5
Top side	10	QPSK 25_25	23230/782	1:1	0.037	0.11	21.82	23.00	1.312	0.048	22.5
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	23230/782	1:1	0.157	0.03	23.31	24.00	1.172	0.184	22.6
Left tilted	10	QPSK 1_0	23230/782	1:1	0.088	0.09	23.31	24.00	1.172	0.103	22.6
Right cheek	10	QPSK 1_0	23230/782	1:1	0.140	0.00	23.31	24.00	1.172	0.164	22.6
Right tilted	10	QPSK 1_0	23230/782	1:1	0.064	-0.01	23.31	24.00	1.172	0.075	22.6
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	23230/782	1:1	0.117	0.04	22.36	23.00	1.159	0.136	22.6
Left tilted	10	QPSK 25_0	23230/782	1:1	0.065	0.03	22.36	23.00	1.159	0.075	22.6
Right cheek	10	QPSK 25_0	23230/782	1:1	0.105	0.04	22.36	23.00	1.159	0.122	22.6
Right tilted	10	QPSK 25_0	23230/782	1:1	0.047	0.08	22.36	23.00	1.159	0.054	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.200	0.00	23.31	24.00	1.172	**0.234**	22.5
Back side	10	QPSK 1_0	23230/782	1:1	0.194	0.01	23.31	24.00	1.172	0.227	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.144	0.02	22.36	23.00	1.159	0.167	22.5
Back side	10	QPSK 25_0	23230/782	1:1	0.139	0.04	22.36	23.00	1.159	0.161	22.5

Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	23230/782	1:1	0.183	0.01	23.31	24.00	1.172	0.215	22.5
Back side	10	QPSK 1_0	23230/782	1:1	0.201	-0.07	23.31	24.00	1.172	**0.236**	22.5
Left side	10	QPSK 1_0	23230/782	1:1	0.195	-0.01	23.31	24.00	1.172	0.229	22.5
Right side	10	QPSK 1_0	23230/782	1:1	0.172	0.02	23.31	24.00	1.172	0.202	22.5
Bottom side	10	QPSK 1_0	23230/782	1:1	0.097	-0.11	23.31	24.00	1.172	0.113	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	23230/782	1:1	0.135	0.00	22.36	23.00	1.159	0.156	22.5
Back side	10	QPSK 25_0	23230/782	1:1	0.163	0.03	22.36	23.00	1.159	0.189	22.5
Left side	10	QPSK 25_0	23230/782	1:1	0.145	0.00	22.36	23.00	1.159	0.168	22.5
Right side	10	QPSK 25_0	23230/782	1:1	0.126	-0.04	22.36	23.00	1.159	0.146	22.5
Bottom side	10	QPSK 25_0	23230/782	1:1	0.074	-0.14	22.36	23.00	1.159	0.086	22.5

Table 21：SAR of LTE Band 13 for Head and Body.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编：518057 t (86-755) 26012053 sgs.china@sgs.com

8.2.5 SAR Result of LTE Band 26

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	15	QPSK 1_74	26965/841.5	1:1	0.421	-0.02	21.23	22.00	1.194	0.503	22.5
Left tilted	15	QPSK 1_74	26965/841.5	1:1	0.366	-0.05	21.23	22.00	1.194	0.437	22.5
Right cheek	15	QPSK 1_74	26965/841.5	1:1	0.692	-0.03	21.23	22.00	1.194	0.826	22.5
Right tilted	15	QPSK 1_74	26965/841.5	1:1	0.485	-0.01	21.23	22.00	1.194	0.579	22.5
Right cheek	15	QPSK 1_74	26765/821.5	1:1	0.682	-0.02	20.83	22.00	1.309	0.893	22.5
Right cheek	15	QPSK 1_74	26865/831.5	1:1	0.716	-0.01	21.05	22.00	1.245	0.891	22.5
Head Test Data(50%RB)											
Left cheek	15	QPSK 36_39	26965/841.5	1:1	0.453	0.01	21.15	22.00	1.216	0.551	22.5
Left tilted	15	QPSK 36_39	26965/841.5	1:1	0.389	-0.03	21.15	22.00	1.216	0.473	22.5
Right cheek	15	QPSK 36_39	26965/841.5	1:1	0.736	-0.01	21.15	22.00	1.216	0.895	22.5
Right tilted	15	QPSK 36_39	26965/841.5	1:1	0.517	0.04	21.15	22.00	1.216	0.629	22.5
Right cheek	15	QPSK 36_39	26765/821.5	1:1	0.650	-0.04	20.77	22.00	1.327	0.863	22.5
Right cheek	15	QPSK 36_39	26865/831.5	1:1	0.732	0.01	20.99	22.00	1.262	**0.924**	22.5
Head Test Data(100%RB)											
Right cheek	15	QPSK 75_0	26965/841.5	1:1	0.726	0.00	21.13	22.00	1.222	0.887	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_74	26965/841.5	1:1	0.183	-0.05	23.65	24.50	1.216	0.223	22.5
Back side	15	QPSK 1_74	26965/841.5	1:1	0.204	0.01	23.65	24.50	1.216	**0.248**	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_39	26965/841.5	1:1	0.154	-0.05	22.57	23.50	1.239	0.191	22.5
Back side	15	QPSK 36_39	26965/841.5	1:1	0.172	0.09	22.57	23.50	1.239	0.213	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_74	26965/841.5	1:1	0.210	-0.10	21.72	22.50	1.197	0.251	22.5
Back side	15	QPSK 1_74	26965/841.5	1:1	0.253	-0.02	21.72	22.50	1.197	0.303	22.5
Left side	15	QPSK 1_74	26965/841.5	1:1	0.110	0.01	21.72	22.50	1.197	0.132	22.5
Top side	15	QPSK 1_74	26965/841.5	1:1	0.179	0.05	21.72	22.50	1.197	0.214	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_39	26965/841.5	1:1	0.187	0.17	21.64	22.50	1.219	0.228	22.5
Back side	15	QPSK 36_39	26965/841.5	1:1	0.253	0.05	21.64	22.50	1.219	**0.308**	22.5
Left side	15	QPSK 36_39	26965/841.5	1:1	0.117	0.03	21.64	22.50	1.219	0.143	22.5
Top side	15	QPSK 36_39	26965/841.5	1:1	0.186	0.01	21.64	22.50	1.219	0.227	22.5
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	15	QPSK 1_38	26965/841.5	1:1	0.048	0.03	24.40	24.50	1.023	0.049	22.6
Left tilted	15	QPSK 1_38	26965/841.5	1:1	0.025	0.06	24.40	24.50	1.023	0.026	22.6
Right cheek	15	QPSK 1_38	26965/841.5	1:1	0.046	0.06	24.40	24.50	1.023	0.047	22.6
Right tilted	15	QPSK 1_38	26965/841.5	1:1	0.020	0.06	24.40	24.50	1.023	0.020	22.6
Head Test Data(50%RB)											
Left cheek	15	QPSK 36_18	26965/841.5	1:1	0.036	0.07	23.21	23.50	1.069	0.039	22.6
Left tilted	15	QPSK 36_18	26965/841.5	1:1	0.016	0.06	23.21	23.50	1.069	0.017	22.6
Right cheek	15	QPSK 36_18	26965/841.5	1:1	0.033	0.04	23.21	23.50	1.069	0.035	22.6
Right tilted	15	QPSK 36_18	26965/841.5	1:1	0.014	0.07	23.21	23.50	1.069	0.015	22.6

Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_38	26965/841.5	1:1	0.037	0.05	24.40	24.50	1.023	0.037	22.5
Back side	15	QPSK 1_38	26965/841.5	1:1	0.035	-0.02	24.40	24.50	1.023	0.036	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_18	26965/841.5	1:1	0.028	0.07	23.21	23.50	1.069	0.030	22.5
Back side	15	QPSK 36_18	26965/841.5	1:1	0.029	0.02	23.21	23.50	1.069	0.031	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_38	26965/841.5	1:1	0.051	0.09	24.40	24.50	1.023	0.052	22.5
Back side	15	QPSK 1_38	26965/841.5	1:1	0.076	0.05	24.40	24.50	1.023	0.077	22.5
Left side	15	QPSK 1_38	26965/841.5	1:1	0.041	0.00	24.40	24.50	1.023	0.041	22.5
Right side	15	QPSK 1_38	26965/841.5	1:1	0.030	-0.03	24.40	24.50	1.023	0.030	22.5
Bottom side	15	QPSK 1_38	26965/841.5	1:1	0.053	-0.04	24.40	24.50	1.023	0.054	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_18	26965/841.5	1:1	0.041	0.09	23.21	23.50	1.069	0.043	22.5
Back side	15	QPSK 36_18	26965/841.5	1:1	0.060	0.04	23.21	23.50	1.069	0.064	22.5
Left side	15	QPSK 36_18	26965/841.5	1:1	0.032	-0.02	23.21	23.50	1.069	0.034	22.5
Right side	15	QPSK 36_18	26965/841.5	1:1	0.024	0.05	23.21	23.50	1.069	0.025	22.5
Bottom side	15	QPSK 36_18	26965/841.5	1:1	0.042	0.01	23.21	23.50	1.069	0.044	22.5

Table 22：SAR of LTE Band 26 for Head and Body.

8.2.1 SAR Result of LTE Band 38

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	37850/2580	1:1.58	0.249	-0.05	18.82	20.00	1.312	0.327	22.1
Left tilted	20	QPSK 1_50	37850/2580	1:1.58	0.387	0.10	18.82	20.00	1.312	0.508	22.1
Right cheek	20	QPSK 1_50	37850/2580	1:1.58	0.566	-0.10	18.82	20.00	1.312	0.743	22.1
Right tilted	20	QPSK 1_50	37850/2580	1:1.58	0.628	-0.05	18.82	20.00	1.312	0.824	22.1
Right tilted	20	QPSK 1_50	38000/2595	1:1.58	0.627	0.10	18.77	20.00	1.327	0.832	22.1
Right tilted	20	QPSK 1_50	38150/2610	1:1.58	0.602	0.08	18.74	20.00	1.337	0.805	22.1
Right tilted	20	PCC 1_99	37901/2585.1	1:1.58	0.537	0.05	18.74	20.00	1.337	0.718	22.1
		SCC 1_0	38099/2604.9								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	37850/2580	1:1.58	0.295	0.03	18.85	20.00	1.303	0.384	22.1
Left tilted	20	QPSK 50_25	37850/2580	1:1.58	0.377	-0.11	18.85	20.00	1.303	0.491	22.1
Right cheek	20	QPSK 50_25	37850/2580	1:1.58	0.564	0.01	18.85	20.00	1.303	0.735	22.1
Right tilted	20	QPSK 50_25	37850/2580	1:1.58	0.626	0.10	18.85	20.00	1.303	0.816	22.1
Right tilted	20	QPSK 50_0	38000/2595	1:1.58	0.636	0.15	18.82	20.00	1.312	0.835	22.1
Right tilted	20	QPSK 50_25	38150/2610	1:1.58	0.651	0.02	18.83	20.00	1.309	0.852	22.1
Head Test Data(100%RB)											
Right tilted	20	QPSK 100_0	37850/2580	1:1.58	0.658	0.01	18.83	20.00	1.309	**0.861**	22.1
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_50	37850/2580	1:1.58	0.249	-0.05	18.82	17.00	0.658	0.164	22.1
Left tilted	20	QPSK 1_50	37850/2580	1:1.58	0.387	0.10	18.82	17.00	0.658	0.255	22.1
Right cheek	20	QPSK 1_50	37850/2580	1:1.58	0.566	-0.10	18.82	17.00	0.658	0.372	22.1
Right tilted	20	QPSK 1_50	37850/2580	1:1.58	0.628	-0.05	18.82	17.00	0.658	0.413	22.1
Right tilted	20	QPSK 1_50	38000/2595	1:1.58	0.627	0.10	18.77	17.00	0.665	0.417	22.1
Right tilted	20	QPSK 1_50	38150/2610	1:1.58	0.602	0.08	18.74	17.00	0.670	0.403	22.1
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_25	37850/2580	1:1.58	0.295	0.03	18.85	17.00	0.653	0.193	22.1
Left tilted	20	QPSK 50_25	37850/2580	1:1.58	0.377	-0.11	18.85	17.00	0.653	0.246	22.1
Right cheek	20	QPSK 50_25	37850/2580	1:1.58	0.564	0.01	18.85	17.00	0.653	0.368	22.1
Right tilted	20	QPSK 50_25	37850/2580	1:1.58	0.626	0.10	18.85	17.00	0.653	0.409	22.1
Right tilted	20	QPSK 50_0	38000/2595	1:1.58	0.636	0.15	18.82	17.00	0.658	0.418	22.1
Right tilted	20	QPSK 50_25	38150/2610	1:1.58	0.651	0.02	18.83	17.00	0.656	0.427	22.1
Head Test Data(100%RB) ENDC Standalone											
Right tilted	20	QPSK 100_0	37850/2580	1:1.58	0.658	0.01	18.83	17.00	0.656	0.432	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	37850/2580	1:1.58	0.188	0.02	23.94	25.00	1.276	0.240	22.1
Back side	20	QPSK 1_50	37850/2580	1:1.58	0.510	0.04	23.94	25.00	1.276	**0.651**	22.1
Back side	20	PCC 1_99	37850/2580	1:1.58	0.456	0.08	23.72	25.00	1.343	0.612	22.1
		SCC 1_0	38048/2599.8								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	37850/2580	1:1.58	0.145	-0.05	22.91	24.00	1.285	0.186	22.1
Back side	20	QPSK 50_0	37850/2580	1:1.58	0.413	0.06	22.91	24.00	1.285	0.531	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	37850/2580	1:1.58	0.125	-0.14	19.31	20.50	1.315	0.164	22.2
Back side	20	QPSK 1_50	37850/2580	1:1.58	0.373	-0.04	19.31	20.50	1.315	0.491	22.2

Left side	20	QPSK 1_50	37850/2580	1:1.58	0.114	-0.01	19.31	20.50	1.315	0.150	22.2
Top side	20	QPSK 1_50	37850/2580	1:1.58	0.474	0.02	19.31	20.50	1.315	0.623	22.2
Top side	20	PCC 1_99	37850/2580	1:1.58	0.442	0.07	19.25	20.50	1.334	0.589	22.1
		SCC 1_0	38048/2599.8								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_25	37850/2580	1:1.58	0.124	-0.05	19.34	20.50	1.306	0.162	22.2
Back side	20	QPSK 50_25	37850/2580	1:1.58	0.373	-0.05	19.34	20.50	1.306	0.487	22.2
Left side	20	QPSK 50_25	37850/2580	1:1.58	0.114	-0.06	19.34	20.50	1.306	0.149	22.2
Top side	20	QPSK 50_25	37850/2580	1:1.58	0.507	0.06	19.34	20.50	1.306	**0.662**	22.2
Hotspot Test data(Separate 10mm 1RB) ENDC Standalone											
Front side	20	QPSK 1_50	37850/2580	1:1.58	0.125	-0.14	19.31	17.50	0.659	0.082	22.2
Back side	20	QPSK 1_50	37850/2580	1:1.58	0.373	-0.04	19.31	17.50	0.659	0.246	22.2
Left side	20	QPSK 1_50	37850/2580	1:1.58	0.114	-0.01	19.31	17.50	0.659	0.075	22.2
Top side	20	QPSK 1_50	37850/2580	1:1.58	0.474	0.02	19.31	17.50	0.659	0.312	22.2
Hotspot Test data(Separate 10mm 50%RB) ENDC Standalone											
Front side	20	QPSK 50_25	37850/2580	1:1.58	0.124	-0.05	19.34	17.50	0.655	0.081	22.2
Back side	20	QPSK 50_25	37850/2580	1:1.58	0.373	-0.05	19.34	17.50	0.655	0.244	22.2
Left side	20	QPSK 50_25	37850/2580	1:1.58	0.114	-0.06	19.34	17.50	0.655	0.075	22.2
Top side	20	QPSK 50_25	37850/2580	1:1.58	0.507	0.06	19.34	17.50	0.655	0.332	22.2
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Back side	20	QPSK 1_50	37850/2580	1:1.58	0.767	-0.06	19.31	20.50	1.315	1.009	22.1
Top side	20	QPSK 1_50	37850/2580	1:1.58	0.541	0.01	19.31	20.50	1.315	0.712	22.1
Back side	20	PCC 1_99	37850/2580	1:1.58	0.694	0.02	19.25	20.50	1.334	0.925	22.1
		SCC 1_0	38048/2599.8								
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											
Back side	20	QPSK 50_25	37850/2580	1:1.58	0.774	-0.03	19.34	20.50	1.306	**1.011**	22.1
Top side	20	QPSK 50_25	37850/2580	1:1.58	0.536	0.02	19.34	20.50	1.306	0.700	22.1
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Back side-10mm	20	QPSK 1_50	37850/2580	1:1.58	0.498	-0.05	23.94	25.00	1.276	0.636	22.1
Top side-10mm	20	QPSK 1_50	37850/2580	1:1.58	0.678	0.07	23.94	25.00	1.276	0.865	22.1
Top side-10mm	20	PCC 1_99	37850/2580	1:1.58	0.570	0.00	23.72	25.00	1.343	0.765	22.1
		SCC 1_0	38048/2599.8								
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Back side-10mm	20	QPSK 50_0	37850/2580	1:1.58	0.412	-0.08	22.91	24.00	1.285	0.530	22.1
Top side-10mm	20	QPSK 50_0	37850/2580	1:1.58	0.536	0.01	22.91	24.00	1.285	0.689	22.1
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	38000/2595	1:1.58	0.121	-0.03	24.15	25.00	1.216	0.147	22
Left tilted	20	QPSK 1_50	38000/2595	1:1.58	0.085	0.04	24.15	25.00	1.216	0.103	22
Right cheek	20	QPSK 1_50	38000/2595	1:1.58	0.278	0.14	24.15	25.00	1.216	0.338	22
Right tilted	20	QPSK 1_50	38000/2595	1:1.58	0.088	-0.02	24.15	25.00	1.216	0.107	22
Right cheek	20	PCC 1_99	37901/2585.1	1:1.58	0.243	0.00	23.85	25.00	1.303	0.317	22.1
		SCC 1_0	38099/2604.9								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	38000/2595	1:1.58	0.101	0.02	23.18	24.00	1.208	0.122	22
Left tilted	20	QPSK 50_25	38000/2595	1:1.58	0.059	-0.03	23.18	24.00	1.208	0.071	22

Right cheek	20	QPSK 50_25	38000/2595	1:1.58	0.213	0.09	23.18	24.00	1.208	0.257	22
Right tilted	20	QPSK 50_25	38000/2595	1:1.58	0.070	-0.07	23.18	24.00	1.208	0.084	22
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.146	0.04	22.59	23.50	1.233	0.180	22.1
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.200	0.04	22.59	23.50	1.233	0.247	22.1
Back side	20	PCC 1_99	37901/2585.1	1:1.58	0.168	0.16	23.38	23.50	1.028	0.173	22.1
		SCC 1_0	38099/2604.9								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.146	-0.05	22.66	23.50	1.213	0.177	22.1
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.184	-0.04	22.66	23.50	1.213	0.223	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.225	-0.07	22.59	23.50	1.233	0.277	22.1
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.393	-0.02	22.59	23.50	1.233	0.485	22.1
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.035	-0.03	22.59	23.50	1.233	0.044	22.1
Right side	20	QPSK 1_0	38000/2595	1:1.58	0.186	0.01	22.59	23.50	1.233	0.229	22.1
Bottom side	20	QPSK 1_0	38000/2595	1:1.58	0.180	-0.11	22.59	23.50	1.233	0.222	22.1
Back side	20	PCC 1_99	37901/2585.1	1:1.58	0.314	0.08	23.38	23.50	1.028	0.323	22.1
		SCC 1_0	38099/2604.9								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.226	-0.06	22.66	23.50	1.213	0.274	22.1
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.396	-0.05	22.66	23.50	1.213	0.481	22.1
Left side	20	QPSK 50_0	38000/2595	1:1.58	0.035	-0.09	22.66	23.50	1.213	0.042	22.1
Right side	20	QPSK 50_0	38000/2595	1:1.58	0.152	0.11	22.66	23.50	1.213	0.184	22.1
Bottom side	20	QPSK 50_0	38000/2595	1:1.58	0.180	0.06	22.66	23.50	1.213	0.218	22.1
Hotspot Test data(Separate 10mm 1RB) ENDC Standalone											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.225	-0.07	22.59	20.50	0.618	0.139	22.1
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.393	-0.02	22.59	20.50	0.618	0.243	22.1
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.035	-0.03	22.59	20.50	0.618	0.022	22.1
Right side	20	QPSK 1_0	38000/2595	1:1.58	0.186	0.01	22.59	20.50	0.618	0.115	22.1
Bottom side	20	QPSK 1_0	38000/2595	1:1.58	0.180	-0.11	22.59	20.50	0.618	0.111	22.1
Hotspot Test data(Separate 10mm 50%RB) ENDC Standalone											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.226	-0.06	22.66	20.50	0.608	0.137	22.1
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.396	-0.05	22.66	20.50	0.608	0.241	22.1
Left side	20	QPSK 50_0	38000/2595	1:1.58	0.035	-0.09	22.66	20.50	0.608	0.021	22.1
Right side	20	QPSK 50_0	38000/2595	1:1.58	0.152	0.11	22.66	20.50	0.608	0.092	22.1
Bottom side	20	QPSK 50_0	38000/2595	1:1.58	0.180	0.06	22.66	20.50	0.608	0.109	22.1

Table 23：SAR of LTE Band 38 for Head and Body and Product specific 10g SAR.

8.2.2 SAR Result of LTE Band 41

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	41490/2680	1:1.58	0.173	-0.03	17.91	19.00	1.285	0.222	22.1
Left tilted	20	QPSK 1_50	41490/2680	1:1.58	0.219	0.06	17.91	19.00	1.285	0.281	22.1
Right cheek	20	QPSK 1_50	41490/2680	1:1.58	0.451	-0.08	17.91	19.00	1.285	0.580	22.1
Right tilted	20	QPSK 1_50	41490/2680	1:1.58	0.421	0.18	17.91	19.00	1.285	0.541	22.1
Right cheek	20	QPSK PCC 1_0	41490/2680	1:1.58	0.398	-0.15	17.91	19.00	1.285	0.512	22.1
		QPSK SCC 1_99	41292/2660.2								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_25	41490/2680	1:1.58	0.184	0.06	17.98	19.00	1.265	0.233	22.1
Left tilted	20	QPSK 50_25	41490/2680	1:1.58	0.216	-0.05	17.98	19.00	1.265	0.273	22.1
Right cheek	20	QPSK 50_25	41490/2680	1:1.58	0.471	-0.11	17.98	19.00	1.265	**0.596**	22.1
Right tilted	20	QPSK 50_25	41490/2680	1:1.58	0.446	-0.08	17.98	19.00	1.265	0.564	22.1
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_50	41490/2680	1:1.58	0.173	-0.03	17.91	16.00	0.644	0.111	22.1
Left tilted	20	QPSK 1_50	41490/2680	1:1.58	0.219	0.06	17.91	16.00	0.644	0.141	22.1
Right cheek	20	QPSK 1_50	41490/2680	1:1.58	0.451	-0.08	17.91	16.00	0.644	0.291	22.1
Right tilted	20	QPSK 1_50	41490/2680	1:1.58	0.421	0.18	17.91	16.00	0.644	0.271	22.1
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_25	41490/2680	1:1.58	0.184	0.06	17.98	16.00	0.634	0.117	22.1
Left tilted	20	QPSK 50_25	41490/2680	1:1.58	0.216	-0.05	17.98	16.00	0.634	0.137	22.1
Right cheek	20	QPSK 50_25	41490/2680	1:1.58	0.471	-0.11	17.98	16.00	0.634	0.299	22.1
Right tilted	20	QPSK 50_25	41490/2680	1:1.58	0.446	-0.08	17.98	16.00	0.634	0.283	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_99	41490/2680	1:1.58	0.166	-0.03	23.99	25.00	1.262	0.209	22.1
Back side	20	QPSK 1_99	41490/2680	1:1.58	0.266	0.08	23.99	25.00	1.262	**0.336**	22.1
Back side	20	QPSK PCC 1_0	41490/2680	1:1.58	0.260	0.09	23.91	25.00	1.285	0.334	22.1
		QPSK SCC 1_99	41292/2660.2								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	41490/2680	1:1.58	0.130	0.18	22.98	24.00	1.265	0.164	22.1
Back side	20	QPSK 50_0	41490/2680	1:1.58	0.246	-0.06	22.98	24.00	1.265	0.311	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	41490/2680	1:1.58	0.100	0.06	19.32	20.50	1.312	0.131	22.1
Back side	20	QPSK 1_50	41490/2680	1:1.58	0.237	-0.05	19.32	20.50	1.312	0.311	22.1
Left side	20	QPSK 1_50	41490/2680	1:1.58	0.157	-0.03	19.32	20.50	1.312	0.206	22.1
Top side	20	QPSK 1_50	41490/2680	1:1.58	0.273	0.11	19.32	20.50	1.312	0.358	22.1
Top side	20	QPSK PCC 1_0	41490/2680	1:1.58	0.247	0.19	19.31	20.50	1.315	0.325	22.1
		QPSK SCC 1_99	41292/2660.2								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_25	41490/2680	1:1.58	0.101	0.03	19.36	20.50	1.300	0.131	22.1
Back side	20	QPSK 50_25	41490/2680	1:1.58	0.238	-0.01	19.36	20.50	1.300	0.309	22.1
Left side	20	QPSK 50_25	41490/2680	1:1.58	0.161	-0.07	19.36	20.50	1.300	0.209	22.1
Top side	20	QPSK 50_25	41490/2680	1:1.58	0.278	0.18	19.36	20.50	1.300	0.361	22.1
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**

Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	40620/2593	1:1.58	0.124	0.05	24.21	25.00	1.199	0.149	22.1
Left tilted	20	QPSK 1_50	40620/2593	1:1.58	0.108	-0.02	24.21	25.00	1.199	0.130	22.1
Right cheek	20	QPSK 1_50	40620/2593	1:1.58	0.259	0.11	24.21	25.00	1.199	0.311	22.1
Right tilted	20	QPSK 1_50	40620/2593	1:1.58	0.063	0.04	24.21	25.00	1.199	0.075	22.1
Right cheek	20	QPSK PCC 1_0	40620/2593	1:1.58	0.257	0.06	23.92	25.00	1.282	0.330	22.1
		QPSK SCC 1_99	40422/2573.2								
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.085	0.02	23.33	24.00	1.167	0.099	22.1
Left tilted	20	QPSK 50_0	41055/2636.5	1:1.58	0.062	0.04	23.33	24.00	1.167	0.072	22.1
Right cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.194	-0.05	23.33	24.00	1.167	0.226	22.1
Right tilted	20	QPSK 50_0	41055/2636.5	1:1.58	0.062	0.11	23.33	24.00	1.167	0.073	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	41055/2636.5	1:1.58	0.114	0.01	22.20	23.00	1.202	0.137	22.1
Back side	20	QPSK 1_50	41055/2636.5	1:1.58	0.164	-0.05	22.20	23.00	1.202	0.197	22.1
Back side	20	QPSK PCC 1_0	41055/2636.5	1:1.58	0.136	0.06	22.12	23.00	1.225	0.167	22.1
		QPSK SCC 1_99	40857/2616.7								
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	41490/2680	1:1.58	0.092	0.12	22.22	23.00	1.197	0.110	22.1
Back side	20	QPSK 50_0	41490/2680	1:1.58	0.126	0.05	22.22	23.00	1.197	0.151	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	41055/2636.5	1:1.58	0.184	-0.09	22.20	23.00	1.202	0.221	22.1
Back side	20	QPSK 1_50	41055/2636.5	1:1.58	0.333	-0.01	22.20	23.00	1.202	**0.400**	22.1
Left side	20	QPSK 1_50	41055/2636.5	1:1.58	0.031	0.04	22.20	23.00	1.202	0.037	22.1
Right side	20	QPSK 1_50	41055/2636.5	1:1.58	0.143	-0.09	22.20	23.00	1.202	0.172	22.1
Bottom side	20	QPSK 1_50	41055/2636.5	1:1.58	0.153	-0.18	22.20	23.00	1.202	0.184	22.1
Back side	20	QPSK PCC 1_0	41055/2636.5	1:1.58	0.256	0.08	22.12	23.00	1.225	0.314	22.1
		QPSK SCC 1_99	40857/2616.7								
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	41490/2680	1:1.58	0.151	-0.10	22.22	23.00	1.197	0.181	22.1
Back side	20	QPSK 50_0	41490/2680	1:1.58	0.264	-0.07	22.22	23.00	1.197	0.316	22.1
Left side	20	QPSK 50_0	41490/2680	1:1.58	0.032	-0.06	22.22	23.00	1.197	0.038	22.1
Right side	20	QPSK 50_0	41490/2680	1:1.58	0.147	0.07	22.22	23.00	1.197	0.176	22.1
Bottom side	20	QPSK 50_0	41490/2680	1:1.58	0.155	-0.02	22.22	23.00	1.197	0.185	22.1

Table 24：SAR of LTE Band 41 for Head and Body.

8.2.3 SAR Result of LTE Band 66

Ant 13 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_99	132322/1745	1:1	0.367	-0.06	16.39	17.00	1.151	0.422	22.5
Left tilted	20	QPSK 1_99	132322/1745	1:1	0.566	-0.08	16.39	17.00	1.151	0.651	22.5
Right cheek	20	QPSK 1_99	132322/1745	1:1	0.627	0.13	16.39	17.00	1.151	0.722	22.5
Right tilted	20	QPSK 1_99	132322/1745	1:1	0.705	0.06	16.39	17.00	1.151	0.811	22.5
Right tilted	20	QPSK 1_50	132072/1720	1:1	0.558	0.06	16.37	17.00	1.156	0.645	22.5
Right tilted	20	QPSK 1_50	132572/1770	1:1	0.856	0.10	16.36	17.00	1.159	**0.992**	22.5
Right tilted -Repeat	20	QPSK 1_50	132572/1770	1:1	0.806	0.09	16.36	17.00	1.159	0.934	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_50	132072/1720	1:1	0.285	-0.17	16.33	17.00	1.167	0.333	22.5
Left tilted	20	QPSK 50_50	132072/1720	1:1	0.456	0.01	16.33	17.00	1.167	0.532	22.5
Right cheek	20	QPSK 50_50	132072/1720	1:1	0.395	-0.05	16.33	17.00	1.167	0.461	22.5
Right tilted	20	QPSK 50_50	132072/1720	1:1	0.576	0.07	16.33	17.00	1.167	0.672	22.5
Head Test Data(100%RB)											
Right tilted	20	QPSK 100_0	132072/1720	1:1	0.532	-0.07	16.21	17.00	1.199	0.638	22.5
Head Test Data(1RB) ENDC Standalone											
Left cheek	20	QPSK 1_99	132322/1745	1:1	0.367	-0.06	16.39	13.00	0.458	0.168	22.5
Left tilted	20	QPSK 1_99	132322/1745	1:1	0.566	-0.08	16.39	13.00	0.458	0.259	22.5
Right cheek	20	QPSK 1_99	132322/1745	1:1	0.627	0.13	16.39	13.00	0.458	0.287	22.5
Right tilted	20	QPSK 1_99	132322/1745	1:1	0.705	0.06	16.39	13.00	0.458	0.323	22.5
Right tilted	20	QPSK 1_50	132072/1720	1:1	0.558	0.06	16.37	13.00	0.460	0.257	22.5
Right tilted	20	QPSK 1_50	132572/1770	1:1	0.856	0.10	16.36	13.00	0.461	0.395	22.5
Right tilted -Repeat	20	QPSK 1_50	132572/1770	1:1	0.806	0.09	16.36	13.00	0.461	0.372	22.5
Head Test Data(50%RB) ENDC Standalone											
Left cheek	20	QPSK 50_50	132072/1720	1:1	0.285	-0.17	16.33	13.00	0.465	0.132	22.5
Left tilted	20	QPSK 50_50	132072/1720	1:1	0.456	0.01	16.33	13.00	0.465	0.212	22.5
Right cheek	20	QPSK 50_50	132072/1720	1:1	0.395	-0.05	16.33	13.00	0.465	0.183	22.5
Right tilted	20	QPSK 50_50	132072/1720	1:1	0.576	0.07	16.33	13.00	0.465	0.268	22.5
Head Test Data(100%RB) ENDC Standalone											
Right tilted	20	QPSK 100_0	132072/1720	1:1	0.532	-0.07	16.21	13.00	0.478	0.254	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_50	132322/1745	1:1	0.340	0.05	23.74	24.50	1.191	0.405	22.5
Back side	20	QPSK 1_50	132322/1745	1:1	0.401	0.07	23.74	24.50	1.191	**0.478**	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_50	132072/1720	1:1	0.225	-0.07	22.79	23.50	1.178	0.265	22.5
Back side	20	QPSK 50_50	132072/1720	1:1	0.239	-0.02	22.79	23.50	1.178	0.281	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	132322/1745	1:1	0.100	0.01	15.21	16.00	1.199	0.119	22.5
Back side	20	QPSK 1_50	132322/1745	1:1	0.121	0.15	15.21	16.00	1.199	0.145	22.5
Left side	20	QPSK 1_50	132322/1745	1:1	0.021	0.11	15.21	16.00	1.199	0.025	22.5
Top side	20	QPSK 1_50	132322/1745	1:1	0.170	0.01	15.21	16.00	1.199	0.204	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_50	132072/1720	1:1	0.080	-0.04	15.36	16.00	1.159	0.093	22.5
Back side	20	QPSK 50_50	132072/1720	1:1	0.097	0.14	15.36	16.00	1.159	0.112	22.5
Left side	20	QPSK 50_50	132072/1720	1:1	0.020	0.06	15.36	16.00	1.159	0.023	22.5
Top side	20	QPSK 50_50	132072/1720	1:1	0.136	-0.08	15.36	16.00	1.159	0.158	22.5
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Top side	20	QPSK 1_99	132322/1745	1:1	1.040	-0.07	17.74	18.50	1.191	**1.239**	22.5
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											

Top side	20	QPSK 50_50	132072/1720	1:1	1.010	-0.08	17.79	18.50	1.178	1.189	22.5
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Top side-10mm	20	QPSK 1_50	132322/1745	1:1	0.580	0.10	23.74	24.50	1.191	0.691	22.5
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Top side-10mm	20	QPSK 50_50	132072/1720	1:1	0.367	-0.04	22.79	23.50	1.178	0.432	22.5
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_50	132322/1745	1:1	0.112	-0.12	23.56	24.50	1.242	0.139	22.5
Left tilted	20	QPSK 1_50	132322/1745	1:1	0.045	-0.05	23.56	24.50	1.242	0.056	22.5
Right cheek	20	QPSK 1_50	132322/1745	1:1	0.108	0.01	23.56	24.50	1.242	0.134	22.5
Right tilted	20	QPSK 1_50	132322/1745	1:1	0.064	0.04	23.56	24.50	1.242	0.079	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_50	132072/1720	1:1	0.072	0.06	22.55	23.50	1.245	0.090	22.5
Left tilted	20	QPSK 50_50	132072/1720	1:1	0.028	0.01	22.55	23.50	1.245	0.034	22.5
Right cheek	20	QPSK 50_50	132072/1720	1:1	0.069	-0.09	22.55	23.50	1.245	0.086	22.5
Right tilted	20	QPSK 50_50	132072/1720	1:1	0.035	-0.12	22.55	23.50	1.245	0.044	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_99	132072/1720	1:1	0.119	0.06	20.62	21.50	1.225	0.146	22.5
Back side	20	QPSK 1_99	132072/1720	1:1	0.210	-0.05	20.62	21.50	1.225	0.257	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_50	132072/1720	1:1	0.117	0.04	20.67	21.50	1.211	0.142	22.5
Back side	20	QPSK 50_50	132072/1720	1:1	0.210	0.18	20.67	21.50	1.211	0.254	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_50	132322/1745	1:1	0.136	0.15	18.62	19.50	1.225	0.167	22.5
Back side	20	QPSK 1_50	132322/1745	1:1	0.292	-0.06	18.62	19.50	1.225	0.358	22.5
Left side	20	QPSK 1_50	132322/1745	1:1	0.044	-0.04	18.62	19.50	1.225	0.054	22.5
Right side	20	QPSK 1_50	132322/1745	1:1	0.087	-0.10	18.62	19.50	1.225	0.106	22.5
Bottom side	20	QPSK 1_50	132322/1745	1:1	0.337	0.18	18.62	19.50	1.225	0.413	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_25	132322/1745	1:1	0.134	0.03	18.60	19.50	1.230	0.165	22.5
Back side	20	QPSK 50_25	132322/1745	1:1	0.288	-0.05	18.60	19.50	1.230	0.354	22.5
Left side	20	QPSK 50_25	132322/1745	1:1	0.043	0.00	18.60	19.50	1.230	0.053	22.5
Right side	20	QPSK 50_25	132322/1745	1:1	0.085	-0.13	18.60	19.50	1.230	0.105	22.5
Bottom side	20	QPSK 50_25	132322/1745	1:1	0.337	0.17	18.60	19.50	1.230	**0.415**	22.5

Table 25：SAR of LTE Band 66 for Head and Body and Product specific 10g SAR.

Test Position	**Channel/ Frequency**	**Measured SAR (1g)**	**1st Repeated**	**Ratio**	**2nd Repeated**	**3rd Repeated**
	(MHz)		**SAR (1g)**		**SAR (1g)**	**SAR (1g)**
Right tilted	132572/1770	0.856	0.806	1.062	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						
5) The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds. The repeated measurement results must be clearly identified in the SAR report.						

8.2.4 SAR Result of 5G NR n2

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_26	372000/1860	100%	0.138	0.14	17.25	18.30	1.274	0.176	22.8
Left tilted	20	QPSK 1_26	372000/1860	100%	0.060	0.01	17.25	18.30	1.274	0.076	22.8
Right cheek	20	QPSK 1_26	372000/1860	100%	0.391	0.02	17.25	18.30	1.274	0.498	22.8
Right tilted	20	QPSK 1_26	372000/1860	100%	0.098	0.01	17.25	18.30	1.274	0.125	22.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 25_13	372000/1860	100%	0.125	0.09	17.35	18.30	1.245	0.156	22.8
Left tilted	20	QPSK 25_13	372000/1860	100%	0.065	0.04	17.35	18.30	1.245	0.081	22.8
Right cheek	20	QPSK 25_13	372000/1860	100%	0.402	0.01	17.35	18.30	1.245	0.500	22.8
Right tilted	20	QPSK 25_13	372000/1860	100%	0.106	0.04	17.35	18.30	1.245	0.132	22.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_26	372000/1860	100%	0.195	0.11	23.28	24.30	1.265	0.247	22.8
Back side	20	QPSK 1_26	372000/1860	100%	0.408	0.12	23.28	24.30	1.265	0.516	22.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 25_13	372000/1860	100%	0.193	0.01	23.29	24.30	1.262	0.244	22.8
Back side	20	QPSK 25_13	372000/1860	100%	0.408	0.12	23.29	24.30	1.262	0.515	22.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_26	372000/1860	100%	0.125	0.07	17.86	18.80	1.242	0.155	22.8
Back side	20	QPSK 1_26	372000/1860	100%	0.243	0.04	17.86	18.80	1.242	0.302	22.8
Left side	20	QPSK 1_26	372000/1860	100%	0.241	0.06	17.86	18.80	1.242	0.299	22.8
Top side	20	QPSK 1_26	372000/1860	100%	0.024	0.06	17.86	18.80	1.242	0.030	22.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 25_13	372000/1860	100%	0.102	0.02	17.87	18.80	1.239	0.126	22.8
Back side	20	QPSK 25_13	372000/1860	100%	0.196	0.13	17.87	18.80	1.239	0.243	22.8
Left side	20	QPSK 25_13	372000/1860	100%	0.223	0.08	17.87	18.80	1.239	0.276	22.8
Top side	20	QPSK 25_13	372000/1860	100%	0.024	-0.04	17.87	18.80	1.239	0.030	22.8
Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_26	372000/1860	100%	0.224	-0.02	12.99	14.30	1.352	0.303	22.8
Left tilted	20	QPSK 1_26	372000/1860	100%	0.304	0.05	12.99	14.30	1.352	0.411	22.8
Right cheek	20	QPSK 1_26	372000/1860	100%	0.387	0.07	12.99	14.30	1.352	0.523	22.8
Right tilted	20	QPSK 1_26	372000/1860	100%	0.448	0.02	12.99	14.30	1.352	0.606	22.8
Head Test Data(50%RB)											
Left cheek	20	QPSK 25_13	380000/1900	100%	0.285	-0.01	13.06	14.30	1.330	0.379	22.8
Left tilted	20	QPSK 25_13	380000/1900	100%	0.381	-0.02	13.06	14.30	1.330	0.507	22.8
Right cheek	20	QPSK 25_13	380000/1900	100%	0.479	-0.09	13.06	14.30	1.330	0.637	22.8
Right tilted	20	QPSK 25_13	380000/1900	100%	0.590	0.15	13.06	14.30	1.330	**0.785**	22.8
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_26	372000/1860	100%	0.364	0.07	21.46	22.80	1.361	0.496	22.8
Back side	20	QPSK 1_26	372000/1860	100%	0.492	0.09	21.46	22.80	1.361	0.670	22.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 25_13	380000/1900	100%	0.403	0.09	21.50	22.80	1.349	0.544	22.8
Back side	20	QPSK 25_13	380000/1900	100%	0.616	0.00	21.50	22.80	1.349	**0.831**	22.8
Back side	20	QPSK 25_13	372000/1860	100%	0.486	0.02	21.44	22.80	1.368	0.665	22.8

Back side	20	QPSK 25_13	376000/1880	100%	0.574	0.15	21.43	22.80	1.371	0.787	22.8
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 25_13	380000/1900	100%	0.483	0.07	20.53	21.80	1.340	0.647	22.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_26	372000/1860	100%	0.133	0.05	14.99	16.30	1.352	0.180	22.8
Back side	20	QPSK 1_26	372000/1860	100%	0.154	0.02	14.99	16.30	1.352	0.208	22.8
Left side	20	QPSK 1_26	372000/1860	100%	0.050	0.02	14.99	16.30	1.352	0.068	22.8
Top side	20	QPSK 1_26	372000/1860	100%	0.241	0.07	14.99	16.30	1.352	0.326	22.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 25_13	380000/1900	100%	0.165	0.03	15.08	16.30	1.324	0.219	22.8
Back side	20	QPSK 25_13	380000/1900	100%	0.223	0.04	15.08	16.30	1.324	0.295	22.8
Left side	20	QPSK 25_13	380000/1900	100%	0.043	0.05	15.08	16.30	1.324	0.056	22.8
Top side	20	QPSK 25_13	380000/1900	100%	0.356	0.14	15.08	16.30	1.324	**0.471**	22.8
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Back side	20	QPSK 1_26	372000/1860	100%	0.382	0.38	14.99	16.30	1.352	0.516	22.8
Top side	20	QPSK 1_26	372000/1860	100%	0.528	0.02	14.99	16.30	1.352	0.714	22.8
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on											
Back side	20	QPSK 25_13	380000/1900	100%	0.477	0.07	15.08	16.30	1.324	0.632	22.8
Top side	20	QPSK 25_13	380000/1900	100%	0.488	-0.07	15.08	16.30	1.324	0.646	22.8
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Back side-10mm	20	QPSK 1_26	372000/1860	100%	0.607	0.61	21.46	22.80	1.361	0.826	22.8
Top side-10mm	20	QPSK 1_26	372000/1860	100%	0.831	0.09	21.46	22.80	1.361	**1.131**	22.8
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Back side-10mm	20	QPSK 25_13	380000/1900	100%	0.621	0.12	21.50	22.80	1.349	0.838	22.8
Top side-10mm	20	QPSK 25_13	380000/1900	100%	0.670	0.08	21.50	22.80	1.349	0.904	22.8

Table 26： SAR of 5G NR n2 for Head and Body Product specific 10g SAR.

8.2.5 SAR Result of 5G NR n5

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_49	167300/836.5	100%	0.510	-0.05	20.54	21.60	1.276	0.651	22.2
Left tilted	20	QPSK1_49	167300/836.5	100%	0.420	-0.01	20.54	21.60	1.276	0.536	22.2
Right cheek	20	QPSK1_49	167300/836.5	100%	0.653	-0.02	20.54	21.60	1.276	0.834	22.2
Right tilted	20	QPSK1_49	167300/836.5	100%	0.599	-0.08	20.54	21.60	1.276	0.765	22.2
Right cheek	20	QPSK1_49	166800/834	100%	0.748	-0.04	20.45	21.60	1.303	**0.975**	22.2
Right cheek	20	QPSK1_49	167800/839	100%	0.662	-0.18	20.49	21.60	1.291	0.855	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	167300/836.5	100%	0.488	-0.02	20.43	21.60	1.309	0.639	22.2
Left tilted	20	QPSK25_13	167300/836.5	100%	0.462	0.00	20.43	21.60	1.309	0.605	22.2
Right cheek	20	QPSK25_13	167300/836.5	100%	0.701	-0.13	20.43	21.60	1.309	0.918	22.2
Right tilted	20	QPSK25_13	167300/836.5	100%	0.649	-0.03	20.43	21.60	1.309	0.850	22.2
Right cheek	20	QPSK25_13	166800/834	100%	0.580	-0.02	20.26	21.60	1.361	0.790	22.2
Right cheek	20	QPSK25_13	167800/839	100%	0.602	-0.01	20.42	21.60	1.312	0.790	22.2
Right tilted	20	QPSK25_13	166800/834	100%	0.501	-0.04	20.26	21.60	1.361	0.682	22.2
Right tilted	20	QPSK25_13	167800/839	100%	0.582	0.00	20.42	21.60	1.312	0.764	22.2
Head Test Data(100%RB)											
Right cheek	20	QPSK50_0	167800/839	100%	0.626	-0.14	19.41	20.60	1.315	0.823	22.2
Right tilted	20	QPSK50_0	167800/839	100%	0.504	0.01	19.41	20.60	1.315	0.663	22.2
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK1_49	167300/836.5	100%	0.510	-0.05	20.54	19.10	0.718	0.366	22.2
Left tilted	20	QPSK1_49	167300/836.5	100%	0.420	-0.01	20.54	19.10	0.718	0.301	22.2
Right cheek	20	QPSK1_49	167300/836.5	100%	0.653	-0.02	20.54	19.10	0.718	0.469	22.2
Right tilted	20	QPSK1_49	167300/836.5	100%	0.599	-0.08	20.54	19.10	0.718	0.430	22.2
Right cheek	20	QPSK1_49	166800/834	100%	0.748	-0.04	20.45	19.10	0.733	0.548	22.2
Right cheek	20	QPSK1_49	167800/839	100%	0.662	-0.18	20.49	19.10	0.726	0.481	22.2
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK25_13	167300/836.5	100%	0.488	-0.02	20.43	19.10	0.736	0.359	22.2
Left tilted	20	QPSK25_13	167300/836.5	100%	0.462	0.00	20.43	19.10	0.736	0.340	22.2
Right cheek	20	QPSK25_13	167300/836.5	100%	0.701	-0.13	20.43	19.10	0.736	0.516	22.2
Right tilted	20	QPSK25_13	167300/836.5	100%	0.649	-0.03	20.43	19.10	0.736	0.478	22.2
Right cheek	20	QPSK25_13	166800/834	100%	0.580	-0.02	20.26	19.10	0.766	0.444	22.2
Right cheek	20	QPSK25_13	167800/839	100%	0.602	-0.01	20.42	19.10	0.738	0.444	22.2
Right tilted	20	QPSK25_13	166800/834	100%	0.501	-0.04	20.26	19.10	0.766	0.384	22.2
Right tilted	20	QPSK25_13	167800/839	100%	0.582	0.00	20.42	19.10	0.738	0.429	22.2
Head Test Data(100%RB) ENDC Simultaneous transmission											
Right cheek	20	QPSK50_0	167800/839	100%	0.626	-0.14	19.41	18.10	0.740	0.463	22.2
Right tilted	20	QPSK50_0	167800/839	100%	0.504	0.01	19.41	18.10	0.740	0.373	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_49	167300/836.5	100%	0.209	0.01	23.51	24.60	1.285	0.269	22.2
Back side	20	QPSK1_49	167300/836.5	100%	0.217	0.08	23.51	24.60	1.285	0.279	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.222	0.15	23.44	24.60	1.306	0.290	22.2
Back side	20	QPSK25_13	167800/839	100%	0.224	0.07	23.44	24.60	1.306	**0.293**	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_49	167300/836.5	100%	0.243	0.05	23.51	24.60	1.285	0.312	22.2

Back side	20	QPSK1_49	167300/836.5	100%	0.323	0.02	23.51	24.60	1.285	0.415	22.2
Left side	20	QPSK1_49	167300/836.5	100%	0.230	0.01	23.51	24.60	1.285	0.296	22.2
Top side	20	QPSK1_49	167300/836.5	100%	0.202	0.02	23.51	24.60	1.285	0.260	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.243	0.01	23.44	24.60	1.306	0.317	22.2
Back side	20	QPSK25_13	167800/839	100%	0.323	0.18	23.44	24.60	1.306	**0.422**	22.2
Left side	20	QPSK25_13	167800/839	100%	0.212	0.15	23.44	24.60	1.306	0.277	22.2
Top side	20	QPSK25_13	167800/839	100%	0.249	0.03	23.44	24.60	1.306	0.325	22.2
Ant 31 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK1_49	167800/839	100%	0.049	0.05	24.25	24.60	1.084	0.053	22.1
Left tilted	20	QPSK1_49	167800/839	100%	0.023	0.15	24.25	24.60	1.084	0.025	22.1
Right cheek	20	QPSK1_49	167800/839	100%	0.050	0.01	24.25	24.60	1.084	0.054	22.1
Right tilted	20	QPSK1_49	167800/839	100%	0.020	0.02	24.25	24.60	1.084	0.022	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	167800/839	100%	0.048	0.03	24.18	24.60	1.102	0.053	22.1
Left tilted	20	QPSK25_13	167800/839	100%	0.021	0.11	24.18	24.60	1.102	0.023	22.1
Right cheek	20	QPSK25_13	167800/839	100%	0.046	0.01	24.18	24.60	1.102	0.051	22.1
Right tilted	20	QPSK25_13	167800/839	100%	0.020	-0.13	24.18	24.60	1.102	0.022	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.035	-0.16	24.25	24.60	1.084	0.038	22.1
Back side	20	QPSK1_49	167800/839	100%	0.043	0.01	24.25	24.60	1.084	0.046	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.044	0.01	24.18	24.60	1.102	0.049	22.2
Back side	20	QPSK25_13	167800/839	100%	0.040	-0.01	24.18	24.60	1.102	0.044	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.070	-0.03	24.25	24.60	1.084	0.076	22.1
Back side	20	QPSK1_49	167800/839	100%	0.090	0.02	24.25	24.60	1.084	0.098	22.1
Left side	20	QPSK1_49	167800/839	100%	0.032	0.11	24.25	24.60	1.084	0.035	22.1
Right side	20	QPSK1_49	167800/839	100%	0.041	0.02	24.25	24.60	1.084	0.045	22.1
Bottom side	20	QPSK1_49	167800/839	100%	0.066	0.13	24.25	24.60	1.084	0.072	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.066	-0.09	24.18	24.60	1.102	0.072	22.2
Back side	20	QPSK25_13	167800/839	100%	0.085	-0.08	24.18	24.60	1.102	0.094	22.2
Left side	20	QPSK25_13	167800/839	100%	0.062	0.02	24.18	24.60	1.102	0.068	22.2
Right side	20	QPSK25_13	167800/839	100%	0.044	0.08	24.18	24.60	1.102	0.048	22.2
Bottom side	20	QPSK25_13	167800/839	100%	0.067	0.05	24.18	24.60	1.102	0.073	22.2

Table 27：SAR of 5G NR n5 for Head and Body.

8.2.6 SAR Result of 5G NR n7

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_26	512000/2560	100%	0.132	0.04	15.10	16.00	1.230	0.162	22.2
Left tilted	20	QPSK1_26	512000/2560	100%	0.038	0.07	15.10	16.00	1.230	0.047	22.2
Right cheek	20	QPSK1_26	512000/2560	100%	0.242	0.06	15.10	16.00	1.230	0.298	22.2
Right tilted	20	QPSK1_26	512000/2560	100%	0.055	0.07	15.10	16.00	1.230	0.068	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	507000/2535	100%	0.145	0.12	15.17	16.00	1.211	0.176	22.2
Left tilted	20	QPSK25_13	507000/2535	100%	0.046	0.01	15.17	16.00	1.211	0.056	22.2
Right cheek	20	QPSK25_13	507000/2535	100%	0.222	0.02	15.17	16.00	1.211	0.269	22.2
Right tilted	20	QPSK25_13	507000/2535	100%	0.058	0.02	15.17	16.00	1.211	0.071	22.2
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK1_26	512000/2560	100%	0.132	0.04	15.10	13.00	0.617	0.081	22.2
Left tilted	20	QPSK1_26	512000/2560	100%	0.038	0.07	15.10	13.00	0.617	0.023	22.2
Right cheek	20	QPSK1_26	512000/2560	100%	0.242	0.06	15.10	13.00	0.617	0.149	22.2
Right tilted	20	QPSK1_26	512000/2560	100%	0.055	0.07	15.10	13.00	0.617	0.034	22.2
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK25_13	507000/2535	100%	0.145	0.12	15.17	13.00	0.607	0.088	22.2
Left tilted	20	QPSK25_13	507000/2535	100%	0.046	0.01	15.17	13.00	0.607	0.028	22.2
Right cheek	20	QPSK25_13	507000/2535	100%	0.222	0.02	15.17	13.00	0.607	0.135	22.2
Right tilted	20	QPSK25_13	507000/2535	100%	0.058	0.02	15.17	13.00	0.607	0.035	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_26	512000/2560	100%	0.221	0.03	23.09	24.00	1.233	0.273	22.2
Back side	20	QPSK1_26	512000/2560	100%	0.337	0.06	23.09	24.00	1.233	0.416	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	507000/2535	100%	0.253	0.06	23.14	24.00	1.219	0.308	22.2
Back side	20	QPSK25_13	507000/2535	100%	0.350	0.02	23.14	24.00	1.219	**0.427**	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_26	512000/2560	100%	0.099	0.10	17.62	18.50	1.225	0.121	22.2
Back side	20	QPSK1_26	512000/2560	100%	0.213	0.03	17.62	18.50	1.225	0.261	22.2
Left side	20	QPSK1_26	512000/2560	100%	0.249	0.08	17.62	18.50	1.225	0.305	22.2
Top side	20	QPSK1_26	512000/2560	100%	0.014	0.05	17.62	18.50	1.225	0.018	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	512000/2560	100%	0.132	0.08	17.71	18.50	1.199	0.158	22.2
Back side	20	QPSK25_13	512000/2560	100%	0.230	0.08	17.71	18.50	1.199	0.276	22.2
Left side	20	QPSK25_13	512000/2560	100%	0.265	-0.08	17.71	18.50	1.199	0.318	22.2
Top side	20	QPSK25_13	512000/2560	100%	0.016	-0.17	17.71	18.50	1.199	0.019	22.2
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_26	512000/2560	100%	0.174	0.06	23.37	24.00	1.156	0.201	22.2
Left tilted	20	QPSK1_26	512000/2560	100%	0.184	0.02	23.37	24.00	1.156	0.213	22.2
Right cheek	20	QPSK1_26	512000/2560	100%	0.394	0.04	23.37	24.00	1.156	0.456	22.2
Right tilted	20	QPSK1_26	512000/2560	100%	0.123	0.02	23.37	24.00	1.156	0.142	22.2

Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	512000/2560	100%	0.212	0.03	23.41	24.00	1.146	0.243	22.2
Left tilted	20	QPSK25_13	512000/2560	100%	0.185	0.07	23.41	24.00	1.146	0.212	22.2
Right cheek	20	QPSK25_13	512000/2560	100%	0.410	0.09	23.41	24.00	1.146	**0.470**	22.2
Right tilted	20	QPSK25_13	512000/2560	100%	0.164	0.08	23.41	24.00	1.146	0.188	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_26	512000/2560	100%	0.142	-0.02	20.38	21.00	1.153	0.164	22.2
Back side	20	QPSK1_26	512000/2560	100%	0.220	-0.03	20.38	21.00	1.153	0.254	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	512000/2560	100%	0.143	-0.05	20.43	21.00	1.140	0.163	22.2
Back side	20	QPSK25_13	512000/2560	100%	0.221	0.16	20.43	21.00	1.140	0.252	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_26	512000/2560	100%	0.234	-0.02	20.38	21.00	1.153	0.270	22.2
Back side	20	QPSK1_26	512000/2560	100%	0.391	0.17	20.38	21.00	1.153	0.451	22.2
Left side	20	QPSK1_26	512000/2560	100%	0.052	0.02	20.38	21.00	1.153	0.060	22.2
Right side	20	QPSK1_26	512000/2560	100%	0.234	-0.03	20.38	21.00	1.153	0.270	22.2
Bottom side	20	QPSK1_26	512000/2560	100%	0.242	-0.01	20.38	21.00	1.153	0.279	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	512000/2560	100%	0.232	-0.14	20.43	21.00	1.140	0.265	22.2
Back side	20	QPSK25_13	512000/2560	100%	0.428	-0.01	20.43	21.00	1.140	**0.488**	22.2
Left side	20	QPSK25_13	512000/2560	100%	0.052	-0.01	20.43	21.00	1.140	0.059	22.2
Right side	20	QPSK25_13	512000/2560	100%	0.235	0.14	20.43	21.00	1.140	0.268	22.2
Bottom side	20	QPSK25_13	512000/2560	100%	0.224	-0.05	20.43	21.00	1.140	0.255	22.2

Table 28：SAR of 5G NR n7 for Head and Body.

8.2.7 SAR Result of 5G NR n26

Ant 13 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_49	167800/839	100%	0.372	-0.01	20.53	21.60	1.279	0.476	22.3
Left tilted	20	QPSK1_49	167800/839	100%	0.319	0.08	20.53	21.60	1.279	0.408	22.3
Right cheek	20	QPSK1_49	167800/839	100%	0.414	-0.17	20.53	21.60	1.279	0.530	22.3
Right tilted	20	QPSK1_49	167800/839	100%	0.367	0.03	20.53	21.60	1.279	0.470	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	167800/839	100%	0.421	0.10	20.49	21.60	1.291	0.544	22.3
Left tilted	20	QPSK25_13	167800/839	100%	0.340	-0.05	20.49	21.60	1.291	0.439	22.3
Right cheek	20	QPSK25_13	167800/839	100%	0.535	0.00	20.49	21.60	1.291	**0.691**	22.3
Right tilted	20	QPSK25_13	167800/839	100%	0.431	-0.03	20.49	21.60	1.291	0.557	22.3
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK1_49	167800/839	100%	0.372	-0.01	20.53	19.10	0.719	0.268	22.3
Left tilted	20	QPSK1_49	167800/839	100%	0.319	0.08	20.53	19.10	0.719	0.230	22.3
Right cheek	20	QPSK1_49	167800/839	100%	0.414	-0.17	20.53	19.10	0.719	0.298	22.3
Right tilted	20	QPSK1_49	167800/839	100%	0.367	0.03	20.53	19.10	0.719	0.264	22.3
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK25_13	167800/839	100%	0.421	0.10	20.49	19.10	0.726	0.306	22.3
Left tilted	20	QPSK25_13	167800/839	100%	0.340	-0.05	20.49	19.10	0.726	0.247	22.3
Right cheek	20	QPSK25_13	167800/839	100%	0.535	0.00	20.49	19.10	0.726	0.388	22.3
Right tilted	20	QPSK25_13	167800/839	100%	0.431	-0.03	20.49	19.10	0.726	0.313	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.158	-0.08	23.46	24.60	1.300	0.205	22.3
Back side	20	QPSK1_49	167800/839	100%	0.193	0.06	23.46	24.60	1.300	0.251	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.182	-0.17	23.42	24.60	1.312	0.239	22.3
Back side	20	QPSK25_13	167800/839	100%	0.216	-0.02	23.42	24.60	1.312	**0.283**	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.128	0.04	20.53	21.60	1.279	0.164	22.3
Back side	20	QPSK1_49	167800/839	100%	0.174	0.04	20.53	21.60	1.279	0.223	22.3
Left side	20	QPSK1_49	167800/839	100%	0.103	0.10	20.53	21.60	1.279	0.132	22.3
Top side	20	QPSK1_49	167800/839	100%	0.120	-0.04	20.53	21.60	1.279	0.154	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.139	0.04	20.49	21.60	1.291	0.179	22.3
Back side	20	QPSK25_13	167800/839	100%	0.187	0.11	20.49	21.60	1.291	**0.241**	22.3
Left side	20	QPSK25_13	167800/839	100%	0.112	0.09	20.49	21.60	1.291	0.145	22.3
Top side	20	QPSK25_13	167800/839	100%	0.132	0.05	20.49	21.60	1.291	0.170	22.3
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_49	167800/839	100%	0.051	-0.05	24.13	24.60	1.114	0.056	22.1
Left tilted	20	QPSK1_49	167800/839	100%	0.023	0.07	24.13	24.60	1.114	0.025	22.1
Right cheek	20	QPSK1_49	167800/839	100%	0.051	0.02	24.13	24.60	1.114	0.057	22.1
Right tilted	20	QPSK1_49	167800/839	100%	0.021	0.14	24.13	24.60	1.114	0.024	22.1

Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	167800/839	100%	0.046	0.04	24.10	24.60	1.122	0.052	22.1
Left tilted	20	QPSK25_13	167800/839	100%	0.021	0.01	24.10	24.60	1.122	0.024	22.1
Right cheek	20	QPSK25_13	167800/839	100%	0.047	0.06	24.10	24.60	1.122	0.053	22.1
Right tilted	20	QPSK25_13	167800/839	100%	0.020	0.04	24.10	24.60	1.122	0.022	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.035	0.02	24.13	24.60	1.114	0.039	22.1
Back side	20	QPSK1_49	167800/839	100%	0.058	0.01	24.13	24.60	1.114	0.064	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.035	-0.08	24.10	24.60	1.122	0.040	22.1
Back side	20	QPSK25_13	167800/839	100%	0.048	0.02	24.10	24.60	1.122	0.054	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_49	167800/839	100%	0.081	0.10	24.13	24.60	1.114	0.090	22.1
Back side	20	QPSK1_49	167800/839	100%	0.112	0.09	24.13	24.60	1.114	0.125	22.1
Left side	20	QPSK1_49	167800/839	100%	0.072	0.13	24.13	24.60	1.114	0.080	22.1
Right side	20	QPSK1_49	167800/839	100%	0.046	0.06	24.13	24.60	1.114	0.052	22.1
Bottom side	20	QPSK1_49	167800/839	100%	0.078	0.03	24.13	24.60	1.114	0.087	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	167800/839	100%	0.076	0.03	24.10	24.60	1.122	0.085	22.1
Back side	20	QPSK25_13	167800/839	100%	0.096	0.04	24.10	24.60	1.122	0.107	22.1
Left side	20	QPSK25_13	167800/839	100%	0.067	0.11	24.10	24.60	1.122	0.075	22.1
Right side	20	QPSK25_13	167800/839	100%	0.049	0.03	24.10	24.60	1.122	0.055	22.1
Bottom side	20	QPSK25_13	167800/839	100%	0.071	0.09	24.10	24.60	1.122	0.079	22.1

Table 29：SAR of 5G NR n26 for Head and Body.

8.2.8 SAR Result of 5G NR n38

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_26	519000/2595	100%	0.128	0.07	15.23	16.00	1.194	0.153	22.1
Left tilted	20	QPSK1_26	519000/2595	100%	0.016	0.17	15.23	16.00	1.194	0.019	22.1
Right cheek	20	QPSK1_26	519000/2595	100%	0.246	0.05	15.23	16.00	1.194	0.294	22.1
Right tilted	20	QPSK1_26	519000/2595	100%	0.032	0.06	15.23	16.00	1.194	0.038	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK25_13	516000/2580	100%	0.156	0.04	15.16	16.00	1.213	0.189	22.1
Left tilted	20	QPSK25_13	516000/2580	100%	0.036	0.05	15.16	16.00	1.213	0.044	22.1
Right cheek	20	QPSK25_13	516000/2580	100%	0.325	0.04	15.16	16.00	1.213	0.394	22.1
Right tilted	20	QPSK25_13	516000/2580	100%	0.062	0.02	15.16	16.00	1.213	0.075	22.1
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK1_26	519000/2595	100%	0.128	0.07	15.23	14.00	0.753	0.096	22.1
Left tilted	20	QPSK1_26	519000/2595	100%	0.016	0.17	15.23	14.00	0.753	0.012	22.1
Right cheek	20	QPSK1_26	519000/2595	100%	0.246	0.05	15.23	14.00	0.753	0.185	22.1
Right tilted	20	QPSK1_26	519000/2595	100%	0.032	0.06	15.23	14.00	0.753	0.024	22.1
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	20	QPSK25_13	516000/2580	100%	0.156	0.04	15.16	14.00	0.766	0.119	22.1
Left tilted	20	QPSK25_13	516000/2580	100%	0.036	0.05	15.16	14.00	0.766	0.028	22.1
Right cheek	20	QPSK25_13	516000/2580	100%	0.325	0.04	15.16	14.00	0.766	0.249	22.1
Right tilted	20	QPSK25_13	516000/2580	100%	0.062	0.02	15.16	14.00	0.766	0.047	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_26	519000/2595	100%	0.206	0.03	24.21	25.00	1.199	0.247	22.1
Back side	20	QPSK1_26	519000/2595	100%	0.319	-0.09	24.21	25.00	1.199	0.383	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	519000/2595	100%	0.210	0.07	24.13	25.00	1.222	0.257	22.1
Back side	20	QPSK25_13	519000/2595	100%	0.315	0.08	24.13	25.00	1.222	**0.385**	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_26	519000/2595	100%	0.100	0.07	17.77	18.50	1.183	0.118	22.1
Back side	20	QPSK1_26	519000/2595	100%	0.165	0.04	17.77	18.50	1.183	0.195	22.1
Left side	20	QPSK1_26	519000/2595	100%	0.215	-0.06	17.77	18.50	1.183	0.254	22.1
Top side	20	QPSK1_26	519000/2595	100%	0.022	-0.07	17.77	18.50	1.183	0.027	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	522000/2610	100%	0.105	0.06	17.83	18.50	1.167	0.123	22.1
Back side	20	QPSK25_13	522000/2610	100%	0.173	0.09	17.83	18.50	1.167	0.202	22.1
Left side	20	QPSK25_13	522000/2610	100%	0.230	0.08	17.83	18.50	1.167	0.268	22.1
Top side	20	QPSK25_13	522000/2610	100%	0.023	0.09	17.83	18.50	1.167	0.027	22.1
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK1_26	522000/2610	100%	0.212	0.03	24.57	25.00	1.104	0.234	22.1
Left tilted	20	QPSK1_26	522000/2610	100%	0.159	0.01	24.57	25.00	1.104	0.176	22.1
Right cheek	20	QPSK1_26	522000/2610	100%	0.481	0.11	24.57	25.00	1.104	0.531	22.1
Right tilted	20	QPSK1_26	522000/2610	100%	0.147	0.05	24.57	25.00	1.104	0.162	22.1
Head Test Data(50%RB)											

Left cheek	20	QPSK25_13	516000/2580	100%	0.239	0.02	24.37	25.00	1.156	0.276	22.1
Left tilted	20	QPSK25_13	516000/2580	100%	0.240	0.06	24.37	25.00	1.156	0.277	22.1
Right cheek	20	QPSK25_13	516000/2580	100%	0.511	0.06	24.37	25.00	1.156	**0.591**	22.1
Right tilted	20	QPSK25_13	516000/2580	100%	0.150	0.08	24.37	25.00	1.156	0.173	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK1_26	519000/2595	100%	0.214	0.11	21.99	22.50	1.125	0.241	22.1
Back side	20	QPSK1_26	519000/2595	100%	0.288	-0.06	21.99	22.50	1.125	0.324	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK25_13	519000/2595	100%	0.206	-0.01	21.83	22.50	1.167	0.240	22.1
Back side	20	QPSK25_13	519000/2595	100%	0.296	0.03	21.83	22.50	1.167	0.345	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK1_26	519000/2595	100%	0.326	-0.05	21.99	22.50	1.125	0.367	22.1
Back side	20	QPSK1_26	519000/2595	100%	0.560	0.04	21.99	22.50	1.125	0.630	22.1
Left side	20	QPSK1_26	519000/2595	100%	0.058	-0.13	21.99	22.50	1.125	0.065	22.1
Right side	20	QPSK1_26	519000/2595	100%	0.308	0.11	21.99	22.50	1.125	0.346	22.1
Bottom side	20	QPSK1_26	519000/2595	100%	0.291	-0.06	21.99	22.50	1.125	0.327	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK25_13	519000/2595	100%	0.340	0.11	21.83	22.50	1.167	0.397	22.1
Back side	20	QPSK25_13	519000/2595	100%	0.586	-0.01	21.83	22.50	1.167	**0.684**	22.1
Left side	20	QPSK25_13	519000/2595	100%	0.057	0.12	21.83	22.50	1.167	0.066	22.1
Right side	20	QPSK25_13	519000/2595	100%	0.297	0.13	21.83	22.50	1.167	0.347	22.1
Bottom side	20	QPSK25_13	519000/2595	100%	0.259	0.08	21.83	22.50	1.167	0.302	22.1

Table 30：SAR of 5G NR n38 for Head and Body.

8.2.9 SAR Result of 5G NR n41

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	100	QPSK1_137	518598/2592.99	100%	0.097	0.07	14.04	15.00	1.247	0.120	22.1
Left tilted	100	QPSK1_137	518598/2592.99	100%	0.020	0.19	14.04	15.00	1.247	0.025	22.1
Right cheek	100	QPSK1_137	518598/2592.99	100%	0.234	0.02	14.04	15.00	1.247	0.292	22.1
Right tilted	100	QPSK1_137	518598/2592.99	100%	0.045	-0.12	14.04	15.00	1.247	0.056	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK135_69	528000/2640	100%	0.120	-0.16	14.11	15.00	1.227	0.147	22.1
Left tilted	100	QPSK135_69	528000/2640	100%	0.014	0.02	14.11	15.00	1.227	0.017	22.1
Right cheek	100	QPSK135_69	528000/2640	100%	0.269	0.06	14.11	15.00	1.227	0.330	22.1
Right tilted	100	QPSK135_69	528000/2640	100%	0.050	0.11	14.11	15.00	1.227	0.061	22.1
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK1_137	518598/2592.99	100%	0.097	0.07	14.04	12.00	0.625	0.060	22.1
Left tilted	100	QPSK1_137	518598/2592.99	100%	0.020	0.19	14.04	12.00	0.625	0.013	22.1
Right cheek	100	QPSK1_137	518598/2592.99	100%	0.234	0.02	14.04	12.00	0.625	0.146	22.1
Right tilted	100	QPSK1_137	518598/2592.99	100%	0.045	-0.12	14.04	12.00	0.625	0.028	22.1
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK135_69	528000/2640	100%	0.120	-0.16	14.11	12.00	0.615	0.074	22.1
Left tilted	100	QPSK135_69	528000/2640	100%	0.014	0.02	14.11	12.00	0.615	0.009	22.1
Right cheek	100	QPSK135_69	528000/2640	100%	0.269	0.06	14.11	12.00	0.615	0.165	22.1
Right tilted	100	QPSK135_69	528000/2640	100%	0.050	0.11	14.11	12.00	0.615	0.031	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK1_137	518598/2592.99	100%	0.204	-0.09	24.12	25.00	1.225	0.250	22.1
Back side	100	QPSK1_137	518598/2592.99	100%	0.280	0.09	24.12	25.00	1.225	0.343	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK135_69	528000/2640	100%	0.195	0.02	24.20	25.00	1.202	0.234	22.1
Back side	100	QPSK135_69	528000/2640	100%	0.343	0.04	24.20	25.00	1.202	**0.412**	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK1_137	518598/2592.99	100%	0.104	0.00	18.13	19.00	1.222	0.127	22.1
Back side	100	QPSK1_137	518598/2592.99	100%	0.189	0.02	18.13	19.00	1.222	0.231	22.1
Left side	100	QPSK1_137	518598/2592.99	100%	0.240	0.02	18.13	19.00	1.222	0.293	22.1
Top side	100	QPSK1_137	518598/2592.99	100%	0.027	0.03	18.13	19.00	1.222	0.033	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK135_69	518598/2592.99	100%	0.100	-0.19	18.20	19.00	1.202	0.120	22.1
Back side	100	QPSK135_69	518598/2592.99	100%	0.179	0.03	18.20	19.00	1.202	0.215	22.1
Left side	100	QPSK135_69	518598/2592.99	100%	0.234	0.05	18.20	19.00	1.202	0.281	22.1
Top side	100	QPSK135_69	518598/2592.99	100%	0.023	0.03	18.20	19.00	1.202	0.027	22.1
Ant 31 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	100	QPSK1_137	528000/2640	100%	0.167	-0.05	24.47	25.00	1.130	0.189	22.3
Left tilted	100	QPSK1_137	528000/2640	100%	0.124	0.06	24.47	25.00	1.130	0.140	22.3
Right cheek	100	QPSK1_137	528000/2640	100%	0.334	0.04	24.47	25.00	1.130	**0.377**	22.3
Right tilted	100	QPSK1_137	528000/2640	100%	0.113	-0.06	24.47	25.00	1.130	0.128	22.3
Head Test Data(50%RB)											

Left cheek	100	QPSK135_69	528000/2640	100%	0.177	0.03	24.51	25.00	1.119	0.198	22.3
Left tilted	100	QPSK135_69	528000/2640	100%	0.133	0.06	24.51	25.00	1.119	0.149	22.3
Right cheek	100	QPSK135_69	528000/2640	100%	0.336	0.09	24.51	25.00	1.119	0.376	22.3
Right tilted	100	QPSK135_69	528000/2640	100%	0.116	-0.06	24.51	25.00	1.119	0.130	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK1_137	523302/2616.51	100%	0.192	0.01	20.99	21.50	1.125	0.216	22.3
Back side	100	QPSK1_137	523302/2616.51	100%	0.261	0.06	20.99	21.50	1.125	0.294	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK135_69	528000/2640	100%	0.157	0.01	21.03	21.50	1.114	0.175	22.3
Back side	100	QPSK135_69	528000/2640	100%	0.242	0.05	21.03	21.50	1.114	0.270	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK1_137	523302/2616.51	100%	0.295	-0.06	20.99	21.50	1.125	0.332	22.3
Back side	100	QPSK1_137	523302/2616.51	100%	0.512	0.08	20.99	21.50	1.125	**0.576**	22.3
Left side	100	QPSK1_137	523302/2616.51	100%	0.050	-0.15	20.99	21.50	1.125	0.056	22.3
Right side	100	QPSK1_137	523302/2616.51	100%	0.277	0.02	20.99	21.50	1.125	0.312	22.3
Bottom side	100	QPSK1_137	523302/2616.51	100%	0.268	-0.05	20.99	21.50	1.125	0.301	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK135_69	528000/2640	100%	0.279	-0.15	21.03	21.50	1.114	0.311	22.3
Back side	100	QPSK135_69	528000/2640	100%	0.478	0.06	21.03	21.50	1.114	0.533	22.3
Left side	100	QPSK135_69	528000/2640	100%	0.047	-0.11	21.03	21.50	1.114	0.053	22.3
Right side	100	QPSK135_69	528000/2640	100%	0.257	0.11	21.03	21.50	1.114	0.286	22.3
Bottom side	100	QPSK135_69	528000/2640	100%	0.279	0.02	21.03	21.50	1.114	0.311	22.3

Table 31：SAR of 5G NR n41 for Head and Body.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编：518057 t (86-755) 26012053 sgs.china@sgs.com

8.2.10 SAR Result of 5G NR n66

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	40	QPSK 1_53	349000/1745	100%	0.327	-0.19	18.37	19.00	1.156	0.378	22.1
Left tilted	40	QPSK 1_53	349000/1745	100%	0.135	0.05	18.37	19.00	1.156	0.156	22.1
Right cheek	40	QPSK 1_53	349000/1745	100%	0.836	0.04	18.37	19.00	1.156	**0.967**	22.1
Right tilted	40	QPSK 1_53	349000/1745	100%	0.159	0.05	18.37	19.00	1.156	0.184	22.1
Right cheek	40	QPSK 1_53	346000/1730	100%	0.810	-0.03	18.35	19.00	1.161	0.941	22.1
Right cheek	40	QPSK 1_53	352000/1760	100%	0.708	0.02	18.34	19.00	1.164	0.824	22.1
Right cheek-Repeat	40	QPSK 1_53	349000/1745	100%	0.823	0.14	18.37	19.00	1.156	0.951	22.1
Head Test Data(50%RB)											
Left cheek	40	QPSK 50_28	346000/1730	100%	0.341	-0.11	18.46	19.00	1.132	0.386	22.1
Left tilted	40	QPSK 50_28	346000/1730	100%	0.145	0.13	18.46	19.00	1.132	0.164	22.1
Right cheek	40	QPSK 50_28	346000/1730	100%	0.801	-0.17	18.46	19.00	1.132	0.907	22.1
Right tilted	40	QPSK 50_28	346000/1730	100%	0.167	0.12	18.46	19.00	1.132	0.189	22.1
Right cheek	40	QPSK 50_28	349000/1745	100%	0.764	-0.02	18.44	19.00	1.138	0.869	22.1
Right cheek	40	QPSK 50_28	352000/1760	100%	0.758	-0.09	18.43	19.00	1.140	0.864	22.1
Head Test Data(100%RB)											
Right cheek	40	QPSK 100_0	346000/1730	100%	0.581	0.04	17.43	18.00	1.140	0.662	22.1
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	40	QPSK 1_53	349000/1745	100%	0.327	-0.19	18.37	16.00	0.579	0.189	22.1
Left tilted	40	QPSK 1_53	349000/1745	100%	0.135	0.05	18.37	16.00	0.579	0.078	22.1
Right cheek	40	QPSK 1_53	349000/1745	100%	0.836	0.04	18.37	16.00	0.579	0.484	22.1
Right tilted	40	QPSK 1_53	349000/1745	100%	0.159	0.05	18.37	16.00	0.579	0.092	22.1
Right cheek	40	QPSK 1_53	346000/1730	100%	0.810	-0.03	18.35	16.00	0.582	0.472	22.1
Right cheek	40	QPSK 1_53	352000/1760	100%	0.708	0.02	18.34	16.00	0.583	0.413	22.1
Right cheek-Repeat	40	QPSK 1_53	349000/1745	100%	0.823	0.14	18.37	16.00	0.579	0.477	22.1
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	40	QPSK 50_28	346000/1730	100%	0.341	-0.11	18.46	16.00	0.568	0.194	22.1
Left tilted	40	QPSK 50_28	346000/1730	100%	0.145	0.13	18.46	16.00	0.568	0.082	22.1
Right cheek	40	QPSK 50_28	346000/1730	100%	0.801	-0.17	18.46	16.00	0.568	0.455	22.1
Right tilted	40	QPSK 50_28	346000/1730	100%	0.167	0.12	18.46	16.00	0.568	0.095	22.1
Right cheek	40	QPSK 50_28	349000/1745	100%	0.764	-0.02	18.44	16.00	0.570	0.436	22.1
Right cheek	40	QPSK 50_28	352000/1760	100%	0.758	-0.09	18.43	16.00	0.571	0.433	22.1
Head Test Data(100%RB) ENDC Simultaneous transmission											
Right cheek	40	QPSK 100_0	346000/1730	100%	0.581	0.04	17.43	15.00	0.571	0.332	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_53	349000/1745	100%	0.239	-0.04	23.35	24.00	1.161	0.278	22.1
Back side	40	QPSK 1_53	349000/1745	100%	0.352	-0.04	23.35	24.00	1.161	0.409	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	346000/1730	100%	0.269	0.17	23.41	24.00	1.146	0.308	22.1
Back side	40	QPSK 50_28	346000/1730	100%	0.387	-0.10	23.41	24.00	1.146	**0.443**	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_53	349000/1745	100%	0.113	-0.02	16.95	17.50	1.135	0.128	22.1
Back side	40	QPSK 1_53	349000/1745	100%	0.212	-0.05	16.95	17.50	1.135	0.241	22.1
Left side	40	QPSK 1_53	349000/1745	100%	0.253	-0.04	16.95	17.50	1.135	0.287	22.1
Top side	40	QPSK 1_53	349000/1745	100%	0.013	-0.06	16.95	17.50	1.135	0.015	22.1

Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	349000/1745	100%	0.129	-0.01	17.03	17.50	1.114	0.144	22.1
Back side	40	QPSK 50_28	349000/1745	100%	0.202	-0.13	17.03	17.50	1.114	0.225	22.1
Left side	40	QPSK 50_28	349000/1745	100%	0.291	-0.01	17.03	17.50	1.114	0.324	22.1
Top side	40	QPSK 50_28	349000/1745	100%	0.013	-0.08	17.03	17.50	1.114	0.015	22.1
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Left side	40	QPSK 1_53	349000/1745	100%	0.727	-0.03	16.95	17.50	1.135	0.825	22.1
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											
Left side	40	QPSK 50_28	349000/1745	100%	0.735	-0.05	17.03	17.50	1.114	0.819	22.1
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Left side-8mm	40	QPSK 1_53	349000/1745	100%	0.802	-0.15	23.35	24.00	1.161	**0.931**	22.1
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Left side-8mm	40	QPSK 50_28	346000/1730	100%	0.781	-0.16	23.41	24.00	1.146	0.895	22.1
Ant 13 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	40	QPSK 1_53	349000/1745	100%	0.217	0.10	13.91	15.00	1.285	0.279	22.1
Left tilted	40	QPSK 1_53	349000/1745	100%	0.323	0.04	13.91	15.00	1.285	0.415	22.1
Right cheek	40	QPSK 1_53	349000/1745	100%	0.415	-0.11	13.91	15.00	1.285	0.533	22.1
Right tilted	40	QPSK 1_53	349000/1745	100%	0.481	-0.05	13.91	15.00	1.285	0.618	22.1
Head Test Data(50%RB)											
Left cheek	40	QPSK 50_28	346000/1730	100%	0.207	0.06	13.99	15.00	1.262	0.261	22.1
Left tilted	40	QPSK 50_28	346000/1730	100%	0.246	-0.10	13.99	15.00	1.262	0.310	22.1
Right cheek	40	QPSK 50_28	346000/1730	100%	0.318	0.06	13.99	15.00	1.262	0.401	22.1
Right tilted	40	QPSK 50_28	346000/1730	100%	0.468	-0.03	13.99	15.00	1.262	0.591	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_53	349000/1745	100%	0.247	0.04	22.85	24.00	1.303	0.322	22.1
Back side	40	QPSK 1_53	349000/1745	100%	0.286	0.09	22.85	24.00	1.303	0.373	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	346000/1730	100%	0.218	0.03	22.91	24.00	1.285	0.280	22.1
Back side	40	QPSK 50_28	346000/1730	100%	0.259	0.06	22.91	24.00	1.285	0.333	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_53	349000/1745	100%	0.147	0.06	17.88	19.00	1.294	0.190	22.1
Back side	40	QPSK 1_53	349000/1745	100%	0.181	0.05	17.88	19.00	1.294	0.234	22.1
Left side	40	QPSK 1_53	349000/1745	100%	0.050	0.06	17.88	19.00	1.294	0.065	22.1
Top side	40	QPSK 1_53	349000/1745	100%	0.274	0.09	17.88	19.00	1.294	**0.355**	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	346000/1730	100%	0.153	0.01	17.94	19.00	1.276	0.195	22.1
Back side	40	QPSK 50_28	346000/1730	100%	0.166	0.19	17.94	19.00	1.276	0.212	22.1
Left side	40	QPSK 50_28	346000/1730	100%	0.040	0.08	17.94	19.00	1.276	0.051	22.1
Top side	40	QPSK 50_28	346000/1730	100%	0.233	-0.12	17.94	19.00	1.276	0.297	22.1

Table 32：SAR of 5G NR n66 for Head and Body and Product specific 10g SAR.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right cheek	349000/1745	0.836	0.823	1.016	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						
5) The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds. The repeated measurement results must be clearly identified in the SAR report.						

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

8.2.11 SAR Result of 5G NR n77

n77 (3450-3550):

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	633334/3500	100%	0.265	0.05	16.05	17.00	1.245	0.330	22.8
Left tilted	100	QPSK 1_137	633334/3500	100%	0.086	0.09	16.05	17.00	1.245	0.107	22.8
Right cheek	100	QPSK 1_137	633334/3500	100%	0.582	0.09	16.05	17.00	1.245	0.724	22.8
Right tilted	100	QPSK 1_137	633334/3500	100%	0.128	0.09	16.05	17.00	1.245	0.159	22.8
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500	100%	0.242	0.04	16.13	17.00	1.222	0.296	22.8
Left tilted	100	QPSK 135_69	633334/3500	100%	0.074	0.03	16.13	17.00	1.222	0.090	22.8
Right cheek	100	QPSK 135_69	633334/3500	100%	0.415	0.09	16.13	17.00	1.222	0.507	22.8
Right tilted	100	QPSK 135_69	633334/3500	100%	0.112	0.04	16.13	17.00	1.222	0.137	22.8
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 1_137	633334/3500	100%	0.265	0.05	16.05	14.00	0.624	0.165	22.8
Left tilted	100	QPSK 1_137	633334/3500	100%	0.086	0.09	16.05	14.00	0.624	0.054	22.8
Right cheek	100	QPSK 1_137	633334/3500	100%	0.582	0.09	16.05	14.00	0.624	0.363	22.8
Right tilted	100	QPSK 1_137	633334/3500	100%	0.128	0.09	16.05	14.00	0.624	0.080	22.8
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 135_69	633334/3500	100%	0.242	0.04	16.13	14.00	0.612	0.148	22.8
Left tilted	100	QPSK 135_69	633334/3500	100%	0.074	0.03	16.13	14.00	0.612	0.045	22.8
Right cheek	100	QPSK 135_69	633334/3500	100%	0.415	0.09	16.13	14.00	0.612	0.254	22.8
Right tilted	100	QPSK 135_69	633334/3500	100%	0.112	0.04	16.13	14.00	0.612	0.069	22.8
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	100%	0.344	0.05	24.09	25.00	1.233	0.424	22.8
Back side	100	QPSK 1_137	633334/3500	100%	0.524	0.06	24.09	25.00	1.233	**0.646**	22.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	100%	0.346	0.09	24.17	25.00	1.211	0.419	22.8
Back side	100	QPSK 135_69	633334/3500	100%	0.471	0.07	24.17	25.00	1.211	0.570	22.8
Body worn Test data(Separate 15mm 1RB) ENDC Simultaneous transmission											
Front side	100	QPSK 1_137	633334/3500	100%	0.344	0.05	24.09	13.00	0.078	0.027	22.8
Back side	100	QPSK 1_137	633334/3500	100%	0.524	0.06	24.09	13.00	0.078	0.041	22.8
Body worn Test data(Separate 15mm 50%RB) ENDC Simultaneous transmission											
Front side	100	QPSK 135_69	633334/3500	100%	0.346	0.09	24.17	13.00	0.076	0.026	22.8
Back side	100	QPSK 135_69	633334/3500	100%	0.471	0.07	24.17	13.00	0.076	0.036	22.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	100%	0.099	0.18	14.61	15.50	1.227	0.121	22.8
Back side	100	QPSK 1_137	633334/3500	100%	0.150	0.12	14.61	15.50	1.227	0.184	22.8
Left side	100	QPSK 1_137	633334/3500	100%	0.292	0.09	14.61	15.50	1.227	0.358	22.8
Top side	100	QPSK 1_137	633334/3500	100%	0.019	0.05	14.61	15.50	1.227	0.023	22.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	100%	0.085	-0.18	14.62	15.50	1.225	0.104	22.8
Back side	100	QPSK 135_69	633334/3500	100%	0.118	0.05	14.62	15.50	1.225	0.145	22.8
Left side	100	QPSK 135_69	633334/3500	100%	0.298	-0.02	14.62	15.50	1.225	0.365	22.8
Top side	100	QPSK 135_69	633334/3500	100%	0.018	0.09	14.62	15.50	1.225	0.022	22.8
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Back side	100	QPSK 1_137	633334/3500	100%	0.412	0.02	14.61	15.50	1.227	0.506	22.8
Left side	100	QPSK 1_137	633334/3500	100%	0.622	-0.09	14.61	15.50	1.227	0.763	22.8
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on											
Back side	100	QPSK 135_69	633334/3500	100%	0.435	-0.09	14.62	15.50	1.225	0.533	22.8
Left side	100	QPSK 135_69	633334/3500	100%	0.637	0.04	14.62	15.50	1.225	0.780	22.8

Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Back side-8mm	100	QPSK 1_137	633334/3500	100%	0.913	0.07	24.09	25.00	1.233	1.126	22.8
Left side-8mm	100	QPSK 1_137	633334/3500	100%	1.610	0.03	24.09	25.00	1.233	**1.985**	22.8
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Back side-8mm	100	QPSK 135_69	633334/3500	100%	0.922	0.12	24.17	25.00	1.211	1.116	22.8
Left side-8mm	100	QPSK 135_69	633334/3500	100%	1.430	0.08	24.17	25.00	1.211	1.731	22.8
Ant 12 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	633334/3500	100%	0.121	0.08	14.66	16.00	1.361	0.165	22.6
Left tilted	100	QPSK 1_137	633334/3500	100%	0.118	0.06	14.66	16.00	1.361	0.161	22.6
Right cheek	100	QPSK 1_137	633334/3500	100%	0.362	0.06	14.66	16.00	1.361	0.493	22.6
Right tilted	100	QPSK 1_137	633334/3500	100%	0.252	0.08	14.66	16.00	1.361	0.343	22.6
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500	100%	0.120	0.07	14.75	16.00	1.334	0.160	22.6
Left tilted	100	QPSK 135_69	633334/3500	100%	0.099	0.06	14.75	16.00	1.334	0.132	22.6
Right cheek	100	QPSK 135_69	633334/3500	100%	0.430	0.14	14.75	16.00	1.334	0.573	22.6
Right tilted	100	QPSK 135_69	633334/3500	100%	0.231	0.04	14.75	16.00	1.334	0.308	22.6
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 1_137	633334/3500	100%	0.121	0.08	14.66	13.50	0.766	0.093	22.6
Left tilted	100	QPSK 1_137	633334/3500	100%	0.118	0.06	14.66	13.50	0.766	0.090	22.6
Right cheek	100	QPSK 1_137	633334/3500	100%	0.362	0.06	14.66	13.50	0.766	0.277	22.6
Right tilted	100	QPSK 1_137	633334/3500	100%	0.252	0.08	14.66	13.50	0.766	0.193	22.6
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 135_69	633334/3500	100%	0.120	0.07	14.75	13.50	0.750	0.090	22.6
Left tilted	100	QPSK 135_69	633334/3500	100%	0.099	0.06	14.75	13.50	0.750	0.074	22.6
Right cheek	100	QPSK 135_69	633334/3500	100%	0.430	0.14	14.75	13.50	0.750	0.322	22.6
Right tilted	100	QPSK 135_69	633334/3500	100%	0.231	0.04	14.75	13.50	0.750	0.173	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	100%	0.034	0.07	16.62	18.00	1.374	0.047	22.8
Back side	100	QPSK 1_137	633334/3500	100%	0.086	0.08	16.62	18.00	1.374	0.118	22.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	100%	0.075	0.04	16.73	18.00	1.340	0.100	22.8
Back side	100	QPSK 135_69	633334/3500	100%	0.085	0.05	16.73	18.00	1.340	0.114	22.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	100%	0.138	0.06	16.62	18.00	1.374	0.190	22.8
Back side	100	QPSK 1_137	633334/3500	100%	0.186	0.06	16.62	18.00	1.374	0.256	22.8
Left side	100	QPSK 1_137	633334/3500	100%	0.155	0.16	16.62	18.00	1.374	0.213	22.8
Top side	100	QPSK 1_137	633334/3500	100%	0.089	0.04	16.62	18.00	1.374	0.122	22.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	100%	0.153	0.02	16.73	18.00	1.340	0.205	22.8
Back side	100	QPSK 135_69	633334/3500	100%	0.146	0.07	16.73	18.00	1.340	0.196	22.8
Left side	100	QPSK 135_69	633334/3500	100%	0.144	0.07	16.73	18.00	1.340	0.193	22.8
Top side	100	QPSK 135_69	633334/3500	100%	0.090	0.06	16.73	18.00	1.340	0.120	22.8
SRS Ant 21 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	633334/3500	8.5%	0.288	-0.07	18.16	18.50	1.081	0.026	22.8
Left tilted	100	QPSK 1_137	633334/3500	8.5%	0.266	0.17	18.16	18.50	1.081	0.024	22.8
Right cheek	100	QPSK 1_137	633334/3500	8.5%	0.474	-0.06	18.16	18.50	1.081	0.044	22.8
Right tilted	100	QPSK 1_137	633334/3500	8.5%	0.482	0.01	18.16	18.50	1.081	0.044	22.8
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500	8.5%	0.833	-0.08	18.26	18.50	1.057	0.075	22.8
Left tilted	100	QPSK 135_69	633334/3500	8.5%	0.771	0.07	18.26	18.50	1.057	0.069	22.8
Right cheek	100	QPSK 135_69	633334/3500	8.5%	0.429	0.08	18.26	18.50	1.057	0.039	22.8

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Right tilted	100	QPSK 135_69	633334/3500	8.5%	0.541	0.03	18.26	18.50	1.057	0.049	22.8
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	8.5%	0.090	0.08	18.16	18.50	1.081	0.008	22.8
Back side	100	QPSK 1_137	633334/3500	8.5%	0.173	0.14	18.16	18.50	1.081	0.016	22.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	8.5%	0.078	0.06	18.26	18.50	1.057	0.007	22.8
Back side	100	QPSK 135_69	633334/3500	8.5%	0.168	-0.02	18.26	18.50	1.057	0.015	22.8
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	8.5%	0.139	0.07	18.16	18.50	1.081	0.013	22.8
Back side	100	QPSK 1_137	633334/3500	8.5%	0.311	0.06	18.16	18.50	1.081	0.029	22.8
Right side	100	QPSK 1_137	633334/3500	8.5%	0.052	0.17	18.16	18.50	1.081	0.005	22.8
Top side	100	QPSK 1_137	633334/3500	8.5%	0.313	0.07	18.16	18.50	1.081	0.029	22.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	8.5%	0.158	0.17	18.26	18.50	1.057	0.014	22.8
Back side	100	QPSK 135_69	633334/3500	8.5%	0.292	0.03	18.26	18.50	1.057	0.026	22.8
Right side	100	QPSK 135_69	633334/3500	8.5%	0.052	0.03	18.26	18.50	1.057	0.005	22.8
Top side	100	QPSK 135_69	633334/3500	8.5%	0.353	0.05	18.26	18.50	1.057	0.032	22.8
SRS Ant 23 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	633334/3500	8.5%	0.551	0.00	20.09	21.00	1.233	0.058	22.2
Left tilted	100	QPSK 1_137	633334/3500	8.5%	0.275	0.09	20.09	21.00	1.233	0.029	22.2
Right cheek	100	QPSK 1_137	633334/3500	8.5%	0.297	0.00	20.09	21.00	1.233	0.031	22.2
Right tilted	100	QPSK 1_137	633334/3500	8.5%	0.121	0.04	20.09	21.00	1.233	0.013	22.2
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500	8.5%	0.540	0.14	20.23	21.00	1.194	0.055	22.2
Left tilted	100	QPSK 135_69	633334/3500	8.5%	0.318	0.06	20.23	21.00	1.194	0.032	22.2
Right cheek	100	QPSK 135_69	633334/3500	8.5%	0.279	0.03	20.23	21.00	1.194	0.028	22.2
Right tilted	100	QPSK 135_69	633334/3500	8.5%	0.119	0.05	20.23	21.00	1.194	0.012	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	8.5%	0.027	0.12	18.08	19.00	1.236	0.003	22.2
Back side	100	QPSK 1_137	633334/3500	8.5%	0.115	0.17	18.08	19.00	1.236	0.012	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	8.5%	0.030	0.05	18.25	19.00	1.189	0.003	22.2
Back side	100	QPSK 135_69	633334/3500	8.5%	0.118	-0.02	18.25	19.00	1.189	0.012	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	633334/3500	8.5%	0.056	0.02	18.08	19.00	1.236	0.006	22.2
Back side	100	QPSK 1_137	633334/3500	8.5%	0.227	0.08	18.08	19.00	1.236	0.024	22.2
Right side	100	QPSK 1_137	633334/3500	8.5%	0.280	0.02	18.08	19.00	1.236	0.029	22.2
Top side	100	QPSK 1_137	633334/3500	8.5%	0.078	0.01	18.08	19.00	1.236	0.008	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500	8.5%	0.059	0.07	18.25	19.00	1.189	0.006	22.2
Back side	100	QPSK 135_69	633334/3500	8.5%	0.225	0.02	18.25	19.00	1.189	0.023	22.2
Right side	100	QPSK 135_69	633334/3500	8.5%	0.272	0.06	18.25	19.00	1.189	0.027	22.2
Top side	100	QPSK 135_69	633334/3500	8.5%	0.077	0.07	18.25	19.00	1.189	0.008	22.2

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

n77 (3700-3980):

Ant 11 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	659600/3894	100%	0.205	0.12	16.15	17.00	1.216	0.249	22.3
Left tilted	100	QPSK 1_137	659600/3894	100%	0.098	0.05	16.15	17.00	1.216	0.119	22.3
Right cheek	100	QPSK 1_137	659600/3894	100%	0.563	0.01	16.15	17.00	1.216	0.685	22.3
Right tilted	100	QPSK 1_137	659600/3894	100%	0.144	0.11	16.15	17.00	1.216	0.175	22.3
Right cheek	100	QPSK 1_137	650000/3750	100%	0.651	0.02	16.04	17.00	1.247	**0.812**	22.3
Right cheek	100	QPSK 1_137	652400/3786	100%	0.621	0.09	16.02	17.00	1.253	0.778	22.3
Right cheek	100	QPSK 1_137	654800/3822	100%	0.573	0.08	15.95	17.00	1.274	0.730	22.3
Right cheek	100	QPSK 1_137	657200/3858	100%	0.535	0.17	15.97	17.00	1.268	0.678	22.3
Right cheek	100	QPSK 1_137	662000/3930	100%	0.594	0.07	16.06	17.00	1.242	0.738	22.3
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	662000/3930	100%	0.159	0.04	16.25	17.00	1.189	0.189	22.3
Left tilted	100	QPSK 135_69	662000/3930	100%	0.095	0.07	16.25	17.00	1.189	0.113	22.3
Right cheek	100	QPSK 135_69	662000/3930	100%	0.568	0.09	16.25	17.00	1.189	0.675	22.3
Right tilted	100	QPSK 135_69	662000/3930	100%	0.142	0.10	16.25	17.00	1.189	0.169	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.527	0.06	16.04	17.00	1.247	0.657	22.3
Right cheek	100	QPSK 135_69	652400/3786	100%	0.540	-0.05	16.15	17.00	1.216	0.657	22.3
Right cheek	100	QPSK 135_69	654800/3822	100%	0.529	0.09	16.21	17.00	1.199	0.635	22.3
Right cheek	100	QPSK 135_69	657200/3858	100%	0.542	-0.11	16.19	17.00	1.205	0.653	22.3
Right cheek	100	QPSK 135_69	659600/3894	100%	0.555	0.09	16.18	17.00	1.208	0.670	22.3
Head Test Data(100%RB)											
Right cheek	100	QPSK 270_0	659600/3894	100%	0.444	0.08	15.04	16.00	1.247	0.554	22.3
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 1_137	659600/3894	100%	0.205	0.12	16.15	14.00	0.610	0.125	22.3
Left tilted	100	QPSK 1_137	659600/3894	100%	0.098	0.05	16.15	14.00	0.610	0.059	22.3
Right cheek	100	QPSK 1_137	659600/3894	100%	0.563	0.01	16.15	14.00	0.610	0.343	22.3
Right tilted	100	QPSK 1_137	659600/3894	100%	0.144	0.11	16.15	14.00	0.610	0.088	22.3
Right cheek	100	QPSK 1_137	650000/3750	100%	0.651	0.02	16.04	14.00	0.625	0.407	22.3
Right cheek	100	QPSK 1_137	652400/3786	100%	0.621	0.09	16.02	14.00	0.628	0.390	22.3
Right cheek	100	QPSK 1_137	654800/3822	100%	0.573	0.08	15.95	14.00	0.638	0.366	22.3
Right cheek	100	QPSK 1_137	657200/3858	100%	0.535	0.17	15.97	14.00	0.635	0.340	22.3
Right cheek	100	QPSK 1_137	662000/3930	100%	0.594	0.07	16.06	14.00	0.622	0.370	22.3
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 135_69	662000/3930	100%	0.159	0.04	16.25	14.00	0.596	0.095	22.3
Left tilted	100	QPSK 135_69	662000/3930	100%	0.095	0.07	16.25	14.00	0.596	0.057	22.3
Right cheek	100	QPSK 135_69	662000/3930	100%	0.568	0.09	16.25	14.00	0.596	0.338	22.3
Right tilted	100	QPSK 135_69	662000/3930	100%	0.142	0.10	16.25	14.00	0.596	0.085	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.527	0.06	16.04	14.00	0.625	0.329	22.3
Right cheek	100	QPSK 135_69	652400/3786	100%	0.540	-0.05	16.15	14.00	0.610	0.329	22.3
Right cheek	100	QPSK 135_69	654800/3822	100%	0.529	0.09	16.21	14.00	0.601	0.318	22.3
Right cheek	100	QPSK 135_69	657200/3858	100%	0.542	-0.11	16.19	14.00	0.604	0.327	22.3
Right cheek	100	QPSK 135_69	659600/3894	100%	0.555	0.09	16.18	14.00	0.605	0.336	22.3
Head Test Data(100%RB) ENDC Simultaneous transmission											
Right cheek	100	QPSK 270_0	659600/3894	100%	0.444	0.08	15.04	13.00	0.625	0.278	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	659600/3894	100%	0.399	0.09	24.14	25.00	1.219	0.486	22.3
Back side	100	QPSK 1_137	659600/3894	100%	0.458	0.08	24.14	25.00	1.219	0.558	22.3

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Front side	100	QPSK 1_137	650000/3750	100%	0.333	0.06	24.07	25.00	1.239	0.413	22.3
Front side	100	QPSK 1_137	652400/3786	100%	0.327	0.12	24.02	25.00	1.253	0.410	22.3
Front side	100	QPSK 1_137	654800/3822	100%	0.304	-0.07	24.05	25.00	1.245	0.378	22.3
Front side	100	QPSK 1_137	657200/3858	100%	0.338	0.09	24.08	25.00	1.236	0.418	22.3
Front side	100	QPSK 1_137	662000/3930	100%	0.322	-0.09	24.06	25.00	1.242	0.400	22.3
Back side	100	QPSK 1_137	650000/3750	100%	0.459	0.01	24.07	25.00	1.239	0.569	22.3
Back side	100	QPSK 1_137	652400/3786	100%	0.443	-0.12	24.02	25.00	1.253	0.555	22.3
Back side	100	QPSK 1_137	654800/3822	100%	0.426	-0.09	24.05	25.00	1.245	0.530	22.3
Back side	100	QPSK 1_137	657200/3858	100%	0.464	0.01	24.08	25.00	1.236	0.573	22.3
Back side	100	QPSK 1_137	662000/3930	100%	0.457	0.11	24.06	25.00	1.242	0.567	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	659600/3894	100%	0.411	0.06	24.27	25.00	1.183	0.486	22.3
Back side	100	QPSK 135_69	659600/3894	100%	0.488	0.05	24.27	25.00	1.183	0.577	22.3
Front side	100	QPSK 135_69	650000/3750	100%	0.320	0.06	24.13	25.00	1.222	0.391	22.3
Front side	100	QPSK 135_69	652400/3786	100%	0.310	0.09	24.17	25.00	1.211	0.375	22.3
Front side	100	QPSK 135_69	654800/3822	100%	0.288	-0.02	24.21	25.00	1.199	0.345	22.3
Front side	100	QPSK 135_69	657200/3858	100%	0.295	-0.07	24.25	25.00	1.189	0.351	22.3
Front side	100	QPSK 135_69	662000/3930	100%	0.320	0.04	24.26	25.00	1.186	0.379	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.409	-0.12	24.13	25.00	1.222	0.500	22.3
Back side	100	QPSK 135_69	652400/3786	100%	0.416	0.07	24.17	25.00	1.211	0.504	22.3
Back side	100	QPSK 135_69	654800/3822	100%	0.386	0.13	24.21	25.00	1.199	0.463	22.3
Back side	100	QPSK 135_69	657200/3858	100%	0.396	-0.12	24.25	25.00	1.189	0.471	22.3
Back side	100	QPSK 135_69	662000/3930	100%	0.409	0.08	24.26	25.00	1.186	0.485	22.3
Body worn Test data(Separate 15mm 1RB) ENDC Simultaneous transmission											
Front side	100	QPSK 1_137	659600/3894	100%	0.399	0.09	24.14	13.00	0.077	0.031	22.3
Back side	100	QPSK 1_137	659600/3894	100%	0.458	0.08	24.14	13.00	0.077	0.035	22.3
Front side	100	QPSK 1_137	650000/3750	100%	0.333	0.06	24.07	13.00	0.078	0.026	22.3
Front side	100	QPSK 1_137	652400/3786	100%	0.327	0.12	24.02	13.00	0.079	0.026	22.3
Front side	100	QPSK 1_137	654800/3822	100%	0.304	-0.07	24.05	13.00	0.079	0.024	22.3
Front side	100	QPSK 1_137	657200/3858	100%	0.338	0.09	24.08	13.00	0.078	0.026	22.3
Front side	100	QPSK 1_137	662000/3930	100%	0.322	-0.09	24.06	13.00	0.078	0.025	22.3
Back side	100	QPSK 1_137	650000/3750	100%	0.459	0.01	24.07	13.00	0.078	0.036	22.3
Back side	100	QPSK 1_137	652400/3786	100%	0.443	-0.12	24.02	13.00	0.079	0.035	22.3
Back side	100	QPSK 1_137	654800/3822	100%	0.426	-0.09	24.05	13.00	0.079	0.033	22.3
Back side	100	QPSK 1_137	657200/3858	100%	0.464	0.01	24.08	13.00	0.078	0.036	22.3
Back side	100	QPSK 1_137	662000/3930	100%	0.457	0.11	24.06	13.00	0.078	0.036	22.3
Body worn Test data(Separate 15mm 50%RB) ENDC Simultaneous transmission											
Front side	100	QPSK 135_69	659600/3894	100%	0.411	0.06	24.27	13.00	0.075	0.031	22.3
Back side	100	QPSK 135_69	659600/3894	100%	0.488	0.05	24.27	13.00	0.075	0.036	22.3
Front side	100	QPSK 135_69	650000/3750	100%	0.320	0.06	24.13	13.00	0.077	0.025	22.3
Front side	100	QPSK 135_69	652400/3786	100%	0.310	0.09	24.17	13.00	0.076	0.024	22.3
Front side	100	QPSK 135_69	654800/3822	100%	0.288	-0.02	24.21	13.00	0.076	0.022	22.3
Front side	100	QPSK 135_69	657200/3858	100%	0.295	-0.07	24.25	13.00	0.075	0.022	22.3
Front side	100	QPSK 135_69	662000/3930	100%	0.320	0.04	24.26	13.00	0.075	0.024	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.409	-0.12	24.13	13.00	0.077	0.032	22.3
Back side	100	QPSK 135_69	652400/3786	100%	0.416	0.07	24.17	13.00	0.076	0.032	22.3
Back side	100	QPSK 135_69	654800/3822	100%	0.386	0.13	24.21	13.00	0.076	0.029	22.3
Back side	100	QPSK 135_69	657200/3858	100%	0.396	-0.12	24.25	13.00	0.075	0.030	22.3
Back side	100	QPSK 135_69	662000/3930	100%	0.409	0.08	24.26	13.00	0.075	0.031	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	659600/3894	100%	0.094	0.09	14.66	15.50	1.213	0.114	22.3

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Back side	100	QPSK 1_137	659600/3894	100%	0.119	0.09	14.66	15.50	1.213	0.144	22.3
Left side	100	QPSK 1_137	659600/3894	100%	0.196	0.09	14.66	15.50	1.213	0.238	22.3
Top side	100	QPSK 1_137	659600/3894	100%	0.016	0.02	14.66	15.50	1.213	0.019	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	662000/3930	100%	0.099	0.02	14.76	15.50	1.186	0.117	22.3
Back side	100	QPSK 135_69	662000/3930	100%	0.121	0.05	14.76	15.50	1.186	0.143	22.3
Left side	100	QPSK 135_69	662000/3930	100%	0.237	0.05	14.76	15.50	1.186	0.281	22.3
Top side	100	QPSK 135_69	662000/3930	100%	0.015	0.08	14.76	15.50	1.186	0.018	22.3
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10g SAR Test data(Separate 0mm 1RB) Sensor on											
Back side	100	QPSK 1_137	659600/3894	100%	0.348	0.09	14.66	15.50	1.213	0.422	22.1
Left side	100	QPSK 1_137	659600/3894	100%	0.372	-0.07	14.66	15.50	1.213	0.451	22.1
Product specific 10g SAR Test data(Separate 0mm 50%RB) Sensor on											
Back side	100	QPSK 135_69	662000/3930	100%	0.273	0.00	14.76	15.50	1.186	0.324	22.1
Left side	100	QPSK 135_69	662000/3930	100%	0.398	-0.06	14.76	15.50	1.186	0.472	22.1
Product specific 10g SAR Test data(Separate 1RB) Sensor off											
Back side-8mm	100	QPSK 1_137	659600/3894	100%	0.592	-0.05	24.14	25.00	1.219	0.722	22.1
Left side-8mm	100	QPSK 1_137	659600/3894	100%	0.803	-0.05	24.14	25.00	1.219	0.979	22.1
Product specific 10g SAR Test data(Separate 50%RB) Sensor off											
Back side-8mm	100	QPSK 135_69	659600/3894	100%	0.471	-0.04	24.27	25.00	1.183	0.557	22.1
Left side-8mm	100	QPSK 135_69	659600/3894	100%	0.624	-0.02	24.27	25.00	1.183	0.738	22.1
Ant 12 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	650000/3750	100%	0.145	0.06	15.14	16.00	1.219	0.177	22.3
Left tilted	100	QPSK 1_137	650000/3750	100%	0.137	0.01	15.14	16.00	1.219	0.167	22.3
Right cheek	100	QPSK 1_137	650000/3750	100%	0.608	0.01	15.14	16.00	1.219	0.741	22.3
Right tilted	100	QPSK 1_137	650000/3750	100%	0.306	0.14	15.14	16.00	1.219	0.373	22.3
Right cheek	100	QPSK 1_137	652400/3786	100%	0.544	0.01	14.98	16.00	1.265	0.688	22.3
Right cheek	100	QPSK 1_137	654800/3822	100%	0.535	-0.14	14.86	16.00	1.300	0.696	22.3
Right cheek	100	QPSK 1_137	657200/3858	100%	0.442	0.02	14.87	16.00	1.297	0.573	22.3
Right cheek	100	QPSK 1_137	659600/3894	100%	0.561	0.08	14.83	16.00	1.309	0.734	22.3
Right cheek	100	QPSK 1_137	662000/3930	100%	0.548	0.01	14.83	16.00	1.309	0.717	22.3
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	650000/3750	100%	0.168	0.06	15.23	16.00	1.194	0.201	22.3
Left tilted	100	QPSK 135_69	650000/3750	100%	0.134	0.02	15.23	16.00	1.194	0.160	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.576	0.05	15.23	16.00	1.194	0.688	22.3
Right tilted	100	QPSK 135_69	650000/3750	100%	0.307	0.09	15.23	16.00	1.194	0.367	22.3
Right cheek	100	QPSK 135_69	652400/3786	100%	0.574	0.06	15.07	16.00	1.239	0.711	22.3
Right cheek	100	QPSK 135_69	654800/3822	100%	0.506	0.01	15.02	16.00	1.253	0.634	22.3
Right cheek	100	QPSK 135_69	657200/3858	100%	0.519	0.17	14.92	16.00	1.282	0.666	22.3
Right cheek	100	QPSK 135_69	659600/3894	100%	0.531	-0.02	14.94	16.00	1.276	0.678	22.3
Right cheek	100	QPSK 135_69	662000/3930	100%	0.297	0.04	14.93	16.00	1.279	0.380	22.3
Head Test Data(1RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 1_137	650000/3750	100%	0.145	0.06	15.14	13.50	0.685	0.099	22.3
Left tilted	100	QPSK 1_137	650000/3750	100%	0.137	0.01	15.14	13.50	0.685	0.094	22.3
Right cheek	100	QPSK 1_137	650000/3750	100%	0.608	0.01	15.14	13.50	0.685	0.417	22.3
Right tilted	100	QPSK 1_137	650000/3750	100%	0.306	0.14	15.14	13.50	0.685	0.210	22.3

Right cheek	100	QPSK 1_137	652400/3786	100%	0.544	0.01	14.98	13.50	0.711	0.387	22.3
Right cheek	100	QPSK 1_137	654800/3822	100%	0.535	-0.14	14.86	13.50	0.731	0.391	22.3
Right cheek	100	QPSK 1_137	657200/3858	100%	0.442	0.02	14.87	13.50	0.729	0.322	22.3
Right cheek	100	QPSK 1_137	659600/3894	100%	0.561	0.08	14.83	13.50	0.736	0.413	22.3
Right cheek	100	QPSK 1_137	662000/3930	100%	0.548	0.01	14.83	13.50	0.736	0.403	22.3
Head Test Data(50%RB) ENDC Simultaneous transmission											
Left cheek	100	QPSK 135_69	650000/3750	100%	0.168	0.06	15.23	13.50	0.671	0.113	22.3
Left tilted	100	QPSK 135_69	650000/3750	100%	0.134	0.02	15.23	13.50	0.671	0.090	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.576	0.05	15.23	13.50	0.671	0.387	22.3
Right tilted	100	QPSK 135_69	650000/3750	100%	0.307	0.09	15.23	13.50	0.671	0.206	22.3
Right cheek	100	QPSK 135_69	652400/3786	100%	0.574	0.06	15.07	13.50	0.697	0.400	22.3
Right cheek	100	QPSK 135_69	654800/3822	100%	0.506	0.01	15.02	13.50	0.705	0.357	22.3
Right cheek	100	QPSK 135_69	657200/3858	100%	0.519	0.17	14.92	13.50	0.721	0.374	22.3
Right cheek	100	QPSK 135_69	659600/3894	100%	0.531	-0.02	14.94	13.50	0.718	0.381	22.3
Right cheek	100	QPSK 135_69	662000/3930	100%	0.297	0.04	14.93	13.50	0.719	0.214	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	650000/3750	100%	0.094	0.13	17.16	18.00	1.213	0.113	22.3
Back side	100	QPSK 1_137	650000/3750	100%	0.096	0.08	17.16	18.00	1.213	0.116	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	100%	0.097	0.19	17.29	18.00	1.178	0.114	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.120	0.06	17.29	18.00	1.178	0.141	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	650000/3750	100%	0.171	0.08	17.16	18.00	1.213	0.207	22.3
Back side	100	QPSK 1_137	650000/3750	100%	0.213	0.07	17.16	18.00	1.213	0.258	22.3
Left side	100	QPSK 1_137	650000/3750	100%	0.290	0.18	17.16	18.00	1.213	0.352	22.3
Top side	100	QPSK 1_137	650000/3750	100%	0.114	0.01	17.16	18.00	1.213	0.138	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	100%	0.200	0.03	17.29	18.00	1.178	0.236	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.240	0.08	17.29	18.00	1.178	0.283	22.3
Left side	100	QPSK 135_69	650000/3750	100%	0.338	0.05	17.29	18.00	1.178	**0.398**	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.107	0.01	17.29	18.00	1.178	0.126	22.3
SRS Ant 21 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	650000/3750	8.5%	1.020	0.05	18.14	18.50	1.086	0.094	22.3
Left tilted	100	QPSK 1_137	650000/3750	8.5%	0.983	0.03	18.14	18.50	1.086	0.091	22.3
Right cheek	100	QPSK 1_137	650000/3750	8.5%	0.580	-0.02	18.14	18.50	1.086	0.054	22.3
Right tilted	100	QPSK 1_137	650000/3750	8.5%	0.638	-0.06	18.14	18.50	1.086	0.059	22.3
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	650000/3750	8.5%	1.160	-0.04	18.25	18.50	1.059	0.104	22.3
Left tilted	100	QPSK 135_69	650000/3750	8.5%	1.010	0.09	18.25	18.50	1.059	0.091	22.3
Right cheek	100	QPSK 135_69	650000/3750	8.5%	0.503	0.05	18.25	18.50	1.059	0.045	22.3
Right tilted	100	QPSK 135_69	650000/3750	8.5%	0.633	0.12	18.25	18.50	1.059	0.057	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	650000/3750	8.5%	0.106	0.09	18.14	18.50	1.086	0.010	21.8
Back side	100	QPSK 1_137	650000/3750	8.5%	0.263	0.00	18.14	18.50	1.086	0.024	21.8
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	8.5%	0.103	-0.01	18.25	18.50	1.059	0.009	21.8
Back side	100	QPSK 135_69	650000/3750	8.5%	0.234	0.09	18.25	18.50	1.059	0.021	21.8
Hotspot Test data(Separate 10mm 1RB)											

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Front side	100	QPSK 1_137	650000/3750	8.5%	0.186	-0.05	18.14	18.50	1.086	0.017	21.8
Back side	100	QPSK 1_137	650000/3750	8.5%	0.454	0.09	18.14	18.50	1.086	0.042	21.8
Right side	100	QPSK 1_137	650000/3750	8.5%	0.107	0.02	18.14	18.50	1.086	0.010	21.8
Top side	100	QPSK 1_137	650000/3750	8.5%	0.418	0.03	18.14	18.50	1.086	0.039	21.8
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	8.5%	0.203	0.06	18.25	18.50	1.059	0.018	21.8
Back side	100	QPSK 135_69	650000/3750	8.5%	0.468	0.00	18.25	18.50	1.059	0.042	21.8
Right side	100	QPSK 135_69	650000/3750	8.5%	0.114	0.01	18.25	18.50	1.059	0.010	21.8
Top side	100	QPSK 135_69	650000/3750	8.5%	0.368	0.06	18.25	18.50	1.059	0.033	21.8
SRS Ant 23 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	100	QPSK 1_137	650000/3750	8.5%	0.426	0.04	20.41	21.00	1.146	0.041	22.2
Left tilted	100	QPSK 1_137	650000/3750	8.5%	0.094	0.01	20.41	21.00	1.146	0.009	22.2
Right cheek	100	QPSK 1_137	650000/3750	8.5%	0.160	-0.04	20.41	21.00	1.146	0.016	22.2
Right tilted	100	QPSK 1_137	650000/3750	8.5%	0.060	0.02	20.41	21.00	1.146	0.006	22.2
Head Test Data(50%RB)											
Left cheek	100	QPSK 135_69	650000/3750	8.5%	0.449	0.14	20.49	21.00	1.125	0.043	22.2
Left tilted	100	QPSK 135_69	650000/3750	8.5%	0.094	0.02	20.49	21.00	1.125	0.009	22.2
Right cheek	100	QPSK 135_69	650000/3750	8.5%	0.165	0.07	20.49	21.00	1.125	0.016	22.2
Right tilted	100	QPSK 135_69	650000/3750	8.5%	0.074	0.05	20.49	21.00	1.125	0.007	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_137	650000/3750	8.5%	0.027	0.01	18.50	19.00	1.122	0.003	22.2
Back side	100	QPSK 1_137	650000/3750	8.5%	0.095	0.11	18.50	19.00	1.122	0.009	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	8.5%	0.022	0.00	18.54	19.00	1.112	0.002	22.2
Back side	100	QPSK 135_69	650000/3750	8.5%	0.118	-0.08	18.54	19.00	1.112	0.011	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_137	650000/3750	8.5%	0.047	0.03	18.50	19.00	1.122	0.004	22.2
Back side	100	QPSK 1_137	650000/3750	8.5%	0.211	0.01	18.50	19.00	1.122	0.020	22.2
Right side	100	QPSK 1_137	650000/3750	8.5%	0.223	-0.07	18.50	19.00	1.122	0.021	22.2
Top side	100	QPSK 1_137	650000/3750	8.5%	0.024	-0.12	18.50	19.00	1.122	0.002	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	650000/3750	8.5%	0.046	0.02	18.54	19.00	1.112	0.004	22.2
Back side	100	QPSK 135_69	650000/3750	8.5%	0.192	0.08	18.54	19.00	1.112	0.018	22.2
Right side	100	QPSK 135_69	650000/3750	8.5%	0.220	-0.02	18.54	19.00	1.112	0.021	22.2
Top side	100	QPSK 135_69	650000/3750	8.5%	0.026	-0.06	18.54	19.00	1.112	0.002	22.2

Table 33：SAR of 5G NR n77 for Head and Body and Product specific 10g SAR.

8.2.12 SAR Result of WIFI 2.4G

Ant22 Test Record											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data											
Left cheek	802.11b	6/2437	99.70%	1.003	0.438	-0.10	15.03	15.50	1.114	**0.490**	22.3
Left tilted	802.11b	6/2437	99.70%	1.003	0.360	-0.02	15.03	15.50	1.114	0.402	22.3
Right cheek	802.11b	6/2437	99.70%	1.003	0.207	0.19	15.03	15.50	1.114	0.231	22.3
Right tilted	802.11b	6/2437	99.70%	1.003	0.190	0.04	15.03	15.50	1.114	0.212	22.3
Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	99.70%	1.003	0.124	0.03	19.36	20.00	1.159	0.144	22.3
Back side	802.11b	6/2437	99.70%	1.003	0.168	0.02	19.36	20.00	1.159	**0.195**	22.3
Body worn Test data(Separate 15mm) Simultaneous transmission											
Front side	802.11b	6/2437	99.70%	1.003	0.124	0.03	19.36	17.50	0.652	0.081	22.3
Back side	802.11b	6/2437	99.70%	1.003	0.168	0.02	19.36	17.50	0.652	0.110	22.3
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	99.70%	1.003	0.264	0.03	19.36	20.00	1.159	0.307	22.3
Back side	802.11b	6/2437	99.70%	1.003	0.346	-0.07	19.36	20.00	1.159	**0.402**	22.3
Right side	802.11b	6/2437	99.70%	1.003	0.194	-0.15	19.36	20.00	1.159	0.225	22.3
Top side	802.11b	6/2437	99.70%	1.003	0.226	-0.04	19.36	20.00	1.159	0.263	22.3
Hotspot Test data (Separate 10mm) Simultaneous transmission											
Front side	802.11b	6/2437	99.70%	1.003	0.264	0.03	19.36	17.50	0.652	0.173	22.3
Back side	802.11b	6/2437	99.70%	1.003	0.346	-0.07	19.36	17.50	0.652	0.226	22.3
Right side	802.11b	6/2437	99.70%	1.003	0.194	-0.15	19.36	17.50	0.652	0.127	22.3
Top side	802.11b	6/2437	99.70%	1.003	0.226	-0.04	19.36	17.50	0.652	0.148	22.3

Table 34：SAR of WIFI 2.4G for Head and Body.

Note:

1) As the 802.11b highest reported SAR is smaller than 1.2 W/kg, and the tune-up of the other 802.11 modes is 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 is not required.

8.2.13 SAR Result of WIFI 5G

Ant22 Test Record											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data of U-NII-2A											
Left cheek	802.11a	52/5260	97.55%	1.025	0.216	0.05	10.98	11.50	1.127	0.250	22.6
Left tilted	802.11a	52/5260	97.55%	1.025	0.253	0.03	10.98	11.50	1.127	0.292	22.6
Right cheek	802.11a	52/5260	97.55%	1.025	0.144	0.08	10.98	11.50	1.127	0.166	22.6
Right tilted	802.11a	52/5260	97.55%	1.025	0.169	0.02	10.98	11.50	1.127	0.195	22.6
Head Test data of U-NII-2C											
Left cheek	802.11a	136/5680	97.55%	1.025	0.401	0.11	11.72	12.00	1.067	**0.438**	22.6
Left tilted	802.11a	136/5680	97.55%	1.025	0.346	0.08	11.72	12.00	1.067	0.378	22.6
Right cheek	802.11a	136/5680	97.55%	1.025	0.146	0.04	11.72	12.00	1.067	0.160	22.6
Right tilted	802.11a	136/5680	97.55%	1.025	0.151	0.04	11.72	12.00	1.067	0.165	22.6
Head Test data of U-NII-3											
Left cheek	802.11a	165/5825	97.55%	1.025	0.320	0.06	12.71	13.50	1.199	0.393	22.6
Left tilted	802.11a	165/5825	97.55%	1.025	0.241	0.05	12.71	13.50	1.199	0.296	22.6
Right cheek	802.11a	165/5825	97.55%	1.025	0.090	0.01	12.71	13.50	1.199	0.111	22.6
Right tilted	802.11a	165/5825	97.55%	1.025	0.077	0.05	12.71	13.50	1.199	0.095	22.6
Body worn Test data of U-NII-2A(Separate 15mm)											
Front side	802.11a	52/5260	97.55%	1.025	0.187	0.07	18.14	19.50	1.368	0.262	22.6
Back side	802.11a	52/5260	97.55%	1.025	0.485	-0.04	18.14	19.50	1.368	0.680	22.6
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11a	140/5700	97.55%	1.025	0.209	-0.06	18.70	19.50	1.202	0.258	22.6
Back side	802.11a	140/5700	97.55%	1.025	0.716	0.06	18.70	19.50	1.202	**0.882**	22.6
Back side	802.11a	136/5680	97.55%	1.025	0.617	0.02	18.66	19.50	1.213	0.767	22.6
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11a	161/5805	97.55%	1.025	0.080	0.00	15.40	16.50	1.288	0.105	22.6
Back side	802.11a	161/5805	97.55%	1.025	0.392	0.01	15.40	16.50	1.288	0.518	22.6
Body worn Test data of U-NII-2A(Separate 15mm) Simultaneous transmission											
Front side	802.11a	52/5260	97.55%	1.025	0.187	0.07	18.14	16.00	0.611	0.117	22.6
Back side	802.11a	52/5260	97.55%	1.025	0.485	-0.04	18.14	16.00	0.611	0.304	22.6
Body worn Test data of U-NII-2C(Separate 15mm) Simultaneous transmission											
Front side	802.11a	140/5700	97.55%	1.025	0.209	-0.06	18.70	14.50	0.380	0.081	22.6
Back side	802.11a	140/5700	97.55%	1.025	0.716	0.06	18.70	14.50	0.380	0.279	22.6
Back side	802.11a	136/5680	97.55%	1.025	0.617	0.02	18.66	14.50	0.384	0.243	22.6
Body worn Test data of U-NII-3(Separate 15mm) Simultaneous transmission											
Front side	802.11a	161/5805	97.55%	1.025	0.080	0.00	15.40	14.50	0.813	0.066	22.6
Back side	802.11a	161/5805	97.55%	1.025	0.392	0.01	15.40	14.50	0.813	0.327	22.6
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	44/5220	97.55%	1.025	0.280	0.08	16.65	18.00	1.365	0.392	22.6
Back side	802.11a	44/5220	97.55%	1.025	0.647	0.03	16.65	18.00	1.365	0.905	22.6
Right side	802.11a	44/5220	97.55%	1.025	0.274	-0.13	16.65	18.00	1.365	0.383	22.6
Top side	802.11a	44/5220	97.55%	1.025	0.698	0.02	16.65	18.00	1.365	0.976	22.6
Back side	802.11a	48/5240	97.55%	1.025	0.573	-0.19	16.63	18.00	1.371	0.805	22.6
Top side	802.11a	48/5240	97.55%	1.025	0.678	-0.06	16.63	18.00	1.371	0.953	22.6
Hotspot Test data of U-NII-3(Separate 10mm)											
Front side	802.11a	161/5805	97.55%	1.025	0.132	0.00	15.40	16.50	1.288	0.174	22.6
Back side	802.11a	161/5805	97.55%	1.025	0.735	0.02	15.40	16.50	1.288	0.971	22.6
Right side	802.11a	161/5805	97.55%	1.025	0.665	-0.07	15.40	16.50	1.288	0.878	22.6
Top side	802.11a	161/5805	97.55%	1.025	0.109	-0.04	15.40	16.50	1.288	0.144	22.6
Back side	802.11a	157/5785	97.55%	1.025	0.751	0.01	15.39	16.50	1.291	**0.994**	22.6
Right side	802.11a	157/5785	97.55%	1.025	0.482	-0.11	15.36	16.50	1.300	0.642	22.6
Hotspot Test data of U-NII-1(Separate 10mm) Simultaneous transmission											
Front side	802.11a	44/5220	97.55%	1.025	0.280	0.08	16.65	16.00	0.861	0.247	22.6
Back side	802.11a	44/5220	97.55%	1.025	0.647	0.03	16.65	16.00	0.861	0.571	22.6

Right side	802.11a	44/5220	97.55%	1.025	0.274	-0.13	16.65	16.00	0.861	0.242	22.6
Top side	802.11a	44/5220	97.55%	1.025	0.698	0.02	16.65	16.00	0.861	0.616	22.6
Back side	802.11a	48/5240	97.55%	1.025	0.573	-0.19	16.63	16.00	0.865	0.508	22.6
Top side	802.11a	48/5240	97.55%	1.025	0.678	-0.06	16.63	16.00	0.865	0.601	22.6
Hotspot Test data of U-NII-3(Separate 10mm) Simultaneous transmission											
Front side	802.11a	161/5805	97.55%	1.025	0.132	0.00	15.40	14.50	0.813	0.110	22.6
Back side	802.11a	161/5805	97.55%	1.025	0.735	0.02	15.40	14.50	0.813	0.612	22.6
Right side	802.11a	161/5805	97.55%	1.025	0.665	-0.07	15.40	14.50	0.813	0.554	22.6
Top side	802.11a	161/5805	97.55%	1.025	0.109	-0.04	15.40	14.50	0.813	0.091	22.6
Back side	802.11a	157/5785	97.55%	1.025	0.751	0.01	15.39	14.50	0.815	0.627	22.6
Right side	802.11a	157/5785	97.55%	1.025	0.482	-0.11	15.36	14.50	0.820	0.405	22.6
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**Duty Cycle Scaled factor**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10gSAR Test data of U-NII-2A(Separate 0mm)											
Front side	802.11a	52/5260	97.55%	1.025	0.612	0.00	18.14	19.50	1.368	0.858	22.6
Back side	802.11a	52/5260	97.55%	1.025	1.070	0.01	18.14	19.50	1.368	1.500	22.6
Right side	802.11a	52/5260	97.55%	1.025	1.380	-0.02	18.14	19.50	1.368	1.935	22.6
Top side	802.11a	52/5260	97.55%	1.025	1.210	0.02	18.14	19.50	1.368	1.697	22.6
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11a	140/5700	97.55%	1.025	0.902	0.00	18.70	19.50	1.202	1.112	22.6
Back side	802.11a	140/5700	97.55%	1.025	1.710	0.02	18.70	19.50	1.202	2.108	22.6
Back side	802.11a	136/5680	97.55%	1.025	1.480	0.02	18.66	19.50	1.213	1.841	22.6
Right side	802.11a	140/5700	97.55%	1.025	1.950	0.12	18.70	19.50	1.202	**2.403**	22.6
Right side	802.11a	136/5680	97.55%	1.025	1.410	0.04	18.66	19.50	1.213	1.754	22.6
Top side	802.11a	140/5700	97.55%	1.025	1.030	-0.09	18.70	19.50	1.202	1.269	22.6
Product specific 10gSAR Test data of U-NII-2A(Separate 0mm) Simultaneous transmission											
Front side	802.11a	52/5260	97.55%	1.025	0.612	0.00	18.14	16.00	0.611	0.383	22.6
Back side	802.11a	52/5260	97.55%	1.025	1.070	0.01	18.14	16.00	0.611	0.670	22.6
Right side	802.11a	52/5260	97.55%	1.025	1.380	-0.02	18.14	16.00	0.611	0.864	22.6
Top side	802.11a	52/5260	97.55%	1.025	1.210	0.02	18.14	16.00	0.611	0.758	22.6
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm) Simultaneous transmission											
Front side	802.11a	140/5700	97.55%	1.025	0.902	0.00	18.70	14.50	0.380	0.352	22.6
Back side	802.11a	140/5700	97.55%	1.025	1.710	0.02	18.70	14.50	0.380	0.666	22.6
Back side	802.11a	136/5680	97.55%	1.025	1.480	0.02	18.66	14.50	0.384	0.582	22.6
Right side	802.11a	140/5700	97.55%	1.025	1.950	0.12	18.70	14.50	0.380	0.760	22.6
Right side	802.11a	136/5680	97.55%	1.025	1.410	0.04	18.66	14.50	0.384	0.555	22.6
Top side	802.11a	140/5700	97.55%	1.025	1.030	-0.09	18.70	14.50	0.380	0.401	22.6

Table 35： SAR of WIFI 5G for Head, Body and Product specific 10g SAR.

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

8.2.14 SAR Result of BT

Ant22 Test Record											
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data											
Left cheek	DH5	78/2480	57.50%	1.739	0.124	0.01	9.85	10.00	1.035	**0.223**	22.2
Left tilted	DH5	78/2480	57.50%	1.739	0.112	0.01	9.85	10.00	1.035	0.202	22.2
Right cheek	DH5	78/2480	57.50%	1.739	0.063	0.09	9.85	10.00	1.035	0.113	22.2
Right tilted	DH5	78/2480	57.50%	1.739	0.068	0.06	9.85	10.00	1.035	0.122	22.2
Body worn Test data(Separate 15mm)											
Front side	DH5	78/2480	57.50%	1.739	0.015	0.08	9.85	10.00	1.035	0.026	22.2
Back side	DH5	78/2480	57.50%	1.739	0.019	0.00	9.85	10.00	1.035	**0.034**	22.2
Hotspot Test data (Separate 10mm)											
Front side	DH5	78/2480	57.50%	1.739	0.030	0.00	9.85	10.00	1.035	0.054	22.2
Back side	DH5	78/2480	57.50%	1.739	0.045	0.00	9.85	10.00	1.035	**0.081**	22.2
Right side	DH5	78/2480	57.50%	1.739	0.017	0.08	9.85	10.00	1.035	0.031	22.2
Top side	DH5	78/2480	57.50%	1.739	0.037	0.05	9.85	10.00	1.035	0.066	22.2

Table 36：SAR of BT for Head and Body.

8.3 Multiple Transmitter Evaluation

8.3.1 Simultaneous SAR SAR test evaluation

- **Simultaneous Transmission Possibilities**

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot	Product Specific 10-g (0mm)
1	WWAN + WLAN 2.4GHz (Ant 22)	Yes	Yes	Yes	Yes
2	WWAN + WLAN 5GHz (Ant 22)	Yes	Yes	Yes	Yes
3	WWAN + BT	Yes	Yes	Yes	Yes
4	WWAN + WLAN 5GHz (Ant 22) + BT	Yes	Yes	Yes	Yes
5	WLAN 5GHz (Ant 22) + BT	Yes	Yes	Yes	Yes

Note:

1) The device does not support DTM function.
2) For WiFi 5G, U-NII-2A and U-NII-2C band does not support hotspot function.

8.3.2 Simultaneous Transmission SAR Summation Scenario

Inter-band UL CA Standalone:

Exposure position	LTE B4 Ant11	LTE B5 Ant13	Inter-band SAR
Left cheek	0.207	0.472	0.679
Left tilted	0.079	0.390	0.469
Right cheek	0.399	0.701	1.100
Right tilted	0.100	0.641	0.741

Exposure position	LTE B4 Ant11	LTE B5 Ant31	Inter-band SAR
Left cheek	0.207	0.042	0.249
Left tilted	0.079	0.018	0.097
Right cheek	0.399	0.038	0.437
Right tilted	0.100	0.016	0.116

Exposure position	LTE B4 Ant13	LTE B7 Ant11	Inter-band SAR
Left cheek	0.371	0.170	0.541
Left tilted	0.471	0.055	0.526
Right cheek	0.686	0.506	1.192
Right tilted	0.819	0.119	0.938

Exposure position	LTE B4 Ant31	LTE B7 Ant11	Inter-band SAR
Left cheek	0.123	0.170	0.293
Left tilted	0.058	0.055	0.113
Right cheek	0.108	0.506	0.614
Right tilted	0.082	0.119	0.201

Exposure position	LTE B5 Ant13	LTE B7 Ant11	Inter-band SAR
Left cheek	0.472	0.170	0.642
Left tilted	0.390	0.055	0.445
Right cheek	0.701	0.506	1.207
Right tilted	0.641	0.119	0.760

Exposure position	LTE B5 Ant31	LTE B7 Ant11	Inter-band SAR
Left cheek	0.042	0.170	0.212
Left tilted	0.018	0.055	0.073
Right cheek	0.038	0.506	0.544
Right tilted	0.016	0.119	0.135

Exposure position	LTE B4 Ant11	LTE B5 Ant13	Inter-band SAR
Front side	0.142	0.225	0.367
Back side	0.240	0.242	0.482

Exposure position	LTE B4 Ant11	LTE B5 Ant31	Inter-band SAR
Front side	0.142	0.036	0.178
Back side	0.240	0.036	0.276

Exposure position	LTE B4 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.408	0.130	0.538
Back side	0.482	0.199	0.681

Exposure position	LTE B4 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.147	0.130	0.277
Back side	0.260	0.199	0.459

Exposure position	LTE B5 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.225	0.130	0.355
Back side	0.242	0.199	0.441

Exposure position	LTE B5 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.036	0.130	0.166
Back side	0.036	0.199	0.235

Exposure position	LTE B4 Ant11	LTE B5 Ant13	Inter-band SAR
Front side	0.087	0.263	0.350
Back side	0.147	0.311	0.458
Left side	0.179	0.124	0.303
Right side	/	/	/
Top side	0.008	0.219	0.227
Bottom side	/	/	/

Exposure position	LTE B4 Ant11	LTE B5 Ant31	Inter-band SAR
Front side	0.087	0.047	0.134
Back side	0.147	0.074	0.221
Left side	0.179	0.040	0.219
Right side	/	0.029	0.029
Top side	0.008	/	0.008
Bottom side	/	/	/

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Exposure position	LTE B4 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.134	0.108	0.242
Back side	0.163	0.178	0.341
Left side	0.025	0.162	0.187
Right side	/	/	/
Top side	0.229	0.019	0.248
Bottom side	/	/	/

Exposure position	LTE B4 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.150	0.108	0.258
Back side	0.320	0.178	0.498
Left side	0.042	0.162	0.204
Right side	0.095	/	0.095
Top side	/	0.019	0.019
Bottom side	0.380	/	0.380

Exposure position	LTE B5 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.263	0.108	0.371
Back side	0.311	0.178	0.489
Left side	0.124	0.162	0.286
Right side	/	/	/
Top side	0.219	0.019	0.238
Bottom side	/	/	/

Exposure position	LTE B5 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.047	0.108	0.155
Back side	0.074	0.178	0.252
Left side	0.040	0.162	0.202
Right side	0.029	/	0.029
Top side	/	0.019	0.019
Bottom side	/	/	/

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Inter-band UL CA Simultaneous:

Exposure position	LTE B4 Ant11	LTE B5 Ant13	Inter-band SAR
Left cheek	0.207	0.265	0.472
Left tilted	0.079	0.219	0.298
Right cheek	0.399	0.394	0.793
Right tilted	0.100	0.361	0.461

Exposure position	LTE B4 Ant11	LTE B5 Ant31	Inter-band SAR
Left cheek	0.207	0.042	0.249
Left tilted	0.079	0.018	0.097
Right cheek	0.399	0.038	0.437
Right tilted	0.100	0.016	0.116

Exposure position	LTE B4 Ant13	LTE B7 Ant11	Inter-band SAR
Left cheek	0.186	0.170	0.356
Left tilted	0.236	0.055	0.291
Right cheek	0.344	0.506	0.850
Right tilted	0.410	0.119	0.529

Exposure position	LTE B4 Ant31	LTE B7 Ant11	Inter-band SAR
Left cheek	0.123	0.170	0.293
Left tilted	0.058	0.055	0.113
Right cheek	0.108	0.506	0.614
Right tilted	0.082	0.119	0.201

Exposure position	LTE B5 Ant13	LTE B7 Ant11	Inter-band SAR
Left cheek	0.265	0.170	0.435
Left tilted	0.219	0.055	0.274
Right cheek	0.394	0.506	0.900
Right tilted	0.361	0.119	0.480

Exposure position	LTE B5 Ant31	LTE B7 Ant11	Inter-band SAR
Left cheek	0.042	0.170	0.212
Left tilted	0.018	0.055	0.073
Right cheek	0.038	0.506	0.544
Right tilted	0.016	0.119	0.135

Exposure position	LTE B4 Ant11	LTE B5 Ant13	Inter-band SAR
Front side	0.087	0.263	0.350
Back side	0.147	0.311	0.458
Left side	0.179	0.124	0.303
Right side	/	/	/
Top side	0.008	0.219	0.227
Bottom side	/	/	/

Exposure position	LTE B4 Ant11	LTE B5 Ant31	Inter-band SAR
Front side	0.087	0.047	0.134
Back side	0.147	0.074	0.221
Left side	0.179	0.040	0.219
Right side	/	0.029	0.029
Top side	0.008	/	0.008
Bottom side	/	/	/

Exposure position	LTE B4 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.134	0.108	0.242
Back side	0.163	0.178	0.341
Left side	0.025	0.162	0.187
Right side	/	/	/
Top side	0.229	0.019	0.248
Bottom side	/	/	/

Exposure position	LTE B4 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.150	0.108	0.258
Back side	0.320	0.178	0.498
Left side	0.042	0.162	0.204
Right side	0.095	/	0.095
Top side	/	0.019	0.019
Bottom side	0.380	/	0.380

Exposure position	LTE B5 Ant13	LTE B7 Ant11	Inter-band SAR
Front side	0.263	0.108	0.371
Back side	0.311	0.178	0.489
Left side	0.124	0.162	0.286
Right side	/	/	/
Top side	0.219	0.019	0.238
Bottom side	/	/	/

Exposure position	LTE B5 Ant31	LTE B7 Ant11	Inter-band SAR
Front side	0.047	0.108	0.155
Back side	0.074	0.178	0.252
Left side	0.040	0.162	0.202
Right side	0.029	/	0.029
Top side	/	0.019	0.019
Bottom side	/	/	/

ENDC_Head Standalone:

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT13	
Band 7	Left cheek	0.066	0.366	0.432
	Left tilted	0.021	0.340	0.361
	Right cheek	0.197	0.548	0.745
	Right tilted	0.046	0.478	0.524

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT31	
Band 7	Left cheek	0.066	0.053	0.119
	Left tilted	0.021	0.025	0.046
	Right cheek	0.197	0.054	0.251
	Right tilted	0.046	0.022	0.068

LTE Band (EN_DC)	Exposure position	ANT13	n7	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.223	0.176	0.399
	Left tilted	0.272	0.056	0.328
	Right cheek	0.391	0.298	0.689
	Right tilted	0.469	0.071	0.540
Band 5	Left cheek	0.265	0.176	0.441
	Left tilted	0.219	0.056	0.275
	Right cheek	0.394	0.298	0.692
	Right tilted	0.361	0.071	0.432
Band 66	Left cheek	0.168	0.176	0.344
	Left tilted	0.259	0.056	0.315
	Right cheek	0.287	0.298	0.585
	Right tilted	0.395	0.071	0.466

LTE Band (EN_DC)	Exposure position	ANT31	n7	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.111	0.176	0.287
	Left tilted	0.046	0.056	0.102
	Right cheek	0.096	0.298	0.394
	Right tilted	0.064	0.071	0.135
Band 5	Left cheek	0.042	0.176	0.218
	Left tilted	0.018	0.056	0.074
	Right cheek	0.038	0.298	0.336
	Right tilted	0.016	0.071	0.087
Band 66	Left cheek	0.139	0.176	0.315
	Left tilted	0.056	0.056	0.112
	Right cheek	0.134	0.298	0.432
	Right tilted	0.079	0.071	0.150

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT13	
Band 7	Left cheek	0.066	0.544	0.610
	Left tilted	0.021	0.439	0.460
	Right cheek	0.197	0.691	0.888
	Right tilted	0.046	0.557	0.603

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT31	
Band 7	Left cheek	0.066	0.056	0.122
	Left tilted	0.021	0.025	0.046
	Right cheek	0.197	0.057	0.254
	Right tilted	0.046	0.024	0.070

LTE Band (EN_DC)	Exposure position	ANT13	n38	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.148	0.119	0.267
	Left tilted	0.188	0.028	0.216
	Right cheek	0.273	0.249	0.522
	Right tilted	0.326	0.047	0.373
Band 66	Left cheek	0.168	0.119	0.287
	Left tilted	0.259	0.028	0.287
	Right cheek	0.287	0.249	0.536
	Right tilted	0.395	0.047	0.442

LTE Band (EN_DC)	Exposure position	ANT31	n38	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.123	0.119	0.242
	Left tilted	0.058	0.028	0.086
	Right cheek	0.108	0.249	0.357
	Right tilted	0.082	0.047	0.129
Band 66	Left cheek	0.139	0.119	0.258
	Left tilted	0.056	0.028	0.084
	Right cheek	0.134	0.249	0.383
	Right tilted	0.079	0.047	0.126

LTE Band (EN_DC)	Exposure position	ANT13	n41	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.148	0.147	0.295
	Left tilted	0.188	0.025	0.213
	Right cheek	0.273	0.330	0.603
	Right tilted	0.326	0.061	0.387
Band 66	Left cheek	0.168	0.147	0.315
	Left tilted	0.259	0.025	0.284
	Right cheek	0.287	0.330	0.617
	Right tilted	0.395	0.061	0.456

LTE Band (EN_DC)	Exposure position	ANT31	n41	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.123	0.147	0.270
	Left tilted	0.058	0.025	0.083
	Right cheek	0.108	0.330	0.438
	Right tilted	0.082	0.061	0.143
Band 66	Left cheek	0.139	0.147	0.286
	Left tilted	0.056	0.025	0.081
	Right cheek	0.134	0.330	0.464
	Right tilted	0.079	0.061	0.140

LTE Band (EN_DC)	Exposure position	ANT13	n66	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.223	0.386	0.609
	Left tilted	0.272	0.164	0.436
	Right cheek	0.391	0.967	1.358
	Right tilted	0.469	0.189	0.658
Band 5	Left cheek	0.265	0.386	0.651
	Left tilted	0.219	0.164	0.383
	Right cheek	0.394	0.967	1.361
	Right tilted	0.361	0.189	0.550
Band 7	Left cheek	0.188	0.386	0.574
	Left tilted	0.278	0.164	0.442
	Right cheek	0.421	0.967	1.388
	Right tilted	0.428	0.189	0.617

LTE Band (EN_DC)	Exposure position	ANT31	n66	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.111	0.386	0.497
	Left tilted	0.046	0.164	0.210
	Right cheek	0.096	0.967	1.063
	Right tilted	0.064	0.189	0.253
Band 5	Left cheek	0.042	0.386	0.428
	Left tilted	0.018	0.164	0.182
	Right cheek	0.038	0.967	1.005
	Right tilted	0.016	0.189	0.205
Band 7	Left cheek	0.207	0.386	0.593
	Left tilted	0.211	0.164	0.375
	Right cheek	0.426	0.967	1.393
	Right tilted	0.206	0.189	0.395

LTE Band (EN_DC)	Exposure position	ANT13	n78(3700-3800) ANT11	EN_DC Summed SAR
Band 2	Left cheek	0.223	0.330	0.553
	Left tilted	0.272	0.119	0.391
	Right cheek	0.391	0.812	1.203
	Right tilted	0.469	0.175	0.644
Band 4	Left cheek	0.148	0.330	0.478
	Left tilted	0.188	0.119	0.307
	Right cheek	0.273	0.812	1.085
	Right tilted	0.326	0.175	0.501
Band 5	Left cheek	0.265	0.330	0.595
	Left tilted	0.219	0.119	0.338
	Right cheek	0.394	0.812	1.206
	Right tilted	0.361	0.175	0.536
Band 7	Left cheek	0.188	0.330	0.518
	Left tilted	0.278	0.119	0.397
	Right cheek	0.421	0.812	1.233
	Right tilted	0.428	0.175	0.603
Band 38	Left cheek	0.193	0.330	0.523
	Left tilted	0.255	0.119	0.374
	Right cheek	0.372	0.812	1.184
	Right tilted	0.432	0.175	0.607
Band 41	Left cheek	0.117	0.330	0.447
	Left tilted	0.141	0.119	0.260
	Right cheek	0.299	0.812	1.111
	Right tilted	0.283	0.175	0.458
Band 66	Left cheek	0.168	0.330	0.498
	Left tilted	0.259	0.119	0.378
	Right cheek	0.287	0.812	1.099
	Right tilted	0.395	0.175	0.570

LTE Band (EN_DC)	Exposure position	ANT31	n78(3700-3800) ANT11	EN_DC Summed SAR
Band 2	Left cheek	0.111	0.330	0.441
	Left tilted	0.046	0.119	0.165
	Right cheek	0.096	0.812	0.908
	Right tilted	0.064	0.175	0.239
Band 4	Left cheek	0.123	0.330	0.453
	Left tilted	0.058	0.119	0.177
	Right cheek	0.108	0.812	0.920
	Right tilted	0.082	0.175	0.257
Band 5	Left cheek	0.042	0.330	0.372
	Left tilted	0.018	0.119	0.137
	Right cheek	0.038	0.812	0.850
	Right tilted	0.016	0.175	0.191
Band 7	Left cheek	0.207	0.330	0.537
	Left tilted	0.211	0.119	0.330
	Right cheek	0.426	0.812	1.238
	Right tilted	0.206	0.175	0.381
Band 38	Left cheek	0.147	0.330	0.477
	Left tilted	0.103	0.119	0.222
	Right cheek	0.338	0.812	1.150
	Right tilted	0.107	0.175	0.282
Band 41	Left cheek	0.149	0.330	0.479
	Left tilted	0.130	0.119	0.249
	Right cheek	0.330	0.812	1.142
	Right tilted	0.075	0.175	0.250
Band 66	Left cheek	0.139	0.330	0.469
	Left tilted	0.056	0.119	0.175
	Right cheek	0.134	0.812	0.946
	Right tilted	0.079	0.175	0.254

LTE Band (EN_DC)	Exposure position	ANT13	n78(3700-3800) ANT12	EN_DC Summed SAR
Band 2	Left cheek	0.223	0.201	0.424
	Left tilted	0.272	0.167	0.439
	Right cheek	0.391	0.741	1.132
	Right tilted	0.469	0.373	0.842
Band 4	Left cheek	0.148	0.201	0.349
	Left tilted	0.188	0.167	0.355
	Right cheek	0.273	0.741	1.014
	Right tilted	0.326	0.373	0.699
Band 5	Left cheek	0.265	0.201	0.466
	Left tilted	0.219	0.167	0.386
	Right cheek	0.394	0.741	1.135
	Right tilted	0.361	0.373	0.734
Band 7	Left cheek	0.188	0.201	0.389
	Left tilted	0.278	0.167	0.445
	Right cheek	0.421	0.741	1.162
	Right tilted	0.428	0.373	0.801
Band 38	Left cheek	0.193	0.201	0.394
	Left tilted	0.255	0.167	0.422
	Right cheek	0.372	0.741	1.113
	Right tilted	0.432	0.373	0.805
Band 41	Left cheek	0.117	0.201	0.318
	Left tilted	0.141	0.167	0.308
	Right cheek	0.299	0.741	1.040
	Right tilted	0.283	0.373	0.656
Band 66	Left cheek	0.168	0.201	0.369
	Left tilted	0.259	0.167	0.426
	Right cheek	0.287	0.741	1.028
	Right tilted	0.395	0.373	0.768

LTE Band (EN_DC)	Exposure position	ANT31	n78(3700-3800) ANT12	EN_DC Summed SAR
Band 2	Left cheek	0.111	0.201	0.312
	Left tilted	0.046	0.167	0.213
	Right cheek	0.096	0.741	0.837
	Right tilted	0.064	0.373	0.437
Band 4	Left cheek	0.123	0.201	0.324
	Left tilted	0.058	0.167	0.225
	Right cheek	0.108	0.741	0.849
	Right tilted	0.082	0.373	0.455
Band 5	Left cheek	0.042	0.201	0.243
	Left tilted	0.018	0.167	0.185
	Right cheek	0.038	0.741	0.779
	Right tilted	0.016	0.373	0.389
Band 7	Left cheek	0.207	0.201	0.408
	Left tilted	0.211	0.167	0.378
	Right cheek	0.426	0.741	1.167
	Right tilted	0.206	0.373	0.579
Band 38	Left cheek	0.147	0.201	0.348
	Left tilted	0.103	0.167	0.270
	Right cheek	0.338	0.741	1.079
	Right tilted	0.107	0.373	0.480
Band 41	Left cheek	0.149	0.201	0.350
	Left tilted	0.130	0.167	0.297
	Right cheek	0.330	0.741	1.071
	Right tilted	0.075	0.373	0.448
Band 66	Left cheek	0.139	0.201	0.340
	Left tilted	0.056	0.167	0.223
	Right cheek	0.134	0.741	0.875
	Right tilted	0.079	0.373	0.452

ENDC_Head Simultaneous:

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT13	
Band 7	Left cheek	0.066	0.366	0.432
	Left tilted	0.021	0.340	0.361
	Right cheek	0.197	0.548	0.745
	Right tilted	0.046	0.478	0.524

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT31	
Band 7	Left cheek	0.066	0.053	0.119
	Left tilted	0.021	0.025	0.046
	Right cheek	0.197	0.054	0.251
	Right tilted	0.046	0.022	0.068

LTE Band (EN_DC)	Exposure position	ANT13	n7	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.223	0.088	0.311
	Left tilted	0.272	0.028	0.300
	Right cheek	0.391	0.149	0.540
	Right tilted	0.469	0.035	0.504
Band 5	Left cheek	0.265	0.088	0.353
	Left tilted	0.219	0.028	0.247
	Right cheek	0.394	0.149	0.543
	Right tilted	0.361	0.035	0.396
Band 66	Left cheek	0.168	0.088	0.256
	Left tilted	0.259	0.028	0.287
	Right cheek	0.287	0.149	0.436
	Right tilted	0.395	0.035	0.430

LTE Band (EN_DC)	Exposure position	ANT31	n7	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.111	0.088	0.199
	Left tilted	0.046	0.028	0.074
	Right cheek	0.096	0.149	0.245
	Right tilted	0.064	0.035	0.099
Band 5	Left cheek	0.042	0.088	0.130
	Left tilted	0.018	0.028	0.046
	Right cheek	0.038	0.149	0.187
	Right tilted	0.016	0.035	0.051
Band 66	Left cheek	0.139	0.088	0.227
	Left tilted	0.056	0.028	0.084
	Right cheek	0.134	0.149	0.283
	Right tilted	0.079	0.035	0.114

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT13	
Band 7	Left cheek	0.066	0.306	0.372
	Left tilted	0.021	0.247	0.268
	Right cheek	0.197	0.388	0.585
	Right tilted	0.046	0.313	0.359

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT31	
Band 7	Left cheek	0.066	0.056	0.122
	Left tilted	0.021	0.025	0.046
	Right cheek	0.197	0.057	0.254
	Right tilted	0.046	0.024	0.070

LTE Band (EN_DC)	Exposure position	ANT13	n38	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.148	0.189	0.337
	Left tilted	0.188	0.044	0.232
	Right cheek	0.273	0.394	0.667
	Right tilted	0.326	0.075	0.401
Band 66	Left cheek	0.168	0.189	0.357
	Left tilted	0.259	0.044	0.303
	Right cheek	0.287	0.394	0.681
	Right tilted	0.395	0.075	0.470

LTE Band (EN_DC)	Exposure position	ANT31	n38	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.123	0.189	0.312
	Left tilted	0.058	0.044	0.102
	Right cheek	0.108	0.394	0.502
	Right tilted	0.082	0.075	0.157
Band 66	Left cheek	0.139	0.189	0.328
	Left tilted	0.056	0.044	0.100
	Right cheek	0.134	0.394	0.528
	Right tilted	0.079	0.075	0.154

LTE Band (EN_DC)	Exposure position	ANT13	n41	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.148	0.074	0.222
	Left tilted	0.188	0.013	0.201
	Right cheek	0.273	0.165	0.438
	Right tilted	0.326	0.031	0.357
Band 66	Left cheek	0.168	0.074	0.242
	Left tilted	0.259	0.013	0.272
	Right cheek	0.287	0.165	0.452
	Right tilted	0.395	0.031	0.426

LTE Band (EN_DC)	Exposure position	ANT31	n41	EN_DC Summed SAR
			ANT11	
Band 4	Left cheek	0.123	0.074	0.197
	Left tilted	0.058	0.013	0.071
	Right cheek	0.108	0.165	0.273
	Right tilted	0.082	0.031	0.113
Band 66	Left cheek	0.139	0.074	0.213
	Left tilted	0.056	0.013	0.069
	Right cheek	0.134	0.165	0.299
	Right tilted	0.079	0.031	0.110

LTE Band (EN_DC)	Exposure position	ANT13	n66	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.223	0.194	0.417
	Left tilted	0.272	0.082	0.354
	Right cheek	0.391	0.484	0.875
	Right tilted	0.469	0.095	0.564
Band 5	Left cheek	0.265	0.194	0.459
	Left tilted	0.219	0.082	0.301
	Right cheek	0.394	0.484	0.878
	Right tilted	0.361	0.095	0.456
Band 7	Left cheek	0.188	0.194	0.382
	Left tilted	0.278	0.082	0.360
	Right cheek	0.421	0.484	0.905
	Right tilted	0.428	0.095	0.523

LTE Band (EN_DC)	Exposure position	ANT31	n66	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.111	0.194	0.305
	Left tilted	0.046	0.082	0.128
	Right cheek	0.096	0.484	0.580
	Right tilted	0.064	0.095	0.159
Band 5	Left cheek	0.042	0.194	0.236
	Left tilted	0.018	0.082	0.100
	Right cheek	0.038	0.484	0.522
	Right tilted	0.016	0.095	0.111
Band 7	Left cheek	0.207	0.194	0.401
	Left tilted	0.211	0.082	0.293
	Right cheek	0.426	0.484	0.910
	Right tilted	0.206	0.095	0.301

LTE Band (EN_DC)	Exposure position	ANT13	n78(3700-3800)	EN_DC Summed SAR
			ANT11	
Band 2	Left cheek	0.223	0.165	0.388
	Left tilted	0.272	0.059	0.331
	Right cheek	0.391	0.407	0.798
	Right tilted	0.469	0.088	0.557
Band 4	Left cheek	0.148	0.165	0.313
	Left tilted	0.188	0.059	0.247
	Right cheek	0.273	0.407	0.680

	Right tilted	0.326	0.088	0.414
Band 5	Left cheek	0.265	0.165	0.430
	Left tilted	0.219	0.059	0.278
	Right cheek	0.394	0.407	0.801
	Right tilted	0.361	0.088	0.449
Band 7	Left cheek	0.188	0.165	0.353
	Left tilted	0.278	0.059	0.337
	Right cheek	0.421	0.407	0.828
	Right tilted	0.428	0.088	0.516
Band 38	Left cheek	0.193	0.165	0.358
	Left tilted	0.255	0.059	0.314
	Right cheek	0.372	0.407	0.779
	Right tilted	0.432	0.088	0.520
Band 41	Left cheek	0.117	0.165	0.282
	Left tilted	0.141	0.059	0.200
	Right cheek	0.299	0.407	0.706
	Right tilted	0.283	0.088	0.371
Band 66	Left cheek	0.168	0.165	0.333
	Left tilted	0.259	0.059	0.318
	Right cheek	0.287	0.407	0.694
	Right tilted	0.395	0.088	0.483

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

LTE Band (EN_DC)	Exposure position	ANT31	n78(3700-3800) ANT11	EN_DC Summed SAR
Band 2	Left cheek	0.111	0.165	0.276
	Left tilted	0.046	0.059	0.105
	Right cheek	0.096	0.407	0.503
	Right tilted	0.064	0.088	0.152
Band 4	Left cheek	0.123	0.165	0.288
	Left tilted	0.058	0.059	0.117
	Right cheek	0.108	0.407	0.515
	Right tilted	0.082	0.088	0.170
Band 5	Left cheek	0.042	0.165	0.207
	Left tilted	0.018	0.059	0.077
	Right cheek	0.038	0.407	0.445
	Right tilted	0.016	0.088	0.104
Band 7	Left cheek	0.207	0.165	0.372
	Left tilted	0.211	0.059	0.270
	Right cheek	0.426	0.407	0.833
	Right tilted	0.206	0.088	0.294
Band 38	Left cheek	0.147	0.165	0.312
	Left tilted	0.103	0.059	0.162
	Right cheek	0.338	0.407	0.745
	Right tilted	0.107	0.088	0.195
Band 41	Left cheek	0.149	0.165	0.314
	Left tilted	0.130	0.059	0.189
	Right cheek	0.330	0.407	0.737
	Right tilted	0.075	0.088	0.163
Band 66	Left cheek	0.139	0.165	0.304
	Left tilted	0.056	0.059	0.115
	Right cheek	0.134	0.407	0.541
	Right tilted	0.079	0.088	0.167

LTE Band (EN_DC)	Exposure position	ANT13	n78(3700-3800) ANT12	EN_DC Summed SAR
Band 2	Left cheek	0.223	0.113	0.336
	Left tilted	0.272	0.094	0.366
	Right cheek	0.391	0.417	0.808
	Right tilted	0.469	0.210	0.679
Band 4	Left cheek	0.148	0.113	0.261
	Left tilted	0.188	0.094	0.282
	Right cheek	0.273	0.417	0.690
	Right tilted	0.326	0.210	0.536
Band 5	Left cheek	0.265	0.113	0.378
	Left tilted	0.219	0.094	0.313
	Right cheek	0.394	0.417	0.811
	Right tilted	0.361	0.210	0.571
Band 7	Left cheek	0.188	0.113	0.301
	Left tilted	0.278	0.094	0.372
	Right cheek	0.421	0.417	0.838
	Right tilted	0.428	0.210	0.638
Band 38	Left cheek	0.193	0.113	0.306
	Left tilted	0.255	0.094	0.349
	Right cheek	0.372	0.417	0.789
	Right tilted	0.432	0.210	0.642
Band 41	Left cheek	0.117	0.113	0.230
	Left tilted	0.141	0.094	0.235
	Right cheek	0.299	0.417	0.716
	Right tilted	0.283	0.210	0.493
Band 66	Left cheek	0.168	0.113	0.281
	Left tilted	0.259	0.094	0.353
	Right cheek	0.287	0.417	0.704
	Right tilted	0.395	0.210	0.605

LTE Band (EN_DC)	Exposure position	ANT31	n78(3700-3800) ANT12	EN_DC Summed SAR
Band 2	Left cheek	0.111	0.113	0.224
	Left tilted	0.046	0.094	0.140
	Right cheek	0.096	0.417	0.513
	Right tilted	0.064	0.210	0.274
Band 4	Left cheek	0.123	0.113	0.236
	Left tilted	0.058	0.094	0.152
	Right cheek	0.108	0.417	0.525
	Right tilted	0.082	0.210	0.292
Band 5	Left cheek	0.042	0.113	0.155
	Left tilted	0.018	0.094	0.112
	Right cheek	0.038	0.417	0.455
	Right tilted	0.016	0.210	0.226
Band 7	Left cheek	0.207	0.113	0.320
	Left tilted	0.211	0.094	0.305
	Right cheek	0.426	0.417	0.843
	Right tilted	0.206	0.210	0.416
Band 38	Left cheek	0.147	0.113	0.260
	Left tilted	0.103	0.094	0.197
	Right cheek	0.338	0.417	0.755
	Right tilted	0.107	0.210	0.317
Band 41	Left cheek	0.149	0.113	0.262
	Left tilted	0.130	0.094	0.224
	Right cheek	0.330	0.417	0.747
	Right tilted	0.075	0.210	0.285
Band 66	Left cheek	0.139	0.113	0.252
	Left tilted	0.056	0.094	0.150
	Right cheek	0.134	0.417	0.551
	Right tilted	0.079	0.210	0.289

ENDC_15mm Standalone:

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT13	
Band 7	Front side	0.205	0.290	0.495
	Back side	0.473	0.293	0.766

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT31	
Band 7	Front side	0.205	0.049	0.254
	Back side	0.473	0.046	0.519

LTE Band (EN_DC)	Exposure position	ANT13	n7	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.238	0.308	0.546
	Back side	0.352	0.427	0.779
Band 5	Front side	0.225	0.308	0.533
	Back side	0.242	0.427	0.669
Band 66	Front side	0.405	0.308	0.713
	Back side	0.478	0.427	0.905

LTE Band (EN_DC)	Exposure position	ANT31	n7	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.146	0.308	0.454
	Back side	0.280	0.427	0.707
Band 5	Front side	0.036	0.308	0.344
	Back side	0.036	0.427	0.463
Band 66	Front side	0.146	0.308	0.454
	Back side	0.257	0.427	0.684

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT13	
Band 7	Front side	0.205	0.239	0.444
	Back side	0.473	0.283	0.756

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT31	
Band 7	Front side	0.205	0.040	0.245
	Back side	0.473	0.064	0.537

LTE Band (EN_DC)	Exposure position	ANT13	n38	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.408	0.257	0.665
	Back side	0.482	0.385	0.867
Band 66	Front side	0.405	0.257	0.662
	Back side	0.478	0.385	0.863

LTE Band (EN_DC)	Exposure position	ANT31	n38	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.147	0.257	0.404
	Back side	0.260	0.385	0.645
Band 66	Front side	0.146	0.257	0.403
	Back side	0.257	0.385	0.642

LTE Band (EN_DC)	Exposure position	ANT13	n41	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.408	0.250	0.658
	Back side	0.482	0.412	0.894
Band 66	Front side	0.405	0.250	0.655
	Back side	0.478	0.412	0.890

LTE Band (EN_DC)	Exposure position	ANT31	n41	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.147	0.250	0.397
	Back side	0.260	0.412	0.672
Band 66	Front side	0.146	0.250	0.396
	Back side	0.257	0.412	0.669

LTE Band (EN_DC)	Exposure position	ANT13	n66	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.238	0.308	0.546
	Back side	0.352	0.443	0.795
Band 5	Front side	0.225	0.308	0.533
	Back side	0.242	0.443	0.685
Band 7	Front side	0.205	0.308	0.513
	Back side	0.473	0.443	0.916

LTE Band (EN_DC)	Exposure position	ANT31	n66	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.146	0.308	0.454
	Back side	0.280	0.443	0.723
Band 5	Front side	0.036	0.308	0.344
	Back side	0.036	0.443	0.479
Band 7	Front side	0.242	0.308	0.550
	Back side	0.355	0.443	0.798

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.238	0.486	0.724
	Back side	0.352	0.646	0.998
Band 4	Front side	0.408	0.486	0.894
	Back side	0.482	0.646	1.128
Band 5	Front side	0.225	0.486	0.711
	Back side	0.242	0.646	0.888
Band 7	Front side	0.205	0.486	0.691
	Back side	0.473	0.646	1.119
Band 38	Front side	0.240	0.486	0.726
	Back side	0.651	0.646	1.297
Band 41	Front side	0.209	0.486	0.695
	Back side	0.336	0.646	0.982
Band 66	Front side	0.405	0.486	0.891
	Back side	0.478	0.646	1.124

LTE Band (EN_DC)	Exposure position	ANT31	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.146	0.486	0.632
	Back side	0.280	0.646	0.926
Band 4	Front side	0.147	0.486	0.633
	Back side	0.260	0.646	0.906
Band 5	Front side	0.036	0.486	0.522
	Back side	0.036	0.646	0.682
Band 7	Front side	0.242	0.486	0.728
	Back side	0.355	0.646	1.001
Band 38	Front side	0.180	0.486	0.666
	Back side	0.247	0.646	0.893
Band 41	Front side	0.137	0.486	0.623
	Back side	0.197	0.646	0.843
Band 66	Front side	0.146	0.486	0.632
	Back side	0.257	0.646	0.903

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT12	
Band 2	Front side	0.238	0.114	0.352
	Back side	0.352	0.141	0.493
Band 4	Front side	0.408	0.114	0.522
	Back side	0.482	0.141	0.623
Band 5	Front side	0.225	0.114	0.339
	Back side	0.242	0.141	0.383
Band 7	Front side	0.205	0.114	0.319
	Back side	0.473	0.141	0.614
Band 38	Front side	0.240	0.114	0.354
	Back side	0.651	0.141	0.792
Band 41	Front side	0.209	0.114	0.323
	Back side	0.336	0.141	0.477
Band 66	Front side	0.405	0.114	0.519
	Back side	0.478	0.141	0.619

LTE Band (EN_DC)	Exposure position	ANT31	n78	EN_DC Summed SAR
			ANT12	
Band 2	Front side	0.146	0.114	0.260
	Back side	0.280	0.141	0.421
Band 4	Front side	0.147	0.114	0.261
	Back side	0.260	0.141	0.401
Band 5	Front side	0.036	0.114	0.150
	Back side	0.036	0.141	0.177
Band 7	Front side	0.242	0.114	0.356
	Back side	0.355	0.141	0.496
Band 38	Front side	0.180	0.114	0.294
	Back side	0.247	0.141	0.388
Band 41	Front side	0.137	0.114	0.251
	Back side	0.197	0.141	0.338
Band 66	Front side	0.146	0.114	0.260
	Back side	0.257	0.141	0.398

ENDC_15mm Simultaneous

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.238	0.031	0.269
	Back side	0.352	0.041	0.393
Band 4	Front side	0.408	0.031	0.439
	Back side	0.482	0.041	0.523
Band 5	Front side	0.225	0.031	0.256
	Back side	0.242	0.041	0.283
Band 7	Front side	0.205	0.031	0.236
	Back side	0.473	0.041	0.514
Band 38	Front side	0.240	0.031	0.271
	Back side	0.651	0.041	0.692
Band 41	Front side	0.209	0.031	0.240
	Back side	0.336	0.041	0.377
Band 66	Front side	0.405	0.031	0.436
	Back side	0.478	0.041	0.519

LTE Band (EN_DC)	Exposure position	ANT31	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.146	0.031	0.177
	Back side	0.280	0.041	0.321
Band 4	Front side	0.147	0.031	0.178
	Back side	0.260	0.041	0.301
Band 5	Front side	0.036	0.031	0.067
	Back side	0.036	0.041	0.077
Band 7	Front side	0.242	0.031	0.273
	Back side	0.355	0.041	0.396
Band 38	Front side	0.180	0.031	0.211
	Back side	0.247	0.041	0.288
Band 41	Front side	0.137	0.031	0.168
	Back side	0.197	0.041	0.238
Band 66	Front side	0.146	0.031	0.177
	Back side	0.257	0.041	0.298

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT12	
Band 2	Front side	0.238	0.114	0.352
	Back side	0.352	0.141	0.493
Band 4	Front side	0.408	0.114	0.522
	Back side	0.482	0.141	0.623
Band 5	Front side	0.225	0.114	0.339
	Back side	0.242	0.141	0.383
Band 7	Front side	0.205	0.114	0.319
	Back side	0.473	0.141	0.614
Band 38	Front side	0.240	0.114	0.354
	Back side	0.651	0.141	0.792
Band 41	Front side	0.209	0.114	0.323
	Back side	0.336	0.141	0.477
Band 66	Front side	0.405	0.114	0.519
	Back side	0.478	0.141	0.619

LTE Band (EN_DC)	Exposure position	ANT31	n78	EN_DC Summed SAR
			ANT12	
Band 2	Front side	0.146	0.114	0.260
	Back side	0.280	0.141	0.421
Band 4	Front side	0.147	0.114	0.261
	Back side	0.260	0.141	0.401
Band 5	Front side	0.036	0.114	0.150
	Back side	0.036	0.141	0.177
Band 7	Front side	0.242	0.114	0.356
	Back side	0.355	0.141	0.496
Band 38	Front side	0.180	0.114	0.294
	Back side	0.247	0.141	0.388
Band 41	Front side	0.137	0.114	0.251
	Back side	0.197	0.141	0.338
Band 66	Front side	0.146	0.114	0.260
	Back side	0.257	0.141	0.398

ENDC_10mm:

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT13	
Band 7	Front side	0.108	0.317	0.425
	Back side	0.178	0.422	0.600
	Left side	0.162	0.296	0.458
	Right side	/	/	/
	Top side	0.019	0.325	0.344
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT11	n5	EN_DC Summed SAR
			ANT31	
Band 7	Front side	0.108	0.076	0.184
	Back side	0.178	0.098	0.276
	Left side	0.162	0.068	0.230
	Right side	/	0.048	0.048
	Top side	0.019	/	0.019
	Bottom side	/	0.073	0.073

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

LTE Band (EN_DC)	Exposure position	ANT13	n7	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.223	0.158	0.381
	Back side	0.294	0.276	0.570
	Left side	0.050	0.318	0.368
	Right side	/	/	/
	Top side	0.419	0.019	0.438
	Bottom side	/	/	/
Band 5	Front side	0.263	0.158	0.421
	Back side	0.311	0.276	0.587
	Left side	0.124	0.318	0.442
	Right side	/	/	/
	Top side	0.219	0.019	0.238
	Bottom side	/	/	/
Band 66	Front side	0.119	0.158	0.277
	Back side	0.145	0.276	0.421
	Left side	0.025	0.318	0.343
	Right side	/	/	/
	Top side	0.204	0.019	0.223
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n7	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.137	0.158	0.295
	Back side	0.306	0.276	0.582
	Left side	0.040	0.318	0.358
	Right side	0.080	/	0.080
	Top side	/	0.019	0.019
	Bottom side	0.304	/	0.304
Band 5	Front side	0.047	0.158	0.205
	Back side	0.074	0.276	0.350
	Left side	0.040	0.318	0.358
	Right side	0.029	/	0.029
	Top side	/	0.019	0.019
	Bottom side	0.048	/	0.048
Band 66	Front side	0.167	0.158	0.325
	Back side	0.358	0.276	0.634
	Left side	0.054	0.318	0.372
	Right side	0.106	/	0.106
	Top side	/	0.019	0.019
	Bottom side	0.415	/	0.415

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT13	
Band 7	Front side	0.108	0.179	0.287
	Back side	0.178	0.241	0.419
	Left side	0.162	0.145	0.307
	Right side	/	/	/
	Top side	0.019	0.170	0.189
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT11	n26	EN_DC Summed SAR
			ANT31	
Band 7	Front side	0.108	0.090	0.198
	Back side	0.178	0.125	0.303
	Left side	0.162	0.080	0.242
	Right side	/	0.055	0.055
	Top side	0.019	/	0.019
	Bottom side	/	0.087	0.087

LTE Band (EN_DC)	Exposure position	ANT13	n38	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.134	0.123	0.257
	Back side	0.163	0.202	0.365
	Left side	0.025	0.268	0.293
	Right side	/	/	/
	Top side	0.229	0.027	0.256
	Bottom side	/	/	/
Band 66	Front side	0.119	0.123	0.242
	Back side	0.145	0.202	0.347
	Left side	0.025	0.268	0.293
	Right side	/	/	/
	Top side	0.204	0.027	0.231
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n38	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.150	0.123	0.273
	Back side	0.320	0.202	0.522
	Left side	0.042	0.268	0.310
	Right side	0.095	/	0.095
	Top side	/	0.027	0.027
	Bottom side	0.380	/	0.380
Band 66	Front side	0.167	0.123	0.290
	Back side	0.358	0.202	0.560
	Left side	0.054	0.268	0.322
	Right side	0.106	/	0.106
	Top side	/	0.027	0.027
	Bottom side	0.415	/	0.415

LTE Band (EN_DC)	Exposure position	ANT13	n41	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.134	0.127	0.261
	Back side	0.163	0.231	0.394
	Left side	0.025	0.293	0.318
	Right side	/	/	/
	Top side	0.229	0.033	0.262
	Bottom side	/	/	/
Band 66	Front side	0.119	0.127	0.246
	Back side	0.145	0.231	0.376
	Left side	0.025	0.293	0.318
	Right side	/	/	/
	Top side	0.204	0.033	0.237
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n41	EN_DC Summed SAR
			ANT11	
Band 4	Front side	0.150	0.127	0.277
	Back side	0.320	0.231	0.551
	Left side	0.042	0.293	0.335
	Right side	0.095	/	0.095
	Top side	/	0.033	0.033
	Bottom side	0.380	/	0.380
Band 66	Front side	0.167	0.127	0.294
	Back side	0.358	0.231	0.589
	Left side	0.054	0.293	0.347
	Right side	0.106	/	0.106
	Top side	/	0.033	0.033
	Bottom side	0.415	/	0.415

LTE Band (EN_DC)	Exposure position	ANT13	n66	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.223	0.144	0.367
	Back side	0.294	0.241	0.535
	Left side	0.050	0.324	0.374
	Right side	/	/	/
	Top side	0.419	0.015	0.434
	Bottom side	/	/	/
Band 5	Front side	0.263	0.144	0.407
	Back side	0.311	0.241	0.552
	Left side	0.124	0.324	0.448
	Right side	/	/	/
	Top side	0.219	0.015	0.234
	Bottom side	/	/	/
Band 7	Front side	0.117	0.144	0.261
	Back side	0.367	0.241	0.608
	Left side	0.156	0.324	0.480
	Right side	/	/	/
	Top side	0.372	0.015	0.387
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n66	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.137	0.144	0.281
	Back side	0.306	0.241	0.547
	Left side	0.040	0.324	0.364
	Right side	0.080	/	0.080
	Top side	/	0.015	0.015
	Bottom side	0.304	/	0.304
Band 5	Front side	0.047	0.144	0.191
	Back side	0.074	0.241	0.315
	Left side	0.040	0.324	0.364
	Right side	0.029	/	0.029
	Top side	/	0.015	0.015
	Bottom side	0.048	/	0.048
Band 7	Front side	0.117	0.144	0.261
	Back side	0.367	0.241	0.608
	Left side	0.156	0.324	0.480
	Right side	/	/	/
	Top side	0.372	0.015	0.387
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	0.223	0.121	0.344
	Back side	0.294	0.184	0.478
	Left side	0.050	0.365	0.415
	Right side	/	/	/
	Top side	0.419	0.023	0.442
	Bottom side	/	/	/
Band 4	Front side	0.134	0.121	0.255
	Back side	0.163	0.184	0.347
	Left side	0.025	0.365	0.390
	Right side	/	/	/
	Top side	0.229	0.023	0.252
	Bottom side	/	/	/
Band 5	Front side	0.263	0.121	0.384
	Back side	0.311	0.184	0.495
	Left side	0.124	0.365	0.489
	Right side	/	/	/
	Top side	0.219	0.023	0.242
	Bottom side	/	/	/
Band 7	Front side	0.117	0.121	0.238
	Back side	0.367	0.184	0.551
	Left side	0.156	0.365	0.521
	Right side	/	/	/
	Top side	0.372	0.023	0.395
	Bottom side	/	/	/
Band 38	Front side	0.082	0.121	0.203
	Back side	0.246	0.184	0.430
	Left side	0.075	0.365	0.440
	Right side	/	/	/
	Top side	0.332	0.023	0.355
	Bottom side	/	/	/
Band 41	Front side	0.131	0.121	0.252
	Back side	0.311	0.184	0.495
	Left side	0.209	0.365	0.574
	Right side	/	/	/
	Top side	0.361	0.023	0.384
	Bottom side	/	/	/
Band 66	Front side	0.119	0.121	0.240
	Back side	0.145	0.184	0.329
	Left side	0.025	0.365	0.390
	Right side	/	/	/
	Top side	0.204	0.023	0.227
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n78 ANT11	EN_DC Summed SAR
Band 2	Front side	0.137	0.121	0.258
	Back side	0.306	0.184	0.490
	Left side	0.040	0.365	0.405
	Right side	0.080	/	0.080
	Top side	/	0.023	0.023
	Bottom side	0.304	/	0.304
Band 4	Front side	0.150	0.121	0.271
	Back side	0.320	0.184	0.504
	Left side	0.042	0.365	0.407
	Right side	0.095	/	0.095
	Top side	/	0.023	0.023
	Bottom side	0.380	/	0.380
Band 5	Front side	0.047	0.121	0.168
	Back side	0.074	0.184	0.258
	Left side	0.040	0.365	0.405
	Right side	0.029	/	0.029
	Top side	/	0.023	0.023
	Bottom side	0.048	/	0.048
Band 7	Front side	0.117	0.121	0.238
	Back side	0.367	0.184	0.551
	Left side	0.156	0.365	0.521
	Right side	/	/	/
	Top side	0.372	0.023	0.395
	Bottom side	/	/	/
Band 38	Front side	0.139	0.121	0.260
	Back side	0.243	0.184	0.427
	Left side	0.022	0.365	0.387
	Right side	0.115	/	0.115
	Top side	/	0.023	0.023
	Bottom side	0.111	/	0.111
Band 41	Front side	0.221	0.121	0.342
	Back side	0.400	0.184	0.584
	Left side	0.038	0.365	0.403
	Right side	0.176	/	0.176
	Top side	/	0.023	0.023
	Bottom side	0.185	/	0.185
Band 66	Front side	0.167	0.121	0.288
	Back side	0.358	0.184	0.542
	Left side	0.054	0.365	0.419
	Right side	0.106	/	0.106
	Top side	/	0.023	0.023
	Bottom side	0.415	/	0.415

LTE Band (EN_DC)	Exposure position	ANT13	n78 ANT12	EN_DC Summed SAR
Band 2	Front side	0.223	0.236	0.459
	Back side	0.294	0.283	0.577
	Left side	0.050	0.398	0.448
	Right side	/	/	/
	Top side	0.419	0.138	0.557
	Bottom side	/	/	/
Band 4	Front side	0.134	0.236	0.370
	Back side	0.163	0.283	0.446
	Left side	0.025	0.398	0.423
	Right side	/	/	/
	Top side	0.229	0.138	0.367
	Bottom side	/	/	/
Band 5	Front side	0.263	0.236	0.499
	Back side	0.311	0.283	0.594
	Left side	0.124	0.398	0.522
	Right side	/	/	/
	Top side	0.219	0.138	0.357
	Bottom side	/	/	/
Band 7	Front side	0.117	0.236	0.353
	Back side	0.367	0.283	0.650
	Left side	0.156	0.398	0.554
	Right side	/	/	/
	Top side	0.372	0.138	0.510
	Bottom side	/	/	/
Band 38	Front side	0.082	0.236	0.318
	Back side	0.246	0.283	0.529
	Left side	0.075	0.398	0.473
	Right side	/	/	/
	Top side	0.332	0.138	0.470
	Bottom side	/	/	/
Band 41	Front side	0.131	0.236	0.367
	Back side	0.311	0.283	0.594
	Left side	0.209	0.398	0.607
	Right side	/	/	/
	Top side	0.361	0.138	0.499
	Bottom side	/	/	/
Band 66	Front side	0.119	0.236	0.355
	Back side	0.145	0.283	0.428
	Left side	0.025	0.398	0.423
	Right side	/	/	/
	Top side	0.204	0.138	0.342
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT31	n78 ANT12	EN_DC Summed SAR
Band 2	Front side	0.137	0.236	0.373
	Back side	0.306	0.283	0.589
	Left side	0.040	0.398	0.438
	Right side	0.080	/	0.080
	Top side	/	0.138	0.138
	Bottom side	0.304	/	0.304
Band 4	Front side	0.150	0.236	0.386
	Back side	0.320	0.283	0.603
	Left side	0.042	0.398	0.440
	Right side	0.095	/	0.095
	Top side	/	0.138	0.138
	Bottom side	0.380	/	0.380
Band 5	Front side	0.047	0.236	0.283
	Back side	0.074	0.283	0.357
	Left side	0.040	0.398	0.438
	Right side	0.029	/	0.029
	Top side	/	0.138	0.138
	Bottom side	0.048	/	0.048
Band 7	Front side	0.117	0.236	0.353
	Back side	0.367	0.283	0.650
	Left side	0.156	0.398	0.554
	Right side	/	/	/
	Top side	0.372	0.138	0.510
	Bottom side	/	/	/
Band 38	Front side	0.139	0.236	0.375
	Back side	0.243	0.283	0.526
	Left side	0.022	0.398	0.420
	Right side	0.115	/	0.115
	Top side	/	0.138	0.138
	Bottom side	0.111	/	0.111
Band 41	Front side	0.221	0.236	0.457
	Back side	0.400	0.283	0.683
	Left side	0.038	0.398	0.436
	Right side	0.176	/	0.176
	Top side	/	0.138	0.138
	Bottom side	0.185	/	0.185
Band 66	Front side	0.167	0.236	0.403
	Back side	0.358	0.283	0.641
	Left side	0.054	0.398	0.452
	Right side	0.106	/	0.106
	Top side	/	0.138	0.138
	Bottom side	0.415	/	0.415

ENDC_0mm:

LTE Band (EN_DC)	Exposure position	ANT13	n66	EN_DC Summed SAR
			ANT11	
Band 2	Front side	/	/	/
	Back side	1.218	/	1.218
	Left side	/	0.931	0.931
	Right side	/	/	/
	Top side	1.353	/	1.353
	Bottom side	/	/	/

LTE Band (EN_DC)	Exposure position	ANT13	n78	EN_DC Summed SAR
			ANT11	
Band 2	Front side	/	/	/
	Back side	1.218	1.126	2.344
	Left side	/	1.985	1.985
	Right side	/	/	/
	Top side	1.353	/	1.353
	Bottom side	/	/	/
Band 4	Front side	/	/	/
	Back side	/	1.126	1.126
	Left side	/	1.985	1.985
	Right side	/	/	/
	Top side	1.666	/	1.666
	Bottom side	/	/	/
Band 38	Front side	/	/	/
	Back side	1.011	1.126	2.137
	Left side	/	1.985	1.985
	Right side	/	/	/
	Top side	0.865	/	0.865
	Bottom side	/	/	/
Band 66	Front side	/	/	/
	Back side	/	1.126	1.126
	Left side	/	1.985	1.985
	Right side	/	/	/
	Top side	1.239	/	1.239
	Bottom side	/	/	/

Head:

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant11	WiFi 2.4G Ant22	WiFi 5G Ant22	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N2	Left cheek	0.176	0.490	0.438	0.223	0.666	0.614	0.399	0.837	0.661
	Left tilted	0.081	0.402	0.378	0.202	0.483	0.459	0.283	0.661	0.580
	Right cheek	0.500	0.231	0.166	0.113	0.731	0.666	0.613	0.779	0.279
	Right tilted	0.132	0.212	0.195	0.122	0.344	0.327	0.254	0.449	0.317
N7	Left cheek	0.176	0.490	0.438	0.223	0.666	0.614	0.399	0.837	
	Left tilted	0.056	0.402	0.378	0.202	0.458	0.434	0.258	0.636	
	Right cheek	0.298	0.231	0.166	0.113	0.529	0.464	0.411	0.577	
	Right tilted	0.071	0.212	0.195	0.122	0.283	0.266	0.193	0.388	
N38	Left cheek	0.189	0.490	0.438	0.223	0.679	0.627	0.412	0.850	
	Left tilted	0.044	0.402	0.378	0.202	0.446	0.422	0.246	0.624	
	Right cheek	0.394	0.231	0.166	0.113	0.625	0.560	0.507	0.673	
	Right tilted	0.075	0.212	0.195	0.122	0.287	0.270	0.197	0.392	
N41	Left cheek	0.147	0.490	0.438	0.223	0.637	0.585	0.370	0.808	
	Left tilted	0.025	0.402	0.378	0.202	0.427	0.403	0.227	0.605	
	Right cheek	0.330	0.231	0.166	0.113	0.561	0.496	0.443	0.609	
	Right tilted	0.061	0.212	0.195	0.122	0.273	0.256	0.183	0.378	
N66	Left cheek	0.386	0.490	0.438	0.223	0.876	0.824	0.609	1.047	
	Left tilted	0.164	0.402	0.378	0.202	0.566	0.542	0.366	0.744	
	Right cheek	0.967	0.231	0.166	0.113	1.198	1.133	1.080	1.246	
	Right tilted	0.189	0.212	0.195	0.122	0.401	0.384	0.311	0.506	
N77 (3450-3550)	Left cheek	0.330	0.490	0.438	0.223	0.820	0.768	0.553	0.991	
	Left tilted	0.107	0.402	0.378	0.202	0.509	0.485	0.309	0.687	
	Right cheek	0.724	0.231	0.166	0.113	0.955	0.890	0.837	1.003	
	Right tilted	0.159	0.212	0.195	0.122	0.371	0.354	0.281	0.476	
N77 (3700-3980)	Left cheek	0.249	0.490	0.438	0.223	0.739	0.687	0.472	0.910	
	Left tilted	0.119	0.402	0.378	0.202	0.521	0.497	0.321	0.699	
	Right cheek	0.812	0.231	0.166	0.113	1.043	0.978	0.925	1.091	
	Right tilted	0.175	0.212	0.195	0.122	0.387	0.370	0.297	0.492	

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant12	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Left cheek	0.165	0.490	0.438	0.223	0.655	0.603	0.388	0.826
	Left tilted	0.161	0.402	0.378	0.202	0.563	0.539	0.363	0.741
	Right cheek	0.573	0.231	0.166	0.113	0.804	0.739	0.686	0.852
	Right tilted	0.343	0.212	0.195	0.122	0.555	0.538	0.465	0.660
N77 (3700-3980)	Left cheek	0.201	0.490	0.438	0.223	0.691	0.639	0.424	0.862
	Left tilted	0.167	0.402	0.378	0.202	0.569	0.545	0.369	0.747
	Right cheek	0.741	0.231	0.166	0.113	0.972	0.907	0.854	1.020
	Right tilted	0.373	0.212	0.195	0.122	0.585	0.568	0.495	0.690

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant13	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Left cheek	0.568	0.490	0.438	0.223	1.058	1.006	0.791	1.229
	Left tilted	0.445	0.402	0.378	0.202	0.847	0.823	0.647	1.025
	Right cheek	0.591	0.231	0.166	0.113	0.822	0.757	0.704	0.870
	Right tilted	0.597	0.212	0.195	0.122	0.809	0.792	0.719	0.914
GSM1900	Left cheek	0.540	0.490	0.438	0.223	1.030	0.978	0.763	1.201
	Left tilted	0.700	0.402	0.378	0.202	1.102	1.078	0.902	1.280
	Right cheek	0.965	0.231	0.166	0.113	1.196	1.131	1.078	1.244
	Right tilted	0.991	0.212	0.195	0.122	1.203	1.186	1.113	1.308
WCDMA B2	Left cheek	0.357	0.490	0.438	0.223	0.847	0.795	0.580	1.018
	Left tilted	0.541	0.402	0.378	0.202	0.943	0.919	0.743	1.121
	Right cheek	0.707	0.231	0.166	0.113	0.938	0.873	0.820	0.986
	Right tilted	0.941	0.212	0.195	0.122	1.153	1.136	1.063	1.258
WCDMA B4	Left cheek	0.292	0.490	0.438	0.223	0.782	0.730	0.515	0.953
	Left tilted	0.336	0.402	0.378	0.202	0.738	0.714	0.538	0.916
	Right cheek	0.362	0.231	0.166	0.113	0.593	0.528	0.475	0.641
	Right tilted	0.502	0.212	0.195	0.122	0.714	0.697	0.624	0.819
WCDMA B5	Left cheek	0.492	0.490	0.438	0.223	0.982	0.930	0.715	1.153
	Left tilted	0.400	0.402	0.378	0.202	0.802	0.778	0.602	0.980
	Right cheek	0.642	0.231	0.166	0.113	0.873	0.808	0.755	0.921
	Right tilted	0.448	0.212	0.195	0.122	0.660	0.643	0.570	0.765
LTE B2	Left cheek	0.444	0.490	0.438	0.223	0.934	0.882	0.667	1.105
	Left tilted	0.543	0.402	0.378	0.202	0.945	0.921	0.745	1.123
	Right cheek	0.781	0.231	0.166	0.113	1.012	0.947	0.894	1.060
	Right tilted	0.935	0.212	0.195	0.122	1.147	1.130	1.057	1.252
LTE B4	Left cheek	0.371	0.490	0.438	0.223	0.861	0.809	0.594	1.032
	Left tilted	0.471	0.402	0.378	0.202	0.873	0.849	0.673	1.051
	Right cheek	0.686	0.231	0.166	0.113	0.917	0.852	0.799	0.965
	Right tilted	0.819	0.212	0.195	0.122	1.031	1.014	0.941	1.136
LTE B5	Left cheek	0.472	0.490	0.438	0.223	0.962	0.910	0.695	1.133
	Left tilted	0.390	0.402	0.378	0.202	0.792	0.768	0.592	0.970
	Right cheek	0.701	0.231	0.166	0.113	0.932	0.867	0.814	0.980
	Right tilted	0.641	0.212	0.195	0.122	0.853	0.836	0.763	0.958
LTE B7	Left cheek	0.297	0.490	0.438	0.223	0.787	0.735	0.520	0.958
	Left tilted	0.440	0.402	0.378	0.202	0.842	0.818	0.642	1.020
	Right cheek	0.667	0.231	0.166	0.113	0.898	0.833	0.780	0.946
	Right tilted	0.678	0.212	0.195	0.122	0.890	0.873	0.800	0.995
LTE B12	Left cheek	0.628	0.490	0.438	0.223	1.118	1.066	0.851	1.289
	Left tilted	0.550	0.402	0.378	0.202	0.952	0.928	0.752	1.130
	Right cheek	0.989	0.231	0.166	0.113	1.220	1.155	1.102	1.268
	Right tilted	0.798	0.212	0.195	0.122	1.010	0.993	0.920	1.115
LTE B13	Left cheek	0.628	0.490	0.438	0.223	1.118	1.066	0.851	1.289
	Left tilted	0.550	0.402	0.378	0.202	0.952	0.928	0.752	1.130
	Right cheek	0.989	0.231	0.166	0.113	1.220	1.155	1.102	1.268
	Right tilted	0.798	0.212	0.195	0.122	1.010	0.993	0.920	1.115
LTE B26	Left cheek	0.544	0.490	0.438	0.223	1.034	0.982	0.767	1.205
	Left tilted	0.439	0.402	0.378	0.202	0.841	0.817	0.641	1.019

	Right cheek	0.691	0.231	0.166	0.113	0.922	0.857	0.804	0.970
	Right tilted	0.557	0.212	0.195	0.122	0.769	0.752	0.679	0.874
LTE B38	Left cheek	0.384	0.490	0.438	0.223	0.874	0.822	0.607	1.045
	Left tilted	0.508	0.402	0.378	0.202	0.910	0.886	0.710	1.088
	Right cheek	0.743	0.231	0.166	0.113	0.974	0.909	0.856	1.022
	Right tilted	0.861	0.212	0.195	0.122	1.073	1.056	0.983	1.178
LTE B41	Left cheek	0.233	0.490	0.438	0.223	0.723	0.671	0.456	0.894
	Left tilted	0.281	0.402	0.378	0.202	0.683	0.659	0.483	0.861
	Right cheek	0.596	0.231	0.166	0.113	0.827	0.762	0.709	0.875
	Right tilted	0.564	0.212	0.195	0.122	0.776	0.759	0.686	0.881
LTE B66	Left cheek	0.422	0.490	0.438	0.223	0.912	0.860	0.645	1.083
	Left tilted	0.651	0.402	0.378	0.202	1.053	1.029	0.853	1.231
	Right cheek	0.722	0.231	0.166	0.113	0.953	0.888	0.835	1.001
	Right tilted	0.992	0.212	0.195	0.122	1.204	1.187	1.114	1.309
N2	Left cheek	0.379	0.490	0.438	0.223	0.869	0.817	0.602	1.040
	Left tilted	0.507	0.402	0.378	0.202	0.909	0.885	0.709	1.087
	Right cheek	0.637	0.231	0.166	0.113	0.868	0.803	0.750	0.916
	Right tilted	0.785	0.212	0.195	0.122	0.997	0.980	0.907	1.102
N5	Left cheek	0.651	0.490	0.438	0.223	1.141	1.089	0.874	1.312
	Left tilted	0.605	0.402	0.378	0.202	1.007	0.983	0.807	1.185
	Right cheek	0.975	0.231	0.166	0.113	1.206	1.141	1.088	1.254
	Right tilted	0.850	0.212	0.195	0.122	1.062	1.045	0.972	1.167
N26	Left cheek	0.544	0.490	0.438	0.223	1.034	0.982	0.767	1.205
	Left tilted	0.439	0.402	0.378	0.202	0.841	0.817	0.641	1.019
	Right cheek	0.691	0.231	0.166	0.113	0.922	0.857	0.804	0.970
	Right tilted	0.557	0.212	0.195	0.122	0.769	0.752	0.679	0.874
N66	Left cheek	0.279	0.490	0.438	0.223	0.769	0.717	0.502	0.940
	Left tilted	0.415	0.402	0.378	0.202	0.817	0.793	0.617	0.995
	Right cheek	0.533	0.231	0.166	0.113	0.764	0.699	0.646	0.812
	Right tilted	0.618	0.212	0.195	0.122	0.830	0.813	0.740	0.935

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant21	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Left cheek	0.075	0.490	0.438	0.223	0.565	0.513	0.298	0.736
	Left tilted	0.069	0.402	0.378	0.202	0.471	0.447	0.271	0.649
	Right cheek	0.044	0.231	0.166	0.113	0.275	0.210	0.157	0.323
	Right tilted	0.049	0.212	0.195	0.122	0.261	0.244	0.171	0.366
N77 (3700-3980)	Left cheek	0.104	0.490	0.438	0.223	0.594	0.542	0.327	0.765
	Left tilted	0.091	0.402	0.378	0.202	0.493	0.469	0.293	0.671
	Right cheek	0.054	0.231	0.166	0.113	0.285	0.220	0.167	0.333
	Right tilted	0.059	0.212	0.195	0.122	0.271	0.254	0.181	0.376

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant23	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Left cheek	0.058	0.490	0.438	0.223	0.548	0.496	0.281	0.719
	Left tilted	0.032	0.402	0.378	0.202	0.434	0.410	0.234	0.612
	Right cheek	0.031	0.231	0.166	0.113	0.262	0.197	0.144	0.310
	Right tilted	0.013	0.212	0.195	0.122	0.225	0.208	0.135	0.330
N77 (3700-3980)	Left cheek	0.043	0.490	0.438	0.223	0.533	0.481	0.266	0.704
	Left tilted	0.009	0.402	0.378	0.202	0.411	0.387	0.211	0.589
	Right cheek	0.016	0.231	0.166	0.113	0.247	0.182	0.129	0.295
	Right tilted	0.007	0.212	0.195	0.122	0.219	0.202	0.129	0.324

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant31	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Left cheek	0.176	0.490	0.438	0.223	0.666	0.614	0.399	0.837
	Left tilted	0.082	0.402	0.378	0.202	0.484	0.460	0.284	0.662
	Right cheek	0.184	0.231	0.166	0.113	0.415	0.350	0.297	0.463
	Right tilted	0.080	0.212	0.195	0.122	0.292	0.275	0.202	0.397
GSM1900	Left cheek	0.056	0.490	0.438	0.223	0.546	0.494	0.279	0.717
	Left tilted	0.037	0.402	0.378	0.202	0.439	0.415	0.239	0.617
	Right cheek	0.058	0.231	0.166	0.113	0.289	0.224	0.171	0.337
	Right tilted	0.040	0.212	0.195	0.122	0.252	0.235	0.162	0.357
WCDMA B2	Left cheek	0.120	0.490	0.438	0.223	0.610	0.558	0.343	0.781
	Left tilted	0.056	0.402	0.378	0.202	0.458	0.434	0.258	0.636
	Right cheek	0.120	0.231	0.166	0.113	0.351	0.286	0.233	0.399
	Right tilted	0.098	0.212	0.195	0.122	0.310	0.293	0.220	0.415
WCDMA B4	Left cheek	0.119	0.490	0.438	0.223	0.609	0.557	0.342	0.780
	Left tilted	0.078	0.402	0.378	0.202	0.480	0.456	0.280	0.658
	Right cheek	0.120	0.231	0.166	0.113	0.351	0.286	0.233	0.399
	Right tilted	0.090	0.212	0.195	0.122	0.302	0.285	0.212	0.407
WCDMA B5	Left cheek	0.007	0.490	0.438	0.223	0.497	0.445	0.230	0.668
	Left tilted	0.025	0.402	0.378	0.202	0.427	0.403	0.227	0.605
	Right cheek	0.026	0.231	0.166	0.113	0.257	0.192	0.139	0.305
	Right tilted	0.021	0.212	0.195	0.122	0.233	0.216	0.143	0.338
LTE B2	Left cheek	0.111	0.490	0.438	0.223	0.601	0.549	0.334	0.772
	Left tilted	0.046	0.402	0.378	0.202	0.448	0.424	0.248	0.626
	Right cheek	0.096	0.231	0.166	0.113	0.327	0.262	0.209	0.375
	Right tilted	0.064	0.212	0.195	0.122	0.276	0.259	0.186	0.381
LTE B4	Left cheek	0.123	0.490	0.438	0.223	0.613	0.561	0.346	0.784
	Left tilted	0.058	0.402	0.378	0.202	0.460	0.436	0.260	0.638
	Right cheek	0.108	0.231	0.166	0.113	0.339	0.274	0.221	0.387
	Right tilted	0.082	0.212	0.195	0.122	0.294	0.277	0.204	0.399
LTE B5	Left cheek	0.042	0.490	0.438	0.223	0.532	0.480	0.265	0.703
	Left tilted	0.018	0.402	0.378	0.202	0.420	0.396	0.220	0.598
	Right cheek	0.038	0.231	0.166	0.113	0.269	0.204	0.151	0.317
	Right tilted	0.016	0.212	0.195	0.122	0.228	0.211	0.138	0.333
LTE B7	Left cheek	0.170	0.490	0.438	0.223	0.660	0.608	0.393	0.831

	Left tilted	0.055	0.402	0.378	0.202	0.457	0.433	0.257	0.635
	Right cheek	0.506	0.231	0.166	0.113	0.737	0.672	0.619	0.785
	Right tilted	0.119	0.212	0.195	0.122	0.331	0.314	0.241	0.436
LTE B12	Left cheek	0.019	0.490	0.438	0.223	0.509	0.457	0.242	0.680
	Left tilted	0.011	0.402	0.378	0.202	0.413	0.389	0.213	0.591
	Right cheek	0.020	0.231	0.166	0.113	0.251	0.186	0.133	0.299
	Right tilted	0.008	0.212	0.195	0.122	0.220	0.203	0.130	0.325
LTE B13	Left cheek	0.184	0.490	0.438	0.223	0.674	0.622	0.407	0.845
	Left tilted	0.103	0.402	0.378	0.202	0.505	0.481	0.305	0.683
	Right cheek	0.164	0.231	0.166	0.113	0.395	0.330	0.277	0.443
	Right tilted	0.075	0.212	0.195	0.122	0.287	0.270	0.197	0.392
LTE B26	Left cheek	0.049	0.490	0.438	0.223	0.539	0.487	0.272	0.710
	Left tilted	0.026	0.402	0.378	0.202	0.428	0.404	0.228	0.606
	Right cheek	0.047	0.231	0.166	0.113	0.278	0.213	0.160	0.326
	Right tilted	0.020	0.212	0.195	0.122	0.232	0.215	0.142	0.337
LTE B38	Left cheek	0.147	0.490	0.438	0.223	0.637	0.585	0.370	0.808
	Left tilted	0.103	0.402	0.378	0.202	0.505	0.481	0.305	0.683
	Right cheek	0.338	0.231	0.166	0.113	0.569	0.504	0.451	0.617
	Right tilted	0.107	0.212	0.195	0.122	0.319	0.302	0.229	0.424
LTE B41	Left cheek	0.149	0.490	0.438	0.223	0.639	0.587	0.372	0.810
	Left tilted	0.130	0.402	0.378	0.202	0.532	0.508	0.332	0.710
	Right cheek	0.330	0.231	0.166	0.113	0.561	0.496	0.443	0.609
	Right tilted	0.075	0.212	0.195	0.122	0.287	0.270	0.197	0.392
LTE B66	Left cheek	0.139	0.490	0.438	0.223	0.629	0.577	0.362	0.800
	Left tilted	0.056	0.402	0.378	0.202	0.458	0.434	0.258	0.636
	Right cheek	0.134	0.231	0.166	0.113	0.365	0.300	0.247	0.413
	Right tilted	0.079	0.212	0.195	0.122	0.291	0.274	0.201	0.396
N5	Left cheek	0.053	0.490	0.438	0.223	0.543	0.491	0.276	0.714
	Left tilted	0.025	0.402	0.378	0.202	0.427	0.403	0.227	0.605
	Right cheek	0.054	0.231	0.166	0.113	0.285	0.220	0.167	0.333
	Right tilted	0.022	0.212	0.195	0.122	0.234	0.217	0.144	0.339
N7	Left cheek	0.243	0.490	0.438	0.223	0.733	0.681	0.466	0.904
	Left tilted	0.213	0.402	0.378	0.202	0.615	0.591	0.415	0.793
	Right cheek	0.470	0.231	0.166	0.113	0.701	0.636	0.583	0.749
	Right tilted	0.188	0.212	0.195	0.122	0.400	0.383	0.310	0.505
N26	Left cheek	0.056	0.490	0.438	0.223	0.546	0.494	0.279	0.717
	Left tilted	0.025	0.402	0.378	0.202	0.427	0.403	0.227	0.605
	Right cheek	0.057	0.231	0.166	0.113	0.288	0.223	0.170	0.336
	Right tilted	0.024	0.212	0.195	0.122	0.236	0.219	0.146	0.341
N38	Left cheek	0.276	0.490	0.438	0.223	0.766	0.714	0.499	0.937
	Left tilted	0.277	0.402	0.378	0.202	0.679	0.655	0.479	0.857
	Right cheek	0.591	0.231	0.166	0.113	0.822	0.757	0.704	0.870
	Right tilted	0.173	0.212	0.195	0.122	0.385	0.368	0.295	0.490
N41	Left cheek	0.198	0.490	0.438	0.223	0.688	0.636	0.421	0.859
	Left tilted	0.149	0.402	0.378	0.202	0.551	0.527	0.351	0.729
	Right cheek	0.377	0.231	0.166	0.113	0.608	0.543	0.490	0.656
	Right tilted	0.130	0.212	0.195	0.122	0.342	0.325	0.252	0.447

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Test position		SARmax (W/kg)				Summed SAR			
		Inter-band UL CA	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
CA_4A-5A	Left cheek	0.472	0.490	0.438	0.223	0.962	0.910	0.695	1.133
	Left tilted	0.298	0.402	0.378	0.202	0.700	0.676	0.500	0.878
	Right cheek	0.793	0.231	0.166	0.113	1.024	0.959	0.906	1.072
	Right tilted	0.461	0.212	0.195	0.122	0.673	0.656	0.583	0.778
CA_4A-7A	Left cheek	0.356	0.490	0.438	0.223	0.846	0.794	0.579	1.017
	Left tilted	0.291	0.402	0.378	0.202	0.693	0.669	0.493	0.871
	Right cheek	0.850	0.231	0.166	0.113	1.081	1.016	0.963	1.129
	Right tilted	0.529	0.212	0.195	0.122	0.741	0.724	0.651	0.846
CA_5A-7A	Left cheek	0.435	0.490	0.438	0.223	0.925	0.873	0.658	1.096
	Left tilted	0.274	0.402	0.378	0.202	0.676	0.652	0.476	0.854
	Right cheek	0.900	0.231	0.166	0.113	1.131	1.066	1.013	1.179
	Right tilted	0.480	0.212	0.195	0.122	0.692	0.675	0.602	0.797

Test position		SARmax (W/kg)				Summed SAR			
		EN-DC Max SAR	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N5-B7	Left cheek	0.432	0.490	0.438	0.223	0.922	0.870	0.655	1.093
	Left tilted	0.361	0.402	0.378	0.202	0.763	0.739	0.563	0.941
	Right cheek	0.745	0.231	0.166	0.113	0.976	0.911	0.858	1.024
	Right tilted	0.524	0.212	0.195	0.122	0.736	0.719	0.646	0.841
N7-B2	Left cheek	0.311	0.490	0.438	0.223	0.801	0.749	0.534	0.972
	Left tilted	0.300	0.402	0.378	0.202	0.702	0.678	0.502	0.880
	Right cheek	0.540	0.231	0.166	0.113	0.771	0.706	0.653	0.819
	Right tilted	0.504	0.212	0.195	0.122	0.716	0.699	0.626	0.821
N7-B5	Left cheek	0.353	0.490	0.438	0.223	0.843	0.791	0.576	1.014
	Left tilted	0.247	0.402	0.378	0.202	0.649	0.625	0.449	0.827
	Right cheek	0.543	0.231	0.166	0.113	0.774	0.709	0.656	0.822
	Right tilted	0.396	0.212	0.195	0.122	0.608	0.591	0.518	0.713
N7-B66	Left cheek	0.256	0.490	0.438	0.223	0.746	0.694	0.479	0.917
	Left tilted	0.287	0.402	0.378	0.202	0.689	0.665	0.489	0.867
	Right cheek	0.436	0.231	0.166	0.113	0.667	0.602	0.549	0.715
	Right tilted	0.430	0.212	0.195	0.122	0.642	0.625	0.552	0.747
N26-B7	Left cheek	0.372	0.490	0.438	0.223	0.862	0.810	0.595	1.033
	Left tilted	0.268	0.402	0.378	0.202	0.670	0.646	0.470	0.848
	Right cheek	0.585	0.231	0.166	0.113	0.816	0.751	0.698	0.864
	Right tilted	0.359	0.212	0.195	0.122	0.571	0.554	0.481	0.676
N38-B4	Left cheek	0.337	0.490	0.438	0.223	0.827	0.775	0.560	0.998
	Left tilted	0.232	0.402	0.378	0.202	0.634	0.610	0.434	0.812
	Right cheek	0.667	0.231	0.166	0.113	0.898	0.833	0.780	0.946
	Right tilted	0.401	0.212	0.195	0.122	0.613	0.596	0.523	0.718
N38-B66	Left cheek	0.357	0.490	0.438	0.223	0.847	0.795	0.580	1.018
	Left tilted	0.303	0.402	0.378	0.202	0.705	0.681	0.505	0.883
	Right cheek	0.681	0.231	0.166	0.113	0.912	0.847	0.794	0.960
	Right tilted	0.470	0.212	0.195	0.122	0.682	0.665	0.592	0.787
N41-B4	Left cheek	0.222	0.490	0.438	0.223	0.712	0.660	0.445	0.883

	Left tilted	0.201	0.402	0.378	0.202	0.603	0.579	0.403	0.781
	Right cheek	0.438	0.231	0.166	0.113	0.669	0.604	0.551	0.717
	Right tilted	0.357	0.212	0.195	0.122	0.569	0.552	0.479	0.674
N41-B66	Left cheek	0.242	0.490	0.438	0.223	0.732	0.680	0.465	0.903
	Left tilted	0.272	0.402	0.378	0.202	0.674	0.650	0.474	0.852
	Right cheek	0.452	0.231	0.166	0.113	0.683	0.618	0.565	0.731
	Right tilted	0.426	0.212	0.195	0.122	0.638	0.621	0.548	0.743
N66-B2	Left cheek	0.417	0.490	0.438	0.223	0.907	0.855	0.640	1.078
	Left tilted	0.354	0.402	0.378	0.202	0.756	0.732	0.556	0.934
	Right cheek	0.875	0.231	0.166	0.113	1.106	1.041	0.988	1.154
	Right tilted	0.564	0.212	0.195	0.122	0.776	0.759	0.686	0.881
N66-B5	Left cheek	0.459	0.490	0.438	0.223	0.949	0.897	0.682	1.120
	Left tilted	0.301	0.402	0.378	0.202	0.703	0.679	0.503	0.881
	Right cheek	0.878	0.231	0.166	0.113	1.109	1.044	0.991	1.157
	Right tilted	0.456	0.212	0.195	0.122	0.668	0.651	0.578	0.773
N66-B7	Left cheek	0.401	0.490	0.438	0.223	0.891	0.839	0.624	1.062
	Left tilted	0.360	0.402	0.378	0.202	0.762	0.738	0.562	0.940
	Right cheek	0.910	0.231	0.166	0.113	1.141	1.076	1.023	1.189
	Right tilted	0.523	0.212	0.195	0.122	0.735	0.718	0.645	0.840
N78-B2	Left cheek	0.388	0.490	0.438	0.223	0.878	0.826	0.611	1.049
	Left tilted	0.366	0.402	0.378	0.202	0.768	0.744	0.568	0.946
	Right cheek	0.808	0.231	0.166	0.113	1.039	0.974	0.921	1.087
	Right tilted	0.679	0.212	0.195	0.122	0.891	0.874	0.801	0.996
N78-B4	Left cheek	0.313	0.490	0.438	0.223	0.803	0.751	0.536	0.974
	Left tilted	0.282	0.402	0.378	0.202	0.684	0.660	0.484	0.862
	Right cheek	0.690	0.231	0.166	0.113	0.921	0.856	0.803	0.969
	Right tilted	0.536	0.212	0.195	0.122	0.748	0.731	0.658	0.853
N78-B5	Left cheek	0.430	0.490	0.438	0.223	0.920	0.868	0.653	1.091
	Left tilted	0.313	0.402	0.378	0.202	0.715	0.691	0.515	0.893
	Right cheek	0.811	0.231	0.166	0.113	1.042	0.977	0.924	1.090
	Right tilted	0.571	0.212	0.195	0.122	0.783	0.766	0.693	0.888
N78-B7	Left cheek	0.372	0.490	0.438	0.223	0.862	0.810	0.595	1.033
	Left tilted	0.372	0.402	0.378	0.202	0.774	0.750	0.574	0.952
	Right cheek	0.843	0.231	0.166	0.113	1.074	1.009	0.956	1.122
	Right tilted	0.638	0.212	0.195	0.122	0.850	0.833	0.760	0.955
N78-B38	Left cheek	0.358	0.490	0.438	0.223	0.848	0.796	0.581	1.019
	Left tilted	0.349	0.402	0.378	0.202	0.751	0.727	0.551	0.929
	Right cheek	0.789	0.231	0.166	0.113	1.020	0.955	0.902	1.068
	Right tilted	0.642	0.212	0.195	0.122	0.854	0.837	0.764	0.959
N78-B41	Left cheek	0.314	0.490	0.438	0.223	0.804	0.752	0.537	0.975
	Left tilted	0.235	0.402	0.378	0.202	0.637	0.613	0.437	0.815
	Right cheek	0.747	0.231	0.166	0.113	0.978	0.913	0.860	1.026
	Right tilted	0.493	0.212	0.195	0.122	0.705	0.688	0.615	0.810
N78-B66	Left cheek	0.333	0.490	0.438	0.223	0.823	0.771	0.556	0.994
	Left tilted	0.353	0.402	0.378	0.202	0.755	0.731	0.555	0.933
	Right cheek	0.704	0.231	0.166	0.113	0.935	0.870	0.817	0.983
	Right tilted	0.605	0.212	0.195	0.122	0.817	0.800	0.727	0.922

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Body-worn:

Test position		WiFi 5G Ant22	BT	Summed SAR
		1	2	1+2
WLAN	Front side	0.262	0.026	0.288
	Back side	0.882	0.034	0.916

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant11	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N2	Front side	0.247	0.081	0.117	0.026	0.328	0.364	0.273	0.390
	Back side	0.516	0.110	0.327	0.034	0.626	0.843	0.550	0.877
N7	Front side	0.308	0.081	0.117	0.026	0.389	0.425	0.334	0.451
	Back side	0.427	0.110	0.327	0.034	0.537	0.754	0.461	0.788
N38	Front side	0.257	0.081	0.117	0.026	0.338	0.374	0.283	0.400
	Back side	0.385	0.110	0.327	0.034	0.495	0.712	0.419	0.746
N41	Front side	0.250	0.081	0.117	0.026	0.331	0.367	0.276	0.393
	Back side	0.412	0.110	0.327	0.034	0.522	0.739	0.446	0.773
N66	Front side	0.308	0.081	0.117	0.026	0.389	0.425	0.334	0.451
	Back side	0.443	0.110	0.327	0.034	0.553	0.770	0.477	0.804
N77 (3450-3550)	Front side	0.424	0.081	0.117	0.026	0.505	0.541	0.450	0.567
	Back side	0.646	0.110	0.327	0.034	0.756	0.973	0.680	1.007
N77 (3700-3980)	Front side	0.486	0.081	0.117	0.026	0.567	0.603	0.512	0.629
	Back side	0.577	0.110	0.327	0.034	0.687	0.904	0.611	0.938

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant12	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.100	0.081	0.117	0.026	0.181	0.217	0.126	0.243
	Back side	0.118	0.110	0.327	0.034	0.228	0.445	0.152	0.479
N77 (3700-3980)	Front side	0.114	0.081	0.117	0.026	0.195	0.231	0.140	0.257
	Back side	0.141	0.110	0.327	0.034	0.251	0.468	0.175	0.502

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant13	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Front side	0.148	0.081	0.117	0.026	0.229	0.265	0.174	0.291
	Back side	0.210	0.110	0.327	0.034	0.320	0.537	0.244	0.571
GSM1900	Front side	0.390	0.081	0.117	0.026	0.471	0.507	0.416	0.533
	Back side	0.508	0.110	0.327	0.034	0.618	0.835	0.542	0.869
WCDMA B2	Front side	0.544	0.081	0.117	0.026	0.625	0.661	0.570	0.687
	Back side	0.773	0.110	0.327	0.034	0.883	1.100	0.807	1.134
WCDMA B4	Front side	0.380	0.081	0.117	0.026	0.461	0.497	0.406	0.523
	Back side	0.451	0.110	0.327	0.034	0.561	0.778	0.485	0.812
WCDMA B5	Front side	0.234	0.081	0.117	0.026	0.315	0.351	0.260	0.377
	Back side	0.272	0.110	0.327	0.034	0.382	0.599	0.306	0.633

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

LTE B2	Front side	0.534	0.081	0.117	0.026	0.615	0.651	0.560	0.677
	Back side	0.789	0.110	0.327	0.034	0.899	1.116	0.823	1.150
LTE B4	Front side	0.408	0.081	0.117	0.026	0.489	0.525	0.434	0.551
	Back side	0.482	0.110	0.327	0.034	0.592	0.809	0.516	0.843
LTE B5	Front side	0.225	0.081	0.117	0.026	0.306	0.342	0.251	0.368
	Back side	0.242	0.110	0.327	0.034	0.352	0.569	0.276	0.603
LTE B7	Front side	0.205	0.081	0.117	0.026	0.286	0.322	0.231	0.348
	Back side	0.473	0.110	0.327	0.034	0.583	0.800	0.507	0.834
LTE B12	Front side	0.196	0.081	0.117	0.026	0.277	0.313	0.222	0.339
	Back side	0.248	0.110	0.327	0.034	0.358	0.575	0.282	0.609
LTE B13	Front side	0.060	0.081	0.117	0.026	0.141	0.177	0.086	0.203
	Back side	0.077	0.110	0.327	0.034	0.187	0.404	0.111	0.438
LTE B26	Front side	0.223	0.081	0.117	0.026	0.304	0.340	0.249	0.366
	Back side	0.248	0.110	0.327	0.034	0.358	0.575	0.282	0.609
LTE B38	Front side	0.240	0.081	0.117	0.026	0.321	0.357	0.266	0.383
	Back side	0.651	0.110	0.327	0.034	0.761	0.978	0.685	1.012
LTE B41	Front side	0.209	0.081	0.117	0.026	0.290	0.326	0.235	0.352
	Back side	0.336	0.110	0.327	0.034	0.446	0.663	0.370	0.697
LTE B66	Front side	0.405	0.081	0.117	0.026	0.486	0.522	0.431	0.548
	Back side	0.478	0.110	0.327	0.034	0.588	0.805	0.512	0.839
N2	Front side	0.544	0.081	0.117	0.026	0.625	0.661	0.570	0.687
	Back side	0.831	0.110	0.327	0.034	0.941	1.158	0.865	1.192
N5	Front side	0.290	0.081	0.117	0.026	0.371	0.407	0.316	0.433
	Back side	0.293	0.110	0.327	0.034	0.403	0.620	0.327	0.654
N26	Front side	0.239	0.081	0.117	0.026	0.320	0.356	0.265	0.382
	Back side	0.283	0.110	0.327	0.034	0.393	0.610	0.317	0.644
N66	Front side	0.322	0.081	0.117	0.026	0.403	0.439	0.348	0.465
	Back side	0.373	0.110	0.327	0.034	0.483	0.700	0.407	0.734

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant21	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.008	0.081	0.117	0.026	0.089	0.125	0.034	0.151
	Back side	0.016	0.110	0.327	0.034	0.126	0.343	0.050	0.377
N77 (3700-3980)	Front side	0.010	0.081	0.117	0.026	0.091	0.127	0.036	0.153
	Back side	0.024	0.110	0.327	0.034	0.134	0.351	0.058	0.385

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant23	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.003	0.081	0.117	0.026	0.084	0.120	0.029	0.146
	Back side	0.012	0.110	0.327	0.034	0.122	0.339	0.046	0.373
N77 (3700-3980)	Front side	0.003	0.081	0.117	0.026	0.084	0.120	0.029	0.146
	Back side	0.011	0.110	0.327	0.034	0.121	0.338	0.045	0.372

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant31	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Front side	0.099	0.081	0.117	0.026	0.180	0.216	0.125	0.242
	Back side	0.109	0.110	0.327	0.034	0.219	0.436	0.143	0.470
GSM1900	Front side	0.071	0.081	0.117	0.026	0.152	0.188	0.097	0.214
	Back side	0.139	0.110	0.327	0.034	0.249	0.466	0.173	0.500
WCDMA B2	Front side	0.147	0.081	0.117	0.026	0.228	0.264	0.173	0.290
	Back side	0.285	0.110	0.327	0.034	0.395	0.612	0.319	0.646
WCDMA B4	Front side	0.129	0.081	0.117	0.026	0.210	0.246	0.155	0.272
	Back side	0.228	0.110	0.327	0.034	0.338	0.555	0.262	0.589
WCDMA B5	Front side	0.039	0.081	0.117	0.026	0.120	0.156	0.065	0.182
	Back side	0.045	0.110	0.327	0.034	0.155	0.372	0.079	0.406
LTE B2	Front side	0.146	0.081	0.117	0.026	0.227	0.263	0.172	0.289
	Back side	0.280	0.110	0.327	0.034	0.390	0.607	0.314	0.641
LTE B4	Front side	0.147	0.081	0.117	0.026	0.228	0.264	0.173	0.290
	Back side	0.260	0.110	0.327	0.034	0.370	0.587	0.294	0.621
LTE B5	Front side	0.036	0.081	0.117	0.026	0.117	0.153	0.062	0.179
	Back side	0.036	0.110	0.327	0.034	0.146	0.363	0.070	0.397
LTE B7	Front side	0.130	0.081	0.117	0.026	0.211	0.247	0.156	0.273
	Back side	0.199	0.110	0.327	0.034	0.309	0.526	0.233	0.560
LTE B12	Front side	0.028	0.081	0.117	0.026	0.109	0.145	0.054	0.171
	Back side	0.033	0.110	0.327	0.034	0.143	0.360	0.067	0.394
LTE B13	Front side	0.234	0.081	0.117	0.026	0.315	0.351	0.260	0.377
	Back side	0.227	0.110	0.327	0.034	0.337	0.554	0.261	0.588
LTE B26	Front side	0.037	0.081	0.117	0.026	0.118	0.154	0.063	0.180
	Back side	0.036	0.110	0.327	0.034	0.146	0.363	0.070	0.397
LTE B38	Front side	0.180	0.081	0.117	0.026	0.261	0.297	0.206	0.323
	Back side	0.247	0.110	0.327	0.034	0.357	0.574	0.281	0.608
LTE B41	Front side	0.137	0.081	0.117	0.026	0.218	0.254	0.163	0.280
	Back side	0.197	0.110	0.327	0.034	0.307	0.524	0.231	0.558
LTE B66	Front side	0.146	0.081	0.117	0.026	0.227	0.263	0.172	0.289
	Back side	0.257	0.110	0.327	0.034	0.367	0.584	0.291	0.618
N5	Front side	0.049	0.081	0.117	0.026	0.130	0.166	0.075	0.192
	Back side	0.046	0.110	0.327	0.034	0.156	0.373	0.080	0.407
N7	Front side	0.164	0.081	0.117	0.026	0.245	0.281	0.190	0.307
	Back side	0.254	0.110	0.327	0.034	0.364	0.581	0.288	0.615
N26	Front side	0.040	0.081	0.117	0.026	0.121	0.157	0.066	0.183
	Back side	0.064	0.110	0.327	0.034	0.174	0.391	0.098	0.425
N38	Front side	0.241	0.081	0.117	0.026	0.322	0.358	0.267	0.384
	Back side	0.345	0.110	0.327	0.034	0.455	0.672	0.379	0.706
N41	Front side	0.216	0.081	0.117	0.026	0.297	0.333	0.242	0.359
	Back side	0.294	0.110	0.327	0.034	0.404	0.621	0.328	0.655

Test position	SARmax (W/kg)				Summed SAR			
	Inter-band UL CA	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
	1	2	3	4	1+2	1+3	1+4	1+3+4

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

CA_4A-5A	Front side	0.367	0.081	0.117	0.026	0.448	0.484	0.393	0.510
	Back side	0.482	0.110	0.327	0.034	0.592	0.809	0.516	0.843
CA_4A-7A	Front side	0.538	0.081	0.117	0.026	0.619	0.655	0.564	0.681
	Back side	0.681	0.110	0.327	0.034	0.791	1.008	0.715	1.042
CA_5A-7A	Front side	0.355	0.081	0.117	0.026	0.436	0.472	0.381	0.498
	Back side	0.441	0.110	0.327	0.034	0.551	0.768	0.475	0.802

Test position		SARmax (W/kg)				Summed SAR			
		EN-DC Max SAR	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N5-B7	Front side	0.495	0.081	0.117	0.026	0.576	0.612	0.521	0.638
	Back side	0.766	0.110	0.327	0.034	0.876	1.093	0.800	1.127
N7-B2	Front side	0.546	0.081	0.117	0.026	0.627	0.663	0.572	0.689
	Back side	0.779	0.110	0.327	0.034	0.889	1.106	0.813	1.140
N7-B5	Front side	0.533	0.081	0.117	0.026	0.614	0.650	0.559	0.676
	Back side	0.669	0.110	0.327	0.034	0.779	0.996	0.703	1.030
N7-B66	Front side	0.713	0.081	0.117	0.026	0.794	0.830	0.739	0.856
	Back side	0.905	0.110	0.327	0.034	1.015	1.232	0.939	1.266
N26-B7	Front side	0.444	0.081	0.117	0.026	0.525	0.561	0.470	0.587
	Back side	0.756	0.110	0.327	0.034	0.866	1.083	0.790	1.117
N38-B4	Front side	0.665	0.081	0.117	0.026	0.746	0.782	0.691	0.808
	Back side	0.867	0.110	0.327	0.034	0.977	1.194	0.901	1.228
N38-B66	Front side	0.662	0.081	0.117	0.026	0.743	0.779	0.688	0.805
	Back side	0.863	0.110	0.327	0.034	0.973	1.190	0.897	1.224
N41-B4	Front side	0.658	0.081	0.117	0.026	0.739	0.775	0.684	0.801
	Back side	0.894	0.110	0.327	0.034	1.004	1.221	0.928	1.255
N41-B66	Front side	0.655	0.081	0.117	0.026	0.736	0.772	0.681	0.798
	Back side	0.890	0.110	0.327	0.034	1.000	1.217	0.924	1.251
N66-B2	Front side	0.546	0.081	0.117	0.026	0.627	0.663	0.572	0.689
	Back side	0.795	0.110	0.327	0.034	0.905	1.122	0.829	1.156
N66-B5	Front side	0.533	0.081	0.117	0.026	0.614	0.650	0.559	0.676
	Back side	0.685	0.110	0.327	0.034	0.795	1.012	0.719	1.046
N66-B7	Front side	0.550	0.081	0.117	0.026	0.631	0.667	0.576	0.693
	Back side	0.916	0.110	0.327	0.034	1.026	1.243	0.950	1.277
N78-B2	Front side	0.352	0.081	0.117	0.026	0.433	0.469	0.378	0.495
	Back side	0.493	0.110	0.327	0.034	0.603	0.820	0.527	0.854
N78-B4	Front side	0.522	0.081	0.117	0.026	0.603	0.639	0.548	0.665
	Back side	0.623	0.110	0.327	0.034	0.733	0.950	0.657	0.984
N78-B5	Front side	0.339	0.081	0.117	0.026	0.420	0.456	0.365	0.482
	Back side	0.383	0.110	0.327	0.034	0.493	0.710	0.417	0.744
N78-B7	Front side	0.356	0.081	0.117	0.026	0.437	0.473	0.382	0.499
	Back side	0.614	0.110	0.327	0.034	0.724	0.941	0.648	0.975
N78-B38	Front side	0.354	0.081	0.117	0.026	0.435	0.471	0.380	0.497
	Back side	0.792	0.110	0.327	0.034	0.902	1.119	0.826	1.153
N78-B41	Front side	0.323	0.081	0.117	0.026	0.404	0.440	0.349	0.466
	Back side	0.477	0.110	0.327	0.034	0.587	0.804	0.511	0.838
N78-B66	Front side	0.519	0.081	0.117	0.026	0.600	0.636	0.545	0.662
	Back side	0.619	0.110	0.327	0.034	0.729	0.946	0.653	0.980

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Hotspot:

Test position		WiFi 5G Ant22	BT	Summed SAR
		1	2	1+2
WLAN	Front side	0.392	0.054	0.446
	Back side	0.994	0.081	1.075
	Left side	/	/	/
	Right side	0.878	0.031	0.909
	Top side	0.976	0.066	1.042
	Bottom side	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant11	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N2	Front side	0.155	0.173	0.247	0.054	0.328	0.402	0.209	0.456
	Back side	0.302	0.226	0.627	0.081	0.528	0.929	0.383	1.010
	Left side	0.299	/	/	/	0.299	0.299	0.299	0.299
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.030	0.148	0.616	0.066	0.178	0.646	0.096	0.712
	Bottom side	/	/	/	/	/	/	/	/
N7	Front side	0.158	0.173	0.247	0.054	0.331	0.405	0.212	0.459
	Back side	0.276	0.226	0.627	0.081	0.502	0.903	0.357	0.984
	Left side	0.318	/	/	/	0.318	0.318	0.318	0.318
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.019	0.148	0.616	0.066	0.167	0.635	0.085	0.701
	Bottom side	/	/	/	/	/	/	/	/
N38	Front side	0.123	0.173	0.247	0.054	0.296	0.370	0.177	0.424
	Back side	0.202	0.226	0.627	0.081	0.428	0.829	0.283	0.910
	Left side	0.268	/	/	/	0.268	0.268	0.268	0.268
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.027	0.148	0.616	0.066	0.175	0.643	0.093	0.709
	Bottom side	/	/	/	/	/	/	/	/
N41	Front side	0.127	0.173	0.247	0.054	0.300	0.374	0.181	0.428
	Back side	0.231	0.226	0.627	0.081	0.457	0.858	0.312	0.939
	Left side	0.293	/	/	/	0.293	0.293	0.293	0.293
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.033	0.148	0.616	0.066	0.181	0.649	0.099	0.715
	Bottom side	/	/	/	/	/	/	/	/
N66	Front side	0.144	0.173	0.247	0.054	0.317	0.391	0.198	0.445
	Back side	0.241	0.226	0.627	0.081	0.467	0.868	0.322	0.949
	Left side	0.324	/	/	/	0.324	0.324	0.324	0.324
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.015	0.148	0.616	0.066	0.163	0.631	0.081	0.697
	Bottom side	/	/	/	/	/	/	/	/
N77 (3450-3550)	Front side	0.121	0.173	0.247	0.054	0.294	0.368	0.175	0.422
	Back side	0.184	0.226	0.627	0.081	0.410	0.811	0.265	0.892
	Left side	0.365	/	/	/	0.365	0.365	0.365	0.365
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.023	0.148	0.616	0.066	0.171	0.639	0.089	0.705
	Bottom side	/	/	/	/	/	/	/	/

N77 (3700-3980)	Front side	0.117	0.173	0.247	0.054	0.290	0.364	0.171	0.418
	Back side	0.144	0.226	0.627	0.081	0.370	0.771	0.225	0.852
	Left side	0.281	/	/	/	0.281	0.281	0.281	0.281
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.019	0.148	0.616	0.066	0.167	0.635	0.085	0.701
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant12	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.205	0.173	0.247	0.054	0.378	0.452	0.259	0.506
	Back side	0.256	0.226	0.627	0.081	0.482	0.883	0.337	0.964
	Left side	0.213	/	/	/	0.213	0.213	0.213	0.213
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.122	0.148	0.616	0.066	0.270	0.738	0.188	0.804
	Bottom side	/	/	/	/	/	/	/	/
N77 (3700-3980)	Front side	0.236	0.173	0.247	0.054	0.409	0.483	0.290	0.537
	Back side	0.283	0.226	0.627	0.081	0.509	0.910	0.364	0.991
	Left side	0.398	/	/	/	0.398	0.398	0.398	0.398
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.138	0.148	0.616	0.066	0.286	0.754	0.204	0.820
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant13	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Front side	0.277	0.173	0.247	0.054	0.450	0.524	0.331	0.578
	Back side	0.409	0.226	0.627	0.081	0.635	1.036	0.490	1.117
	Left side	0.180	/	/	/	0.180	0.180	0.180	0.180
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.273	0.148	0.616	0.066	0.421	0.889	0.339	0.955
	Bottom side	/	/	/	/	/	/	/	/
GSM1900	Front side	0.348	0.173	0.247	0.054	0.521	0.595	0.402	0.649
	Back side	0.486	0.226	0.627	0.081	0.712	1.113	0.567	1.194
	Left side	0.079	/	/	/	0.079	0.079	0.079	0.079
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.672	0.148	0.616	0.066	0.820	1.288	0.738	1.354
	Bottom side	/	/	/	/	/	/	/	/
WCDMA B2	Front side	0.291	0.173	0.247	0.054	0.464	0.538	0.345	0.592
	Back side	0.347	0.226	0.627	0.081	0.573	0.974	0.428	1.055
	Left side	0.064	/	/	/	0.064	0.064	0.064	0.064
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.530	0.148	0.616	0.066	0.678	1.146	0.596	1.212
	Bottom side	/	/	/	/	/	/	/	/
WCDMA B4	Front side	0.119	0.173	0.247	0.054	0.292	0.366	0.173	0.420
	Back side	0.136	0.226	0.627	0.081	0.362	0.763	0.217	0.844
	Left side	0.023	/	/	/	0.023	0.023	0.023	0.023
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.192	0.148	0.616	0.066	0.340	0.808	0.258	0.874

	Bottom side	/	/	/	/	/	/	/	/
WCDMA B5	Front side	0.220	0.173	0.247	0.054	0.393	0.467	0.274	0.521
	Back side	0.299	0.226	0.627	0.081	0.525	0.926	0.380	1.007
	Left side	0.140	/	/	/	0.140	0.140	0.140	0.140
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.226	0.148	0.616	0.066	0.374	0.842	0.292	0.908
	Bottom side	/	/	/	/	/	/	/	/
LTE B2	Front side	0.223	0.173	0.247	0.054	0.396	0.470	0.277	0.524
	Back side	0.294	0.226	0.627	0.081	0.520	0.921	0.375	1.002
	Left side	0.050	/	/	/	0.050	0.050	0.050	0.050
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.419	0.148	0.616	0.066	0.567	1.035	0.485	1.101
	Bottom side	/	/	/	/	/	/	/	/
LTE B4	Front side	0.134	0.173	0.247	0.054	0.307	0.381	0.188	0.435
	Back side	0.163	0.226	0.627	0.081	0.389	0.790	0.244	0.871
	Left side	0.025	/	/	/	0.025	0.025	0.025	0.025
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.229	0.148	0.616	0.066	0.377	0.845	0.295	0.911
	Bottom side	/	/	/	/	/	/	/	/
LTE B5	Front side	0.263	0.173	0.247	0.054	0.436	0.510	0.317	0.564
	Back side	0.311	0.226	0.627	0.081	0.537	0.938	0.392	1.019
	Left side	0.124	/	/	/	0.124	0.124	0.124	0.124
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.219	0.148	0.616	0.066	0.367	0.835	0.285	0.901
	Bottom side	/	/	/	/	/	/	/	/
LTE B7	Front side	0.117	0.173	0.247	0.054	0.290	0.364	0.171	0.418
	Back side	0.367	0.226	0.627	0.081	0.593	0.994	0.448	1.075
	Left side	0.156	/	/	/	0.156	0.156	0.156	0.156
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.372	0.148	0.616	0.066	0.520	0.988	0.438	1.054
	Bottom side	/	/	/	/	/	/	/	/
LTE B12	Front side	0.186	0.173	0.247	0.054	0.359	0.433	0.240	0.487
	Back side	0.244	0.226	0.627	0.081	0.470	0.871	0.325	0.952
	Left side	0.213	/	/	/	0.213	0.213	0.213	0.213
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.142	0.148	0.616	0.066	0.290	0.758	0.208	0.824
	Bottom side	/	/	/	/	/	/	/	/
LTE B13	Front side	0.073	0.173	0.247	0.054	0.246	0.320	0.127	0.374
	Back side	0.093	0.226	0.627	0.081	0.319	0.720	0.174	0.801
	Left side	0.072	/	/	/	0.072	0.072	0.072	0.072
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.061	0.148	0.616	0.066	0.209	0.677	0.127	0.743
	Bottom side	/	/	/	/	/	/	/	/
LTE B26	Front side	0.251	0.173	0.247	0.054	0.424	0.498	0.305	0.552
	Back side	0.308	0.226	0.627	0.081	0.534	0.935	0.389	1.016
	Left side	0.143	/	/	/	0.143	0.143	0.143	0.143
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.227	0.148	0.616	0.066	0.375	0.843	0.293	0.909
	Bottom side	/	/	/	/	/	/	/	/
LTE B38	Front side	0.164	0.173	0.247	0.054	0.337	0.411	0.218	0.465
	Back side	0.491	0.226	0.627	0.081	0.717	1.118	0.572	1.199
	Left side	0.150	/	/	/	0.150	0.150	0.150	0.150

	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.662	0.148	0.616	0.066	0.810	1.278	0.728	1.344
	Bottom side	/	/	/	/	/	/	/	/
LTE B41	Front side	0.131	0.173	0.247	0.054	0.304	0.378	0.185	0.432
	Back side	0.311	0.226	0.627	0.081	0.537	0.938	0.392	1.019
	Left side	0.209	/	/	/	0.209	0.209	0.209	0.209
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.361	0.148	0.616	0.066	0.509	0.977	0.427	1.043
	Bottom side	/	/	/	/	/	/	/	/
LTE B66	Front side	0.119	0.173	0.247	0.054	0.292	0.366	0.173	0.420
	Back side	0.145	0.226	0.627	0.081	0.371	0.772	0.226	0.853
	Left side	0.025	/	/	/	0.025	0.025	0.025	0.025
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.204	0.148	0.616	0.066	0.352	0.820	0.270	0.886
	Bottom side	/	/	/	/	/	/	/	/
N2	Front side	0.219	0.173	0.247	0.054	0.392	0.466	0.273	0.520
	Back side	0.295	0.226	0.627	0.081	0.521	0.922	0.376	1.003
	Left side	0.068	/	/	/	0.068	0.068	0.068	0.068
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.471	0.148	0.616	0.066	0.619	1.087	0.537	1.153
	Bottom side	/	/	/	/	/	/	/	/
N5	Front side	0.317	0.173	0.247	0.054	0.490	0.564	0.371	0.618
	Back side	0.422	0.226	0.627	0.081	0.648	1.049	0.503	1.130
	Left side	0.296	/	/	/	0.296	0.296	0.296	0.296
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.325	0.148	0.616	0.066	0.473	0.941	0.391	1.007
	Bottom side	/	/	/	/	/	/	/	/
N26	Front side	0.179	0.173	0.247	0.054	0.352	0.426	0.233	0.480
	Back side	0.241	0.226	0.627	0.081	0.467	0.868	0.322	0.949
	Left side	0.145	/	/	/	0.145	0.145	0.145	0.145
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.170	0.148	0.616	0.066	0.318	0.786	0.236	0.852
	Bottom side	/	/	/	/	/	/	/	/
N66	Front side	0.195	0.173	0.247	0.054	0.368	0.442	0.249	0.496
	Back side	0.234	0.226	0.627	0.081	0.460	0.861	0.315	0.942
	Left side	0.065	/	/	/	0.065	0.065	0.065	0.065
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.355	0.148	0.616	0.066	0.503	0.971	0.421	1.037
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant21	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.014	0.173	0.247	0.054	0.187	0.261	0.068	0.315
	Back side	0.029	0.226	0.627	0.081	0.255	0.656	0.110	0.737
	Left side	/	/	/	/	/	/	/	/
	Right side	0.005	0.127	0.554	0.031	0.132	0.559	0.036	0.590
	Top side	0.032	0.148	0.616	0.066	0.180	0.648	0.098	0.714
	Bottom side	/	/	/	/	/	/	/	/
N77 (3700-3980)	Front side	0.018	0.173	0.247	0.054	0.191	0.265	0.072	0.319
	Back side	0.042	0.226	0.627	0.081	0.268	0.669	0.123	0.750
	Left side	/	/	/	/	/	/	/	/
	Right side	0.010	0.127	0.554	0.031	0.137	0.564	0.041	0.595
	Top side	0.039	0.148	0.616	0.066	0.187	0.655	0.105	0.721
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant23	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N77 (3450-3550)	Front side	0.006	0.173	0.247	0.054	0.179	0.253	0.060	0.307
	Back side	0.024	0.226	0.627	0.081	0.250	0.651	0.105	0.732
	Left side	/	/	/	/	/	/	/	/
	Right side	0.029	0.127	0.554	0.031	0.156	0.583	0.060	0.614
	Top side	0.008	0.148	0.616	0.066	0.156	0.624	0.074	0.690
	Bottom side	/	/	/	/	/	/	/	/
N77 (3700-3980)	Front side	0.004	0.173	0.247	0.054	0.177	0.251	0.058	0.305
	Back side	0.020	0.226	0.627	0.081	0.246	0.647	0.101	0.728
	Left side	/	/	/	/	/	/	/	/
	Right side	0.021	0.127	0.554	0.031	0.148	0.575	0.052	0.606
	Top side	0.002	0.148	0.616	0.066	0.150	0.618	0.068	0.684
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant31	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM850	Front side	0.182	0.173	0.247	0.054	0.355	0.429	0.236	0.483
	Back side	0.265	0.226	0.627	0.081	0.491	0.892	0.346	0.973
	Left side	0.161	/	/	/	0.161	0.161	0.161	0.161
	Right side	0.111	0.127	0.554	0.031	0.238	0.665	0.142	0.696
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.160	/	/	/	0.160	0.160	0.160	0.160
GSM1900	Front side	0.132	0.173	0.247	0.054	0.305	0.379	0.186	0.433
	Back side	0.321	0.226	0.627	0.081	0.547	0.948	0.402	1.029
	Left side	0.038	/	/	/	0.038	0.038	0.038	0.038
	Right side	0.084	0.127	0.554	0.031	0.211	0.638	0.115	0.669
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.335	/	/	/	0.335	0.335	0.335	0.335

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

WCDMA B2	Front side	0.256	0.173	0.247	0.054	0.429	0.503	0.310	0.557
	Back side	0.564	0.226	0.627	0.081	0.790	1.191	0.645	1.272
	Left side	0.085	/	/	/	0.085	0.085	0.085	0.085
	Right side	0.162	0.127	0.554	0.031	0.289	0.716	0.193	0.747
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.598	/	/	/	0.598	0.598	0.598	0.598
WCDMA B4	Front side	0.265	0.173	0.247	0.054	0.438	0.512	0.319	0.566
	Back side	0.543	0.226	0.627	0.081	0.769	1.170	0.624	1.251
	Left side	0.071	/	/	/	0.071	0.071	0.071	0.071
	Right side	0.147	0.127	0.554	0.031	0.274	0.701	0.178	0.732
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.580	/	/	/	0.580	0.580	0.580	0.580
WCDMA B5	Front side	0.050	0.173	0.247	0.054	0.223	0.297	0.104	0.351
	Back side	0.086	0.226	0.627	0.081	0.312	0.713	0.167	0.794
	Left side	0.053	/	/	/	0.053	0.053	0.053	0.053
	Right side	0.036	0.127	0.554	0.031	0.163	0.590	0.067	0.621
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.052	/	/	/	0.052	0.052	0.052	0.052
LTE B2	Front side	0.137	0.173	0.247	0.054	0.310	0.384	0.191	0.438
	Back side	0.306	0.226	0.627	0.081	0.532	0.933	0.387	1.014
	Left side	0.040	/	/	/	0.040	0.040	0.040	0.040
	Right side	0.080	0.127	0.554	0.031	0.207	0.634	0.111	0.665
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.304	/	/	/	0.304	0.304	0.304	0.304
LTE B4	Front side	0.150	0.173	0.247	0.054	0.323	0.397	0.204	0.451
	Back side	0.320	0.226	0.627	0.081	0.546	0.947	0.401	1.028
	Left side	0.042	/	/	/	0.042	0.042	0.042	0.042
	Right side	0.095	0.127	0.554	0.031	0.222	0.649	0.126	0.680
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.380	/	/	/	0.380	0.380	0.380	0.380
LTE B5	Front side	0.047	0.173	0.247	0.054	0.220	0.294	0.101	0.348
	Back side	0.074	0.226	0.627	0.081	0.300	0.701	0.155	0.782
	Left side	0.040	/	/	/	0.040	0.040	0.040	0.040
	Right side	0.029	0.127	0.554	0.031	0.156	0.583	0.060	0.614
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.048	/	/	/	0.048	0.048	0.048	0.048
LTE B7	Front side	0.264	0.173	0.247	0.054	0.437	0.511	0.318	0.565
	Back side	0.476	0.226	0.627	0.081	0.702	1.103	0.557	1.184
	Left side	0.051	/	/	/	0.051	0.051	0.051	0.051
	Right side	0.213	0.127	0.554	0.031	0.340	0.767	0.244	0.798
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.225	/	/	/	0.225	0.225	0.225	0.225
LTE B12	Front side	0.027	0.173	0.247	0.054	0.200	0.274	0.081	0.328
	Back side	0.031	0.226	0.627	0.081	0.257	0.658	0.112	0.739
	Left side	0.045	/	/	/	0.045	0.045	0.045	0.045
	Right side	0.032	0.127	0.554	0.031	0.159	0.586	0.063	0.617
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.011	/	/	/	0.011	0.011	0.011	0.011
LTE B13	Front side	0.215	0.173	0.247	0.054	0.388	0.462	0.269	0.516
	Back side	0.236	0.226	0.627	0.081	0.462	0.863	0.317	0.944
	Left side	0.229	/	/	/	0.229	0.229	0.229	0.229
	Right side	0.202	0.127	0.554	0.031	0.329	0.756	0.233	0.787

	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.113	/	/	/	0.113	0.113	0.113	0.113
LTE B26	Front side	0.052	0.173	0.247	0.054	0.225	0.299	0.106	0.353
	Back side	0.077	0.226	0.627	0.081	0.303	0.704	0.158	0.785
	Left side	0.041	/	/	/	0.041	0.041	0.041	0.041
	Right side	0.030	0.127	0.554	0.031	0.157	0.584	0.061	0.615
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.054	/	/	/	0.054	0.054	0.054	0.054
LTE B38	Front side	0.277	0.173	0.247	0.054	0.450	0.524	0.331	0.578
	Back side	0.485	0.226	0.627	0.081	0.711	1.112	0.566	1.193
	Left side	0.044	/	/	/	0.044	0.044	0.044	0.044
	Right side	0.229	0.127	0.554	0.031	0.356	0.783	0.260	0.814
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.222	/	/	/	0.222	0.222	0.222	0.222
LTE B41	Front side	0.221	0.173	0.247	0.054	0.394	0.468	0.275	0.522
	Back side	0.400	0.226	0.627	0.081	0.626	1.027	0.481	1.108
	Left side	0.038	/	/	/	0.038	0.038	0.038	0.038
	Right side	0.176	0.127	0.554	0.031	0.303	0.730	0.207	0.761
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.185	/	/	/	0.185	0.185	0.185	0.185
LTE B66	Front side	0.167	0.173	0.247	0.054	0.340	0.414	0.221	0.468
	Back side	0.358	0.226	0.627	0.081	0.584	0.985	0.439	1.066
	Left side	0.054	/	/	/	0.054	0.054	0.054	0.054
	Right side	0.106	0.127	0.554	0.031	0.233	0.660	0.137	0.691
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.415	/	/	/	0.415	0.415	0.415	0.415
N5	Front side	0.076	0.173	0.247	0.054	0.249	0.323	0.130	0.377
	Back side	0.098	0.226	0.627	0.081	0.324	0.725	0.179	0.806
	Left side	0.068	/	/	/	0.068	0.068	0.068	0.068
	Right side	0.048	0.127	0.554	0.031	0.175	0.602	0.079	0.633
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.073	/	/	/	0.073	0.073	0.073	0.073
N7	Front side	0.270	0.173	0.247	0.054	0.443	0.517	0.324	0.571
	Back side	0.488	0.226	0.627	0.081	0.714	1.115	0.569	1.196
	Left side	0.060	/	/	/	0.060	0.060	0.060	0.060
	Right side	0.270	0.127	0.554	0.031	0.397	0.824	0.301	0.855
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.279	/	/	/	0.279	0.279	0.279	0.279
N26	Front side	0.090	0.173	0.247	0.054	0.263	0.337	0.144	0.391
	Back side	0.125	0.226	0.627	0.081	0.351	0.752	0.206	0.833
	Left side	0.080	/	/	/	0.080	0.080	0.080	0.080
	Right side	0.055	0.127	0.554	0.031	0.182	0.609	0.086	0.640
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.087	/	/	/	0.087	0.087	0.087	0.087
N38	Front side	0.397	0.173	0.247	0.054	0.570	0.644	0.451	0.698
	Back side	0.684	0.226	0.627	0.081	0.910	1.311	0.765	1.392
	Left side	0.066	/	/	/	0.066	0.066	0.066	0.066
	Right side	0.347	0.127	0.554	0.031	0.474	0.901	0.378	0.932
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.327	/	/	/	0.327	0.327	0.327	0.327
N41	Front side	0.332	0.173	0.247	0.054	0.505	0.579	0.386	0.633
	Back side	0.576	0.226	0.627	0.081	0.802	1.203	0.657	1.284

	Left side	0.056	/	/	/	0.056	0.056	0.056	0.056
	Right side	0.312	0.127	0.554	0.031	0.439	0.866	0.343	0.897
	Top side	/	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.311	/	/	/	0.311	0.311	0.311	0.311

Test position		SARmax (W/kg)				Summed SAR			
		Inter-band UL CA	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
CA_4A-5A	Front side	0.108	0.173	0.247	0.054	0.281	0.355	0.162	0.409
	Back side	0.178	0.226	0.627	0.081	0.404	0.805	0.259	0.886
	Left side	0.162	/	/	/	0.162	0.162	0.162	0.162
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.019	0.148	0.616	0.066	0.167	0.635	0.085	0.701
	Bottom side	/	/	/	/	/	/	/	/
CA_4A-7A	Front side	0.108	0.173	0.247	0.054	0.281	0.355	0.162	0.409
	Back side	0.178	0.226	0.627	0.081	0.404	0.805	0.259	0.886
	Left side	0.162	/	/	/	0.162	0.162	0.162	0.162
	Right side	/	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.019	0.148	0.616	0.066	0.167	0.635	0.085	0.701
	Bottom side	/	/	/	/	/	/	/	/
CA_5A-7A	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		EN-DC Max SAR	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N5-B7	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N7-B2	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N7-B5	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N7-B66	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301

	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N26-B7	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N38-B4	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N38-B66	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N41-B4	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N41-B66	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N66-B2	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N66-B5	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N66-B7	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B2	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B4	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B5	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B7	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B38	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B41	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/
N78-B66	Front side	0.000	0.173	0.247	0.054	0.173	0.247	0.054	0.301
	Back side	0.000	0.226	0.627	0.081	0.226	0.627	0.081	0.708
	Left side	0.000	/	/	/	/	/	/	/
	Right side	0.000	0.127	0.554	0.031	0.127	0.554	0.031	0.585
	Top side	0.000	0.148	0.616	0.066	0.148	0.616	0.066	0.682
	Bottom side	0.000	/	/	/	/	/	/	/

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

Product specific 10g SAR:

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant11	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
N66	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	/	/	0.670	/	/	0.670	/	0.670
	Left side	0.931	/	/	/	0.931	0.931	0.931	0.931
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	/	/	0.758	/	/	0.758	/	0.758
	Bottom side	/	/	/	/	/	/	/	/
N77 (3450-3550)	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	1.126	/	0.670	/	1.126	1.796	1.126	1.796
	Left side	1.985	/	/	/	1.985	1.985	1.985	1.985
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	/	/	0.758	/	/	0.758	/	0.758
	Bottom side	/	/	/	/	/	/	/	/
N77 (3700-3980)	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	0.722	/	0.670	/	0.722	1.392	0.722	1.392
	Left side	0.979	/	/	/	0.979	0.979	0.979	0.979
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	/	/	0.758	/	/	0.758	/	0.758
	Bottom side	/	/	/	/	/	/	/	/

Test position		SARmax (W/kg)				Summed SAR			
		Main Ant13	WiFi 2.4G Ant22	WiFi 5G Ant22	BT				
		1	2	3	4	1+2	1+3	1+4	1+3+4
GSM1900	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	0.885	/	0.670	/	0.885	1.555	0.885	1.555
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	0.943	/	0.758	/	0.943	1.701	0.943	1.701
	Bottom side	/	/	/	/	/	/	/	/
WCDMA B2	Front side	1.016	/	0.383	/	1.016	1.399	1.016	1.399
	Back side	0.818	/	0.670	/	0.818	1.488	0.818	1.488
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	1.115	/	0.758	/	1.115	1.873	1.115	1.873
	Bottom side	/	/	/	/	/	/	/	/
WCDMA B4	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	/	/	0.670	/	/	0.670	/	0.670
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	0.779	/	0.758	/	0.779	1.537	0.779	1.537
	Bottom side	/	/	/	/	/	/	/	/
LTE B2	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	1.218	/	0.670	/	1.218	1.888	1.218	1.888
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	1.353	/	0.758	/	1.353	2.111	1.353	2.111

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

	Bottom side	/	/	/	/	/	/	/	/
LTE B4	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	/	/	0.670	/	/	0.670	/	0.670
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	1.666	/	0.758	/	1.666	2.424	1.666	2.424
	Bottom side	/	/	/	/	/	/	/	/
LTE B38	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	1.011	/	0.670	/	1.011	1.681	1.011	1.681
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	0.865	/	0.758	/	0.865	1.623	0.865	1.623
	Bottom side	/	/	/	/	/	/	/	/
LTE B66	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	/	/	0.670	/	/	0.670	/	0.670
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	1.239	/	0.758	/	1.239	1.997	1.239	1.997
	Bottom side	/	/	/	/	/	/	/	/
N2	Front side	/	/	0.383	/	/	0.383	/	0.383
	Back side	0.838	/	0.670	/	0.838	1.508	0.838	1.508
	Left side	/	/	/	/	/	/	/	/
	Right side	/	/	0.864	/	/	0.864	/	0.864
	Top side	1.131	/	0.758	/	1.131	1.889	1.131	1.889
	Bottom side	/	/	/	/	/	/	/	/

9 Equipment list

Test Platform		SPEAG DASY 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 1	1912	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 2	1640	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 3	2031	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 4	1913	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 6	1481	NCR	NCR
☒	DAE	SPEAG	DAE4	1267	2022/12/10	2023/12/09
☒	DAE	SPEAG	DAE4	702	2022/11/09	2023/11/08
☒	DAE	SPEAG	DAE4	896	2023/03/17	2024/03/16
☒	DAE	SPEAG	DAE4	1663	2023/03/27	2024/03/26
☒	E-Field Probe	SPEAG	EX3DV4	3789	2022/09/30	2023/09/29
☒	E-Field Probe	SPEAG	ES3DV3	3137	2022/09/16	2023/09/15
☒	E-Field Probe	SPEAG	EX3DV4	7620	2022/11/20	2023/11/19
☒	E-Field Probe	SPEAG	EX3DV4	3793	2022/09/30	2023/09/29
☒	E-Field Probe	SPEAG	EX3DV4	7735	2022/08/09	2023/08/08
☒	Validation Kits	SPEAG	D750V3	1160	2022/06/06	2025/06/05
☒	Validation Kits	SPEAG	D835V2	4d105	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D1750V2	1149	2022/06/17	2025/06/16
☒	Validation Kits	SPEAG	D1900V2	5d028	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D2450V2	733	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D2600V2	1125	2022/06/14	2025/06/13
☒	Validation Kits	SPEAG	D3500V2	1082	2022/09/19	2025/09/18
☒	Validation Kits	SPEAG	D3700V2	1046	2022/09/15	2025/09/14
☒	Validation Kits	SPEAG	D3900V2	1026	2022/09/16	2025/09/15
☒	Validation Kits	SPEAG	D5GHzV2	1165	2022/11/01	2025/10/31
☒	Dielectric parameter probes	SPEAG	DAKS-3.5	0005	2022/07/05	2023/07/04
☒	Vector Network Analyzer and Vector Reflectometer	SPEAG	DAKS_VNA R140	0140913	2022/08/29	2023/08/28
☒	Radio Communication Analyzer	Anritsu	MT8820C	6201616273	2023/02/16	2024/02/15
☒	Radio Communication Analyzer	Anritsu	MT8820C	6201381734	2023/05/25	2024/05/24
☒	Radio Communication Analyzer	Anritsu	MT8820C	6201074424	2022/11/18	2023/11/17
☒	RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR
☒	Signal Generator	Agilent	N5171B	MY53050736	2023/02/16	2024/02/15
☒	Preamplifier	Mini-Circuits	ZHL-42W	15542	NCR	NCR

☒	Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	073501433	NCR	NCR
☒	Power Meter	Agilent	E4416A	GB41292095	2023/02/16	2024/02/15
☒	Power Sensor	Agilent	8481H	MY41091234	2023/02/16	2024/02/15
☒	Power Sensor	R&S	NRP-Z92	100025	2023/02/16	2024/02/15
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
☒	Speed reading thermometer	MingGao	T809	NA	2022/06/07	2023/06/06
					2023/05/26	2024/05/25
☒	Humidity and Temperature Indicator	KIMTOKA	KIMTOKA	NA	2023/02/17	2024/02/16
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	ZGL2020120550471	2022/07/06	2023/07/05
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	ZGL2020120550472	2022/07/06	2023/07/05

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

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

10 Calibration certificate

Please see the Appendix C

11 Photographs

Please see the Appendix D

Appendix A: Detailed System Check Results

Appendix B: Detailed Test Results

Appendix C: Calibration certificate

Appendix D: Photographs

Appendix E: Conducted RF Output Power

Appendix F: Antenna Locations

---END---

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com