FCC SAR TEST REPORT

Application No.:	SUCR2409000367WM
Applicant:	Xiaomi Communications Co., Ltd.
Manufacturer:	Xiaomi Communications Co., Ltd.
Product Name:	Mobile Phone
Model No.(EUT):	24117RK2CG
Trade Mark:	POCO
FCC ID:	2AFZZRK2CG
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2024-09-29
Date of Test:	2024-09-29 to 2024-10-15
Date of Issue:	2024-10-18
Test conclusion:	**PASS ***

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

Leon Liu

Prepared by：Leon Xu/ Project Manager

Nick Hu

Approved by：Nick HU/ Technical Manager

REVISION HISTORY

Report Number	Revision	Description	Issue Date
SUCR240900036701	01	Original	2024-10-18

TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	0.85	0.52	0.42	1.29
GSM1900	0.39	0.31	0.83	/
WCDMA Band II	0.92	0.56	1.01	2.08
WCDMA Band IV	0.98	0.51	0.91	2.14
WCDMA Band V	0.85	0.61	0.48	/
LTE Band 2	0.99	0.57	1.09	/
LTE Band 4	1.05	0.49	0.65	2.55
LTE Band 5	1.03	0.87	0.58	/
LTE Band 7	1.04	1.06	1.08	/
LTE Band 26(5)	1.00	0.87	0.45	/
LTE Band 38	1.09	0.30	0.98	/
LTE Band 41(38)	1.09	0.73	0.97	/
LTE Band 42	1.09	1.00	1.03	/
LTE Band 48	1.07	0.98	0.80	/
LTE Band 66	0.91	0.51	0.97	2.18
NR Band n2	1.08	0.66	0.95	/
NR Band n5	1.09	0.89	0.69	/
NR Band n7	0.94	1.03	0.75	/
NR Band n26(5)	1.08	0.89	0.65	/
NR Band n38	1.02	0.20	0.84	/
NR Band n41(38)	1.02	1.04	0.84	/
NR Band n48	1.04	0.93	0.97	/
NR Band n66	1.05	0.45	0.77	2.14
NR Band n77 Part 27Q	1.07	1.00	1.04	/
NR Band n77 Part 27O	0.87	0.66	0.71	/
WI-FI (2.4GHz)	0.79	0.42	0.75	/
WI-FI (5GHz)	0.79	0.51	0.80	2.06
BT	1.00	0.12	0.45	/
NFC	/	/	/	<0.01
SAR Limited(W/kg)	1.6			4.0

Note：
All the frequency bands within this project support the Qualcomm smart transmit tuning power. Considering its characteristics, the scenario of simultaneous operation is waived from evaluation.
According to TCB workshop October,2014 RF Exposure Procedures Update (Overlapping Bands): SAR for LTE Band 4 (Frequency range:1710 - 1755 MHz)/LTE Band 5 (Frequency range:824 - 849 MHz)/LTE Band 38 (Frequency range:2570 - 2620 MHz)/n5 (Frequency range:824 - 849 MHz)/ n38(Frequency range:2570 - 2620 MHz)/n78 (Frequency range:3450 - 3800 MHz) is respectively covered by LTE Band66 (Frequency range:1710

- 1780 MHz)/LTE Band26 (Frequency range:814 - 849 MHz)/LTE Band41 (Frequency range:2496 - 2690 MHz)/n26 (Frequency range:814 - 849 MHz)/n41 (Frequency range:2496 - 2690 MHz))/n77 (Frequency range:3450 - 3980 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.
For LTE band 4/5/26 and n2/n5/n7/n26/n38/n41/n48/n77/n78 that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

CONTENTS

1 General Information

1.1 Details of Client

Applicant:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Manufacturer:	Xiaomi Communications Co., Ltd.
Address:	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Test Location

Company:	SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.
Address:	South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu) Pilot Free Trade Zone
Post code:	215000
Test Engineer:	Bert Xu,Alan Zhang,Koller Chen

1.3 Test Facility

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

- **A2LA (Certificate No. 6336.01)**

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

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

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

CAB identifier: CN0120.

IC#: 27594.

- **FCC –Designation Number: CN1312**

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

Designation Number: CN1312.

Test Firm Registration Number: 0031225543

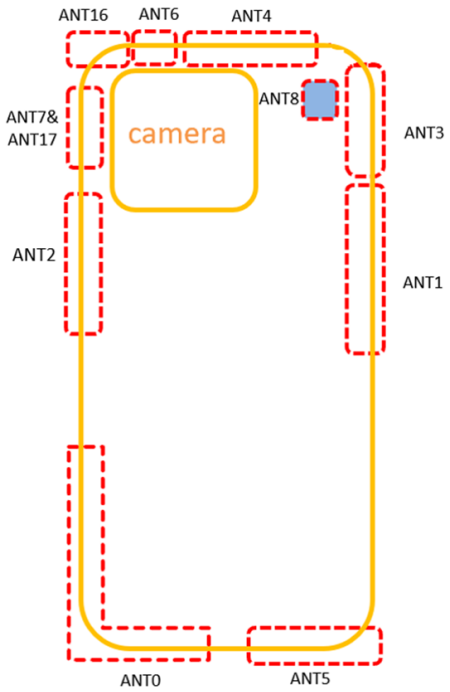
1.4 General Description of EUT

Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
Product Name:	Mobile Phone		
Model No.(EUT):	24117RK2CG		
Trade Mark:	POCO		
Product Phase:	Identical Prototype		
IMEI:	1# 866966070034462/866966070034470 2# 866966070035220/866966070035238 3# 866966070034306/866966070034314 4# 866966070036566/866966070036574 5# 866966070034488/866966070034496 6# 866966070033985/866966070033993		
Device Operating Configurations :			
Modulation Mode:	**GSM:** GMSK, 8PSK; **WCDMA:** QPSK,16QAM; **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, OFDMA; **BT:** GFSK, π/4DQPSK,8DPSK NFC: ASK		
Hardware Version:	135100O11		
Software Version:	Xiaomi HyperOS 2.0		
Device Class:	B		
GPRS Multi-slots Class:	33	EGPRS Multi-slots Class:	33
HSDPA UE Category:	24	HSUPA UE Category	6
DC-HSDPA UE Category:	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band)		
	3, tested with power control Max Power(LTE Band)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 - 849	869 - 894
	GSM1900	1850 - 1910	1930 - 1990
	WCDMA Band II	1850 - 1910	1930 - 1990
	WCDMA Band IV	1710 - 1755	2110 - 2155
	WCDMA Band V	824 - 849	869 - 894
	LTE Band 2	1850 - 1910	1930 - 1990
	LTE Band 4	1710 - 1755	2110 - 2155
	LTE Band 5	824 - 849	869 - 894
	LTE Band 7	2500 - 2570	2620 - 2690
	LTE Band 26	814 – 849	859 – 894
	LTE Band 66	1710 – 1780	2110 – 2200
	LTE Band 38	2570 - 2620	2570 - 2620
	LTE Band 41	2496 - 2690	2496 - 2690
	LTE Band 42	3450 - 3600	3450 - 3600

	LTE Band 48	3550 - 3700	3550 - 3700
	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 n66	1710 - 1780	2110 - 2200
	NR Band n38	2570 - 2620	2570 - 2620
	NR Band n41	2496 - 2690	2496 - 2690
	NR Band n48	3550 - 3700	3550 - 3700
	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	2402 - 2462	2402 - 2462
	Wi-Fi 5G	5150 - 5250	5150 - 5250
		5250 - 5350	5250 - 5350
		5470 - 5725	5470 - 5725
		5725 - 5850	5725 - 5850
RF Cable:	☒ Provided by the aplicant ☐ Provided by the laboratory		
Battery Information:	Model:	BP59	
	Normal Voltage:	+3.91V	
	Rated capacity:	5830mAh	
	Manufacturer:	NVT	

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.
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.

1.4.1 DUT Antenna Locations (Back View)



Ant	Band:
Ant0	GSM:GSM850 WCDMA:B5 LTE:B5,B26 5G NR:N5,N26
Ant1	GSM:GSM850 WCDMA:B5 LTE:B5,B26,B42,B48 5G NR:N5,N26,N48,N77,N78
Ant2	WCDMA:B4 LTE:B4,B7,B66,B38,B41 5G NR:N7,N66,N38,N41
Ant3	GSM:GSM1900 WCDMA:B2,B4 LTE:B2,B4,B7,B66,B38,B41 5G NR:N2,N7,N66,N38,N41
Ant4	GSM:GSM1900 LTE:B38,B41 5G NR:N38,N41
Ant5	WCDMA:B2,B4 LTE:B2,B4,B7,B66,B38,B41 5G NR:N2,N7,N66,N38,N41
Ant6	LTE:B42,B48 5G NR:N48,N77,N78 WIFI5G
Ant7	LTE:B42,B48 5G NR:N48,N77,N78 WIFI2.4G Bluetooth

Ant8	LTE:B42,B48 5G NR:N48,N77,N78
Ant16	WIFI2.4G Bluetooth
Ant17	WIFI5G

Note:
1) The test device is a smart phone. The overall diagonal dimension of this device is 171 mm. Per KDB 648474 D04, because the diagonal distance of this device is ≥160mm, so it is a phablet.

According to the distance between 5G NR/LTE/WCDMA/GSM&WIFI&BT antennas and the sides of the EUT we can draw the conclusion that:

EUT Sides for SAR Testing							
Mode	Exposure Condition	Front	Back	Left	Right	Top	Bottom
Ant 0	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	No	Yes
Ant 1	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	No	No
Ant 2	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	No	No
Ant 3	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
Ant 4	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
Ant 5	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	No	Yes
Ant 6	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
Ant 7	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
Ant 8	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
Ant 16	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
Ant 17	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No

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

The device supports 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 Section 8 of this report per 3GPP TS 36.521-1 V14.4.0. 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.

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.

Intra-band contiguous CA operating bands：

E-UTRA CA Band	E-UTRA Band	Uplink (UL) operating band BS receive / UE transmit F_{UL_low} – F_{UL_high}			Downlink (DL) operating band BS transmit / UE receive F_{DL_low} – F_{DL_high}			Duplex Mode
CA_7C	7	2502.5 MHz	–	2567.5 MHz	2620 MHz	–	2690 MHz	FDD
CA_38C	38	2572.5 MHz	–	2617.5 MHz	2572.5MHz	–	2617.5 MHz	TDD

c) The device supports Inter-band uplink LTE CA for CA_2A-4A,CA_4A-7A with two component carriers in the uplink.

1. For Inter-band uplink LTE CA 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 LTE 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 LTE CA component band as the inter-band Uplink LTE CA SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report. Since the maximum output power of the LTE Inter-band uplink band is ≤ the LTE Band, the SAR data of the LTE Band is used instead of the SAR data of the LTE Inter-band uplink band.

2CC Downlink Carrier Aggregation	2CC Downlink Carrier Aggregation	3CC Downlink Carrier Aggregation
CA_7C	CA_5A-7A	CA_41D
CA_66B	CA_7A-7A	CA_4A-7C
CA_66C	CA_7A-66A	CA_5A-7A-7A
CA_41C	CA_7A-38A	
CA_2A-2A	CA_66A-66A	
CA_4A-5A	CA_41A-41A	
CA_4A-7A		

1.4.2 Power reduction specification

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

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

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

3) 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.

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.
IEC/IEEE 62209-1528:2020	Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)
KDB 941225 D01	3G SAR Measurement Procedures v03r01
KDB 941225 D05	SAR for LTE Devices v02r05
KDB 941225 D05A	LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 941225 D06	Hotspot Mode SAR v02r01
KDB 248227 D01	SAR Guidance for IEEE 802 11 Wi-Fi SAR v02r02
KDB 648474 D04	Handset SAR v01r03
KDB 447498 D04	General RF Exposure Guidance v01
KDB 865664 D01	SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02	RF Exposure Reporting v01r02
KDB 690783 D01	SAR Listings on Grants v01r03
KDB 616217 D04	SAR for laptop and tablets v01r02

1.6 RF exposure limits

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

Notes:

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

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

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

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

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

2 Laboratory Environment

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

Table 1： The Ambient Conditions

3 SAR Measurements System Configuration

3.1 The SAR Measurement System

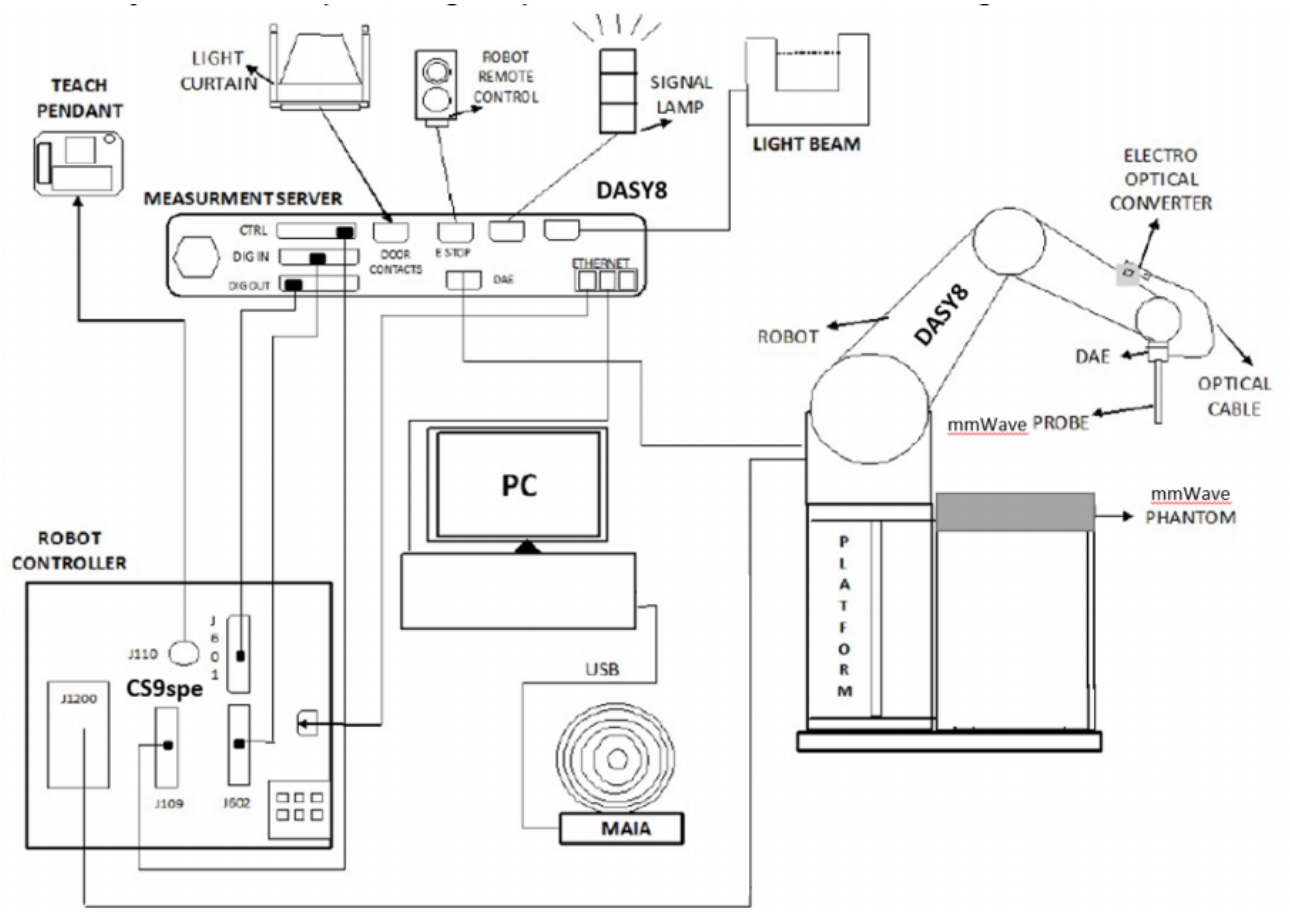
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

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

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

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

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



F-1. SAR Measurement System Configuration

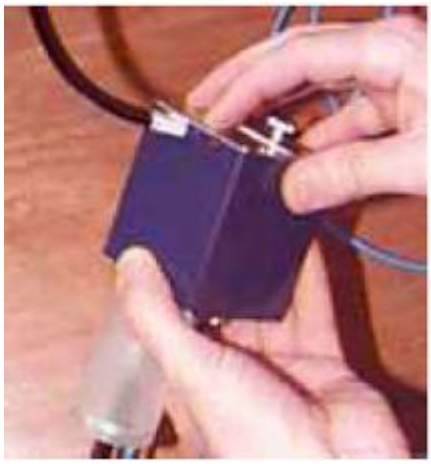
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows 7.
- DASY5 software.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

3.2 Isotropic E-field Probe EX3DV4

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

3.3 Data Acquisition Electronics (DAE)

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



3.4 SAM Twin Phantom

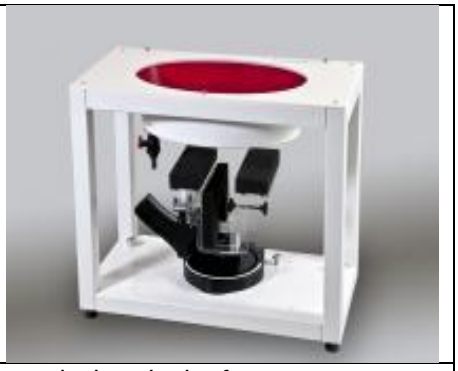
Material	Vinylester, glass fiber reinforced (VE-GF)
Liquid Compatibility	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet
Filling Volume	approx.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

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

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

3.5 ELI Phantom

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



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

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

3.6 Device Holder for Transmitters

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

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

3.7 Measurement procedure

3.7.1 Scanning procedure

Step 1: Power reference measurement

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

Step 2: Area scan

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

Step 3: Zoom scan

Around this point, a volume of 32mm*32mm*30mm (f≤2GHz), 30mm*30mm*30mm (f for 2-3GHz) and 24mm*24mm*22mm (f for 5-6GHz) was assessed by measuring 5x5x7 points (f≤2GHz), 7x7x7 points (f for 2-

3GHz) and 7x7x12 points (f for 5-6GHz). On this basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

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

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

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

Step 4: Power reference measurement (drift)

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

3.7.2 Data Storage

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

data can also be exported to perform the evaluation with other software packages.

3.7.3 Data Evaluation by SEMCAD

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

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

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

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

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

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

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

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

E-field probes:

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

H-field probes:

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

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

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

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

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

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

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

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

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

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

4 SAR measurement variability and uncertainty

4.1 SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.
1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ⩾ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ⩾ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ⩾1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

4.2 SAR measurement uncertainty

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

IEC- 62209-1528 sets out the general test methods to be followed when carrying out an RF exposure compliance assessment of wireless devices implementing device-based time-averaging methods for the management and/or mitigation of specific absorption rate (SAR) in the 4 MHz to 6 GHz frequency band. It does not cover requirements that are based on power density above 6 GHz or requirements to protect against nerve stimulation for the frequency range from 3 kHz to 10MHz.

Measurements and results are all in compliance with the standards listed. All measurements and results are recorded and maintained at the laboratory performing the tests and measurement uncertainties are taken into account when comparing measurements to pass/ fail criteria. The Expanded uncertainty (95% CONFIDENCE INTERVAL) is **23.34%**.

a	b	c	d	e = f(d,k)	g	i = C*g/e	K
Uncertainty Component	Section in P1528	Tol (%)	Prob.Dist.	Div.	Ci (1g)	1g ui (%)	Vi(Veff)
Measurement system							
Probe calibration	7.2.2.1	7.4	N	1	1	7.40	∞

Axial isotropy	7.2.2.2	1.2	R	$\sqrt{3}$	1	0.69	∞
hemispherical isotropy	7.2.2.2	3.2	R	$\sqrt{3}$	1	1.85	∞
Linearity	7.2.2.3	0.9	R	$\sqrt{3}$	1	0.52	∞
Probe modulation response	7.2.2.4	0	R	$\sqrt{3}$	1	0.00	∞
Detection limits	7.2.2.5	0.25	R	$\sqrt{3}$	1	0.14	∞
Boundary effect	7.2.2.6	1.0	R	$\sqrt{3}$	1	0.58	∞
Readout electronics	7.2.2.7	0.3	N	1	1	0.30	∞
Response time	7.2.2.8	0	R	$\sqrt{3}$	1	0.00	∞
Integration time	7.2.2.9	2.6	R	$\sqrt{3}$	1	1.50	∞
RF ambient conditions – noise	7.2.4.5	3	R	$\sqrt{3}$	1	1.73	∞
RF ambient conditions – reflections	7.2.4.5	3	R	$\sqrt{3}$	1	1.73	∞
Probe positioner mech. restrictions	7.2.3.1	1.5	R	$\sqrt{3}$	1	0.87	∞
Probe positioning with respect to phantom shell	7.2.3.3	2.9	R	$\sqrt{3}$	1	1.67	∞
Post-processing	7.2.5	1	R	$\sqrt{3}$	1	0.58	∞
Test sample related							
Device holder uncertainty	7.2.3.4.2	3.6	N	1	1	3.60	∞
Test sample positioning	7.2.3.4.3	3.7	N	1	1	3.70	9
Power scaling	L.3	5.0	R	$\sqrt{3}$	1	2.89	∞
Drift of output power (measured SAR drift)	7.2.2.10	5	R	$\sqrt{3}$	1	2.89	∞
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	7.2.3.2	4	R	$\sqrt{3}$	1	2.31	∞
Algorithm for correcting SAR for deviations in permittivity and conductivity	7.2.4.3	1.9	N	1	1	1.90	∞
Liquid conductivity (meas.)	7.2.4.3	5.78	N	1	0.78	4.51	4
Liquid permittivity (meas.)	7.2.4.3	0.62	N	1	0.23	0.14	5
Liquid permittivity – temperature uncertainty	7.2.4.4	0.2	R	$\sqrt{3}$	0.78	0.09	∞
Liquid conductivity – temperature uncertainty	7.2.4.4	5.37	R	$\sqrt{3}$	0.23	0.71	∞
Combined standard uncertainty	**RSS**					11.67	417
Expanded uncertainty (95% CONFIDENCE INTERVAL)			**K=2**			**23.34**	

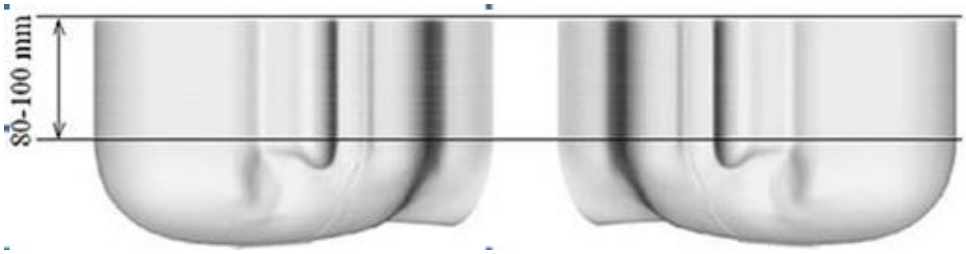
5 Description of Test Position

5.1 Head Exposure Condition

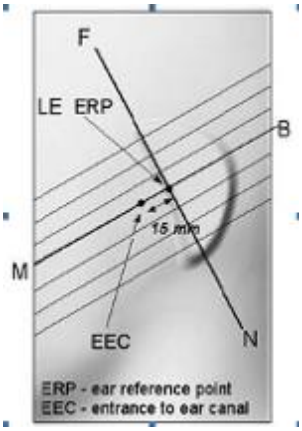
5.1.1 SAM Phantom Shape

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

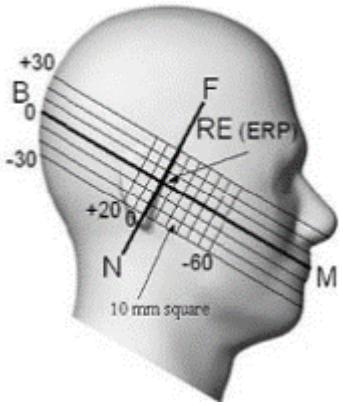
Note: The centre strip including the nose region has a different thickness tolerance.



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

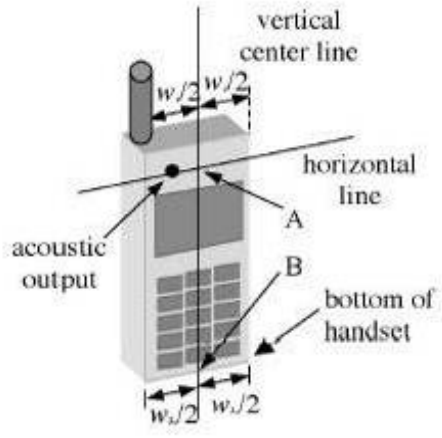


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

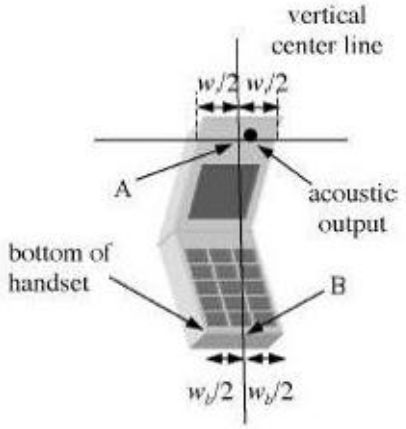


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

5.1.2 EUT constructions



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



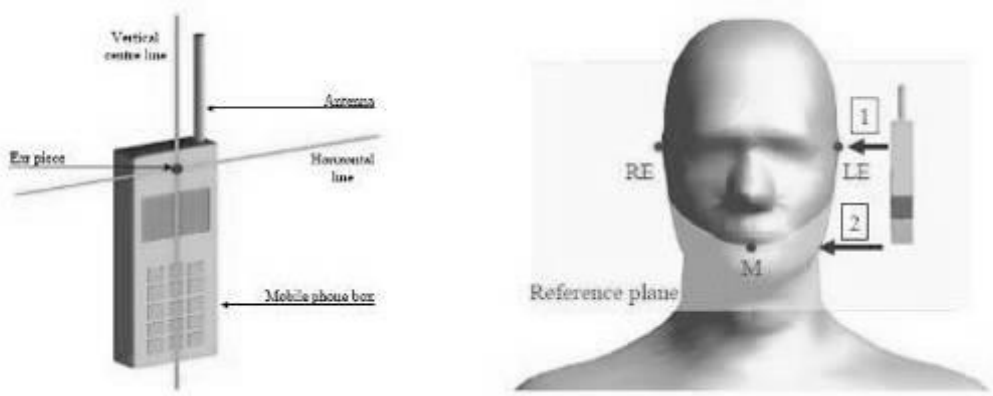
F-8. Handset vertical and horizontal reference lines-“clam-shell case”

5.1.3 Definition of the “cheek” position

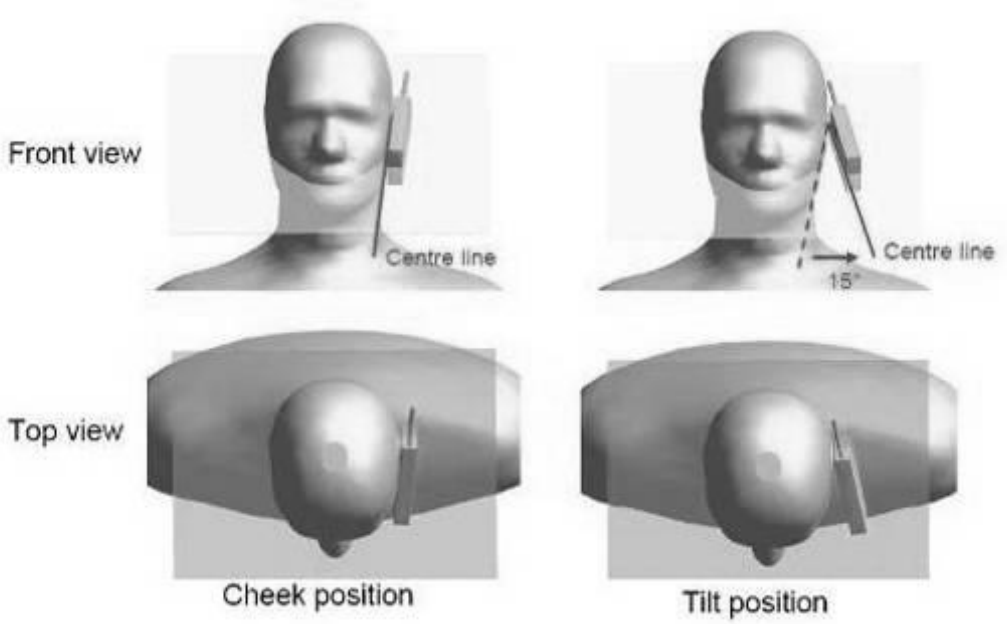
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the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

5.1.4 Definition of the “tilted” position

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



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



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

5.2 Body Exposure Condition

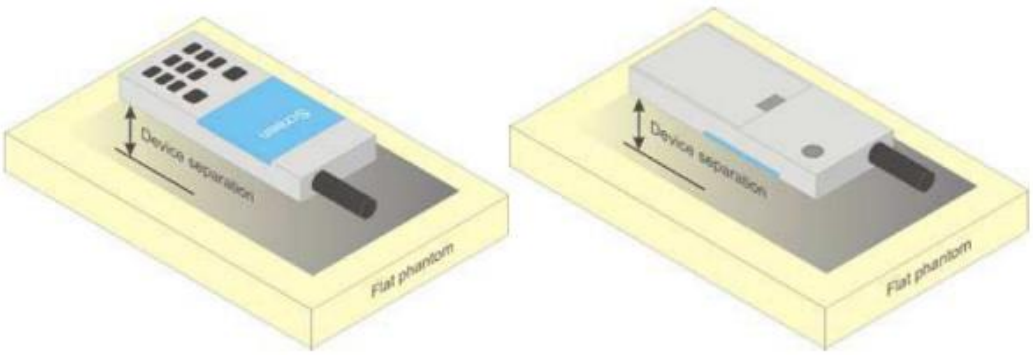
5.2.1 Body-worn accessory exposure conditions

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

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

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

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



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

5.2.2 Wireless Router exposure conditions

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

5.3 Extremity exposure conditions

Per FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the device is marketed as “Phablet”.
The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for Product Specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
Due to the SAR result, only the following frequency bands need to test with 0mm for the Product Specific 10-g SAR, the others are not required.

GSM850 (Ant1)

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.183	0.16	20.89	27.50	4.581	0.838	Yes
Back side	GPRS 4TS	190/836.6	1:2.075	0.207	0.05	20.89	27.50	4.581	0.948	Yes
Left side	GPRS 4TS	190/836.6	1:2.075	0.288	-0.08	20.89	27.50	4.581	**1.319**	No

WCDMA II (Ant5)

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.521	0.19	22.39	24.50	1.626	0.847	Yes
Back side	RMC	9400/1880	1:1	0.635	0.03	22.39	24.50	1.626	1.032	Yes
Left side	RMC	9400/1880	1:1	0.159	-0.14	22.39	24.50	1.626	0.258	Yes
Bottom side	RMC	9400/1880	1:1	0.874	-0.03	22.39	24.50	1.626	**1.421**	No
Bottom side-repeated	RMC	9400/1880	1:1	0.868	0.08	22.39	24.50	1.626	1.411	Yes
Bottom side	RMC	9262/1852.4	1:1	0.832	0.09	22.35	24.50	1.641	1.365	No
Bottom side	RMC	9538/1907.6	1:1	0.782	-0.17	22.32	24.50	1.652	1.292	No

W B4 SAR Test Record										
Ant 2 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.164	0.14	17.49	23.50	3.990	0.654	Yes
Back side	RMC	1412/1732.4	1:1	0.185	0.08	17.49	23.50	3.990	0.738	Yes
Right side	RMC	1412/1732.4	1:1	0.315	0.16	17.49	23.50	3.990	1.257	No
Ant 5 Test Record										
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Front side	RMC	1412/1732.4	1:1	0.450	0.05	21.36	24.00	1.837	0.826	Yes
Back side	RMC	1412/1732.4	1:1	0.510	0.04	21.36	24.00	1.837	0.937	Yes
Left side	RMC	1412/1732.4	1:1	0.222	0.19	21.36	24.00	1.837	0.408	Yes
Bottom side	RMC	1412/1732.4	1:1	0.702	-0.02	21.36	24.00	1.837	**1.289**	No
Bottom side	RMC	1312/1712.4	1:1	0.629	-0.15	21.33	24.00	1.849	1.163	Yes
Bottom side	RMC	1513/1752.6	1:1	0.683	0.11	21.29	22.50	1.321	0.902	Yes

LTE Band 4 Ant 2

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.261	-0.16	18.55	24.20	3.673	0.959	Yes
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.293	-0.17	18.55	24.20	3.673	1.076	Yes
Right side	20	QPSK 1_0	20175/1732.5	1:1	0.557	-0.08	18.55	24.20	3.673	**2.046**	No

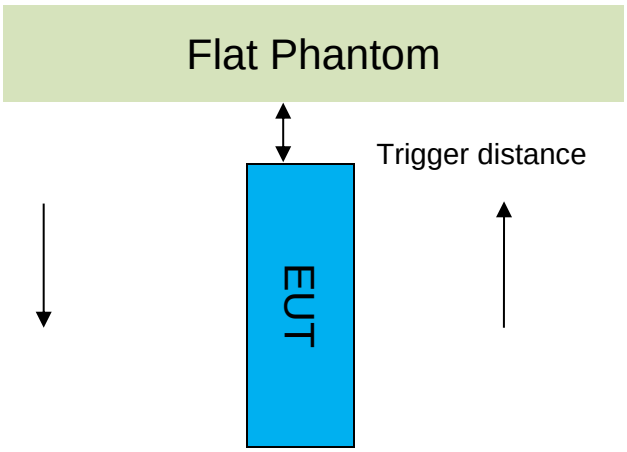
LTE Band 66 Ant2

Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusio
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.186	0.16	17.60	23.70	4.074	0.758	Yes
Back side	20	QPSK 1_0	132322/1745	1:1	0.200	-0.18	17.60	23.70	4.074	0.815	Yes
Right side	20	QPSK 1_0	132322/1745	1:1	0.334	-0.13	17.60	23.70	4.074	1.361	No

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.

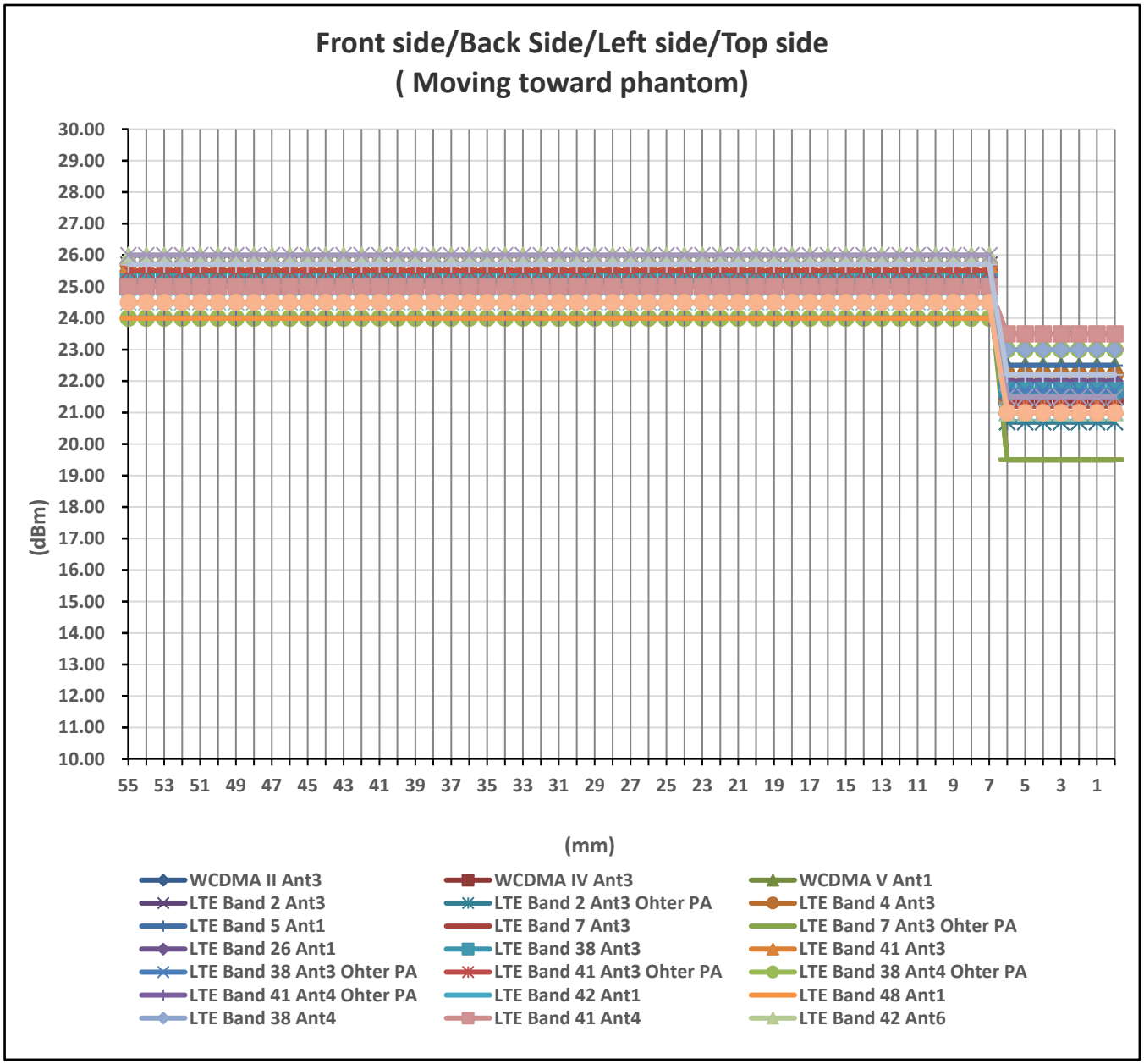


Proximity Sensor Triggering Distance(mm)				
Ant1/3/4/6/8				
Position	Front	Back	Left Side	Top Side
Minimum	6	6	6	6
Required SAR Test	5	5	5	5

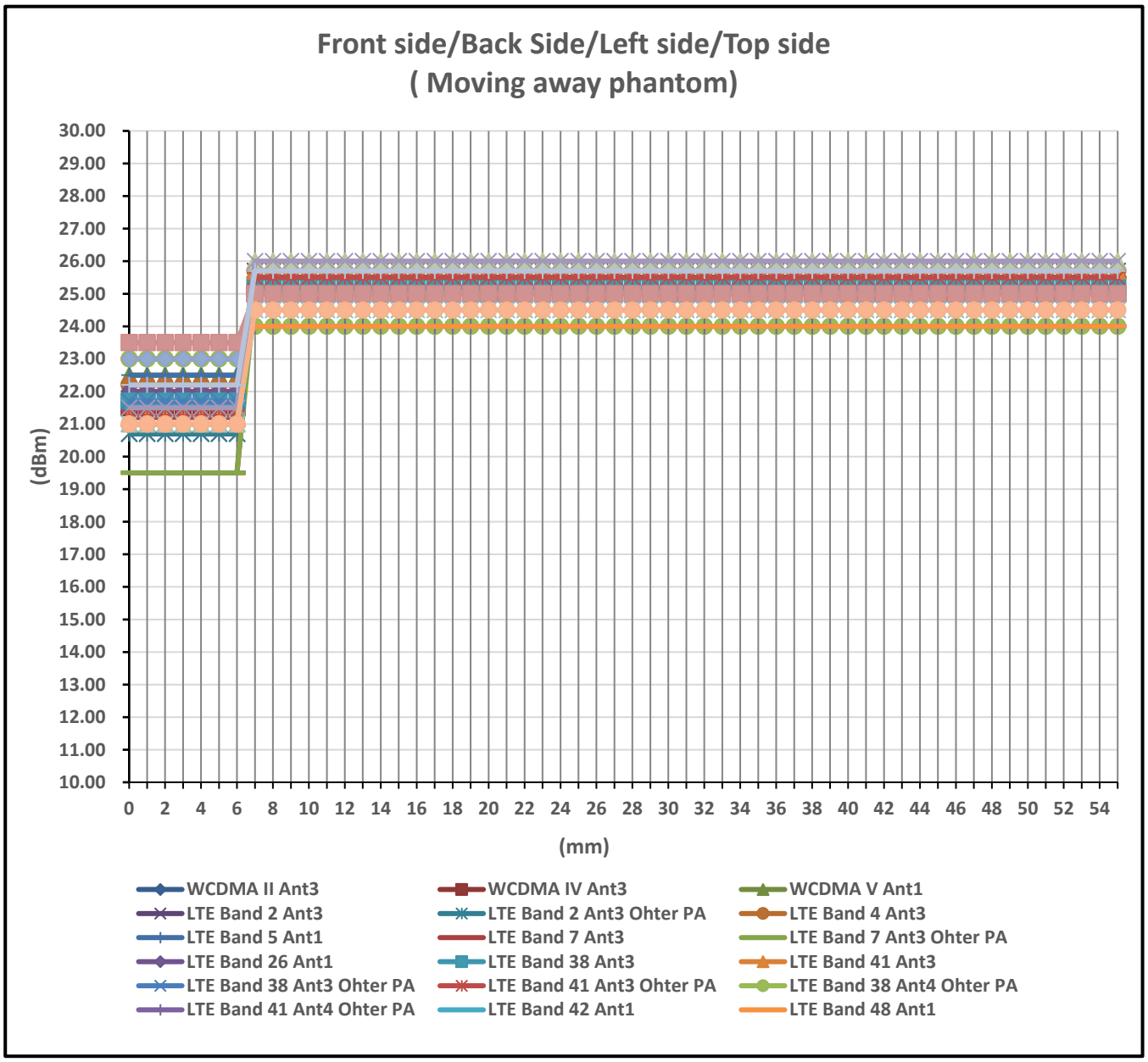
Note:

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.

- Ant 1/3/4/6/8 DUT Moving Toward(Trigger)the Phantom



- Ant 1/3/4/6/8 DUT Moving Away(Release) from the Phantom



Proximity sensor coverage

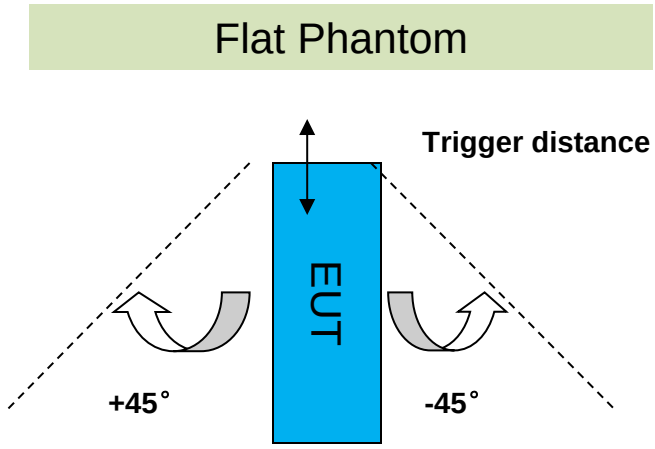
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing,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

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

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



Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Top 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°
Ant1/3/4/6/8	Top side:6mm	Top side:6mm	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		
HSL13MHz is composed of the following ingredients： Water：50-90% Non-ionic detergents：5-50% Nacl：0-2% Preservative：0.03-0.1% HSL5GHz is composed of the following ingredients： Water：50-65% Mineral oil：10-30% Emulsifiers：8-25% Sodium salt：0-1.5%					

Table 2： Recipe of Tissue Simulate Liquid

6.1.2 Measurement for Tissue Simulate Liquid

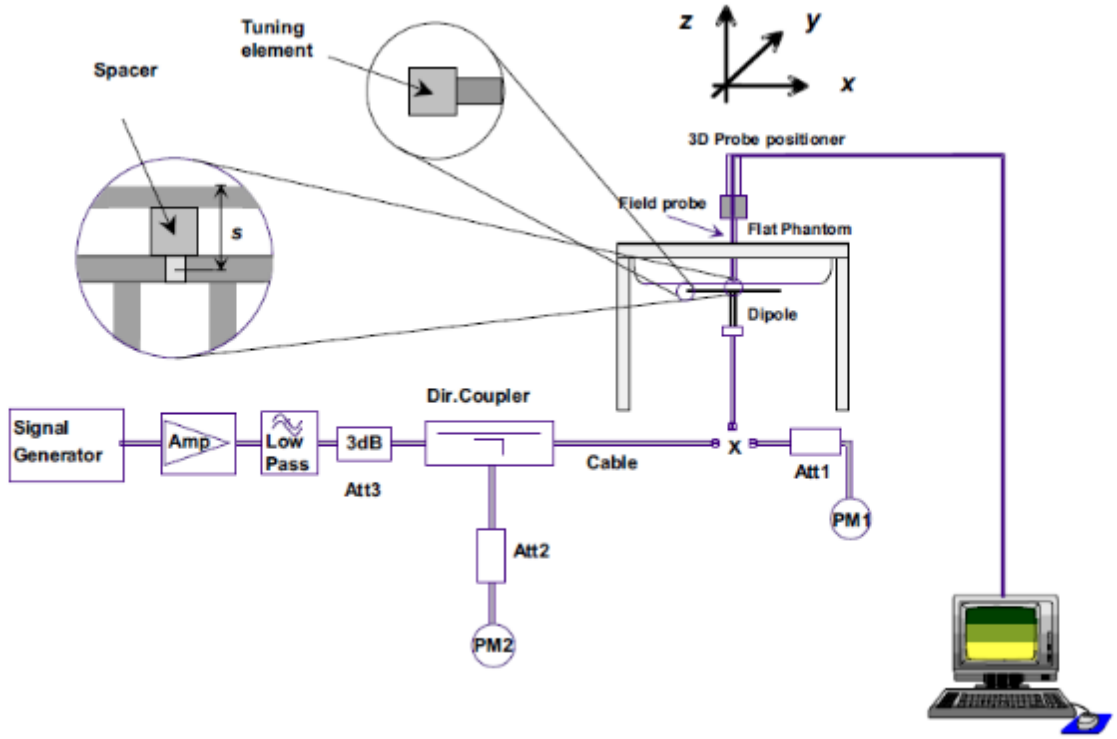
The Conductivity (σ) and Permittivity (ρ) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Tissue Type	Measured Frequency (MHz)	Target Tissue (±5%)		Measured Tissue		Deviation (Within ±5%)		Liquid Temp. (℃)	Test Date
		ε_r	σ(S/m)	ε_r	σ(S/m)	ε_r	σ(S/m)		
13 Head	13	55.0	0.75	55.819	0.759	1.49%	1.20%	22.2	2024-10-15
835 Head	835	41.5	0.90	40.785	0.897	-1.72%	-0.33%	22.2	2024-10-01
835 Head	835	41.5	0.90	42.911	0.895	3.40%	-0.56%	22.3	2024-10-03
1750 Head	1750	40.1	1.37	39.416	1.393	-1.71%	1.68%	22.4	2024-10-05
1750 Head	1750	40.1	1.37	40.120	1.341	0.05%	-2.12%	22.2	2024-10-07
1950 Head	1950	40.0	1.40	39.714	1.403	-0.72%	0.21%	22.1	2024-10-09
1950 Head	1950	40.0	1.40	38.718	1.465	-3.20%	4.64%	21.9	2024-10-11
2450 Head	2450	39.2	1.80	40.192	1.779	2.53%	-1.17%	22.8	2024-09-29
2600 Head	2600	39.0	1.96	37.300	2.010	-4.36%	2.55%	22.6	2024-09-29
2600 Head	2600	39.0	1.96	37.800	2.010	-3.08%	2.55%	22.7	2024-10-01
2600 Head	2600	39.0	1.96	37.400	2.020	-4.10%	3.06%	22.3	2024-10-03
2600 Head	2600	39.0	1.96	38.100	1.990	-2.31%	1.53%	22.3	2024-10-05
2600 Head	2600	39.0	1.96	37.600	2.030	-3.59%	3.57%	22.5	2024-10-07
3400 Head	3400	38.0	2.81	38.400	2.800	1.05%	-0.36%	22.9	2024-10-09
3500 Head	3500	37.9	2.91	38.200	2.890	0.79%	-0.69%	22.6	2024-10-10
3700 Head	3700	37.7	3.12	37.800	3.060	0.27%	-1.92%	22.7	2024-10-12
3900 Head	3900	37.5	3.32	37.500	3.270	0.00%	-1.51%	22.6	2024-10-14
5250 Head	5250	35.9	4.71	35.623	4.695	-0.77%	-0.32%	22.8	2024-10-01
5600 Head	5600	35.5	5.07	34.950	5.166	-1.55%	1.89%	22.8	2024-10-03
5750 Head	5750	35.4	5.22	34.579	5.349	-2.32%	2.47%	22.8	2024-10-05

Table 3： 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

F-13.

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)

SAR System Validation Result(s)											
Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) (±10%)	Target SAR (normalized to 1W) (±10%)	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)		
CLA13	Head	0.106	0.068	0.42	0.27	0.421	0.266	0.71%	2.26%	22.2	2024-10-01
D835V2	Head	2.45	1.59	9.80	6.36	9.6	6.16	2.08%	3.25%	22.2	2024-10-01
D835V2	Head	2.38	1.60	9.52	6.40	9.6	6.16	-0.83%	3.90%	22.3	2024-10-03
D1750V2	Head	9.18	4.88	36.72	19.52	37	19.3	-0.76%	1.14%	22.4	2024-10-05
D1750V2	Head	8.98	4.93	35.92	19.72	37	19.3	-2.92%	2.18%	22.2	2024-10-07
D1950V3	Head	9.77	5.02	39.08	20.08	40.4	20.8	-3.27%	-3.46%	22.1	2024-10-09
D1950V3	Head	10.20	5.39	40.80	21.56	40.4	20.8	0.99%	3.65%	21.9	2024-10-11
D2450V2	Head	12.80	5.99	51.20	23.96	52.7	24.6	-2.85%	-2.60%	22.8	2024-09-29
D2600V2	Head	13.90	6.04	55.60	24.16	57.3	25.4	-2.97%	-4.88%	22.6	2024-09-29
D2600V2	Head	14.20	6.16	56.80	24.64	57.3	25.4	-0.87%	-2.99%	22.7	2024-10-01
D2600V2	Head	14.90	6.43	59.60	25.72	57.3	25.4	4.01%	1.26%	22.3	2024-10-03
D2600V2	Head	14.70	6.38	58.80	25.52	57.3	25.4	2.62%	0.47%	22.3	2024-10-05
D2600V2	Head	14.60	6.25	58.40	25.00	57.3	25.4	1.92%	-1.57%	22.5	2024-10-07
Validation Kit		Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) (±10%)	Target SAR (normalized to 1W) (±10%)	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(3.4GHz)	6.81	2.62	68.10	26.20	67.2	25.1	1.34%	4.38%	22.9	2024-10-09
	Head(3.5GHz)	6.72	2.57	67.20	25.70	65.9	24.7	1.97%	4.05%	22.6	2024-10-10
D3700V2	Head(3.7GHz)	7.01	2.61	70.10	26.10	67.6	24.4	3.70%	6.97%	22.7	2024-10-12
D3900V2	Head(3.9GHz)	7.09	2.51	70.90	25.10	70.2	24.2	1.00%	3.72%	22.6	2024-10-14
D5GHzV2	Head(5.25GHz)	7.92	2.28	79.20	22.80	77.2	21.9	2.59%	4.11%	22.8	2024-10-01
	Head(5.6GHz)	7.98	2.27	79.80	22.70	81.1	22.8	-1.60%	-0.44%	22.8	2024-10-03
	Head(5.75GHz)	7.94	2.26	79.40	22.60	77.8	21.7	2.06%	4.15%	22.8	2024-10-05

Table 4： SAR System Check Result.

6.2.3 Detailed System Check Results

Please see the Appendix A

7 Test Configuration

7.1 3G SAR Test Reduction Procedure

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

7.2 Operation Configurations

7.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using CMW500 the power lever is set to “5”and “0” in SAR of GSM 850 and GSM 1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 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 5： 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 6： 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 7： 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 8： 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 9： 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.

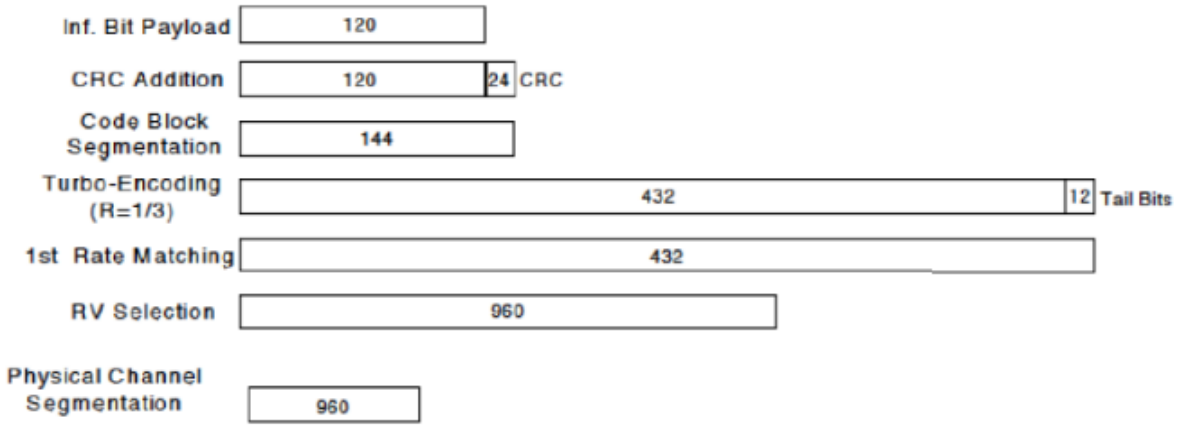


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 β_c/β_d= 12/15, β_{hs}/β_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 β_c = 11/15 and β_d = 15/15

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

Note:

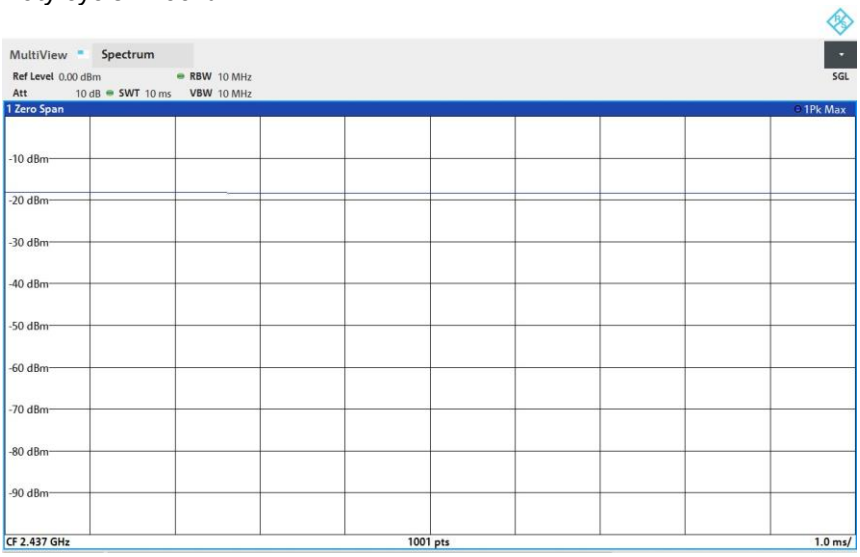
1. The Dual Carriers transmission only applies to HSDPA physical channels
2. The Dual Carriers belong to the same Node and are on adjacent carriers.
3. The Dual Carriers do not support MIMO to serve UEs configured for dual cell operation
4. The Dual Carriers operate in the same frequency band.
5. The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

7.2.3 WiFi Test Configuration

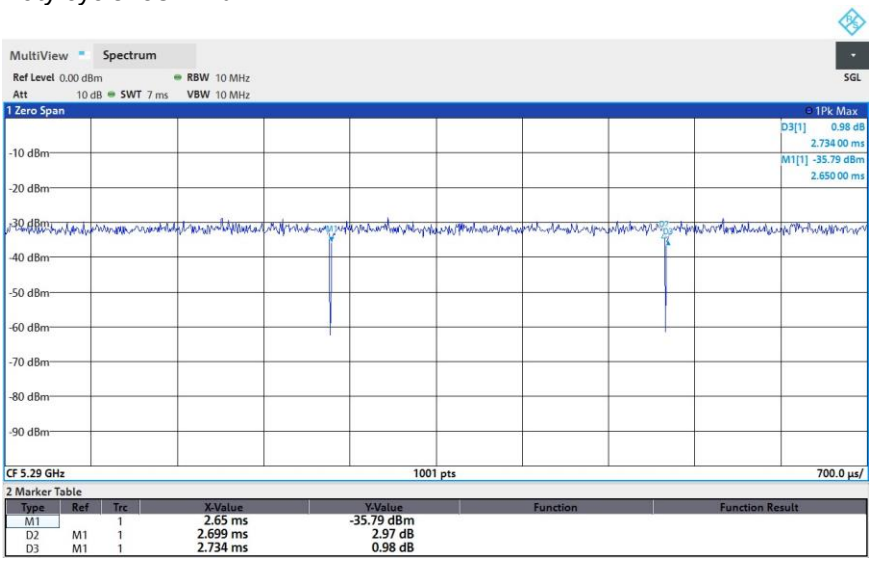
A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.

7.2.4 Duty cycle

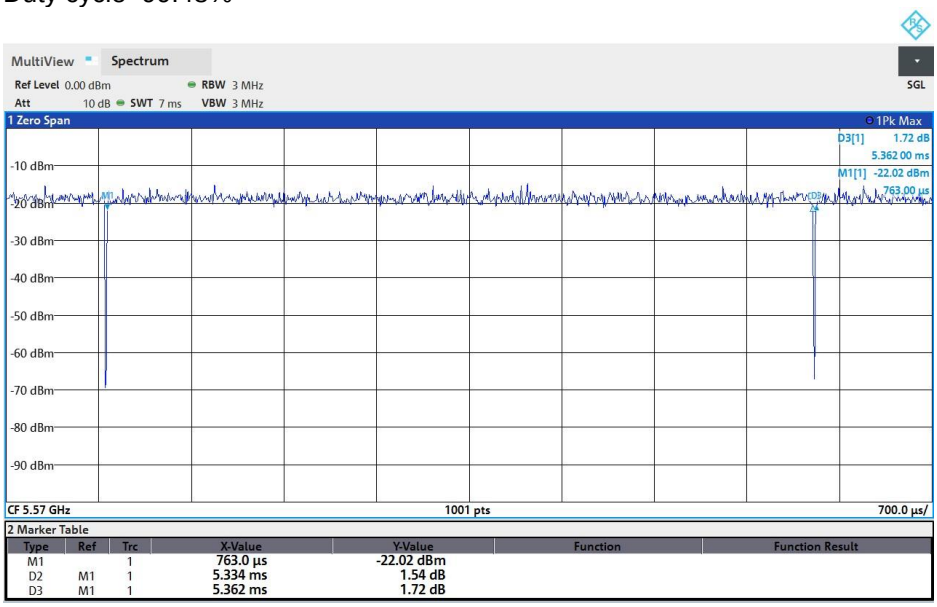
Wi-Fi 2.4GHz 802.11b:
Duty cycle= 100%



Wi-Fi 5GHz 802.11ac VHT80:
Duty cycle=98.72%



Wi-Fi 5GHz 802.11ac VHT160:
Duty cycle=99.48%



7.2.4.1 Initial Test Position SAR Test Reduction Procedure

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

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

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

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

7.2.4.2 Initial Test Configuration Procedures

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

7.2.4.3 Subsequent Test Configuration Procedures

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

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

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

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

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

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

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

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

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

7.2.4.4 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.

7.2.5 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The Anritsu MT8820C was used

for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

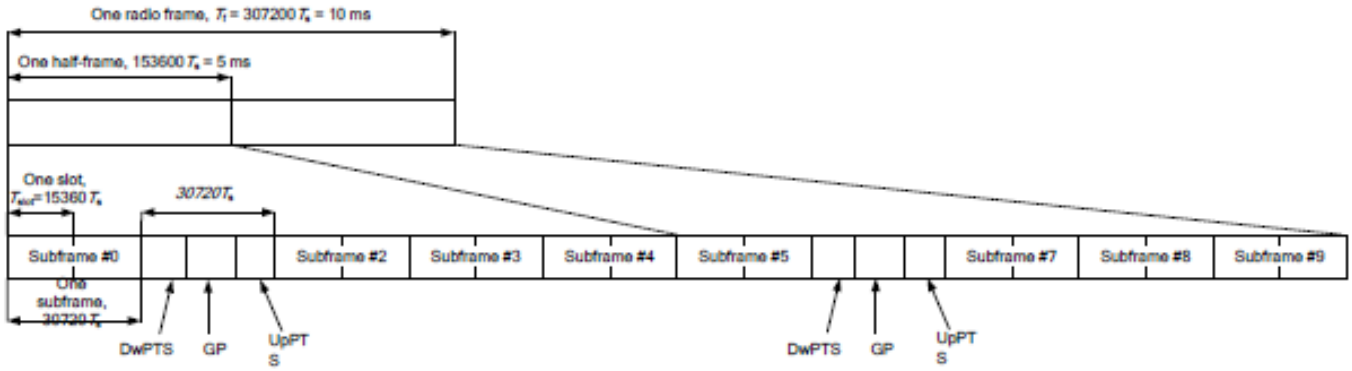
TDD LTE test consideration

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

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

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

Frame structure type 2:



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

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

Uplink-downlink configurations.

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

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

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

A) Spectrum Plots for RB Configurations

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

B) MPR

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

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3

C) A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

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

E) Other channel bandwidth standalone SAR test requirements

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

7.2.6 NR Band Test Configuration

1. NR Band n2/5/7/26/38/41/48/66/77/78 support SA mode. LTE+NR Band operations are possible only with LTE under EN-DC mode and the operations are possible as following table:

Band/Antenna		n5		n7			n66				n78			
		Ant 0	Ant 1	Ant 2	Ant 3	Ant 5	Ant 2	Ant 3	Ant 4	Ant 5	Ant 1	Ant 6	Ant 7	Ant 8
LTE Band2	Ant 3	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 5	X	X	X	X	X	X	X	X	X	√	√	√	√
LTE Band38	Ant 2	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 3	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 4	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 5	X	X	X	X	X	X	X	X	X	√	√	√	√
LTE Band41	Ant 2	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 3	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 4	X	X	X	X	X	X	X	X	X	√	√	√	√
	Ant 5	X	X	X	X	X	X	X	X	X	√	√	√	√
LTE Band5	Ant 0	X	X	√	√	√	√	√	√	√	√	√	√	√
	Ant 1	X	X	√	√	√	√	√	√	√	√	√	√	√
LTE Band7	Ant 2	√	√	X	X	X	X	X	X	X	√	√	√	√
	Ant 3	√	√	X	X	X	X	X	X	X	√	√	√	√
	Ant 5	√	√	X	X	X	X	X	X	X	√	√	√	√

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

Band			N2	n5	n7	n26	n66	n38	n41-PC3	n41-PC2	n48	n77-PC3	n77-PC2	n78-PC3	n78-PC2
Modulation	DFT-s-OFDM	PI/2 BPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	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	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duty Cycle			100%	100%	100%	100%	100%	100%	100%	50%	100%	100%	50%	100%	50%

Band	SCS	Bandwidth														
		5Mhz	10Mhz	15Mhz	20Mhz	25Mhz	30Mhz	35Mhz	40Mhz	45Mhz	50Mhz	60Mhz	70Mhz	80Mhz	90Mhz	100Mhz
N2	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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	N/A	N/A
N7	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	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	N/A	N/A
N66	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N38	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N41	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes
n48	30KHZ	N/A	Yes	Yes	Yes	N/A	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n77	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes
n78	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes

3. 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

4. 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 n41,n78. 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 n41,n78 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 n41,n78.

5. 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.

6. 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.

7. 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.

8. 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.

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

8 Test Result

8.1 Measurement of RF conducted Power

The detailed conducted power table can refer to Appendix E.

Note:

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

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

2）. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:
Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8

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

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.

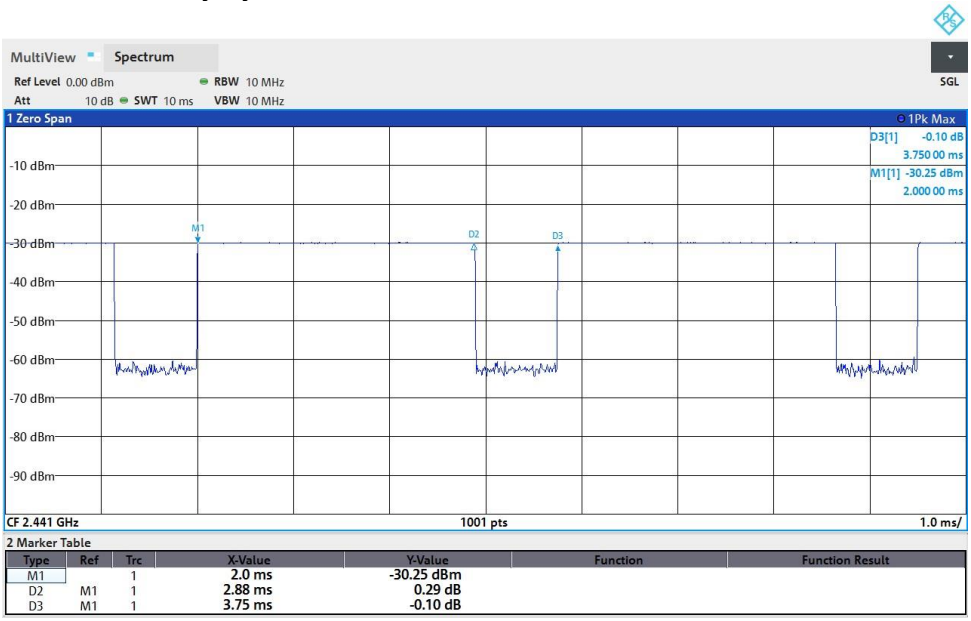
6）. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05.

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=76.80%



8.2 Measurement of SAR Data

Note:

1) The maximum reported 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.

3) Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WiFi 2.4G:

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

WiFi 5G:

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

NFC:

1) NFC SAR is measured for all edges and surfaces of the device.
2) NFC 13.56MHz antenna por is not available on the device to support conducted power measurement, therefore the measured results are referred to as reported SAR.
3) NFC SAR test tissue-simulating liquid parameter refer to IEC/IEEE 62209-1528 2020.

8.2.1 SAR Result of GSM850

GSM850 SAR Test Record										
Ant 0 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 4TS	190/836.6	1:2.075	0.096	-0.17	26.47	28.00	1.422	0.137	22.2
Left tilted	GPRS 4TS	190/836.6	1:2.075	0.066	0.07	26.47	28.00	1.422	0.094	22.2
Right cheek	GPRS 4TS	190/836.6	1:2.075	0.189	0.16	26.47	28.00	1.422	0.269	22.2
Right tilted	GPRS 4TS	190/836.6	1:2.075	0.094	-0.05	26.47	28.00	1.422	0.134	22.2
Body worn Test data(Separate 15mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.096	-0.14	26.47	28.00	1.422	0.137	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.105	0.09	26.47	28.00	1.422	0.149	22.2
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.121	-0.15	26.47	28.00	1.422	0.172	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.162	-0.04	26.47	28.00	1.422	0.230	22.2
Right side	GPRS 4TS	190/836.6	1:2.075	0.263	0.12	26.47	28.00	1.422	0.374	22.2
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.105	-0.13	26.47	28.00	1.422	0.149	22.2
Ant 1 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 4TS	190/836.6	1:2.075	0.585	0.01	20.89	22.50	1.449	**0.848**	22.2
Left cheek	GPRS 4TS	128/824.2	1:2.075	0.521	0.11	20.81	22.50	1.476	0.769	22.2
Left cheek	GPRS 4TS	251/848.8	1:2.075	0.543	0.04	20.86	22.50	1.459	0.792	22.2
Left tilted	GPRS 4TS	190/836.6	1:2.075	0.071	0.12	20.89	22.50	1.449	0.103	22.2
Right cheek	GPRS 4TS	190/836.6	1:2.075	0.380	-0.14	20.89	22.50	1.449	0.551	22.2
Right tilted	GPRS 4TS	190/836.6	1:2.075	0.061	-0.14	20.89	22.50	1.449	0.088	22.2
Body worn Test data(Separate 15mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.298	-0.11	25.92	27.50	1.439	0.429	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.358	0.19	25.92	27.50	1.439	**0.515**	22.2
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.183	0.16	20.89	22.50	1.449	0.265	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.207	0.05	20.89	22.50	1.449	0.300	22.2
Left side	GPRS 4TS	190/836.6	1:2.075	0.288	-0.08	20.89	22.50	1.449	**0.417**	22.2
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)										
Left side	GPRS 4TS	190/836.6	1:2.075	0.897	0.02	25.92	27.50	1.439	**1.291**	22.2

Table 10：SAR of GSM850 for Head and Body.

8.2.2 SAR Result of GSM1900

GSM1900 SAR Test Record										
Ant 3 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	GPRS 4TS	661/1880	1:2.075	0.083	0.06	19.97	21.50	1.422	0.118	22.1
Left tilted	GPRS 4TS	661/1880	1:2.075	0.062	-0.18	19.97	21.50	1.422	0.088	22.1
Right cheek	GPRS 4TS	661/1880	1:2.075	0.271	0.05	19.97	21.50	1.422	**0.385**	22.1
Right tilted	GPRS 4TS	661/1880	1:2.075	0.104	0.08	19.97	21.50	1.422	0.148	22.1
Body worn Test data(Separate 15mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.096	-0.09	23.95	25.50	1.429	0.137	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.119	0.17	23.95	25.50	1.429	0.170	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.093	-0.03	19.97	21.50	1.422	0.132	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.066	-0.04	19.97	21.50	1.422	0.094	22.1
Left side	GPRS 4TS	661/1880	1:2.075	0.068	0.06	19.97	21.50	1.422	0.097	22.1
Top side	GPRS 4TS	661/1880	1:2.075	0.014	0.09	19.97	21.50	1.422	0.020	22.1
Ant 5 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 4TS	661/1880	1:2.075	0.092	-0.16	23.46	25.00	1.426	0.131	22.1
Left tilted	GPRS 4TS	661/1880	1:2.075	0.011	0.17	23.46	25.00	1.426	0.016	22.1
Right cheek	GPRS 4TS	661/1880	1:2.075	0.045	0.17	23.46	25.00	1.426	0.064	22.1
Right tilted	GPRS 4TS	661/1880	1:2.075	0.044	0.11	23.46	25.00	1.426	0.063	22.1
Body worn Test data(Separate 15mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.192	-0.10	23.46	25.00	1.426	0.274	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.214	-0.02	23.46	25.00	1.426	**0.305**	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.391	0.05	23.46	25.00	1.426	0.557	22.1
Back side	GPRS 4TS	661/1880	1:2.075	0.451	0.08	23.46	25.00	1.426	0.643	22.1
Left side	GPRS 4TS	661/1880	1:2.075	0.212	-0.15	23.46	25.00	1.426	0.302	22.1
Bottom side	GPRS 4TS	661/1880	1:2.075	0.579	-0.06	23.46	25.00	1.426	**0.825**	22.1
Bottom side	GPRS 4TS	512/1850.2	1:2.075	0.523	-0.15	23.38	25.00	1.452	0.759	22.1
Bottom side	GPRS 4TS	810/1909.8	1:2.075	0.551	0.00	23.42	25.00	1.439	0.793	22.1

Table 11：SAR of GSM1900 for Head and Body.

8.2.3 SAR Result of WCDMA Band II

W B2 SAR Test Record										
Ant 3 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	9400/1880	1:1	0.195	0.08	17.09	18.50	1.384	0.270	22.1
Left tilted	RMC	9400/1880	1:1	0.146	-0.04	17.09	18.50	1.384	0.202	22.1
Right cheek	RMC	9400/1880	1:1	0.664	-0.19	17.09	18.50	1.384	**0.919**	22.1
Right cheek	RMC	9262/1852.4	1:1	0.613	-0.05	16.97	18.50	1.422	0.872	22.1
Right cheek	RMC	9538/1907.6	1:1	0.638	0.16	16.97	18.50	1.422	0.907	22.1
Right tilted	RMC	9400/1880	1:1	0.241	-0.09	17.09	18.50	1.384	0.333	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.288	0.13	23.96	25.50	1.426	0.411	22.1
Back side	RMC	9400/1880	1:1	0.322	0.14	23.96	25.50	1.426	0.459	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.122	0.04	17.09	18.50	1.384	0.169	22.1
Back side	RMC	9400/1880	1:1	0.162	-0.19	17.09	18.50	1.384	0.224	22.1
Left side	RMC	9400/1880	1:1	0.253	-0.16	17.09	18.50	1.384	0.350	22.1
Top side	RMC	9400/1880	1:1	0.083	-0.06	17.09	18.50	1.384	0.115	22.1
Ant 5 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	0.235	-0.19	24.34	25.00	1.164	0.274	22.1
Left tilted	RMC	9400/1880	1:1	0.093	-0.07	24.34	25.00	1.164	0.108	22.1
Right cheek	RMC	9400/1880	1:1	0.137	-0.08	24.34	25.00	1.164	0.159	22.1
Right tilted	RMC	9400/1880	1:1	0.119	0.18	24.34	25.00	1.164	0.139	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.424	0.01	23.88	24.50	1.153	0.489	22.1
Back side	RMC	9400/1880	1:1	0.481	-0.14	23.88	24.50	1.153	**0.555**	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.521	0.19	22.39	23.00	1.151	0.600	22.1
Back side	RMC	9400/1880	1:1	0.635	0.03	22.39	23.00	1.151	0.731	22.1
Left side	RMC	9400/1880	1:1	0.159	-0.14	22.39	23.00	1.151	0.183	22.1
Bottom side	RMC	9400/1880	1:1	0.874	-0.03	22.39	23.00	1.151	**1.006**	22.1
Bottom side-repeated	RMC	9400/1880	1:1	0.868	0.08	22.39	23.00	1.151	0.999	22.1
Bottom side	RMC	9262/1852.4	1:1	0.832	0.09	22.35	23.00	1.161	0.966	22.1
Bottom side	RMC	9538/1907.6	1:1	0.782	-0.17	22.32	23.00	1.169	0.915	22.1
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**

Product specific 10g SAR Test data(Separate 0mm)										
Bottom side	RMC	9400/1880	1:1	1.800	0.17	23.88	24.50	1.153	**2.076**	22.1
Bottom side	RMC	9262/1852.4	1:1	1.680	-0.04	23.80	24.50	1.175	1.974	22.1
Bottom side	RMC	9538/1907.6	1:1	1.540	0.09	23.76	24.50	1.186	1.826	22.1

Table 12：SAR of WCDMA Band II for Head and Body.

Test Position	**Channel/ Frequency**	**Measured SAR (1g)**	**1st Repeated**	**Ratio**	**2nd Repeated**	**3rd Repeated**
	(MHz)		**SAR (1g)**		**SAR (1g)**	**SAR (1g)**
Bottom side	9400/1880	0.874	0.868	1.006912442	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.4 SAR Result of WCDMA Band IV

W B4 SAR Test Record										
Ant 2 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.509	0.05	17.49	18.00	1.125	0.572	22.4
Left tilted	RMC	1412/1732.4	1:1	0.112	-0.10	17.49	18.00	1.125	0.126	22.4
Right cheek	RMC	1412/1732.4	1:1	0.300	0.01	17.49	18.00	1.125	0.337	22.4
Right tilted	RMC	1412/1732.4	1:1	0.072	0.17	17.49	18.00	1.125	0.081	22.4
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.279	-0.19	23.05	23.50	1.109	0.309	22.4
Back side	RMC	1412/1732.4	1:1	0.333	0.05	23.05	23.50	1.109	0.369	22.4
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.164	0.14	17.49	18.00	1.125	0.184	22.4
Back side	RMC	1412/1732.4	1:1	0.185	0.08	17.49	18.00	1.125	0.208	22.4
Right side	RMC	1412/1732.4	1:1	0.315	0.16	17.49	18.00	1.125	0.354	22.4
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)										
Right side	RMC	1412/1732.4	1:1	1.930	-0.05	23.05	23.50	1.109	**2.141**	22.4
Right side	RMC	1312/1712.4	1:1	1.760	0.10	22.95	23.50	1.135	1.998	22.4
Right side	RMC	1513/1752.6	1:1	1.830	0.16	22.98	23.50	1.127	2.063	22.4
Ant 3 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	1412/1732.4	1:1	0.159	-0.08	17.81	19.00	1.315	0.209	22.4
Left tilted	RMC	1412/1732.4	1:1	0.109	0.06	17.81	19.00	1.315	0.143	22.4
Right cheek	RMC	1412/1732.4	1:1	0.669	0.16	17.81	19.00	1.315	0.880	22.4
Right cheek	RMC	1312/1712.4	1:1	0.599	-0.03	17.73	19.00	1.340	0.802	22.4
Right cheek	RMC	1513/1752.6	1:1	0.718	0.09	17.66	19.00	1.361	**0.978**	22.4
Right tilted	RMC	1412/1732.4	1:1	0.289	0.00	17.81	19.00	1.315	0.380	22.4
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.257	0.15	23.63	25.00	1.371	0.352	22.4
Back side	RMC	1412/1732.4	1:1	0.318	-0.01	23.63	25.00	1.371	0.436	22.4
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.169	0.05	17.81	19.00	1.315	0.222	22.4
Back side	RMC	1412/1732.4	1:1	0.197	-0.18	17.81	19.00	1.315	0.259	22.4

Left side	RMC	1412/1732.4	1:1	0.350	0.13	17.81	19.00	1.315	0.460	22.4
Top side	RMC	1412/1732.4	1:1	0.093	-0.18	17.81	19.00	1.315	0.122	22.4
Ant 5 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	0.168	-0.02	23.81	25.00	1.315	0.221	22.4
Left tilted	RMC	1412/1732.4	1:1	0.082	-0.15	23.81	25.00	1.315	0.108	22.4
Right cheek	RMC	1412/1732.4	1:1	0.167	0.03	23.81	25.00	1.315	0.220	22.4
Right tilted	RMC	1412/1732.4	1:1	0.101	-0.14	23.81	25.00	1.315	0.133	22.4
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.363	0.18	22.87	24.00	1.297	0.471	22.4
Back side	RMC	1412/1732.4	1:1	0.389	-0.07	22.87	24.00	1.297	**0.505**	22.4
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.450	0.05	21.36	22.50	1.300	0.585	22.4
Back side	RMC	1412/1732.4	1:1	0.510	0.04	21.36	22.50	1.300	0.663	22.4
Left side	RMC	1412/1732.4	1:1	0.222	0.19	21.36	22.50	1.300	0.289	22.4
Bottom side	RMC	1412/1732.4	1:1	0.702	-0.02	21.36	22.50	1.300	**0.913**	22.4
Bottom side	RMC	1312/1712.4	1:1	0.629	-0.15	21.33	22.50	1.309	0.823	22.4
Bottom side	RMC	1513/1752.6	1:1	0.683	0.11	21.29	22.50	1.321	0.902	22.4
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)										
Bottom side	RMC	1412/1732.4	1:1	1.610	-0.10	22.87	24.00	1.297	2.088	22.4
Bottom side	RMC	1312/1712.4	1:1	1.410	0.07	22.82	24.00	1.312	1.850	22.4
Bottom side	RMC	1513/1752.6	1:1	1.530	-0.12	22.81	24.00	1.315	2.012	22.4

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

8.2.5 SAR Result of WCDMA Band V

W B5 SAR Test Record										
Ant 0 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.123	-0.03	24.41	25.00	1.146	0.141	22.2
Left tilted	RMC	4182/836.4	1:1	0.086	-0.13	24.41	25.00	1.146	0.099	22.2
Right cheek	RMC	4182/836.4	1:1	0.259	0.09	24.41	25.00	1.146	0.297	22.2
Right tilted	RMC	4182/836.4	1:1	0.123	0.18	24.41	25.00	1.146	0.141	22.2
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.132	-0.05	24.41	25.00	1.146	0.151	22.2
Back side	RMC	4182/836.4	1:1	0.151	-0.09	24.41	25.00	1.146	0.173	22.2
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.186	0.17	24.41	25.00	1.146	0.213	22.2
Back side	RMC	4182/836.4	1:1	0.235	0.16	24.41	25.00	1.146	0.269	22.2
Right side	RMC	4182/836.4	1:1	0.416	-0.05	24.41	25.00	1.146	**0.477**	22.2
Bottom side	RMC	4182/836.4	1:1	0.174	-0.13	24.41	25.00	1.146	0.199	22.2
Ant 1 Test Record										
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data										
Left cheek	RMC	4182/836.4	1:1	0.682	0.13	18.53	19.50	1.250	**0.853**	22.2
Left cheek	RMC	4132/826.4	1:1	0.623	-0.06	18.42	19.50	1.282	0.799	22.2
Left cheek	RMC	4233/846.6	1:1	0.653	0.06	18.39	19.50	1.291	0.843	22.2
Left tilted	RMC	4182/836.4	1:1	0.089	0.14	18.53	19.50	1.250	0.111	22.2
Right cheek	RMC	4182/836.4	1:1	0.466	0.18	18.53	19.50	1.250	0.583	22.2
Right tilted	RMC	4182/836.4	1:1	0.079	0.18	18.53	19.50	1.250	0.099	22.2
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.434	-0.14	23.97	25.00	1.268	0.550	22.2
Back side	RMC	4182/836.4	1:1	0.484	-0.09	23.97	25.00	1.268	**0.614**	22.2
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.199	-0.05	18.53	19.50	1.250	0.249	22.2
Back side	RMC	4182/836.4	1:1	0.234	0.03	18.53	19.50	1.250	0.293	22.2
Left side	RMC	4182/836.4	1:1	0.273	-0.19	18.53	19.50	1.250	0.341	22.2

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

8.2.6 SAR Result of LTE Band 2

LTE Band 2 SAR Test Record											
Ant 3 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	18900/1880	1:1	0.254	0.01	17.43	18.70	1.340	0.340	21.9
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.187	0.01	17.43	18.70	1.340	0.251	21.9
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.742	-0.15	17.43	18.70	1.340	**0.994**	21.9
Right cheek	20	QPSK 1_0	18700/1860	1:1	0.728	0.05	17.39	18.70	1.352	0.984	21.9
Right cheek	20	QPSK 1_0	19100/1900	1:1	0.662	0.18	17.34	18.70	1.368	0.905	21.9
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.274	-0.03	17.43	18.70	1.340	0.367	21.9
Right cheek-Other_PA	20	QPSK 1_0	18900/1880	60	0.461	0.16	17.23	18.70	1.403	0.647	21.9
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	18900/1880	1:1	0.253	-0.16	17.35	18.70	1.365	0.345	21.9
Left tilted	20	QPSK 50_0	18900/1880	1:1	0.183	-0.15	17.35	18.70	1.365	0.250	21.9
Right cheek	20	QPSK 50_0	18900/1880	1:1	0.703	-0.14	17.35	18.70	1.365	0.959	21.9
Right cheek	20	QPSK 50_0	18700/1860	1:1	0.681	0.14	17.27	18.70	1.390	0.947	21.9
Right cheek	20	QPSK 50_0	19100/1900	1:1	0.647	-0.07	17.22	18.70	1.406	0.910	21.9
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.276	0.16	17.35	18.70	1.365	0.377	21.9
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	18900/1880	1:1	0.625	0.03	17.29	18.70	1.384	0.865	21.9
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.339	-0.03	24.17	25.70	1.422	0.482	21.9
Back side	20	QPSK 1_0	18900/1880	1:1	0.388	-0.02	24.17	25.70	1.422	0.552	21.9
Back side-Other_PA	20	QPSK 1_0	18900/1880	60	0.249	-0.09	24.18	25.50	1.355	0.337	21.9
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.313	0.06	23.23	24.70	1.403	0.439	21.9
Back side	20	QPSK 50_0	18900/1880	1:1	0.363	-0.18	23.23	24.70	1.403	0.509	21.9
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.149	-0.15	17.43	18.70	1.340	0.200	21.9
Back side	20	QPSK 1_0	18900/1880	1:1	0.173	0.16	17.43	18.70	1.340	0.232	21.9
Left side	20	QPSK 1_0	18900/1880	1:1	0.283	0.08	17.43	18.70	1.340	0.379	21.9
Top side	20	QPSK 1_0	18900/1880	1:1	0.091	0.14	17.43	18.70	1.340	0.122	21.9
Left side-Other_PA	20	QPSK 1_0	18900/1880	60	0.177	-0.05	17.23	18.70	1.403	0.248	21.9
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.133	0.06	17.35	18.70	1.365	0.181	21.9

Back side	20	QPSK 50_0	18900/1880	1:1	0.165	-0.02	17.35	18.70	1.365	0.225	21.9
Left side	20	QPSK 50_0	18900/1880	1:1	0.265	0.07	17.35	18.70	1.365	0.362	21.9
Top side	20	QPSK 50_0	18900/1880	1:1	0.077	-0.01	17.35	18.70	1.365	0.105	21.9
Ant 5 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	18900/1880	1:1	0.275	-0.01	24.43	25.50	1.279	0.352	21.9
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.080	-0.05	24.43	25.50	1.279	0.102	21.9
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.131	-0.04	24.43	25.50	1.279	0.168	21.9
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.086	-0.04	24.43	25.50	1.279	0.110	21.9
Left cheek-Other_PA	20	QPSK 1_0	18900/1880	60	0.201	-0.18	24.33	25.00	1.167	0.235	21.9
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	18900/1880	1:1	0.218	-0.18	23.49	24.50	1.262	0.275	21.9
Left tilted	20	QPSK 50_0	18900/1880	1:1	0.071	-0.19	23.49	24.50	1.262	0.090	21.9
Right cheek	20	QPSK 50_0	18900/1880	1:1	0.105	-0.03	23.49	24.50	1.262	0.132	21.9
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.087	-0.13	23.49	24.50	1.262	0.110	21.9
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.353	0.00	21.48	22.50	1.265	0.446	21.9
Back side	20	QPSK 1_0	18900/1880	1:1	0.449	-0.18	21.48	22.50	1.265	**0.568**	21.9
Back side-Other_PA	20	QPSK 1_0	18900/1880	60	0.289	0.17	21.44	22.50	1.276	0.369	21.9
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.349	0.11	21.27	22.50	1.327	0.463	21.9
Back side	20	QPSK 50_0	18900/1880	1:1	0.414	0.06	21.27	22.50	1.327	0.550	21.9
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	18900/1880	1:1	0.521	0.09	21.48	22.50	1.265	0.659	21.9
Back side	20	QPSK 1_0	18900/1880	1:1	0.610	0.01	21.48	22.50	1.265	0.771	21.9
Left side	20	QPSK 1_0	18900/1880	1:1	0.458	0.10	21.48	22.50	1.265	0.579	21.9
Bottom side	20	QPSK 1_0	18900/1880	1:1	0.864	-0.19	21.48	22.50	1.265	**1.093**	21.9
Bottom side-repeated	20	QPSK 1_0	18900/1880	1:1	0.851	0.10	21.48	22.50	1.265	1.076	21.9
Bottom side	20	QPSK 1_0	18700/1860	1:1	0.855	-0.17	21.45	22.50	1.274	1.089	21.9
Bottom side	20	QPSK 1_0	19100/1900	1:1	0.819	-0.14	21.32	22.50	1.312	1.075	21.9
Bottom side-Other_PA	20	QPSK 1_0	18900/1880	60	0.635	0.03	21.44	22.50	1.276	0.811	21.9
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	18900/1880	1:1	0.501	0.10	21.27	22.50	1.327	0.665	21.9
Back side	20	QPSK 50_0	18900/1880	1:1	0.591	-0.01	21.27	22.50	1.327	0.784	21.9
Left side	20	QPSK 50_0	18900/1880	1:1	0.436	-0.17	21.27	22.50	1.327	0.579	21.9

Bottom side	20	QPSK 50_0	18900/1880	1:1	0.813	-0.15	21.27	22.50	1.327	1.079	21.9
Bottom side	20	QPSK 50_0	18700/1860	1:1	0.741	0.10	21.22	22.50	1.343	0.995	21.9
Bottom side	20	QPSK 50_0	19100/1900	1:1	0.723	-0.19	21.17	22.50	1.358	0.982	21.9
Hotspot Test data(Separate 10mm 100%RB)											
Bottom side	20	QPSK 100_0	18900/1880	1:1	0.801	-0.10	21.21	22.50	1.346	1.078	21.9

Table 15：SAR of LTE Band 2 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)
Bottom side	18900/1880	0.864	0.851	1.015276146	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.7 SAR Result of LTE Band 4

LTE Band 4 SAR Test Record											
Ant 2 Test Record											
Test position	**B W.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	20175/1732.5	1:1	0.809	0.18	18.55	19.20	1.161	0.940	22.4
Left cheek-repeated	20	QPSK 1_0	20175/1732.5	1:1	0.801	0.02	18.55	19.20	1.161	0.930	22.4
Left tilted	20	QPSK 1_0	20175/1732.5	1:1	0.168	0.02	18.55	19.20	1.161	0.195	22.4
Right cheek	20	QPSK 1_0	20175/1732.5	1:1	0.414	-0.04	18.55	19.20	1.161	0.481	22.4
Right tilted	20	QPSK 1_0	20175/1732.5	1:1	0.102	-0.17	18.55	19.20	1.161	0.118	22.4
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.775	0.18	18.44	19.20	1.191	0.923	22.4
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.149	0.18	18.44	19.20	1.191	0.177	22.4
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.403	0.02	18.44	19.20	1.191	0.480	22.4
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.036	0.16	18.44	19.20	1.191	0.043	22.4
Head Test Data(100%RB)											
Left cheek	20	QPSK 100_0	20175/1732.5	1:1	0.732	0.19	18.34	19.20	1.219	0.892	22.4
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.391	-0.19	23.68	24.20	1.127	0.441	22.4
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.437	-0.01	23.68	24.20	1.127	**0.493**	22.4
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.369	-0.06	23.54	24.20	1.164	0.430	22.4
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.413	0.01	23.54	24.20	1.164	0.481	22.4
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.261	-0.16	18.55	19.20	1.161	0.303	22.4
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.293	-0.17	18.55	19.20	1.161	0.340	22.4
Right side	20	QPSK 1_0	20175/1732.5	1:1	0.557	-0.08	18.55	19.20	1.161	**0.647**	22.4
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.244	-0.19	18.44	19.20	1.191	0.291	22.4
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.286	0.06	18.44	19.20	1.191	0.341	22.4
Right side	20	QPSK 50_0	20175/1732.5	1:1	0.524	0.19	18.44	19.20	1.191	0.624	22.4
Test position	**B W.**	**Test mode**	**Test Ch./Freq.**	**Duty Cycle**	**SAR (W/kg)10-g**	**Power Drift(dB)**	**Conducted power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data(Separate 0mm 1RB)											
Right side	20	QPSK 1_0	20175/1732.5	1:1	2.260	-0.09	23.68	24.20	1.127	**2.547**	22.4
Right side-repeated	20	QPSK 1_0	20175/1732.5	1:1	2.210	0.01	23.68	24.20	1.127	2.491	22.4
Product specific 10g SAR Test data (Separate 0mm 50%RB)											
Right side	20	QPSK 50_0	20175/1732.5	1:1	2.120	0.05	23.54	24.20	1.164	2.468	22.4
Product specific 10g SAR Test data (Separate 0mm 100%RB)											
Right side	20	QPSK 100_0	20175/1732.5	1:1	1.860	0.17	23.42	24.20	1.197	2.226	22.4

Ant 3 Test Record											
Test position	B W.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	20175/1732.5	1:1	0.197	-0.05	18.34	19.70	1.368	0.269	22.4
Left tilted	20	QPSK 1_0	20175/1732.5	1:1	0.125	-0.01	18.34	19.70	1.368	0.171	22.4
Right cheek	20	QPSK 1_0	20175/1732.5	1:1	0.764	0.07	18.34	19.70	1.368	**1.045**	22.4
Right tilted	20	QPSK 1_0	20175/1732.5	1:1	0.307	-0.07	18.34	19.70	1.368	0.420	22.4
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	20175/1732.5	1:1	0.185	0.18	18.15	19.70	1.429	0.264	22.4
Left tilted	20	QPSK 50_0	20175/1732.5	1:1	0.118	0.17	18.15	19.70	1.429	0.169	22.4
Right cheek	20	QPSK 50_0	20175/1732.5	1:1	0.717	0.14	18.15	19.70	1.429	1.025	22.4
Right tilted	20	QPSK 50_0	20175/1732.5	1:1	0.273	0.12	18.15	19.70	1.429	0.390	22.4
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	20175/1732.5	1:1	0.681	0.18	18.11	19.70	1.442	0.982	22.4
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.201	-0.07	18.34	19.70	1.368	0.275	22.4
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.239	-0.16	18.34	19.70	1.368	0.327	22.4
Left side	20	QPSK 1_0	20175/1732.5	1:1	0.397	-0.13	18.34	19.70	1.368	0.543	22.4
Top side	20	QPSK 1_0	20175/1732.5	1:1	0.104	0.06	18.34	19.70	1.368	0.142	22.4
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	20175/1732.5	1:1	0.188	0.13	18.15	19.70	1.429	0.269	22.4
Back side	20	QPSK 50_0	20175/1732.5	1:1	0.219	0.16	18.15	19.70	1.429	0.313	22.4
Left side	20	QPSK 50_0	20175/1732.5	1:1	0.378	0.04	18.15	19.70	1.429	0.540	22.4
Top side	20	QPSK 50_0	20175/1732.5	1:1	0.091	0.16	18.15	19.70	1.429	0.130	22.4
Hotspot Test data(Separate 10mm 100%RB)											
Left side	20	QPSK 100_0	20175/1732.5	1:1	0.358	-0.08	18.11	19.70	1.442	0.516	22.4

Table 16：SAR of LTE Band 4 for Head and Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Left cheek	20175/1732.5	0.809	0.801	1.009987516	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right side	20175/1732.5	2.26	2.21	1.022624434	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 2.0 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 ≥ 3.6 W/kg (~ 10% from the 10-g SAR limit).
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 3.6 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 < 2.0 W/kg

8.2.8 SAR Result of LTE Band 5

LTE Band 5 SAR Test Record											
Ant 1 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)											
Left cheek	10	QPSK 1_0	20525/836.5	1:1	0.749	-0.11	18.62	20.00	1.374	**1.029**	22.2
Left tilted	10	QPSK 1_0	20525/836.5	1:1	0.101	-0.12	18.62	20.00	1.374	0.139	22.2
Right cheek	10	QPSK 1_0	20525/836.5	1:1	0.539	0.02	18.62	20.00	1.374	0.741	22.2
Right tilted	10	QPSK 1_0	20525/836.5	1:1	0.092	-0.15	18.62	20.00	1.374	0.126	22.2
Head Test Data(50%RB)											
Left cheek	10	QPSK 25_0	20525/836.5	1:1	0.722	-0.16	18.50	20.00	1.413	1.020	22.2
Left tilted	10	QPSK 25_0	20525/836.5	1:1	0.093	0.14	18.50	20.00	1.413	0.131	22.2
Right cheek	10	QPSK 25_0	20525/836.5	1:1	0.526	0.00	18.50	20.00	1.413	0.743	22.2
Right tilted	10	QPSK 25_0	20525/836.5	1:1	0.086	-0.02	18.50	20.00	1.413	0.121	22.2
Head Test Data(100%RB)											
Left cheek	10	QPSK 50_0	20525/836.5	1:1	0.707	-0.03	18.44	20.00	1.432	1.013	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1_0	20525/836.5	1:1	0.289	0.19	18.62	20.00	1.374	0.397	22.2
Back side	10	QPSK 1_0	20525/836.5	1:1	0.336	-0.19	18.62	20.00	1.374	0.462	22.2
Left side	10	QPSK 1_0	20525/836.5	1:1	0.425	-0.02	18.62	20.00	1.374	**0.584**	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25_0	20525/836.5	1:1	0.281	0.17	18.50	20.00	1.413	0.397	22.2
Back side	10	QPSK 25_0	20525/836.5	1:1	0.322	0.10	18.50	20.00	1.413	0.455	22.2
Left side	10	QPSK 25_0	20525/836.5	1:1	0.411	-0.09	18.50	20.00	1.413	0.581	22.2

Table 17：SAR of LTE Band 5 for Head and Body.

8.2.9 SAR Result of LTE Band 7

LTE Band 7 SAR Test Record											
Ant 2 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	0.597	-0.11	17.54	18.20	1.164	0.695	22.5
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.152	-0.17	17.54	18.20	1.164	0.177	22.5
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.892	-0.02	17.54	18.20	1.164	**1.038**	22.5
Right cheek-repeated	20	QPSK 1_0	21100/2535	1:1	0.883	-0.17	17.54	18.20	1.164	1.028	22.5
Right cheek	20	QPSK 1_0	20850/2510	1:1	0.835	-0.17	17.48	18.20	1.180	0.986	22.5
Right cheek	20	QPSK 1_0	21350/2560	1:1	0.851	-0.15	17.52	18.20	1.169	0.995	22.5
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.098	0.00	17.54	18.20	1.164	0.114	22.5
Right cheek-Other_PA	20	QPSK 1_0	21100/2535	60	0.581	-0.19	17.49	18.20	1.178	0.684	22.5
Right cheek-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.856	0.11	17.42	18.20	1.197	1.024	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.580	-0.18	17.36	18.20	1.213	0.704	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.131	0.04	17.36	18.20	1.213	0.159	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.710	-0.19	17.36	18.20	1.213	0.862	22.5
Right cheek	20	QPSK 50_0	20850/2510	1:1	0.651	0.17	17.33	18.20	1.222	0.795	22.5
Right cheek	20	QPSK 50_0	21350/2560	1:1	0.673	-0.10	17.32	18.20	1.225	0.824	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.081	-0.13	17.36	18.20	1.213	0.098	22.5
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	21100/2535	1:1	0.681	-0.18	17.31	18.20	1.227	0.836	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.262	0.01	20.00	20.70	1.175	0.308	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.306	0.03	20.00	20.70	1.175	0.360	22.5
Back side-Other_PA	20	QPSK 1_0	21100/2535	60	0.191	0.04	19.99	20.70	1.178	0.225	22.5
Back side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.285	-0.09	19.76	20.70	1.242	0.354	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.241	0.04	19.93	20.70	1.194	0.288	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.276	-0.15	19.93	20.70	1.194	0.330	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.292	0.04	17.54	18.20	1.164	0.340	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.337	-0.18	17.54	18.20	1.164	0.392	22.5
Right side	20	QPSK 1_0	21100/2535	1:1	0.550	-0.12	17.54	18.20	1.164	0.640	22.5
Right side-Other_PA	20	QPSK 1_0	21100/2535	60	0.346	0.07	17.49	18.20	1.178	0.407	22.5
Right side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.529	-0.01	17.42	18.20	1.197	0.633	22.5
Hotspot Test data(Separate 10mm 50%RB)											

Front side	20	QPSK 50_0	21100/2535	1:1	0.276	-0.12	17.36	18.20	1.213	0.335	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.317	0.02	17.36	18.20	1.213	0.385	22.5
Right side	20	QPSK 50_0	21100/2535	1:1	0.523	-0.07	17.36	18.20	1.213	0.635	22.5
Ant 3 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.296	0.08	15.56	17.00	1.393	0.412	22.5
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.108	0.14	15.56	17.00	1.393	0.150	22.5
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.699	-0.04	15.56	17.00	1.393	0.974	22.5
Right cheek	20	QPSK 1_0	20850/2510	1:1	0.623	0.02	15.50	17.00	1.413	0.880	22.5
Right cheek	20	QPSK 1_0	21350/2560	1:1	0.671	-0.17	15.54	17.00	1.400	0.939	22.5
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.306	-0.14	15.56	17.00	1.393	0.426	22.5
Right cheek-Other_PA	20	QPSK 1_0	21100/2535	60	0.459	-0.01	15.81	17.00	1.315	0.604	22.5
Right cheek-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.638	0.18	15.34	17.00	1.466	0.935	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.207	-0.12	15.42	17.00	1.439	0.298	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.109	0.05	15.42	17.00	1.439	0.157	22.5
Right cheek	20	QPSK 50_0	20850/2510	1:1	0.666	-0.14	15.42	17.00	1.439	0.958	22.5
Right cheek	20	QPSK 50_0	21350/2560	1:1	0.601	0.07	15.39	17.00	1.449	0.871	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.623	-0.09	15.21	17.00	1.510	0.941	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.277	0.16	15.42	17.00	1.439	0.399	22.5
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	21100/2535	1:1	0.629	0.02	15.36	17.00	1.459	0.918	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.540	-0.17	24.04	25.50	1.400	0.756	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.757	-0.09	24.04	25.50	1.400	**1.059**	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.689	0.03	23.91	25.50	1.442	0.994	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.723	0.11	24.00	25.50	1.413	1.021	22.5
Back side-Other_PA	20	QPSK 1_0	21100/2535	60	0.451	0.07	24.37	25.00	1.156	0.521	22.5
Back side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.591	-0.08	22.58	23.50	1.236	0.730	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.523	0.11	22.98	24.50	1.419	0.742	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.738	-0.04	22.98	24.50	1.419	1.047	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.661	0.17	22.88	24.50	1.452	0.960	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.691	-0.11	22.89	24.50	1.449	1.001	22.5
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	21100/2535	1:1	0.703	0.02	22.94	24.50	1.432	1.007	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.188	-0.06	15.56	17.00	1.393	0.262	22.5

Back side	20	QPSK 1_0	21100/2535	1:1	0.255	0.17	15.56	17.00	1.393	0.355	22.5
Left side	20	QPSK 1_0	21100/2535	1:1	0.427	-0.08	15.56	17.00	1.393	0.595	22.5
Top side	20	QPSK 1_0	21100/2535	1:1	0.052	-0.16	15.56	17.00	1.393	0.072	22.5
Left side-Other_PA	20	QPSK 1_0	21100/2535	60	0.289	0.01	15.81	17.00	1.315	0.380	22.5
Left side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.389	0.19	15.34	17.00	1.466	0.570	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.169	0.05	15.42	17.00	1.439	0.243	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.239	0.00	15.42	17.00	1.439	0.344	22.5
Left side	20	QPSK 50_0	21100/2535	1:1	0.408	0.05	15.42	17.00	1.439	0.587	22.5
Top side	20	QPSK 50_0	21100/2535	1:1	0.031	-0.18	15.42	17.00	1.439	0.045	22.5
Ant 5 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	0.469	-0.16	24.62	25.70	1.282	0.601	22.5
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.210	0.11	24.62	25.70	1.282	0.269	22.5
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.471	0.15	24.62	25.70	1.282	0.604	22.5
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.217	0.13	24.62	25.70	1.282	0.278	22.5
Right cheek-Other_PA	20	QPSK 1_0	21100/2535	60	0.313	-0.13	23.96	24.50	1.132	0.354	22.5
Right cheek-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.353	-0.06	22.78	23.70	1.236	0.436	22.5
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.416	-0.01	23.55	24.70	1.303	0.542	22.5
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.179	0.10	23.55	24.70	1.303	0.233	22.5
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.428	0.08	23.55	24.70	1.303	0.558	22.5
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.206	-0.14	23.55	24.70	1.303	0.268	22.5
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.333	0.13	20.69	21.70	1.262	0.420	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.391	0.17	20.69	21.70	1.262	0.493	22.5
Back side-Other_PA	20	QPSK 1_0	21100/2535	60	0.259	-0.13	20.48	21.70	1.324	0.343	22.5
Back side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.359	0.17	20.42	21.70	1.343	0.482	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.295	-0.17	20.46	21.70	1.330	0.392	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.365	-0.12	20.46	21.70	1.330	0.486	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	21100/2535	1:1	0.390	-0.16	20.69	21.70	1.262	0.492	22.5
Back side	20	QPSK 1_0	21100/2535	1:1	0.564	-0.06	20.69	21.70	1.262	0.712	22.5
Left side	20	QPSK 1_0	21100/2535	1:1	0.138	0.01	20.69	21.70	1.262	0.174	22.5
Bottom side	20	QPSK 1_0	21100/2535	1:1	0.853	-0.02	20.69	21.70	1.262	**1.076**	22.5
Bottom side-repeated	20	QPSK 1_0	21100/2535	1:1	0.847	0.06	20.69	21.70	1.262	1.069	22.5
Bottom side	20	QPSK 1_0	20850/2510	1:1	0.769	0.01	20.59	21.70	1.291	0.993	22.5

Bottom side	20	QPSK 1_0	21350/2560	1:1	0.783	-0.07	20.59	21.70	1.291	1.011	22.5
Bottom side-Other_PA	20	QPSK 1_0	21100/2535	60	0.551	-0.11	20.48	21.70	1.324	0.730	22.5
Bottom side-UL_CA	20	QPSK 1_0	21100+20902/2535+2515.2	1:1	0.789	0.00	20.42	21.70	1.343	1.059	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	21100/2535	1:1	0.367	0.16	20.46	21.70	1.330	0.488	22.5
Back side	20	QPSK 50_0	21100/2535	1:1	0.526	0.06	20.46	21.70	1.330	0.700	22.5
Left side	20	QPSK 50_0	21100/2535	1:1	0.115	0.01	20.46	21.70	1.330	0.153	22.5
Bottom side	20	QPSK 50_0	21100/2535	1:1	0.801	-0.09	20.46	21.70	1.330	1.066	22.5
Bottom side	20	QPSK 50_0	20850/2510	1:1	0.731	-0.07	20.45	21.70	1.334	0.975	22.5
Bottom side	20	QPSK 50_0	21350/2560	1:1	0.741	0.11	20.38	21.70	1.355	1.004	22.5
Hotspot Test data(Separate 10mm 100%RB)											
Bottom side	20	QPSK 100_0	21100/2535	1:1	0.711	0.14	20.39	21.70	1.352	0.961	22.5

Table 18：SAR of LTE Band 7 for Head and Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right cheek	21100/2535	0.892	0.883	1.010192525	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Bottom side	21100/2535	0.853	0.847	1.007083825	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.10 SAR Result of LTE Band 26

LTE Band 26 SAR Test Record											
Ant 0 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.120	-0.15	25.06	25.70	1.159	0.139	22.3
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.084	0.18	25.06	25.70	1.159	0.097	22.3
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.233	-0.07	25.06	25.70	1.159	0.270	22.3
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.117	-0.16	25.06	25.70	1.159	0.136	22.3
Head Test Data(50%RB)											
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.102	0.14	24.09	24.70	1.151	0.117	22.3
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.066	0.17	24.09	24.70	1.151	0.076	22.3
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.198	-0.05	24.09	24.70	1.151	0.228	22.3
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.098	0.01	24.09	24.70	1.151	0.113	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.136	0.05	25.06	25.70	1.159	0.158	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.167	-0.19	25.06	25.70	1.159	0.194	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.128	-0.09	24.09	24.70	1.151	0.147	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.142	-0.19	24.09	24.70	1.151	0.163	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.178	0.11	25.06	25.70	1.159	0.206	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.219	-0.19	25.06	25.70	1.159	0.254	22.3
Right side	15	QPSK 1_0	26865/831.5	1:1	0.386	-0.14	25.06	25.70	1.159	**0.447**	22.3
Bottom side	15	QPSK 1_0	26865/831.5	1:1	0.162	-0.04	25.06	25.70	1.159	0.188	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.167	0.09	24.09	24.70	1.151	0.192	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.212	0.08	24.09	24.70	1.151	0.244	22.3
Right side	15	QPSK 36_0	26865/831.5	1:1	0.374	0.17	24.09	24.70	1.151	0.430	22.3
Bottom side	15	QPSK 36_0	26865/831.5	1:1	0.142	-0.19	24.09	24.70	1.151	0.163	22.3
Ant 1 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.753	0.04	18.28	19.50	1.324	**0.997**	22.3
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.104	0.14	18.28	19.50	1.324	0.138	22.3
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.508	0.13	18.28	19.50	1.324	0.673	22.3
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.104	-0.01	18.28	19.50	1.324	0.138	22.3

Head Test Data(50%RB)											
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.715	0.09	18.14	19.50	1.368	0.978	22.3
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.098	-0.01	18.14	19.50	1.368	0.134	22.3
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.435	-0.05	18.14	19.50	1.368	0.595	22.3
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.087	-0.13	18.14	19.50	1.368	0.119	22.3
Head Test Data(100%RB)											
Left cheek	15	QPSK 75_0	26865/831.5	1:1	0.695	0.05	18.06	19.50	1.393	0.968	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.593	0.13	24.21	25.50	1.346	0.798	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.644	0.12	24.21	25.50	1.346	**0.867**	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.565	-0.04	23.10	24.50	1.380	0.780	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.622	-0.06	23.10	24.50	1.380	0.859	22.3
Body worn Test data(Separate 15mm 100%RB)											
Back side	15	QPSK 75_0	26865/831.5	1:1	0.608	0.15	23.09	24.50	1.384	0.841	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	15	QPSK 1_0	26865/831.5	1:1	0.239	0.06	18.28	19.50	1.324	0.317	22.3
Back side	15	QPSK 1_0	26865/831.5	1:1	0.285	0.13	18.28	19.50	1.324	0.377	22.3
Left side	15	QPSK 1_0	26865/831.5	1:1	0.333	-0.14	18.28	19.50	1.324	0.441	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	15	QPSK 36_0	26865/831.5	1:1	0.223	-0.18	18.14	19.50	1.368	0.305	22.3
Back side	15	QPSK 36_0	26865/831.5	1:1	0.274	0.03	18.14	19.50	1.368	0.375	22.3
Left side	15	QPSK 36_0	26865/831.5	1:1	0.319	0.15	18.14	19.50	1.368	0.436	22.3

Table 19：SAR of LTE Band 26 for Head and Body is covering LTE Band 5.

8.2.11 SAR Result of LTE Band 38

LTE Band 38 SAR Test Record											
Ant 5 Test Record											
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.191	0.01	23.03	23.70	1.167	0.223	22.5
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.258	-0.08	23.03	23.70	1.167	**0.301**	22.5
Back side-Other_PA	20	QPSK 1_0	38000/2595	60	0.209	-0.11	22.20	23.70	1.413	0.295	22.5
Back side-UL_CA	20	QPSK 1_0	38000+38198/2595+26148	1:1.58	0.221	0.08	22.81	23.70	1.227	0.271	22.5
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.179	-0.12	22.87	23.70	1.211	0.217	22.5
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.241	-0.04	22.87	23.70	1.211	0.292	22.5
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.363	0.16	23.03	23.70	1.167	0.424	22.5
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.475	-0.04	23.03	23.70	1.167	0.554	22.5
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.130	0.08	23.03	23.70	1.167	0.152	22.5
Bottom side	20	QPSK 1_0	38000/2595	1:1.58	0.840	0.10	23.03	23.70	1.167	**0.980**	22.5
Bottom side-repeated	20	QPSK 1_0	38000/2595	1:1.58	0.829	-0.11	23.03	23.70	1.167	0.967	22.5
Bottom side	20	QPSK 1_0	37850/2580	1:1.58	0.778	0.05	22.94	23.70	1.191	0.927	22.5
Bottom side	20	QPSK 1_0	38150/2610	1:1.58	0.811	0.03	23.00	23.70	1.175	0.953	22.5
Bottom side-Other_PA	20	QPSK 1_0	38000/2595	60	0.692	0.09	22.20	23.70	1.413	0.977	22.5
Bottom side-UL_CA	20	QPSK 1_0	38000+38198/2595+26148	1:1.58	0.782	-0.08	22.81	23.70	1.227	0.960	22.5
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.345	-0.07	22.87	23.70	1.211	0.418	22.5
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.470	0.18	22.87	23.70	1.211	0.569	22.5
Left side	20	QPSK 50_0	38000/2595	1:1.58	0.113	0.12	22.87	23.70	1.211	0.137	22.5
Bottom side	20	QPSK 50_0	38000/2595	1:1.58	0.802	0.07	22.87	23.70	1.211	0.971	22.5
Bottom side	20	QPSK 50_0	37850/2580	1:1.58	0.753	0.18	22.79	23.70	1.233	0.929	22.5
Bottom side	20	QPSK 50_0	38150/2610	1:1.58	0.778	-0.15	22.81	23.70	1.227	0.955	22.5
Hotspot Test data(Separate 10mm 100%RB)											
Bottom side	20	QPSK 100_0	38000/2595	1:1.58	0.759	-0.17	22.81	23.70	1.227	0.932	22.5

Table 20：SAR of LTE Band 38 for Head and Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Bottom side	38000/2595	0.84	0.829	1.013268999	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						

3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

8.2.12 SAR Result of LTE Band 41

LTE Band 41 SAR Test Record											
Ant 2 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	40620/2593	1:1.58	0.572	0.15	19.86	20.20	1.081	0.619	22.3
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.106	0.03	19.86	20.20	1.081	0.115	22.3
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.961	-0.08	19.86	20.20	1.081	1.039	22.3
Right cheek-repeated	20	QPSK 1_0	40620/2593	1:1.58	0.953	0.14	19.86	20.20	1.081	1.031	22.3
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.869	0.01	19.74	20.20	1.112	0.966	22.3
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.907	-0.03	19.77	20.20	1.104	1.001	22.3
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.883	0.14	19.81	20.20	1.094	0.966	22.3
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.796	-0.06	19.78	20.20	1.102	0.877	22.3
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.084	0.09	19.86	20.20	1.081	0.091	22.3
Right cheek-Other_PA	20	QPSK 1_0	40620/2593	60	0.659	0.10	19.74	20.20	1.112	0.733	22.3
Right cheek-B38-UL_CA	20	QPSK 1_0	38000+38198/2595+2614.8	1:1.58	0.921	0.09	19.33	19.70	1.089	1.003	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.534	0.18	19.66	20.20	1.132	0.605	22.3
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.085	0.18	19.66	20.20	1.132	0.096	22.3
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.894	0.01	19.66	20.20	1.132	1.012	22.3
Right cheek	20	QPSK 50_0	39750/2506	1:1.58	0.801	0.06	19.62	20.20	1.143	0.915	22.3
Right cheek	20	QPSK 50_0	40185/2549.5	1:1.58	0.833	-0.18	19.63	20.20	1.140	0.950	22.3
Right cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.792	0.00	19.63	20.20	1.140	0.903	22.3
Right cheek	20	QPSK 50_0	41490/2680	1:1.58	0.751	0.19	19.61	20.20	1.146	0.860	22.3
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.057	-0.13	19.66	20.20	1.132	0.065	22.3
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	40620/2593	1:1.58	0.811	-0.09	19.64	20.20	1.138	0.923	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.312	-0.18	21.93	22.20	1.064	0.332	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.389	0.16	21.93	22.20	1.064	0.414	22.3
Back side-Other_PA	20	QPSK 1_0	40620/2593	60	0.273	0.10	21.69	22.20	1.125	0.307	22.3
Back side-B38-UL_CA	20	QPSK 1_0	38000+38198/2595+2614.8	1:1.58	0.351	0.06	21.68	22.20	1.127	0.396	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.289	-0.07	21.70	22.20	1.122	0.324	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.349	0.03	21.70	22.20	1.122	0.392	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.307	-0.18	19.86	20.20	1.081	0.332	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.342	-0.18	19.86	20.20	1.081	0.370	22.3
Right side	20	QPSK 1_0	40620/2593	1:1.58	0.511	0.06	19.86	20.20	1.081	0.553	22.3

Right side-Other_PA	20	QPSK 1_0	40620/2593	60	0.366	-0.13	19.74	20.20	1.112	0.407	22.3
Right side-B38-UL_CA	20	QPSK 1_0	38000+38198/2595+2614.8	1:1.58	0.458	0.02	19.33	19.70	1.089	0.499	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.277	0.12	19.66	20.20	1.132	0.314	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.310	0.11	19.66	20.20	1.132	0.351	22.3
Right side	20	QPSK 50_0	40620/2593	1:1.58	0.478	-0.06	19.66	20.20	1.132	0.541	22.3
Ant 3 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	40620/2593	1:1.58	0.257	0.09	18.52	19.70	1.312	0.337	22.3
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.122	0.06	18.52	19.70	1.312	0.160	22.3
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.833	-0.04	18.52	19.70	1.312	**1.093**	22.3
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.753	0.06	18.50	19.70	1.318	0.993	22.3
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.763	0.03	18.50	19.70	1.318	1.006	22.3
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.648	-0.02	18.41	19.70	1.346	0.872	22.3
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.612	0.03	18.42	19.70	1.343	0.822	22.3
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.295	0.02	18.52	19.70	1.312	0.387	22.3
Right cheek-Other_PA	20	QPSK 1_0	40620/2593	60	0.689	-0.19	18.88	19.70	1.208	0.832	22.3
Right cheek-B38-UL_CA	20	QPSK 1_0	38000+38198/2595+2614.8	1:1.58	0.771	-0.06	18.24	19.70	1.400	1.079	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.231	0.13	18.43	19.70	1.340	0.309	22.3
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.112	-0.05	18.43	19.70	1.340	0.150	22.3
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.706	0.18	18.43	19.70	1.340	0.946	22.3
Right cheek	20	QPSK 50_0	39750/2506	1:1.58	0.653	-0.18	18.28	19.70	1.387	0.906	22.3
Right cheek	20	QPSK 50_0	40185/2549.5	1:1.58	0.677	0.00	18.39	19.70	1.352	0.915	22.3
Right cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.646	0.06	18.35	19.70	1.365	0.882	22.3
Right cheek	20	QPSK 50_0	41490/2680	1:1.58	0.619	0.18	18.26	19.70	1.393	0.862	22.3
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.273	-0.16	18.43	19.70	1.340	0.366	22.3
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	40620/2593	1:1.58	0.681	0.02	18.38	19.70	1.355	0.923	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.419	-0.01	24.62	25.70	1.282	0.537	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.569	-0.06	24.62	25.70	1.282	**0.730**	22.3
Back side-Other_PA	20	QPSK 1_0	40620/2593	60	0.396	-0.14	24.44	25.50	1.276	0.505	22.3
Back side-B38-UL_CA	20	QPSK 1_0	38000+38198/2595+2614.8	1:1.58	0.523	-0.05	23.86	25.20	1.361	0.712	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.393	0.09	23.53	24.70	1.309	0.515	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.516	-0.05	23.53	24.70	1.309	0.676	22.3
Hotspot Test data(Separate 10mm 1RB)											

Front side	20	QPSK 1_0	40620/2593	1:1.58	0.233	-0.13	18.52	19.70	1.312	0.306	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.309	0.12	18.52	19.70	1.312	0.405	22.3
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.555	-0.13	18.52	19.70	1.312	0.728	22.3
Top side	20	QPSK 1_0	40620/2593	1:1.58	0.074	-0.13	18.52	19.70	1.312	0.097	22.3
Left side-Other_PA	20	QPSK 1_0	40620/2593	60	0.392	0.08	18.88	19.70	1.208	0.473	22.3
Left side-B38-UL_CA	20	QPSK 1_0	38000+38198 /2595+2614.8	1:1.58	0.511	0.02	18.24	19.70	1.400	0.715	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.217	-0.04	18.43	19.70	1.340	0.291	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.302	-0.11	18.43	19.70	1.340	0.405	22.3
Left side	20	QPSK 50_0	40620/2593	1:1.58	0.530	-0.02	18.43	19.70	1.340	0.710	22.3
Top side	20	QPSK 50_0	40620/2593	1:1.58	0.045	-0.13	18.43	19.70	1.340	0.060	22.3
Ant 4 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	40620/2593	1:1.58	0.549	0.16	21.54	23.00	1.400	0.768	22.3
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.760	-0.07	21.54	23.00	1.400	1.064	22.3
Left tilted	20	QPSK 1_0	39750/2506	1:1.58	0.706	-0.09	21.38	23.00	1.452	1.025	22.3
Left tilted	20	QPSK 1_0	40185/2549.5	1:1.58	0.739	-0.16	21.51	23.00	1.409	1.041	22.3
Left tilted	20	QPSK 1_0	41055/2636.5	1:1.58	0.711	-0.12	21.36	23.00	1.459	1.037	22.3
Left tilted	20	QPSK 1_0	41490/2680	1:1.58	0.723	0.19	21.51	23.00	1.409	1.019	22.3
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.762	0.04	21.54	23.00	1.400	1.066	22.3
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.711	-0.05	21.38	23.00	1.452	1.032	22.3
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.746	-0.14	21.51	23.00	1.409	1.051	22.3
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.723	-0.02	21.36	23.00	1.459	1.055	22.3
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.741	0.04	21.51	23.00	1.409	1.044	22.3
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.561	-0.15	21.54	23.00	1.400	0.785	22.3
Right cheek-Other_PA	20	QPSK 1_0	40620/2593	60	0.591	0.19	21.92	23.00	1.282	0.758	22.3
Right cheek-B38-UL_CA	20	QPSK 1_0	38000+38198 /2595+2614.8	1:1.58	0.653	-0.10	20.76	22.00	1.330	0.869	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.538	-0.05	21.47	23.00	1.422	0.765	22.3
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.711	0.09	21.47	23.00	1.422	1.011	22.3
Left tilted	20	QPSK 50_0	39750/2506	1:1.58	0.652	0.01	21.28	23.00	1.486	0.969	22.3
Left tilted	20	QPSK 50_0	40185/2549.5	1:1.58	0.677	0.06	21.24	23.00	1.500	1.015	22.3
Left tilted	20	QPSK 50_0	41055/2636.5	1:1.58	0.672	0.02	21.29	23.00	1.483	0.996	22.3
Left tilted	20	QPSK 50_0	41490/2680	1:1.58	0.664	0.16	21.32	23.00	1.472	0.978	22.3
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.714	-0.01	21.47	23.00	1.422	1.016	22.3
Right cheek	20	QPSK 50_0	39750/2506	1:1.58	0.674	-0.04	21.28	23.00	1.486	1.002	22.3
Right cheek	20	QPSK 50_0	40185/2549.5	1:1.58	0.686	-0.11	21.24	23.00	1.500	1.029	22.3
Right cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.670	-0.02	21.29	23.00	1.483	0.993	22.3

Right cheek	20	QPSK 50_0	41490/2680	1:1.58	0.676	0.04	21.32	23.00	1.472	0.995	22.3
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.549	0.05	21.47	23.00	1.422	0.781	22.3
Head Test Data(100%RB)											
Left tilted	20	QPSK 100_0	40620/2593	1:1.58	0.669	-0.06	21.44	23.00	1.432	0.958	22.3
Right cheek	20	QPSK 100_0	40620/2593	1:1.58	0.682	-0.05	21.44	23.00	1.432	0.977	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.139	0.10	23.52	25.00	1.406	0.195	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.183	0.15	23.52	25.00	1.406	0.257	22.3
Back side-Other_PA	20	QPSK 1_0	40620/2593	60	0.123	0.16	22.69	24.00	1.352	0.166	22.3
Back side-B38-UL_CA	20	QPSK 1_0	38000+38198 /2595+2614.8	1:1.58	0.159	0.18	21.73	23.00	1.340	0.213	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.108	-0.01	22.43	24.00	1.435	0.155	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.151	0.03	22.43	24.00	1.435	0.217	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.257	-0.12	21.54	23.00	1.400	0.360	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.377	-0.09	21.54	23.00	1.400	0.528	22.3
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.429	0.04	21.54	23.00	1.400	0.600	22.3
Top side	20	QPSK 1_0	40620/2593	1:1.58	0.683	-0.13	21.54	23.00	1.400	0.956	22.3
Top side	20	QPSK 1_0	39750/2506	1:1.58	0.629	-0.08	21.38	23.00	1.452	0.913	22.3
Top side	20	QPSK 1_0	40185/2549.5	1:1.58	0.642	0.10	21.51	23.00	1.409	0.905	22.3
Top side	20	QPSK 1_0	41055/2636.5	1:1.58	0.625	0.05	21.36	23.00	1.459	0.912	22.3
Top side	20	QPSK 1_0	41490/2680	1:1.58	0.638	0.18	21.51	23.00	1.409	0.899	22.3
Top side-Other_PA	20	QPSK 1_0	40620/2593	60	0.491	0.12	21.92	23.00	1.282	0.630	22.3
Top side-B38-UL_CA	20	QPSK 1_0	38000+38198 /2595+2614.8	1:1.58	0.625	-0.19	20.76	22.00	1.330	0.832	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.222	-0.03	21.47	23.00	1.422	0.316	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.342	0.01	21.47	23.00	1.422	0.486	22.3
Left side	20	QPSK 50_0	40620/2593	1:1.58	0.404	-0.12	21.47	23.00	1.422	0.575	22.3
Top side	20	QPSK 50_0	40620/2593	1:1.58	0.664	0.02	21.47	23.00	1.422	0.944	22.3
Top side	20	QPSK 50_0	39750/2506	1:1.58	0.607	-0.04	21.28	23.00	1.486	0.902	22.3
Top side	20	QPSK 50_0	40185/2549.5	1:1.58	0.621	-0.19	21.24	23.00	1.500	0.931	22.3
Top side	20	QPSK 50_0	41055/2636.5	1:1.58	0.618	0.01	21.29	23.00	1.483	0.916	22.3
Top side	20	QPSK 50_0	41490/2680	1:1.58	0.613	-0.03	21.32	23.00	1.472	0.903	22.3
Hotspot Test data(Separate 10mm 100%RB)											
Top side	20	QPSK 100_0	40620/2593	1:1.58	0.623	-0.19	21.44	23.00	1.432	0.892	22.3
Ant 5 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	40620/2593	1:1.58	0.239	0.14	25.04	25.70	1.164	0.278	22.3
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.089	-0.08	25.04	25.70	1.164	0.104	22.3

Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.236	0.19	25.04	25.70	1.164	0.275	22.3
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.155	0.19	25.04	25.70	1.164	0.180	22.3
Left cheek-Other_PA	20	QPSK 1_0	40620/2593	60	0.168	0.13	23.79	24.50	1.178	0.198	22.3
Left cheek-B38-UL_CA	20	QPSK 1_0	38000+38198 /2595+2614.8	1:1.58	0.201	-0.18	23.01	23.70	1.172	0.236	22.3
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.183	-0.02	24.09	24.70	1.151	0.211	22.3
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.072	-0.10	24.09	24.70	1.151	0.083	22.3
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.180	-0.17	24.09	24.70	1.151	0.207	22.3
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.129	-0.19	24.09	24.70	1.151	0.148	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.282	0.08	22.58	23.20	1.153	0.325	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.354	-0.13	22.58	23.20	1.153	0.408	22.3
Back side-Other_PA	20	QPSK 1_0	40620/2593	60	0.295	-0.13	22.16	23.20	1.271	0.375	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.264	-0.12	22.44	23.20	1.191	0.314	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.339	0.17	22.44	23.20	1.191	0.404	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.369	-0.06	22.58	23.20	1.153	0.426	22.3
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.522	0.10	22.58	23.20	1.153	0.602	22.3
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.135	-0.14	22.58	23.20	1.153	0.156	22.3
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.841	-0.01	22.58	23.20	1.153	**0.970**	22.3
Bottom side-repeated	20	QPSK 1_0	40620/2593	1:1.58	0.835	-0.12	22.58	23.20	1.153	0.963	22.3
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.781	-0.11	22.45	23.20	1.189	0.928	22.3
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.813	-0.10	22.51	23.20	1.172	0.953	22.3
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.788	-0.10	22.49	23.20	1.178	0.928	22.3
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.767	0.17	22.53	23.20	1.167	0.895	22.3
Bottom side-Other_PA	20	QPSK 1_0	40620/2593	60	0.689	0.03	22.16	23.20	1.271	0.875	22.3
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.334	0.09	22.44	23.20	1.191	0.398	22.3
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.490	0.15	22.44	23.20	1.191	0.584	22.3
Left side	20	QPSK 50_0	40620/2593	1:1.58	0.104	-0.10	22.44	23.20	1.191	0.124	22.3
Bottom side	20	QPSK 50_0	40620/2593	1:1.58	0.808	-0.16	22.44	23.20	1.191	0.963	22.3
Bottom side	20	QPSK 50_0	40620/2593	1:1.58	0.751	-0.09	22.34	23.20	1.219	0.915	22.3
Bottom side	20	QPSK 50_0	40620/2593	1:1.58	0.781	-0.08	22.41	23.20	1.199	0.937	22.3
Bottom side	20	QPSK 50_0	40620/2593	1:1.58	0.773	-0.09	22.34	23.20	1.219	0.942	22.3
Bottom side	20	QPSK 50_0	40620/2593	1:1.58	0.769	0.15	22.37	23.20	1.211	0.931	22.3
Hotspot Test data(Separate 10mm 100%RB)											
Bottom side	20	QPSK 100_0	40620/2593	1:1.58	0.755	0.14	22.39	23.20	1.205	0.910	22.3

Table 21：SAR of LTE Band 41 for Head and Body is covering LTE Band 38.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)

Right cheek	40620/2593	0.961	0.953	1.008394544	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	**Channel/ Frequency**	**Measured SAR (1g)**	**1st Repeated**	**Ratio**	**2nd Repeated**	**3rd Repeated**
	(MHz)		**SAR (1g)**		**SAR (1g)**	**SAR (1g)**
Bottom side	40620/2593	0.841	0.835	1.007185629	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.13 SAR Result of LTE Band 42

LTE Band 42 SAR Test Record											
Ant 1 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	42590/3500	1:1.58	0.308	-0.04	17.94	19.50	1.432	0.441	22.6
Left tilted	20	QPSK 1_0	42590/3500	1:1.58	0.148	0.12	17.94	19.50	1.432	0.212	22.6
Right cheek	20	QPSK 1_0	42590/3500	1:1.58	0.686	-0.05	17.94	19.50	1.432	0.982	22.6
Right cheek	20	QPSK 1_0	42190/3460	1:1.58	0.653	0.10	17.84	19.50	1.466	0.957	22.6
Right cheek	20	QPSK 1_0	42990/3540	1:1.58	0.629	-0.05	17.83	19.50	1.469	0.924	22.6
Right tilted	20	QPSK 1_0	42590/3500	1:1.58	0.228	-0.01	17.94	19.50	1.432	0.327	22.6
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	42590/3500	1:1.58	0.267	0.04	17.82	19.50	1.472	0.393	22.6
Left tilted	20	QPSK 50_0	42590/3500	1:1.58	0.106	-0.08	17.82	19.50	1.472	0.156	22.6
Right cheek	20	QPSK 50_0	42590/3500	1:1.58	0.646	-0.14	17.82	19.50	1.472	0.951	22.6
Right cheek	20	QPSK 50_0	42190/3460	1:1.58	0.621	0.18	17.73	19.50	1.503	0.933	22.6
Right cheek	20	QPSK 50_0	42990/3540	1:1.58	0.609	0.18	17.67	19.50	1.524	0.928	22.6
Right tilted	20	QPSK 50_0	42590/3500	1:1.58	0.213	-0.07	17.82	19.50	1.472	0.314	22.6
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	42590/3500	1:1.58	0.613	-0.08	17.73	19.50	1.503	0.921	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.259	-0.06	22.49	24.00	1.416	0.367	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.237	0.10	22.49	24.00	1.416	0.336	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.235	0.12	21.44	23.00	1.432	0.337	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.226	0.15	21.44	23.00	1.432	0.324	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.267	-0.07	17.94	19.50	1.432	0.382	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.278	-0.13	17.94	19.50	1.432	0.398	22.6
Left side	20	QPSK 1_0	42590/3500	1:1.58	0.361	0.03	17.94	19.50	1.432	0.517	22.6
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.224	0.18	17.82	19.50	1.472	0.330	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.238	0.11	17.82	19.50	1.472	0.350	22.6
Left side	20	QPSK 50_0	42590/3500	1:1.58	0.291	-0.09	17.82	19.50	1.472	0.428	22.6
Ant 6 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	42590/3500	1:1.58	0.769	0.14	15.81	17.00	1.315	1.011	22.6

Left cheek	20	QPSK 1_0	42190/3460	1:1.58	0.753	-0.17	15.78	17.00	1.324	0.997	22.6
Left cheek	20	QPSK 1_0	42990/3540	1:1.58	0.735	-0.10	15.71	17.00	1.346	0.989	22.6
Left tilted	20	QPSK 1_0	42590/3500	1:1.58	0.823	-0.01	15.81	17.00	1.315	1.082	22.6
Left tilted-repeated	20	QPSK 1_0	42590/3500	1:1.58	0.821	-0.13	15.81	17.00	1.315	1.080	22.6
Left tilted	20	QPSK 1_0	42190/3460	1:1.58	0.801	-0.05	15.78	17.00	1.324	1.061	22.6
Left tilted	20	QPSK 1_0	42990/3540	1:1.58	0.743	-0.16	15.71	17.00	1.346	1.000	22.6
Right cheek	20	QPSK 1_0	42590/3500	1:1.58	0.409	0.09	15.81	17.00	1.315	0.538	22.6
Right tilted	20	QPSK 1_0	42590/3500	1:1.58	0.445	0.04	15.81	17.00	1.315	0.585	22.6
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	42590/3500	1:1.58	0.744	0.02	15.77	17.00	1.327	0.988	22.6
Left cheek	20	QPSK 50_0	42190/3460	1:1.58	0.745	0.02	15.60	17.00	1.380	1.028	22.6
Left cheek	20	QPSK 50_0	42990/3540	1:1.58	0.729	0.04	15.63	17.00	1.371	0.999	22.6
Left tilted	20	QPSK 50_0	42590/3500	1:1.58	0.814	-0.08	15.77	17.00	1.327	1.080	22.6
Left tilted	20	QPSK 50_0	42190/3460	1:1.58	0.778	-0.11	15.60	17.00	1.380	1.074	22.6
Left tilted	20	QPSK 50_0	42990/3540	1:1.58	0.753	0.16	15.63	17.00	1.371	1.032	22.6
Right cheek	20	QPSK 50_0	42590/3500	1:1.58	0.374	-0.07	15.77	17.00	1.327	0.496	22.6
Right tilted	20	QPSK 50_0	42590/3500	1:1.58	0.393	0.17	15.77	17.00	1.327	0.522	22.6
Head Test Data(100%RB)											
Left cheek	20	QPSK 100_0	42590/3500	1:1.58	0.713	-0.04	15.62	17.00	1.374	0.980	22.6
Left tilted	20	QPSK 100_0	42590/3500	1:1.58	0.781	-0.10	15.62	17.00	1.374	1.073	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.396	-0.14	24.67	26.00	1.358	0.538	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.621	0.14	24.67	26.00	1.358	0.844	22.6
Back side	20	QPSK 1_0	42190/3460	1:1.58	0.559	0.07	24.58	26.00	1.387	0.775	22.6
Back side	20	QPSK 1_0	42990/3540	1:1.58	0.583	0.06	24.56	26.00	1.393	0.812	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.381	0.10	23.50	25.00	1.413	0.538	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.599	0.02	23.50	25.00	1.413	0.846	22.6
Back side	20	QPSK 50_0	42190/3460	1:1.58	0.531	0.03	23.34	25.00	1.466	0.778	22.6
Back side	20	QPSK 50_0	42990/3540	1:1.58	0.577	-0.13	23.46	25.00	1.426	0.823	22.6
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	42590/3500	1:1.58	0.561	0.08	23.45	25.00	1.429	0.802	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.143	0.01	15.71	17.00	1.346	0.192	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.229	-0.11	15.71	17.00	1.346	0.308	22.6
Right side	20	QPSK 1_0	42590/3500	1:1.58	0.118	0.05	15.71	17.00	1.346	0.159	22.6
Top side	20	QPSK 1_0	42590/3500	1:1.58	0.316	0.18	15.71	17.00	1.346	0.425	22.6
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.119	-0.03	15.67	17.00	1.358	0.162	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.206	0.01	15.67	17.00	1.358	0.280	22.6
Right side	20	QPSK 50_0	42590/3500	1:1.58	0.074	-0.13	15.67	17.00	1.358	0.101	22.6
Top side	20	QPSK 50_0	42590/3500	1:1.58	0.287	-0.14	15.67	17.00	1.358	0.390	22.6
Ant 7 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	42590/3500	1:1.58	0.807	-0.02	15.68	17.00	1.355	**1.094**	22.6
Left cheek	20	QPSK 1_0	42190/3460	1:1.58	0.781	-0.09	15.64	17.00	1.368	1.068	22.6
Left cheek	20	QPSK 1_0	42990/3540	1:1.58	0.756	0.01	15.49	17.00	1.416	1.070	22.6
Left tilted	20	QPSK 1_0	42590/3500	1:1.58	0.394	0.08	15.68	17.00	1.355	0.534	22.6
Right cheek	20	QPSK 1_0	42590/3500	1:1.58	0.210	0.08	15.68	17.00	1.355	0.285	22.6
Right tilted	20	QPSK 1_0	42590/3500	1:1.58	0.162	-0.17	15.68	17.00	1.355	0.220	22.6
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	42590/3500	1:1.58	0.764	0.14	15.51	17.00	1.409	1.077	22.6
Left cheek	20	QPSK 50_0	42190/3460	1:1.58	0.749	0.04	15.48	17.00	1.419	1.063	22.6
Left cheek	20	QPSK 50_0	42990/3540	1:1.58	0.731	-0.11	15.34	17.00	1.466	1.071	22.6
Left tilted	20	QPSK 50_0	42590/3500	1:1.58	0.357	0.19	15.51	17.00	1.409	0.503	22.6
Right cheek	20	QPSK 50_0	42590/3500	1:1.58	0.178	0.04	15.51	17.00	1.409	0.251	22.6
Right tilted	20	QPSK 50_0	42590/3500	1:1.58	0.131	0.08	15.51	17.00	1.409	0.185	22.6
Head Test Data(100%RB)											
Left cheek	20	QPSK 100_0	42590/3500	1:1.58	0.728	0.07	15.44	17.00	1.432	1.043	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.251	0.06	18.92	20.50	1.439	0.361	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.269	-0.01	18.92	20.50	1.439	0.387	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.243	-0.17	18.78	20.50	1.486	0.361	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.257	-0.16	18.78	20.50	1.486	0.382	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.173	-0.13	15.68	17.00	1.355	0.234	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.182	0.16	15.68	17.00	1.355	0.247	22.6
Right side	20	QPSK 1_0	42590/3500	1:1.58	0.361	0.11	15.68	17.00	1.355	0.489	22.6
Top side	20	QPSK 1_0	42590/3500	1:1.58	0.072	-0.09	15.68	17.00	1.355	0.098	22.6
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.152	-0.14	15.51	17.00	1.409	0.214	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.165	-0.02	15.51	17.00	1.409	0.233	22.6
Right side	20	QPSK 50_0	42590/3500	1:1.58	0.333	0.03	15.51	17.00	1.409	0.469	22.6
Top side	20	QPSK 50_0	42590/3500	1:1.58	0.053	0.00	15.51	17.00	1.409	0.075	22.6
Ant 8 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	42590/3500	1:1.58	0.235	-0.13	24.65	26.00	1.365	0.321	22.6
Left tilted	20	QPSK 1_0	42590/3500	1:1.58	0.247	0.01	24.65	26.00	1.365	0.337	22.6

Right cheek	20	QPSK 1_0	42590/3500	1:1.58	0.399	-0.17	24.65	26.00	1.365	0.544	22.6
Right tilted	20	QPSK 1_0	42590/3500	1:1.58	0.261	-0.06	24.65	26.00	1.365	0.356	22.6
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	42590/3500	1:1.58	0.220	-0.11	23.45	25.00	1.429	0.314	22.6
Left tilted	20	QPSK 50_0	42590/3500	1:1.58	0.229	0.19	23.45	25.00	1.429	0.327	22.6
Right cheek	20	QPSK 50_0	42590/3500	1:1.58	0.382	-0.12	23.45	25.00	1.429	0.546	22.6
Right tilted	20	QPSK 50_0	42590/3500	1:1.58	0.242	0.18	23.45	25.00	1.429	0.346	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.066	-0.19	23.12	24.50	1.374	0.091	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.731	-0.14	23.12	24.50	1.374	**1.004**	22.6
Back side	20	QPSK 1_0	42190/3460	1:1.58	0.679	-0.01	23.00	24.50	1.413	0.959	22.6
Back side	20	QPSK 1_0	42990/3540	1:1.58	0.716	0.15	23.10	24.50	1.380	0.988	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.046	0.03	23.06	24.50	1.393	0.064	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.709	-0.19	23.06	24.50	1.393	0.988	22.6
Back side	20	QPSK 50_0	42190/3460	1:1.58	0.659	-0.05	22.89	24.50	1.449	0.955	22.6
Back side	20	QPSK 50_0	42990/3540	1:1.58	0.686	0.08	23.03	24.50	1.403	0.962	22.6
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	42590/3500	1:1.58	0.693		23.03	24.50	1.403	0.972	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.096	0.01	19.68	21.00	1.355	0.130	22.6
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.758	-0.08	19.68	21.00	1.355	**1.027**	22.6
Back side	20	QPSK 1_0	42190/3460	1:1.58	0.713	0.00	19.55	21.00	1.396	0.996	22.6
Back side	20	QPSK 1_0	42990/3540	1:1.58	0.725	-0.17	19.54	21.00	1.400	1.015	22.6
Left side	20	QPSK 1_0	42590/3500	1:1.58	0.223	0.13	19.68	21.00	1.355	0.302	22.6
Top side	20	QPSK 1_0	42590/3500	1:1.58	0.129	0.15	19.68	21.00	1.355	0.175	22.6
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.069	0.03	19.53	21.00	1.403	0.097	22.6
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.727	0.17	19.53	21.00	1.403	1.020	22.6
Back side	20	QPSK 50_0	42190/3460	1:1.58	0.669	-0.10	19.49	21.00	1.416	0.947	22.6
Back side	20	QPSK 50_0	42990/3540	1:1.58	0.683	-0.06	19.47	21.00	1.422	0.971	22.6
Left side	20	QPSK 50_0	42590/3500	1:1.58	0.192	0.08	19.53	21.00	1.403	0.269	22.6
Top side	20	QPSK 50_0	42590/3500	1:1.58	0.104	0.12	19.53	21.00	1.403	0.146	22.6
Hotspot Test data(Separate 10mm 100%RB)											
Back side	20	QPSK 100_0	42590/3500	1:1.58	0.701	0.02	19.50	21.00	1.413	0.990	22.6

Table 22：SAR of LTE Band 42 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left tilted	42590/3500	0.823	0.821	1.014616322	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

8.2.14 SAR Result of LTE Band 48

LTE Band 48 SAR Test Record											
Ant 1 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	55990/3625	1:1.58	0.217	-0.03	17.63	19.00	1.371	0.297	22.7
Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.134	0.01	17.63	19.00	1.371	0.184	22.7
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.664	-0.06	17.63	19.00	1.371	0.910	22.7
Right cheek	20	QPSK 1_0	55340/3560	1:1.58	0.600	0.16	17.59	19.00	1.384	0.830	22.6
Right cheek	20	QPSK 1_0	56640/3690	1:1.58	0.623	-0.15	17.56	19.00	1.393	0.868	22.7
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.207	0.14	17.63	19.00	1.371	0.284	22.7
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.199	0.02	17.45	19.00	1.429	0.284	22.7
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.098	-0.13	17.45	19.00	1.429	0.140	22.7
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.634	-0.05	17.45	19.00	1.429	0.906	22.7
Right cheek	20	QPSK 50_0	55340/3560	1:1.58	0.572	-0.01	17.43	19.00	1.435	0.821	22.6
Right cheek	20	QPSK 50_0	56640/3690	1:1.58	0.617	-0.11	17.44	19.00	1.432	0.884	22.7
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.189	-0.08	17.45	19.00	1.429	0.270	22.7
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	55990/3625	1:1.58	0.601	0.09	17.40	19.00	1.445	0.869	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.291	0.03	22.56	24.00	1.393	0.405	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.273	-0.19	22.56	24.00	1.393	0.380	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.263	0.07	21.40	23.00	1.445	0.380	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.248	-0.04	21.40	23.00	1.445	0.358	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.221	-0.02	17.63	19.00	1.371	0.303	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.243	-0.09	17.63	19.00	1.371	0.333	22.7
Left side	20	QPSK 1_0	55990/3625	1:1.58	0.329	0.14	17.63	19.00	1.371	0.451	22.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.196	-0.14	17.45	19.00	1.429	0.280	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.218	0.04	17.45	19.00	1.429	0.311	22.7
Left side	20	QPSK 50_0	55990/3625	1:1.58	0.293	-0.04	17.45	19.00	1.429	0.419	22.7
Ant 6 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	55990/3625	1:1.58	0.716	-0.15	15.36	16.50	1.300	0.931	22.7

Left cheek	20	QPSK 1_0	55340/3560	1:1.58	0.631	0.02	15.23	16.50	1.340	0.845	22.6
Left cheek	20	QPSK 1_0	56640/3690	1:1.58	0.686	-0.19	15.27	16.50	1.327	0.911	22.7
Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.794	-0.18	15.36	16.50	1.300	1.032	22.7
Left tilted	20	QPSK 1_0	55340/3560	1:1.58	0.701	-0.06	15.23	16.50	1.340	0.939	22.6
Left tilted	20	QPSK 1_0	56640/3690	1:1.58	0.727	-0.06	15.27	16.50	1.327	0.965	22.7
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.350	-0.19	15.36	16.50	1.300	0.455	22.7
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.408	0.04	15.36	16.50	1.300	0.530	22.7
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.697	0.09	15.28	16.50	1.324	0.923	22.7
Left cheek	20	QPSK 50_0	55340/3560	1:1.58	0.614	-0.03	15.16	16.50	1.361	0.836	22.6
Left cheek	20	QPSK 50_0	56640/3690	1:1.58	0.633	0.04	15.10	16.50	1.380	0.874	22.7
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.752	-0.07	15.28	16.50	1.324	0.996	22.7
Left tilted	20	QPSK 50_0	55340/3560	1:1.58	0.674	0.07	15.16	16.50	1.361	0.918	22.6
Left tilted	20	QPSK 50_0	56640/3690	1:1.58	0.695	0.08	15.10	16.50	1.380	0.959	22.7
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.319	0.19	15.28	16.50	1.324	0.422	22.7
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.390	0.13	15.28	16.50	1.324	0.516	22.7
Head Test Data(100%RB)											
Left cheek	20	QPSK 100_0	55830/3609	1:1.58	0.653	0.08	15.14	16.50	1.368	0.893	22.7
Left tilted	20	QPSK 100_0	55830/3609	1:1.58	0.711	-0.03	15.14	16.50	1.368	0.972	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.412	-0.14	24.72	26.00	1.343	0.553	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.581	0.17	24.72	26.00	1.343	0.780	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.390	0.14	23.53	25.00	1.403	0.547	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.550	0.01	23.53	25.00	1.403	0.772	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.169	-0.01	15.36	16.50	1.300	0.220	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.196	-0.11	15.36	16.50	1.300	0.255	22.7
Right side	20	QPSK 1_0	55990/3625	1:1.58	0.093	-0.03	15.36	16.50	1.300	0.121	22.7
Top side	20	QPSK 1_0	55990/3625	1:1.58	0.253	0.12	15.36	16.50	1.300	0.329	22.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.134	-0.13	15.28	16.50	1.324	0.177	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.173	-0.15	15.28	16.50	1.324	0.229	22.7
Right side	20	QPSK 50_0	55990/3625	1:1.58	0.081	0.00	15.28	16.50	1.324	0.107	22.7
Top side	20	QPSK 50_0	55990/3625	1:1.58	0.231	-0.04	15.28	16.50	1.324	0.306	22.7
Ant 7 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	55990/3625	1:1.58	0.785	0.14	15.66	17.00	1.361	**1.069**	22.7
Left cheek	20	QPSK 1_0	55340/3560	1:1.58	0.721	-0.08	15.58	17.00	1.387	1.000	22.6
Left cheek	20	QPSK 1_0	56640/3690	1:1.58	0.749	0.08	15.57	17.00	1.390	1.041	22.7

Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.415	-0.10	15.66	17.00	1.361	0.565	22.7
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.225	-0.16	15.66	17.00	1.361	0.306	22.7
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.174	-0.05	15.66	17.00	1.361	0.237	22.7
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.744	0.10	15.57	17.00	1.390	1.034	22.7
Left cheek	20	QPSK 50_0	55340/3560	1:1.58	0.703	0.03	15.42	17.00	1.439	1.011	22.6
Left cheek	20	QPSK 50_0	56640/3690	1:1.58	0.719	0.15	15.44	17.00	1.432	1.030	22.7
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.376	-0.17	15.57	17.00	1.390	0.523	22.7
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.190	-0.19	15.57	17.00	1.390	0.264	22.7
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.154	-0.15	15.57	17.00	1.390	0.214	22.7
Head Test Data(100%RB)											
Left cheek	20	QPSK 100_0	55990/3625	1:1.58	0.711	0.15	15.45	17.00	1.429	1.016	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.273	0.01	19.46	21.00	1.426	0.389	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.286	0.07	19.46	21.00	1.426	0.408	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.261	-0.01	19.35	21.00	1.462	0.382	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.269	-0.11	19.35	21.00	1.462	0.393	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.162	0.16	15.66	17.00	1.361	0.221	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.181	0.14	15.66	17.00	1.361	0.246	22.7
Right side	20	QPSK 1_0	55990/3625	1:1.58	0.293	-0.08	15.66	17.00	1.361	0.399	22.7
Top side	20	QPSK 1_0	55990/3625	1:1.58	0.091	0.00	15.66	17.00	1.361	0.124	22.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.145	-0.14	15.57	17.00	1.390	0.202	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.168	-0.06	15.57	17.00	1.390	0.234	22.7
Right side	20	QPSK 50_0	55990/3625	1:1.58	0.277	-0.09	15.57	17.00	1.390	0.385	22.7
Top side	20	QPSK 50_0	55990/3625	1:1.58	0.073	0.05	15.57	17.00	1.390	0.101	22.7
Ant 8 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	55990/3625	1:1.58	0.197	-0.16	24.69	26.00	1.352	0.266	22.7
Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.223	-0.04	24.69	26.00	1.352	0.302	22.7
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.409	-0.15	24.69	26.00	1.352	0.553	22.7
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.283	-0.14	24.69	26.00	1.352	0.383	22.7
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.167	-0.18	23.65	25.00	1.365	0.228	22.7
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.175	-0.16	23.65	25.00	1.365	0.239	22.7
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.357	-0.05	23.65	25.00	1.365	0.487	22.7
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.245	-0.13	23.65	25.00	1.365	0.334	22.7
Body worn Test data(Separate 15mm 1RB)											

Front side	20	QPSK 1_0	55990/3625	1:1.58	0.095	0.07	23.15	24.50	1.365	0.130	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.717	0.09	23.15	24.50	1.365	**0.978**	22.7
Back side	20	QPSK 1_0	55340/3560	1:1.58	0.692	-0.19	23.12	24.50	1.374	0.951	22.6
Back side	20	QPSK 1_0	56640/3690	1:1.58	0.668	-0.09	23.04	24.50	1.400	0.935	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.059	-0.15	23.13	24.50	1.371	0.081	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.683	0.11	23.13	24.50	1.371	0.936	22.7
Back side	20	QPSK 50_0	55340/3560	1:1.58	0.661	0.10	23.06	24.50	1.393	0.921	22.6
Back side	20	QPSK 50_0	56640/3690	1:1.58	0.642	-0.05	23.07	24.50	1.390	0.892	22.7
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	55990/3625	1:1.58	0.668	0.17	23.11	24.50	1.377	0.920	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.091	0.13	19.14	20.50	1.368	0.124	22.7
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.584	-0.05	19.14	20.50	1.368	**0.799**	22.7
Left side	20	QPSK 1_0	55990/3625	1:1.58	0.133	-0.03	19.14	20.50	1.368	0.182	22.7
Top side	20	QPSK 1_0	55990/3625	1:1.58	0.102	0.13	19.14	20.50	1.368	0.140	22.7
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.068	-0.16	19.03	20.50	1.403	0.095	22.7
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.560	0.10	19.03	20.50	1.403	0.786	22.7
Left side	20	QPSK 50_0	55990/3625	1:1.58	0.102	-0.16	19.03	20.50	1.403	0.143	22.7
Top side	20	QPSK 50_0	55990/3625	1:1.58	0.081	0.01	19.03	20.50	1.403	0.114	22.7

Table 23：SAR of LTE Band 48 for Head and Body.

8.2.15 SAR Result of LTE Band 66

LTE Band 66 SAR Test Record											
Ant 2 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.589	-0.04	17.60	18.20	1.148	0.676	22.2
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.118	0.17	17.60	18.20	1.148	0.135	22.2
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.328	-0.03	17.60	18.20	1.148	0.377	22.2
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.078	0.15	17.60	18.20	1.148	0.090	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.559	0.14	17.54	18.20	1.164	0.651	22.2
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.117	-0.06	17.54	18.20	1.164	0.136	22.2
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.293	-0.01	17.54	18.20	1.164	0.341	22.2
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.073	0.00	17.54	18.20	1.164	0.085	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.291	0.02	23.22	23.70	1.117	0.325	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.329	-0.07	23.22	23.70	1.117	0.367	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.281	0.10	23.13	23.70	1.140	0.320	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.308	-0.04	23.13	23.70	1.140	0.351	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.186	0.16	17.60	18.20	1.148	0.214	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.200	-0.18	17.60	18.20	1.148	0.230	22.2
Right side	20	QPSK 1_0	132322/1745	1:1	0.334	-0.13	17.60	18.20	1.148	0.383	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.170	0.06	17.54	18.20	1.164	0.198	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.193	0.17	17.54	18.20	1.164	0.225	22.2
Right side	20	QPSK 50_0	132322/1745	1:1	0.325	-0.17	17.54	18.20	1.164	0.378	22.2
Test position	**BW.**	**Test mode**	**Test Ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 10-g**	**Power Drift(dB)**	**Conducted power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data(Separate 0mm 1RB)											
Right side	20	QPSK 1_0	132322/1745	1:1	1.950	-0.01	23.22	23.70	1.117	**2.178**	22.2
Right side	20	QPSK 1_0	132072/1720	1:1	1.860	-0.05	23.18	23.70	1.127	2.097	22.2
Right side	20	QPSK 1_0	132572/1770	1:1	1.880	-0.18	23.13	23.70	1.140	2.144	22.2
Product specific 10g SAR Test data (Separate 0mm 50%RB)											
Right side	20	QPSK 50_0	132322/1745	1:1	1.810	-0.05	23.13	23.70	1.140	2.064	22.2
Right side	20	QPSK 50_0	132072/1720	1:1	1.740	0.15	22.99	23.70	1.178	2.049	22.2
Right side	20	QPSK 50_0	132572/1770	1:1	1.770	0.00	23.01	23.70	1.172	2.075	22.2
Product specific 10g SAR Test data (Separate 0mm 100%RB)											

Right side	20	QPSK 100_0	132322/1745	1:1	1.660	0.19	22.90	23.70	1.202	1.996	22.2
Ant 3 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.189	-0.18	17.46	18.70	1.330	0.251	22.2
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.110	0.12	17.46	18.70	1.330	0.146	22.2
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.685	-0.11	17.46	18.70	1.330	**0.911**	22.2
Right cheek	20	QPSK 1_0	132072/1720	1:1	0.642	0.15	17.38	18.70	1.355	0.870	22.2
Right cheek	20	QPSK 1_0	132572/1770	1:1	0.613	-0.15	17.36	18.70	1.361	0.835	22.2
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.222	-0.18	17.46	18.70	1.330	0.295	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.192	0.11	17.36	18.70	1.361	0.261	22.2
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.108	0.01	17.36	18.70	1.361	0.147	22.2
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.639	0.04	17.36	18.70	1.361	0.870	22.2
Right cheek	20	QPSK 50_0	132072/1720	1:1	0.611	0.05	17.24	18.70	1.400	0.855	22.2
Right cheek	20	QPSK 50_0	132572/1770	1:1	0.583	0.00	17.29	18.70	1.384	0.807	22.2
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.211	0.13	17.36	18.70	1.361	0.287	22.2
Head Test Data(100%RB)											
Right cheek	20	QPSK 100_0	132322/1745	1:1	0.592	0.04	17.26	18.70	1.393	0.825	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.291	-0.03	24.37	25.70	1.358	0.395	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.371	-0.07	24.37	25.70	1.358	0.504	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.263	-0.09	23.41	24.70	1.346	0.354	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.343	-0.17	23.41	24.70	1.346	0.462	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.112	-0.16	17.46	18.70	1.330	0.149	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.130	0.06	17.46	18.70	1.330	0.173	22.2
Left side	20	QPSK 1_0	132322/1745	1:1	0.225	0.12	17.46	18.70	1.330	0.299	22.2
Top side	20	QPSK 1_0	132322/1745	1:1	0.071	-0.04	17.46	18.70	1.330	0.094	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.102	-0.13	17.36	18.70	1.361	0.139	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.121	-0.16	17.36	18.70	1.361	0.165	22.2
Left side	20	QPSK 50_0	132322/1745	1:1	0.208	-0.09	17.36	18.70	1.361	0.283	22.2
Top side	20	QPSK 50_0	132322/1745	1:1	0.044	-0.12	17.36	18.70	1.361	0.060	22.2
Ant 5 Test Record											
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)											

Left cheek	20	QPSK 1_0	132322/1745	1:1	0.205	-0.15	24.57	25.70	1.297	0.266	22.2
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.087	-0.04	24.57	25.70	1.297	0.113	22.2
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.191	-0.13	24.57	25.70	1.297	0.248	22.2
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.113	0.11	24.57	25.70	1.297	0.147	22.2
Head Test Data(50%RB)											
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.184	-0.17	23.57	24.70	1.297	0.239	22.2
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.073	0.02	23.57	24.70	1.297	0.095	22.2
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.145	-0.12	23.57	24.70	1.297	0.188	22.2
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.090	0.05	23.57	24.70	1.297	0.117	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.314	-0.05	21.05	22.20	1.303	0.409	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.390	-0.07	21.05	22.20	1.303	**0.508**	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.302	0.18	20.93	22.20	1.340	0.405	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.372	-0.09	20.93	22.20	1.340	0.498	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_0	132322/1745	1:1	0.429	-0.13	21.05	22.20	1.303	0.559	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.606	0.07	21.05	22.20	1.303	0.790	22.2
Left side	20	QPSK 1_0	132322/1745	1:1	0.184	-0.14	21.05	22.20	1.303	0.240	22.2
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.745	-0.04	21.05	22.20	1.303	**0.971**	22.2
Bottom side	20	QPSK 1_0	132072/1720	1:1	0.716	-0.09	20.90	22.20	1.349	0.966	22.2
Bottom side	20	QPSK 1_0	132572/1770	1:1	0.689	0.05	20.93	22.20	1.340	0.923	22.2
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50_0	132322/1745	1:1	0.411	-0.04	20.93	22.20	1.340	0.551	22.2
Back side	20	QPSK 50_0	132322/1745	1:1	0.509	-0.12	20.93	22.20	1.340	0.682	22.2
Left side	20	QPSK 50_0	132322/1745	1:1	0.173	0.00	20.93	22.20	1.340	0.232	22.2
Bottom side	20	QPSK 50_0	132322/1745	1:1	0.720	-0.19	20.93	22.20	1.340	0.965	22.2
Bottom side	20	QPSK 50_0	132072/1720	1:1	0.691	0.17	20.87	22.20	1.358	0.939	22.2
Bottom side	20	QPSK 50_0	132572/1770	1:1	0.678	-0.02	20.71	22.20	1.409	0.955	22.2
Hotspot Test data(Separate 10mm 100%RB)											
Bottom side	20	QPSK 100_0	132322/1745	1:1	0.686	0.01	20.85	22.20	1.365	0.936	22.2

Table 24：SAR of LTE Band 66 for Head and Body is covering LTE Band 4.

8.2.16 SAR Result of 5G NR n2

SA N2 SAR Test Record											
Ant3 Test Record											
Test position	**BW.**	**Modulation**	**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_1	376000/1880	1:1	0.274	-0.07	17.17	18.20	1.268	0.347	21.9
Left tilted	40	QPSK 1_1	376000/1880	1:1	0.180	-0.04	17.17	18.20	1.268	0.228	21.9
Right cheek	40	QPSK 1_1	376000/1880	1:1	0.851	0.11	17.17	18.20	1.268	**1.079**	21.9
Right cheek-repeated	40	QPSK 1_1	376000/1880	1:1	0.845	-0.04	17.17	18.20	1.268	1.071	21.9
Right tilted	40	QPSK 1_1	376000/1880	1:1	0.338	0.01	17.17	18.20	1.268	0.428	21.9
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	376000/1880	1:1	0.277	0.00	17.11	18.20	1.285	0.356	21.9
Left tilted	40	QPSK 108_54	376000/1880	1:1	0.175	-0.06	17.11	18.20	1.285	0.225	21.9
Right cheek	40	QPSK 108_54	376000/1880	1:1	0.816	0.15	17.11	18.20	1.285	1.049	21.9
Right tilted	40	QPSK 108_54	376000/1880	1:1	0.297	0.00	17.11	18.20	1.285	0.382	21.9
Head Test data(100%RB)											
Right cheek	40	QPSK 216_0	376000/1880	1:1	0.809	0.17	17.05	18.20	1.303	1.054	21.9
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	376000/1880	1:1	0.367	-0.11	24.59	25.70	1.291	0.474	21.9
Back side	40	QPSK 1_1	376000/1880	1:1	0.434	0.03	24.59	25.70	1.291	0.560	21.9
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	376000/1880	1:1	0.389	-0.09	24.52	25.70	1.312	0.510	21.9
Back side	40	QPSK 108_54	376000/1880	1:1	0.461	0.00	24.52	25.70	1.312	0.605	21.9
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	376000/1880	1:1	0.148	-0.08	17.17	18.20	1.268	0.188	21.9
Back side	40	QPSK 1_1	376000/1880	1:1	0.187	0.11	17.17	18.20	1.268	0.237	21.9
Left side	40	QPSK 1_1	376000/1880	1:1	0.288	0.18	17.17	18.20	1.268	0.365	21.9
Top side	40	QPSK 1_1	376000/1880	1:1	0.091	0.19	17.17	18.20	1.268	0.115	21.9
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	376000/1880	1:1	0.159	0.19	17.11	18.20	1.285	0.204	21.9
Back side	40	QPSK 108_54	376000/1880	1:1	0.201	-0.02	17.11	18.20	1.285	0.258	21.9
Left side	40	QPSK 108_54	376000/1880	1:1	0.309	0.10	17.11	18.20	1.285	0.397	21.9
Top side	40	QPSK 108_54	376000/1880	1:1	0.133	-0.01	17.11	18.20	1.285	0.171	21.9
Ant5 Test Record											
Test position	**BW.**	**Modulation**	**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_1	376000/1880	1:1	0.274	0.07	24.60	25.50	1.230	0.337	21.9
Left tilted	40	QPSK 1_1	376000/1880	1:1	0.083	0.06	24.60	25.50	1.230	0.102	21.9

Right cheek	40	QPSK 1_1	376000/1880	1:1	0.138	-0.10	24.60	25.50	1.230	0.170	21.9
Right tilted	40	QPSK 1_1	376000/1880	1:1	0.104	-0.15	24.60	25.50	1.230	0.128	21.9
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	376000/1880	1:1	0.255	0.00	24.53	25.50	1.250	0.319	21.9
Left tilted	40	QPSK 108_54	376000/1880	1:1	0.078	-0.18	24.53	25.50	1.250	0.098	21.9
Right cheek	40	QPSK 108_54	376000/1880	1:1	0.124	0.00	24.53	25.50	1.250	0.155	21.9
Right tilted	40	QPSK 108_54	376000/1880	1:1	0.095	-0.11	24.53	25.50	1.250	0.119	21.9
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	376000/1880	1:1	0.364	-0.07	20.71	21.50	1.199	0.437	21.9
Back side	40	QPSK 1_1	376000/1880	1:1	0.490	0.17	20.71	21.50	1.199	0.588	21.9
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	376000/1880	1:1	0.381	-0.18	20.69	21.50	1.205	0.459	21.9
Back side	40	QPSK 108_54	376000/1880	1:1	0.551	-0.03	20.69	21.50	1.205	**0.664**	21.9
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	376000/1880	1:1	0.488	0.04	20.71	21.50	1.199	0.585	21.9
Back side	40	QPSK 1_1	376000/1880	1:1	0.561	0.10	20.71	21.50	1.199	0.673	21.9
Left side	40	QPSK 1_1	376000/1880	1:1	0.199	-0.19	20.71	21.50	1.199	0.239	21.9
Bottom side	40	QPSK 1_1	376000/1880	1:1	0.756	0.14	20.71	21.50	1.199	0.907	21.9
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	376000/1880	1:1	0.510	-0.07	20.69	21.50	1.205	0.615	21.9
Back side	40	QPSK 108_54	376000/1880	1:1	0.579	-0.06	20.69	21.50	1.205	0.698	21.9
Left side	40	QPSK 108_54	376000/1880	1:1	0.240	-0.02	20.69	21.50	1.205	0.289	21.9
Bottom side	40	QPSK 108_54	376000/1880	1:1	0.785	-0.03	20.69	21.50	1.205	**0.946**	21.9
Hotspot Test data (Separate 10mm 100%RB)											
Bottom side	40	QPSK 216_0	376000/1880	1:1	0.729	0.01	20.64	21.50	1.219	0.889	21.9

Table 25：SAR of 5G NR n2 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	376000/1880	0.851	0.845	1.007100592	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.17 SAR Result of 5G NR n5

SA N5 SAR Test Record											
Ant1 Test Record											
Test position	BW.	Modulation	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_1	167300/836.5	1:1	0.880	0.06	19.77	20.70	1.239	**1.090**	22.3
Left cheek-repeated	20	QPSK 1_1	167300/836.5	1:1	0.868	-0.04	19.77	20.70	1.239	1.075	22.3
Left tilted	20	QPSK 1_1	167300/836.5	1:1	0.120	0.00	19.77	20.70	1.239	0.149	22.3
Right cheek	20	QPSK 1_1	167300/836.5	1:1	0.618	-0.10	19.77	20.70	1.239	0.766	22.3
Right tilted	20	QPSK 1_1	167300/836.5	1:1	0.108	0.08	19.77	20.70	1.239	0.134	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50_28	167300/836.5	1:1	0.858	-0.09	19.74	20.70	1.247	1.070	22.3
Left tilted	20	QPSK 50_28	167300/836.5	1:1	0.099	0.19	19.74	20.70	1.247	0.123	22.3
Right cheek	20	QPSK 50_28	167300/836.5	1:1	0.564	0.02	19.74	20.70	1.247	0.704	22.3
Right tilted	20	QPSK 50_28	167300/836.5	1:1	0.098	0.01	19.74	20.70	1.247	0.122	22.3
Head Test data(100%RB)											
Left cheek	20	QPSK 100_0	167300/836.5	1:1	0.816	-0.05	19.65	20.70	1.274	1.039	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_1	167300/836.5	1:1	0.363	0.08	19.77	20.70	1.239	0.450	22.3
Back side	20	QPSK 1_1	167300/836.5	1:1	0.411	-0.03	19.77	20.70	1.239	0.509	22.3
Left side	20	QPSK 1_1	167300/836.5	1:1	0.512	-0.15	19.77	20.70	1.239	0.634	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50_28	167300/836.5	1:1	0.399	-0.12	19.74	20.70	1.247	0.498	22.3
Back side	20	QPSK 50_28	167300/836.5	1:1	0.439	-0.11	19.74	20.70	1.247	0.548	22.3
Left side	20	QPSK 50_28	167300/836.5	1:1	0.549	-0.05	19.74	20.70	1.247	**0.685**	22.3

Table 26：SAR of 5G NR n5 for Head and Body.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Left cheek	167300/836.5	0.88	0.868	1.013824885	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.18 SAR Result of 5G NR n7

SA N7 SAR Test Record											
Ant2 Test Record											
Test position	**BW.**	**Modulation**	**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_1	507000/2535	1:1	0.492	0.05	16.02	16.70	1.169	0.575	22.7
Left tilted	40	QPSK 1_1	507000/2535	1:1	0.108	-0.02	16.02	16.70	1.169	0.126	22.7
Right cheek	40	QPSK 1_1	507000/2535	1:1	0.737	0.01	16.02	16.70	1.169	0.862	22.7
Right tilted	40	QPSK 1_1	507000/2535	1:1	0.065	0.16	16.02	16.70	1.169	0.076	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	507000/2535	1:1	0.511	0.14	15.99	16.70	1.178	0.602	22.7
Left tilted	40	QPSK 108_54	507000/2535	1:1	0.109	-0.16	15.99	16.70	1.178	0.128	22.7
Right cheek	40	QPSK 108_54	507000/2535	1:1	0.748	-0.12	15.99	16.70	1.178	0.881	22.7
Right tilted	40	QPSK 108_54	507000/2535	1:1	0.074	0.07	15.99	16.70	1.178	0.087	22.7
Head Test data(100%RB)											
Right cheek	40	QPSK 216_0	507000/2535	1:1	0.699	-0.17	15.92	16.70	1.197	0.837	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.287	0.00	19.13	19.70	1.140	0.327	22.7
Back side	40	QPSK 1_1	507000/2535	1:1	0.358	0.15	19.13	19.70	1.140	0.408	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.344	0.11	19.06	19.70	1.159	0.399	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.393	0.11	19.06	19.70	1.159	0.455	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.202	-0.04	16.02	16.70	1.169	0.236	22.7
Back side	40	QPSK 1_1	507000/2535	1:1	0.235	-0.08	16.02	16.70	1.169	0.275	22.7
Right side	40	QPSK 1_1	507000/2535	1:1	0.372	0.13	16.02	16.70	1.169	0.435	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.222	0.06	15.99	16.70	1.178	0.261	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.275	-0.16	15.99	16.70	1.178	0.324	22.7
Right side	40	QPSK 108_54	507000/2535	1:1	0.401	0.15	15.99	16.70	1.178	0.472	22.7
Ant3 Test Record											
Test position	**BW.**	**Modulation**	**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_1	507000/2535	1:1	0.251	0.04	15.76	17.00	1.330	0.334	22.7
Left tilted	40	QPSK 1_1	507000/2535	1:1	0.114	0.12	15.76	17.00	1.330	0.152	22.7
Right cheek	40	QPSK 1_1	507000/2535	1:1	0.686	0.02	15.76	17.00	1.330	0.913	22.7
Right tilted	40	QPSK 1_1	507000/2535	1:1	0.285	-0.16	15.76	17.00	1.330	0.379	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	507000/2535	1:1	0.277	-0.19	15.68	17.00	1.355	0.375	22.7
Left tilted	40	QPSK 108_54	507000/2535	1:1	0.122	0.03	15.68	17.00	1.355	0.165	22.7

Right cheek	40	QPSK 108_54	507000/2535	1:1	0.693	-0.10	15.68	17.00	1.355	**0.939**	22.7
Right tilted	40	QPSK 108_54	507000/2535	1:1	0.305	0.12	15.68	17.00	1.355	0.413	22.7
Head Test data(100%RB)											
Right cheek	40	QPSK 216_0	507000/2535	1:1	0.651	-0.16	15.62	17.00	1.374	0.895	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.530	-0.16	23.76	25.00	1.330	0.705	22.7
Back side	40	QPSK 1_1	507000/2535	1:1	0.717	-0.09	23.76	25.00	1.330	0.954	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.570	-0.07	23.60	25.00	1.380	0.787	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.749	-0.10	23.60	25.00	1.380	**1.034**	22.7
Body worn Test data(Separate 15mm 100%RB)											
Back side	40	QPSK 216_0	507000/2535	1:1	0.681	0.14	22.59	24.00	1.384	0.942	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.203	0.14	15.76	17.00	1.330	0.270	22.7
Back side	40	QPSK 1_1	507000/2535	1:1	0.288	-0.11	15.76	17.00	1.330	0.383	22.7
Left side	40	QPSK 1_1	507000/2535	1:1	0.479	-0.06	15.76	17.00	1.330	0.637	22.7
Top side	40	QPSK 1_1	507000/2535	1:1	0.060	0.04	15.76	17.00	1.330	0.080	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.237	0.09	15.68	17.00	1.355	0.321	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.319	-0.11	15.68	17.00	1.355	0.432	22.7
Left side	40	QPSK 108_54	507000/2535	1:1	0.516	0.00	15.68	17.00	1.355	0.699	22.7
Top side	40	QPSK 108_54	507000/2535	1:1	0.095	0.09	15.68	17.00	1.355	0.129	22.7
Ant5 Test Record											
Test position	**BW.**	**Modulation**	**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_1	507000/2535	1:1	0.305	-0.03	24.60	25.50	1.230	0.375	22.7
Left tilted	40	QPSK 1_1	507000/2535	1:1	0.164	-0.15	24.60	25.50	1.230	0.202	22.7
Right cheek	40	QPSK 1_1	507000/2535	1:1	0.328	-0.10	24.60	25.50	1.230	0.404	22.7
Right tilted	40	QPSK 1_1	507000/2535	1:1	0.188	0.17	24.60	25.50	1.230	0.231	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	507000/2535	1:1	0.337	0.19	24.55	25.50	1.245	0.419	22.7
Left tilted	40	QPSK 108_54	507000/2535	1:1	0.177	-0.10	24.55	25.50	1.245	0.220	22.7
Right cheek	40	QPSK 108_54	507000/2535	1:1	0.339	0.16	24.55	25.50	1.245	0.422	22.7
Right tilted	40	QPSK 108_54	507000/2535	1:1	0.192	-0.03	24.55	25.50	1.245	0.239	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.287	-0.05	19.76	20.50	1.186	0.340	22.7
Back side	40	QPSK 1_1	507000/2535	1:1	0.361	0.17	19.76	20.50	1.186	0.428	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.328	-0.13	19.69	20.50	1.205	0.395	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.413	-0.18	19.69	20.50	1.205	0.498	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	507000/2535	1:1	0.294	0.03	19.76	20.50	1.186	0.349	22.7

Back side	40	QPSK 1_1	507000/2535	1:1	0.385	-0.03	19.76	20.50	1.186	0.457	22.7
Left side	40	QPSK 1_1	507000/2535	1:1	0.101	0.04	19.76	20.50	1.186	0.120	22.7
Bottom side	40	QPSK 1_1	507000/2535	1:1	0.579	0.08	19.76	20.50	1.186	0.687	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	507000/2535	1:1	0.321	0.12	19.69	20.50	1.205	0.387	22.7
Back side	40	QPSK 108_54	507000/2535	1:1	0.411	0.13	19.69	20.50	1.205	0.495	22.7
Left side	40	QPSK 108_54	507000/2535	1:1	0.136	0.19	19.69	20.50	1.205	0.164	22.7
Bottom side	40	QPSK 108_54	507000/2535	1:1	0.621	-0.01	19.69	20.50	1.205	**0.748**	22.7

Table 27：SAR of 5G NR n7 for Head and Body.

8.2.19 SAR Result of 5G NR n26

SA N26 SAR Test Record											
Ant0 Test Record											
Test position	BW.	Modulation	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_1	166300/831.5	1:1	0.141	-0.14	25.18	25.70	1.127	0.159	22.3
Left tilted	20	QPSK 1_1	166300/831.5	1:1	0.088	-0.14	25.18	25.70	1.127	0.099	22.3
Right cheek	20	QPSK 1_1	166300/831.5	1:1	0.216	-0.13	25.18	25.70	1.127	0.243	22.3
Right tilted	20	QPSK 1_1	166300/831.5	1:1	0.129	-0.09	25.18	25.70	1.127	0.145	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50_28	166300/831.5	1:1	0.122	0.14	25.08	25.70	1.153	0.141	22.3
Left tilted	20	QPSK 50_28	166300/831.5	1:1	0.074	-0.05	25.08	25.70	1.153	0.085	22.3
Right cheek	20	QPSK 50_28	166300/831.5	1:1	0.208	0.18	25.08	25.70	1.153	0.240	22.3
Right tilted	20	QPSK 50_28	166300/831.5	1:1	0.122	0.02	25.08	25.70	1.153	0.141	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_1	166300/831.5	1:1	0.157	0.15	25.18	25.70	1.127	0.177	22.3
Back side	20	QPSK 1_1	166300/831.5	1:1	0.174	0.01	25.18	25.70	1.127	0.196	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_28	166300/831.5	1:1	0.173	-0.13	25.08	25.70	1.153	0.200	22.3
Back side	20	QPSK 50_28	166300/831.5	1:1	0.199	0.07	25.08	25.70	1.153	0.230	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_1	166300/831.5	1:1	0.202	-0.12	25.18	25.70	1.127	0.228	22.3
Back side	20	QPSK 1_1	166300/831.5	1:1	0.267	-0.11	25.18	25.70	1.127	0.301	22.3
Right side	20	QPSK 1_1	166300/831.5	1:1	0.439	0.01	25.18	25.70	1.127	0.495	22.3
Bottom side	20	QPSK 1_1	166300/831.5	1:1	0.172	0.09	25.18	25.70	1.127	0.194	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50_28	166300/831.5	1:1	0.226	0.04	25.08	25.70	1.153	0.261	22.3
Back side	20	QPSK 50_28	166300/831.5	1:1	0.289	-0.06	25.08	25.70	1.153	0.333	22.3
Right side	20	QPSK 50_28	166300/831.5	1:1	0.461	-0.15	25.08	25.70	1.153	0.532	22.3
Bottom side	20	QPSK 50_28	166300/831.5	1:1	0.193	-0.08	25.08	25.70	1.153	0.223	22.3
Ant1 Test Record											
Test position	BW.	Modulation	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_1	166300/831.5	1:1	0.872	0.14	19.29	20.20	1.233	**1.075**	22.3
Left cheek-repeated	20	QPSK 1_1	166300/831.5	1:1	0.867	0.06	19.29	20.20	1.233	1.069	22.3
Left tilted	20	QPSK 1_1	166300/831.5	1:1	0.110	-0.07	19.29	20.20	1.233	0.136	22.3
Right cheek	20	QPSK 1_1	166300/831.5	1:1	0.483	0.02	19.29	20.20	1.233	0.596	22.3
Right tilted	20	QPSK 1_1	166300/831.5	1:1	0.091	0.14	19.29	20.20	1.233	0.112	22.3

Head Test data(50%RB)											
Left cheek	20	QPSK 50_28	166300/831.5	1:1	0.774	0.18	19.23	20.20	1.250	0.968	22.3
Left tilted	20	QPSK 50_28	166300/831.5	1:1	0.105	-0.12	19.23	20.20	1.250	0.131	22.3
Right cheek	20	QPSK 50_28	166300/831.5	1:1	0.531	-0.15	19.23	20.20	1.250	0.664	22.3
Right tilted	20	QPSK 50_28	166300/831.5	1:1	0.092	-0.02	19.23	20.20	1.250	0.115	22.3
Head Test data(100%RB)											
Left cheek	20	QPSK 100_0	166300/831.5	1:1	0.732	0.02	19.22	20.20	1.253	0.917	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1_1	166300/831.5	1:1	0.604	-0.10	24.76	25.70	1.242	0.750	22.3
Back side	20	QPSK 1_1	166300/831.5	1:1	0.679	-0.02	24.76	25.70	1.242	0.843	22.3
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50_28	166300/831.5	1:1	0.623	-0.07	24.70	25.70	1.259	0.784	22.3
Back side	20	QPSK 50_28	166300/831.5	1:1	0.710	-0.03	24.70	25.70	1.259	**0.894**	22.3
Body worn Test data(Separate 15mm 100%RB)											
Back side	20	QPSK 100_0	166300/831.5	1:1	0.616	0.16	23.55	24.70	1.303	0.803	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1_1	166300/831.5	1:1	0.323	0.09	19.29	20.20	1.233	0.398	22.3
Back side	20	QPSK 1_1	166300/831.5	1:1	0.366	-0.08	19.29	20.20	1.233	0.451	22.3
Left side	20	QPSK 1_1	166300/831.5	1:1	0.456	-0.07	19.29	20.20	1.233	0.562	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50_28	166300/831.5	1:1	0.355	0.13	19.23	20.20	1.250	0.444	22.3
Back side	20	QPSK 50_28	166300/831.5	1:1	0.391	0.11	19.23	20.20	1.250	0.489	22.3
Left side	20	QPSK 50_28	166300/831.5	1:1	0.522	-0.01	19.23	20.20	1.250	**0.653**	22.3

Table 28：SAR of 5G NR n26 for Head and Body is covering FR1 n5.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left cheek	166300/831.5	0.872	0.867	1.005767013	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.20 SAR Result of 5G NR n38

SA N38 SAR Test Record											
An2 Test Record											
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	519000/2595	1:1	0.119	-0.07	19.17	19.70	1.130	0.134	22.7
Back side	40	QPSK 1_1	519000/2595	1:1	0.152	-0.05	19.17	19.70	1.130	0.172	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	519000/2595	1:1	0.135	-0.09	19.08	19.70	1.153	0.156	22.7
Back side	40	QPSK 50_28	519000/2595	1:1	0.169	-0.06	19.08	19.70	1.153	**0.195**	22.7

Table 29：SAR of 5G NR n38 for Head and Body.

8.2.21 SAR Result of 5G NR n41

SA N41 SAR Test Record											
Ant2 Test Record											
Test position	BW.	Modulation	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_1	518598/2592.99	1:1	0.538	-0.02	16.17	16.70	1.130	0.608	22.6
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.080	-0.13	16.17	16.70	1.130	0.090	22.6
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.715	-0.08	16.17	16.70	1.130	0.808	22.6
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.045	0.12	16.17	16.70	1.130	0.051	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.556	-0.11	16.09	16.70	1.151	0.640	22.6
Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.106	0.12	16.09	16.70	1.151	0.122	22.6
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.736	-0.04	16.09	16.70	1.151	0.847	22.6
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.066	0.08	16.09	16.70	1.151	0.076	22.6
Head Test data(100%RB)											
Right cheek	100	QPSK 270_0	518598/2592.99	1:1	0.719	0.09	16.06	16.70	1.159	0.833	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.206	-0.03	18.68	19.20	1.127	0.232	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.240	-0.05	18.68	19.20	1.127	0.271	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.229	-0.07	18.58	19.20	1.153	0.264	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.302	0.13	18.58	19.20	1.153	0.348	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.227	0.15	16.17	16.70	1.130	0.256	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.275	0.12	16.17	16.70	1.130	0.311	22.6
Right side	100	QPSK 1_1	518598/2592.99	1:1	0.393	0.17	16.17	16.70	1.130	0.444	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.276	0.05	16.09	16.70	1.151	0.318	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.321	-0.04	16.09	16.70	1.151	0.369	22.6
Right side	100	QPSK 135_69	518598/2592.99	1:1	0.459	0.00	16.09	16.70	1.151	0.528	22.6
Ant3 Test Record											
Test position	BW.	Modulation	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_1	518598/2592.99	1:1	0.250	-0.19	17.29	17.70	1.099	0.275	22.6
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.104	0.11	17.29	17.70	1.099	0.114	22.6
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.654	0.17	17.29	17.70	1.099	0.719	22.6
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.271	-0.13	17.29	17.70	1.099	0.298	22.6
Head Test data(50%RB)											

Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.306	-0.04	17.17	17.70	1.130	0.346	22.6
Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.109	-0.12	17.17	17.70	1.130	0.123	22.6
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.675	0.01	17.17	17.70	1.130	0.763	22.6
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.231	-0.05	17.17	17.70	1.130	0.261	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.712	-0.17	24.81	25.20	1.094	0.779	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.881	0.09	24.81	25.20	1.094	0.964	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.758	-0.19	24.60	25.20	1.148	0.870	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.903	0.06	24.60	25.20	1.148	**1.037**	22.6
Back side-repeated	100	QPSK 135_69	518598/2592.99	1:1	0.891	0.00	24.60	25.20	1.148	1.023	22.6
Back side PC2	100	QPSK 135_69	518598/2592.99	50	0.558	0.11	25.40	26.50	1.288	0.719	22.6
Body worn Test data(Separate 15mm 100%RB)											
Front side	100	QPSK 270_0	518598/2592.99	1:1	0.681	-0.02	24.06	24.70	1.159	0.789	22.6
Back side	100	QPSK 270_0	518598/2592.99	1:1	0.855	-0.10	24.06	24.70	1.159	0.991	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.206	0.05	17.29	17.70	1.099	0.226	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.275	-0.10	17.29	17.70	1.099	0.302	22.6
Left side	100	QPSK 1_1	518598/2592.99	1:1	0.489	0.03	17.29	17.70	1.099	0.537	22.6
Top side	100	QPSK 1_1	518598/2592.99	1:1	0.037	-0.04	17.29	17.70	1.099	0.041	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.237	0.03	17.17	17.70	1.130	0.268	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.304	-0.13	17.17	17.70	1.130	0.343	22.6
Left side	100	QPSK 135_69	518598/2592.99	1:1	0.523	-0.03	17.17	17.70	1.130	0.591	22.6
Top side	100	QPSK 135_69	518598/2592.99	1:1	0.066	0.07	17.17	17.70	1.130	0.075	22.6
Ant4 Test Record											
Test position	**BW.**	**Modulation**	**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_1	518598/2592.99	1:1	0.508	-0.16	17.82	18.50	1.169	0.594	22.6
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.658	-0.03	17.82	18.50	1.169	0.770	22.6
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.640	0.17	17.82	18.50	1.169	0.748	22.6
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.844	-0.03	17.82	18.50	1.169	0.987	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.514	0.10	17.74	18.50	1.191	0.612	22.6
Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.664	0.12	17.74	18.50	1.191	0.791	22.6
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.645	-0.12	17.74	18.50	1.191	0.768	22.6
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.852	-0.09	17.74	18.50	1.191	**1.015**	22.6
Right tilted-repeated	100	QPSK 135_69	518598/2592.99	1:1	0.841	-0.19	17.74	18.50	1.191	1.002	22.6
Head Test data(100%RB)											
Right tilted	100	QPSK 270_0	518598/2592.99	1:1	0.809	0.16	17.67	18.50	1.211	0.979	22.6
Body worn Test data(Separate 15mm 1RB)											

Front side	100	QPSK 1_1	518598/2592.99	1:1	0.219	-0.11	23.81	24.50	1.172	0.257	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.383	0.05	23.81	24.50	1.172	0.449	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.251	-0.16	23.74	24.50	1.191	0.299	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.423	0.01	23.74	24.50	1.191	0.504	22.6
Back side PC2	100	QPSK 135_69	518598/2592.99	50	0.271	-0.02	24.67	25.50	1.211	0.328	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.254	-0.15	17.82	18.50	1.169	0.297	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.289	-0.07	17.82	18.50	1.169	0.338	22.6
Left side	100	QPSK 1_1	518598/2592.99	1:1	0.332	0.01	17.82	18.50	1.169	0.388	22.6
Top side	100	QPSK 1_1	518598/2592.99	1:1	0.475	-0.06	17.82	18.50	1.169	0.556	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.300	0.02	17.74	18.50	1.191	0.357	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.338	0.11	17.74	18.50	1.191	0.403	22.6
Left side	100	QPSK 135_69	518598/2592.99	1:1	0.368	0.13	17.74	18.50	1.191	0.438	22.6
Top side	100	QPSK 135_69	518598/2592.99	1:1	0.509	0.19	17.74	18.50	1.191	0.606	22.6
Ant5 Test Record											
Test position	**BW.**	**Modulation**	**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_1	518598/2592.99	1:1	0.484	-0.11	25.29	25.70	1.099	0.532	22.6
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.387	-0.05	25.29	25.70	1.099	0.425	22.6
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.508	0.12	25.29	25.70	1.099	0.558	22.6
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.321	0.16	25.29	25.70	1.099	0.353	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.488	-0.10	25.25	25.70	1.109	0.541	22.6
Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.402	-0.12	25.25	25.70	1.109	0.446	22.6
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.521	0.19	25.25	25.70	1.109	0.578	22.6
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.335	-0.19	25.25	25.70	1.109	0.372	22.6
Right cheek PC2	100	QPSK 135_69	518598/2592.99	50	0.316	-0.17	26.26	27.00	1.186	0.375	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.251	-0.05	20.37	20.70	1.079	0.271	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.309	-0.01	20.37	20.70	1.079	0.333	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.289	-0.18	20.30	20.70	1.096	0.317	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.331	-0.11	20.30	20.70	1.096	0.363	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.329	0.17	20.37	20.70	1.079	0.355	22.6
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.450	-0.04	20.37	20.70	1.079	0.486	22.6
Left side	100	QPSK 1_1	518598/2592.99	1:1	0.098	-0.16	20.37	20.70	1.079	0.106	22.6
Bottom side	100	QPSK 1_1	518598/2592.99	1:1	0.733	0.13	20.37	20.70	1.079	0.791	22.6
Hotspot Test data (Separate 10mm 50%RB)											

Front side	100	QPSK 135_69	518598/2592.99	1:1	0.356	-0.10	20.30	20.70	1.096	0.390	22.6
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.487	0.18	20.30	20.70	1.096	0.534	22.6
Left side	100	QPSK 135_69	518598/2592.99	1:1	0.134	0.08	20.30	20.70	1.096	0.147	22.6
Bottom side	100	QPSK 135_69	518598/2592.99	1:1	0.768	-0.15	20.30	20.70	1.096	**0.842**	22.6
Hotspot Test data (Separate 10mm 100%RB)											
Bottom side	100	QPSK 270_0	518598/2592.99	1:1	0.701	-0.06	20.23	20.70	1.114	0.781	22.6

Table 30：SAR of 5G NR n41 for Head and Body is covering FR1 n38.

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Back side	518598/2592.99	0.903	0.891	1.013468013	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	Channel/ Frequency	Measured SAR (1g)	1st Repeated	Ratio	2nd Repeated	3rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right tilted	518598/2592.99	0.852	0.841	1.013079667	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.22 SAR Result of 5G NR n48

SA N48 SAR Test Record											
Ant1 Test Record											
Test position	**BW.**	**Modulation**	**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_1	641666/3624.99	1:1	0.130	0.17	15.53	17.00	1.403	0.182	22.7
Left tilted	40	QPSK 1_1	641666/3624.99	1:1	0.050	-0.12	15.53	17.00	1.403	0.070	22.7
Right cheek	40	QPSK 1_1	641666/3624.99	1:1	0.462	0.14	15.53	17.00	1.403	0.648	22.7
Right tilted	40	QPSK 1_1	641666/3624.99	1:1	0.132	-0.11	15.53	17.00	1.403	0.185	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 50_28	641666/3624.99	1:1	0.135	-0.17	15.43	17.00	1.435	0.194	22.7
Left tilted	40	QPSK 50_28	641666/3624.99	1:1	0.054	-0.13	15.43	17.00	1.435	0.078	22.7
Right cheek	40	QPSK 50_28	641666/3624.99	1:1	0.467	-0.09	15.43	17.00	1.435	0.670	22.7
Right tilted	40	QPSK 50_28	641666/3624.99	1:1	0.129	-0.13	15.43	17.00	1.435	0.185	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.407	-0.03	22.99	24.50	1.416	0.576	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.394	-0.19	22.99	24.50	1.416	0.558	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.421	-0.08	22.92	24.50	1.439	0.606	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.414	0.12	22.92	24.50	1.439	0.596	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.223	0.18	15.53	17.00	1.403	0.313	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.253	0.15	15.53	17.00	1.403	0.355	22.7
Left side	40	QPSK 1_1	641666/3624.99	1:1	0.321	0.17	15.53	17.00	1.403	0.450	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.242	-0.15	15.43	17.00	1.435	0.347	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.291	-0.07	15.43	17.00	1.435	0.418	22.7
Left side	40	QPSK 50_28	641666/3624.99	1:1	0.351	0.09	15.43	17.00	1.435	0.504	22.7
Ant6 Test Record											
Test position	**BW.**	**Modulation**	**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_1	641666/3624.99	1:1	0.659	-0.02	13.86	14.50	1.159	0.764	22.7
Left tilted	40	QPSK 1_1	641666/3624.99	1:1	0.805	-0.02	13.86	14.50	1.159	0.933	22.7
Right cheek	40	QPSK 1_1	641666/3624.99	1:1	0.289	-0.14	13.86	14.50	1.159	0.335	22.7
Right tilted	40	QPSK 1_1	641666/3624.99	1:1	0.336	0.06	13.86	14.50	1.159	0.389	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 50_28	641666/3624.99	1:1	0.671	0.09	13.80	14.50	1.175	0.788	22.7
Left tilted	40	QPSK 50_28	641666/3624.99	1:1	0.820	-0.11	13.80	14.50	1.175	0.963	22.7

Left tilted-repeated	40	QPSK 50_28	641666/3624.99	1:1	0.811	-0.04	13.80	14.50	1.175	0.953	22.7
Right cheek	40	QPSK 50_28	641666/3624.99	1:1	0.312	-0.01	13.80	14.50	1.175	0.367	22.7
Right tilted	40	QPSK 50_28	641666/3624.99	1:1	0.329	-0.16	13.80	14.50	1.175	0.387	22.7
Head Test data(100%RB)											
Left tilted	40	QPSK 100_0	641666/3624.99	1:1	0.773	0.02	13.77	14.50	1.183	0.914	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.630	-0.02	25.38	26.00	1.153	0.727	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.702	0.03	25.38	26.00	1.153	0.810	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.660	-0.13	25.32	26.00	1.169	0.772	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.724	0.04	25.32	26.00	1.169	0.847	22.7
Body worn Test data(Separate 15mm 100%RB)											
Back side	40	QPSK 100_0	641666/3624.99	1:1	0.678	0.12	24.33	25.00	1.167	0.791	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.199	0.19	13.86	14.50	1.159	0.231	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.187	-0.05	13.86	14.50	1.159	0.217	22.7
Right side	40	QPSK 1_1	641666/3624.99	1:1	0.113	0.09	13.86	14.50	1.159	0.131	22.7
Top side	40	QPSK 1_1	641666/3624.99	1:1	0.369	0.17	13.86	14.50	1.159	0.428	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.244	0.11	13.80	14.50	1.175	0.287	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.201	-0.15	13.80	14.50	1.175	0.236	22.7
Right side	40	QPSK 50_28	641666/3624.99	1:1	0.139	-0.13	13.80	14.50	1.175	0.163	22.7
Top side	40	QPSK 50_28	641666/3624.99	1:1	0.451	0.12	13.80	14.50	1.175	0.530	22.7
Ant7 Test Record											
Test position	**BW.**	**Modulation**	**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_1	641666/3624.99	1:1	0.744	-0.19	13.79	15.00	1.321	0.983	22.7
Left tilted	40	QPSK 1_1	641666/3624.99	1:1	0.302	-0.12	13.79	15.00	1.321	0.399	22.7
Right cheek	40	QPSK 1_1	641666/3624.99	1:1	0.156	0.11	13.79	15.00	1.321	0.206	22.7
Right tilted	40	QPSK 1_1	641666/3624.99	1:1	0.118	0.15	13.79	15.00	1.321	0.156	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 50_28	641666/3624.99	1:1	0.767	0.04	13.66	15.00	1.361	**1.044**	22.7
Left tilted	40	QPSK 50_28	641666/3624.99	1:1	0.315	0.11	13.66	15.00	1.361	0.429	22.7
Right cheek	40	QPSK 50_28	641666/3624.99	1:1	0.170	-0.08	13.66	15.00	1.361	0.231	22.7
Right tilted	40	QPSK 50_28	641666/3624.99	1:1	0.136	0.09	13.66	15.00	1.361	0.185	22.7
Head Test data(100%RB)											
Left cheek	40	QPSK 100_0	641666/3624.99	1:1	0.731	-0.02	13.65	15.00	1.365	0.998	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.230	-0.02	16.78	18.00	1.324	0.305	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.258	0.14	16.78	18.00	1.324	0.342	22.7
Body worn Test data(Separate 15mm 50%RB)											

Front side	40	QPSK 50_28	641666/3624.99	1:1	0.249	0.01	16.68	18.00	1.355	0.337	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.273	-0.06	16.68	18.00	1.355	0.370	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.243	-0.16	13.79	15.00	1.321	0.321	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.264	-0.03	13.79	15.00	1.321	0.349	22.7
Right side	40	QPSK 1_1	641666/3624.99	1:1	0.373	0.11	13.79	15.00	1.321	0.493	22.7
Top side	40	QPSK 1_1	641666/3624.99	1:1	0.171	-0.14	13.79	15.00	1.321	0.226	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.279	0.00	13.66	15.00	1.361	0.380	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.298	-0.12	13.66	15.00	1.361	0.406	22.7
Right side	40	QPSK 50_28	641666/3624.99	1:1	0.399	0.10	13.66	15.00	1.361	0.543	22.7
Top side	40	QPSK 50_28	641666/3624.99	1:1	0.201	0.16	13.66	15.00	1.361	0.274	22.7
Ant8 Test Record											
Test position	**BW.**	**Modulation**	**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_1	641666/3624.99	1:1	0.152	0.07	24.43	26.00	1.435	0.218	22.7
Left tilted	40	QPSK 1_1	641666/3624.99	1:1	0.168	-0.06	24.43	26.00	1.435	0.241	22.7
Right cheek	40	QPSK 1_1	641666/3624.99	1:1	0.339	-0.17	24.43	26.00	1.435	0.487	22.7
Right tilted	40	QPSK 1_1	641666/3624.99	1:1	0.205	-0.07	24.43	26.00	1.435	0.294	22.7
Head Test data(50%RB)											
Left cheek	40	QPSK 50_28	641666/3624.99	1:1	0.169	-0.02	24.38	26.00	1.452	0.245	22.7
Left tilted	40	QPSK 50_28	641666/3624.99	1:1	0.180	0.01	24.38	26.00	1.452	0.261	22.7
Right cheek	40	QPSK 50_28	641666/3624.99	1:1	0.355	0.01	24.38	26.00	1.452	0.515	22.7
Right tilted	40	QPSK 50_28	641666/3624.99	1:1	0.222	0.12	24.38	26.00	1.452	0.322	22.7
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.093	0.14	21.03	22.50	1.403	0.130	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.630	0.05	21.03	22.50	1.403	0.884	22.7
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.109	0.18	20.99	22.50	1.416	0.154	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.657	-0.02	20.99	22.50	1.416	**0.930**	22.7
Body worn Test data(Separate 15mm 100%RB)											
Back side	40	QPSK 100_0	641666/3624.99	1:1	0.611	0.05	20.90	22.50	1.445	0.883	22.7
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	641666/3624.99	1:1	0.068	0.12	17.09	18.50	1.384	0.094	22.7
Back side	40	QPSK 1_1	641666/3624.99	1:1	0.636	0.06	17.09	18.50	1.384	0.880	22.7
Left side	40	QPSK 1_1	641666/3624.99	1:1	0.113	-0.15	17.09	18.50	1.384	0.156	22.7
Top side	40	QPSK 1_1	641666/3624.99	1:1	0.078	-0.05	17.09	18.50	1.384	0.108	22.7
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 50_28	641666/3624.99	1:1	0.096	0.05	16.93	18.50	1.435	0.138	22.7
Back side	40	QPSK 50_28	641666/3624.99	1:1	0.676	-0.04	16.93	18.50	1.435	**0.970**	22.7
Left side	40	QPSK 50_28	641666/3624.99	1:1	0.165	-0.15	16.93	18.50	1.435	0.237	22.7

Top side	40	QPSK 50_28	641666/3624.99	1:1	0.108	0.03	16.93	18.50	1.435	0.155	22.7
Hotspot Test data (Separate 10mm 100%RB)											
Back side	40	QPSK 100_0	641666/3624.99	1:1	0.603	0.00	16.89	18.50	1.449	0.874	22.7

Table 31：SAR of 5G NR n48 for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left tilted	641666/3624.99	0.82	0.811	1.011097411	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.23 SAR Result of 5G NR n66

SA N66 SAR Test Record											
Ant2 Test Record											
Test position	**BW.**	**Modulation**	**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_1	349000/1745	1:1	0.576	0.10	16.99	17.20	1.050	0.605	22.2
Left tilted	40	QPSK 1_1	349000/1745	1:1	0.115	-0.06	16.99	17.20	1.050	0.121	22.2
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.286	-0.12	16.99	17.20	1.050	0.300	22.2
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.076	-0.13	16.99	17.20	1.050	0.080	22.2
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.555	0.06	16.85	17.20	1.084	0.602	22.2
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.107	0.03	16.85	17.20	1.084	0.116	22.2
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.296	0.18	16.85	17.20	1.084	0.321	22.2
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.085	0.18	16.85	17.20	1.084	0.092	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.298	-0.04	22.96	23.20	1.057	0.315	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.324	0.08	22.96	23.20	1.057	0.342	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.322	-0.04	22.86	23.20	1.081	0.348	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.361	0.05	22.86	23.20	1.081	0.390	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.180	0.12	16.99	17.20	1.050	0.189	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.219	0.01	16.99	17.20	1.050	0.230	22.2
Right side	40	QPSK 1_1	349000/1745	1:1	0.387	0.10	16.99	17.20	1.050	0.406	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.196	0.13	16.85	17.20	1.084	0.212	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.245	0.12	16.85	17.20	1.084	0.266	22.2
Right side	40	QPSK 108_54	349000/1745	1:1	0.402	-0.11	16.85	17.20	1.084	0.436	22.2
Test position	**BW.**	**Modulation**	**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)											
Right side	40	QPSK 1_1	349000/1745	1:1	1.760	0.14	22.96	23.20	1.057	1.860	22.2
Product specific 10g SAR Test data (Separate 0mm 50%RB)											
Right side	40	QPSK 108_54	349000/1745	1:1	1.980	-0.06	22.86	23.20	1.081	**2.141**	22.2
Product specific 10g SAR Test data (Separate 0mm 100%RB)											
Right side	40	QPSK 216_0	349000/1745	1:1	1.680	0.01	22.83	23.20	1.089	1.829	22.2
Ant3 Test Record											
Test position	**BW.**	**Modulation**	**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_1	349000/1745	1:1	0.245	0.15	17.31	18.20	1.227	0.301	22.2

Left tilted	40	QPSK 1_1	349000/1745	1:1	0.126	0.12	17.31	18.20	1.227	0.155	22.2
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.824	0.12	17.31	18.20	1.227	1.011	22.2
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.315	0.00	17.31	18.20	1.227	0.387	22.2
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.250	-0.01	17.27	18.20	1.239	0.310	22.2
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.134	-0.05	17.27	18.20	1.239	0.166	22.2
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.844	-0.19	17.27	18.20	1.239	**1.046**	22.2
Right cheek-repeated	40	QPSK 108_54	349000/1745	1:1	0.837	0.16	17.27	18.20	1.239	1.037	22.2
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.312	0.12	17.27	18.20	1.239	0.387	22.2
Head Test data(100%RB)											
Right cheek	40	QPSK 216_0	349000/1745	1:1	0.808	0.01	17.20	18.20	1.259	1.017	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.279	0.02	24.86	25.70	1.213	0.339	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.359	0.05	24.86	25.70	1.213	0.436	22.2
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.306	-0.14	24.81	25.70	1.227	0.376	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.366	-0.14	24.81	25.70	1.227	**0.449**	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.124	0.05	17.31	18.20	1.227	0.152	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.155	0.02	17.31	18.20	1.227	0.190	22.2
Left side	40	QPSK 1_1	349000/1745	1:1	0.253	-0.14	17.31	18.20	1.227	0.311	22.2
Top side	40	QPSK 1_1	349000/1745	1:1	0.047	-0.10	17.31	18.20	1.227	0.058	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.139	-0.01	17.27	18.20	1.239	0.172	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.181	-0.12	17.27	18.20	1.239	0.224	22.2
Left side	40	QPSK 108_54	349000/1745	1:1	0.281	-0.10	17.27	18.20	1.239	0.348	22.2
Top side	40	QPSK 108_54	349000/1745	1:1	0.076	0.16	17.27	18.20	1.239	0.094	22.2
Ant5 Test Record											
Test position	**BW.**	**Modulation**	**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_1	349000/1745	1:1	0.232	-0.19	25.06	25.70	1.159	0.269	22.2
Left tilted	40	QPSK 1_1	349000/1745	1:1	0.117	-0.02	25.06	25.70	1.159	0.136	22.2
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.193	-0.16	25.06	25.70	1.159	0.224	22.2
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.118	-0.06	25.06	25.70	1.159	0.137	22.2
Head Test data(50%RB)											
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.214	-0.01	25.00	25.70	1.175	0.251	22.2
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.105	-0.13	25.00	25.70	1.175	0.123	22.2
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.188	0.03	25.00	25.70	1.175	0.221	22.2
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.108	0.02	25.00	25.70	1.175	0.127	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.311	-0.03	21.66	22.20	1.132	0.352	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.356	0.03	21.66	22.20	1.132	0.403	22.2

Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.332	0.01	21.61	22.20	1.146	0.380	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.383	-0.06	21.61	22.20	1.146	0.439	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1_1	349000/1745	1:1	0.377	-0.12	21.19	21.70	1.125	0.424	22.2
Back side	40	QPSK 1_1	349000/1745	1:1	0.472	0.16	21.19	21.70	1.125	0.531	22.2
Left side	40	QPSK 1_1	349000/1745	1:1	0.154	0.07	21.19	21.70	1.125	0.173	22.2
Bottom side	40	QPSK 1_1	349000/1745	1:1	0.654	-0.13	21.19	21.70	1.125	0.735	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	40	QPSK 108_54	349000/1745	1:1	0.394	-0.12	21.11	21.70	1.146	0.451	22.2
Back side	40	QPSK 108_54	349000/1745	1:1	0.498	0.17	21.11	21.70	1.146	0.570	22.2
Left side	40	QPSK 108_54	349000/1745	1:1	0.173	-0.06	21.11	21.70	1.146	0.198	22.2
Bottom side	40	QPSK 108_54	349000/1745	1:1	0.676	-0.08	21.11	21.70	1.146	**0.774**	22.2

Table 32：SAR of 5G NR n66 for Head and Body.

Test Position	**Channel/ Frequency**	**Measured SAR (1g)**	**1st Repeated**	**Ratio**	**2nd Repeated**	**3rd Repeated**
	(MHz)		**SAR (1g)**		**SAR (1g)**	**SAR (1g)**
Right cheek	349000/1745	0.844	0.837	1.008363202	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.24 SAR Result of 5G NR n77 Part 27Q

SA N77 SAR Test Record											
Ant1 Test Record											
Test position	BW.	Modulation	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_1	633334/3500.01	1:1	0.311	-0.09	15.97	17.00	1.268	0.394	22.6
Left tilted	100	QPSK 1_1	633334/3500.01	1:1	0.185	0.08	15.97	17.00	1.268	0.235	22.6
Right cheek	100	QPSK 1_1	633334/3500.01	1:1	0.563	0.16	15.97	17.00	1.268	0.714	22.6
Right tilted	100	QPSK 1_1	633334/3500.01	1:1	0.293	-0.18	15.97	17.00	1.268	0.371	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500.01	1:1	0.358	-0.05	15.96	17.00	1.271	0.455	22.6
Left tilted	100	QPSK 135_69	633334/3500.01	1:1	0.190	0.10	15.96	17.00	1.271	0.241	22.6
Right cheek	100	QPSK 135_69	633334/3500.01	1:1	0.596	-0.10	15.96	17.00	1.271	0.757	22.6
Right tilted	100	QPSK 135_69	633334/3500.01	1:1	0.303	0.13	15.96	17.00	1.271	0.385	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.413	-0.09	22.93	24.00	1.279	0.528	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.380	-0.14	22.93	24.00	1.279	0.486	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.431	0.18	22.66	24.00	1.361	0.587	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.413	0.19	22.66	24.00	1.361	0.562	22.6
Front side PC2	100	QPSK 135_69	633334/3500.01	50	0.309	-0.19	24.61	26.00	1.377	0.426	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.243	-0.08	15.97	17.00	1.268	0.308	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.258	-0.15	15.97	17.00	1.268	0.327	22.6
Left side	100	QPSK 1_1	633334/3500.01	1:1	0.280	0.01	15.97	17.00	1.268	0.355	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.251	0.19	15.96	17.00	1.271	0.319	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.269	0.12	15.96	17.00	1.271	0.342	22.6
Left side	100	QPSK 135_69	633334/3500.01	1:1	0.293	0.16	15.96	17.00	1.271	0.372	22.6
Ant6 Test Record											
Test position	BW.	Modulation	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_1	633334/3500.01	1:1	0.826	0.17	15.56	16.00	1.107	0.914	22.6
Left tilted	100	QPSK 1_1	633334/3500.01	1:1	0.931	0.18	15.56	16.00	1.107	1.030	22.6
Right cheek	100	QPSK 1_1	633334/3500.01	1:1	0.398	0.03	15.56	16.00	1.107	0.440	22.6
Right tilted	100	QPSK 1_1	633334/3500.01	1:1	0.460	0.09	15.56	16.00	1.107	0.509	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500.01	1:1	0.839	-0.06	15.47	16.00	1.130	0.948	22.6

Left tilted	100	QPSK 135_69	633334/3500.01	1:1	0.951	-0.07	15.47	16.00	1.130	**1.074**	22.6
Left tilted-repeated	100	QPSK 135_69	633334/3500.01	1:1	0.939	-0.13	15.47	16.00	1.130	1.061	22.6
Right cheek	100	QPSK 135_69	633334/3500.01	1:1	0.423	0.05	15.47	16.00	1.130	0.478	22.6
Right tilted	100	QPSK 135_69	633334/3500.01	1:1	0.481	0.01	15.47	16.00	1.130	0.543	22.6
Head Test data(100%RB)											
Left cheek	100	QPSK 270_0	633334/3500.01	1:1	0.751	-0.19	15.45	16.00	1.135	0.852	22.6
Left tilted	100	QPSK 270_0	633334/3500.01	1:1	0.855	-0.12	15.45	16.00	1.135	0.970	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.473	0.01	25.65	26.00	1.084	0.513	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.738	-0.15	25.65	26.00	1.084	0.800	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.491	-0.16	25.63	26.00	1.089	0.535	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.785	-0.04	25.63	26.00	1.089	0.855	22.6
Back side PC2	100	QPSK 135_69	633334/3500.01	50	0.591	0.11	27.59	28.50	1.233	0.729	22.6
Body worn Test data(Separate 15mm 100%RB)											
Back side	100	QPSK 270_0	633334/3500.01	1:1	0.703	-0.08	24.66	25.00	1.081	0.760	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.288	-0.19	15.56	16.00	1.107	0.319	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.345	0.19	15.56	16.00	1.107	0.382	22.6
Right side	100	QPSK 1_1	633334/3500.01	1:1	0.081	0.14	15.56	16.00	1.107	0.090	22.6
Top side	100	QPSK 1_1	633334/3500.01	1:1	0.407	-0.12	15.56	16.00	1.107	0.450	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.316	0.17	15.47	16.00	1.130	0.357	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.376	-0.16	15.47	16.00	1.130	0.425	22.6
Right side	100	QPSK 135_69	633334/3500.01	1:1	0.089	-0.04	15.47	16.00	1.130	0.101	22.6
Top side	100	QPSK 135_69	633334/3500.01	1:1	0.452	-0.13	15.47	16.00	1.130	0.511	22.6
Ant7 Test Record											
Test position	**BW.**	**Modulation**	**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_1	633334/3500.01	1:1	0.762	-0.05	14.75	15.00	1.059	0.807	22.6
Left tilted	100	QPSK 1_1	633334/3500.01	1:1	0.251	0.07	14.75	15.00	1.059	0.266	22.6
Right cheek	100	QPSK 1_1	633334/3500.01	1:1	0.131	-0.03	14.75	15.00	1.059	0.139	22.6
Right tilted	100	QPSK 1_1	633334/3500.01	1:1	0.120	-0.06	14.75	15.00	1.059	0.127	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500.01	1:1	0.779	-0.10	14.70	15.00	1.072	0.835	22.6
Left tilted	100	QPSK 135_69	633334/3500.01	1:1	0.254	-0.09	14.70	15.00	1.072	0.272	22.6
Right cheek	100	QPSK 135_69	633334/3500.01	1:1	0.139	0.13	14.70	15.00	1.072	0.149	22.6
Right tilted	100	QPSK 135_69	633334/3500.01	1:1	0.133	0.17	14.70	15.00	1.072	0.143	22.6
Head Test data(100%RB)											
Left cheek	100	QPSK 270_0	633334/3500.01	1:1	0.713	-0.02	14.64	15.00	1.086	0.775	22.6
Body worn Test data(Separate 15mm 1RB)											

Front side	100	QPSK 1_1	633334/3500.01	1:1	0.287	0.17	17.59	18.00	1.099	0.315	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.302	-0.06	17.59	18.00	1.099	0.332	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.319	-0.01	17.53	18.00	1.114	0.355	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.333	-0.19	17.53	18.00	1.114	0.371	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.230	-0.08	14.75	15.00	1.059	0.244	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.259	-0.10	14.75	15.00	1.059	0.274	22.6
Right side	100	QPSK 1_1	633334/3500.01	1:1	0.392	-0.10	14.75	15.00	1.059	0.415	22.6
Top side	100	QPSK 1_1	633334/3500.01	1:1	0.130	0.02	14.75	15.00	1.059	0.138	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.261	0.05	14.70	15.00	1.072	0.280	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.273	0.05	14.70	15.00	1.072	0.293	22.6
Right side	100	QPSK 135_69	633334/3500.01	1:1	0.413	-0.18	14.70	15.00	1.072	0.443	22.6
Top side	100	QPSK 135_69	633334/3500.01	1:1	0.169	-0.02	14.70	15.00	1.072	0.181	22.6
Ant8 Test Record											
Test position	**BW.**	**Modulation**	**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_1	633334/3500.01	1:1	0.297	-0.08	23.53	24.50	1.250	0.371	22.6
Left tilted	100	QPSK 1_1	633334/3500.01	1:1	0.227	0.01	23.53	24.50	1.250	0.284	22.6
Right cheek	100	QPSK 1_1	633334/3500.01	1:1	0.586	0.00	23.53	24.50	1.250	0.733	22.6
Right tilted	100	QPSK 1_1	633334/3500.01	1:1	0.313	-0.10	23.53	24.50	1.250	0.391	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	633334/3500.01	1:1	0.303	-0.08	23.51	24.50	1.256	0.381	22.6
Left tilted	100	QPSK 135_69	633334/3500.01	1:1	0.237	0.14	23.51	24.50	1.256	0.298	22.6
Right cheek	100	QPSK 135_69	633334/3500.01	1:1	0.603	0.09	23.51	24.50	1.256	0.757	22.6
Right tilted	100	QPSK 135_69	633334/3500.01	1:1	0.324	-0.12	23.51	24.50	1.256	0.407	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.067	0.03	21.64	22.50	1.219	0.082	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.732	-0.18	21.64	22.50	1.219	0.892	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.099	-0.12	21.49	22.50	1.262	0.125	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.789	-0.07	21.49	22.50	1.262	**0.996**	22.6
Body worn Test data(Separate 15mm 100%RB)											
Back side	100	QPSK 270_0	633334/3500.01	1:1	0.701	-0.05	21.46	22.50	1.271	0.891	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.063	-0.04	17.56	18.50	1.242	0.078	22.6
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.760	-0.08	17.56	18.50	1.242	0.944	22.6
Left side	100	QPSK 1_1	633334/3500.01	1:1	0.171	-0.02	17.56	18.50	1.242	0.212	22.6
Top side	100	QPSK 1_1	633334/3500.01	1:1	0.109	-0.12	17.56	18.50	1.242	0.135	22.6
Hotspot Test data (Separate 10mm 50%RB)											

Front side	100	QPSK 135_69	633334/3500.01	1:1	0.110	-0.01	17.47	18.50	1.268	0.139	22.6
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.817	-0.10	17.47	18.50	1.268	**1.036**	22.6
Back side-repeated	100	QPSK 135_69	633334/3500.01	1:1	0.805	0.16	17.47	18.50	1.268	1.020	22.6
Left side	100	QPSK 135_69	633334/3500.01	1:1	0.205	0.06	17.47	18.50	1.268	0.260	22.6
Top side	100	QPSK 135_69	633334/3500.01	1:1	0.134	0.08	17.47	18.50	1.268	0.170	22.6
Hotspot Test data (Separate 10mm 100%RB)											
Back side	100	QPSK 270_0	633334/3500.01	1:1	0.715	-0.19	17.33	18.50	1.309	0.936	22.6

Table 33：SAR of 5G NR n77 Part 27Q for Head and Body.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left tilted	633334/3500.01	0.951	0.939	1.012779553	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Back side	633334/3500.01	0.817	0.805	1.014906832	N/A	N/A
Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was ⩾ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.						
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg						

8.2.25 SAR Result of 5G NR n77 Part 27O

SA N77 SAR Test Record											
Ant1 Test Record											
Test position	**BW.**	**Modulation**	**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_1	656000/3840	1:1	0.292	0.17	16.23	17.00	1.194	0.349	22.6
Left tilted	100	QPSK 1_1	656000/3840	1:1	0.197	-0.01	16.23	17.00	1.194	0.235	22.6
Right cheek	100	QPSK 1_1	656000/3840	1:1	0.597	0.10	16.23	17.00	1.194	0.713	22.6
Right tilted	100	QPSK 1_1	656000/3840	1:1	0.316	-0.01	16.23	17.00	1.194	0.377	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	656000/3840	1:1	0.305	-0.18	16.17	17.00	1.211	0.369	22.6
Left tilted	100	QPSK 135_69	656000/3840	1:1	0.207	0.12	16.17	17.00	1.211	0.251	22.6
Right cheek	100	QPSK 135_69	656000/3840	1:1	0.611	-0.12	16.17	17.00	1.211	0.740	22.6
Right tilted	100	QPSK 135_69	656000/3840	1:1	0.320	-0.01	16.17	17.00	1.211	0.387	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.399	0.07	23.18	24.00	1.208	0.482	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.346	0.04	23.18	24.00	1.208	0.418	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.421	0.10	23.10	24.00	1.230	0.518	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.383	-0.03	23.10	24.00	1.230	0.471	22.6
Front side PC2	100	QPSK 135_69	656000/3840	50	0.301	-0.03	24.87	26.00	1.297	0.390	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.214	0.01	16.23	17.00	1.194	0.256	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.244	0.13	16.23	17.00	1.194	0.291	22.6
Left side	100	QPSK 1_1	656000/3840	1:1	0.281	0.02	16.23	17.00	1.194	0.336	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.233	0.00	16.17	17.00	1.211	0.282	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.259	-0.13	16.17	17.00	1.211	0.314	22.6
Left side	100	QPSK 135_69	656000/3840	1:1	0.298	0.03	16.17	17.00	1.211	0.361	22.6
Ant6 Test Record											
Test position	**BW.**	**Modulation**	**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_1	656000/3840	1:1	0.596	0.05	15.66	16.00	1.081	0.645	22.6
Left tilted	100	QPSK 1_1	656000/3840	1:1	0.695	0.05	15.66	16.00	1.081	0.752	22.6
Right cheek	100	QPSK 1_1	656000/3840	1:1	0.279	0.01	15.66	16.00	1.081	0.302	22.6
Right tilted	100	QPSK 1_1	656000/3840	1:1	0.348	-0.02	15.66	16.00	1.081	0.376	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	656000/3840	1:1	0.604	0.19	15.61	16.00	1.094	0.661	22.6
Left tilted	100	QPSK 135_69	656000/3840	1:1	0.716	0.03	15.61	16.00	1.094	0.783	22.6
Right cheek	100	QPSK 135_69	656000/3840	1:1	0.288	0.13	15.61	16.00	1.094	0.315	22.6
Right tilted	100	QPSK 135_69	656000/3840	1:1	0.356	-0.17	15.61	16.00	1.094	0.389	22.6

Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.439	-0.17	25.52	26.00	1.117	0.490	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.471	-0.17	25.52	26.00	1.117	0.526	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.466	-0.02	25.47	26.00	1.130	0.526	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.502	0.01	25.47	26.00	1.130	0.567	22.6
Back side PC2	100	QPSK 135_69	656000/3840	50	0.381	-0.01	27.31	28.50	1.315	0.501	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.261	0.05	15.66	16.00	1.081	0.282	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.283	-0.08	15.66	16.00	1.081	0.306	22.6
Right side	100	QPSK 1_1	656000/3840	1:1	0.067	-0.02	15.66	16.00	1.081	0.072	22.6
Top side	100	QPSK 1_1	656000/3840	1:1	0.445	-0.11	15.66	16.00	1.081	0.481	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.274	0.12	15.61	16.00	1.094	0.300	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.299	0.01	15.61	16.00	1.094	0.327	22.6
Right side	100	QPSK 135_69	656000/3840	1:1	0.083	-0.17	15.61	16.00	1.094	0.091	22.6
Top side	100	QPSK 135_69	656000/3840	1:1	0.470	0.19	15.61	16.00	1.094	0.514	22.6
Ant7 Test Record											
Test position	**BW.**	**Modulation**	**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_1	656000/3840	1:1	0.510	-0.17	14.66	15.00	1.081	0.552	22.6
Left tilted	100	QPSK 1_1	656000/3840	1:1	0.248	-0.09	14.66	15.00	1.081	0.268	22.6
Right cheek	100	QPSK 1_1	656000/3840	1:1	0.119	-0.05	14.66	15.00	1.081	0.129	22.6
Right tilted	100	QPSK 1_1	656000/3840	1:1	0.092	-0.07	14.66	15.00	1.081	0.099	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	656000/3840	1:1	0.515	-0.05	14.61	15.00	1.094	0.563	22.6
Left tilted	100	QPSK 135_69	656000/3840	1:1	0.262	0.18	14.61	15.00	1.094	0.287	22.6
Right cheek	100	QPSK 135_69	656000/3840	1:1	0.104	0.06	14.61	15.00	1.094	0.114	22.6
Right tilted	100	QPSK 135_69	656000/3840	1:1	0.098	0.07	14.61	15.00	1.094	0.107	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.202	-0.17	17.60	18.00	1.096	0.221	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.235	0.08	17.60	18.00	1.096	0.258	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.248	-0.03	17.54	18.00	1.112	0.276	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.262	-0.01	17.54	18.00	1.112	0.291	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.190	-0.10	14.66	15.00	1.081	0.205	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.221	-0.05	14.66	15.00	1.081	0.239	22.6
Right side	100	QPSK 1_1	656000/3840	1:1	0.293	0.18	14.66	15.00	1.081	0.317	22.6
Top side	100	QPSK 1_1	656000/3840	1:1	0.196	0.10	14.66	15.00	1.081	0.212	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.219	0.01	14.61	15.00	1.094	0.240	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.256	0.13	14.61	15.00	1.094	0.280	22.6

Right side	100	QPSK 135_69	656000/3840	1:1	0.331	-0.17	14.61	15.00	1.094	0.362	22.6
Top side	100	QPSK 135_69	656000/3840	1:1	0.217	-0.11	14.61	15.00	1.094	0.237	22.6
Ant8 Test Record											
Test position	**BW.**	**Modulation**	**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_1	656000/3840	1:1	0.386	-0.13	23.79	24.50	1.178	0.455	22.6
Left tilted	100	QPSK 1_1	656000/3840	1:1	0.493	-0.09	23.79	24.50	1.178	0.581	22.6
Right cheek	100	QPSK 1_1	656000/3840	1:1	0.701	0.18	23.79	24.50	1.178	0.826	22.6
Right tilted	100	QPSK 1_1	656000/3840	1:1	0.521	0.17	23.79	24.50	1.178	0.614	22.6
Head Test data(50%RB)											
Left cheek	100	QPSK 135_69	656000/3840	1:1	0.399	-0.18	23.71	24.50	1.199	0.479	22.6
Left tilted	100	QPSK 135_69	656000/3840	1:1	0.512	-0.14	23.71	24.50	1.199	0.614	22.6
Right cheek	100	QPSK 135_69	656000/3840	1:1	0.727	-0.02	23.71	24.50	1.199	**0.872**	22.6
Right tilted	100	QPSK 135_69	656000/3840	1:1	0.531	0.16	23.71	24.50	1.199	0.637	22.6
Head Test data(100%RB)											
Right cheek	100	QPSK 270_0	656000/3840	1:1	0.653	-0.10	23.69	24.50	1.205	0.787	22.6
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.061	-0.12	21.79	22.50	1.178	0.072	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.503	-0.15	21.79	22.50	1.178	0.592	22.6
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.089	-0.03	21.77	22.50	1.183	0.105	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.559	-0.10	21.77	22.50	1.183	**0.661**	22.6
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1_1	656000/3840	1:1	0.074	0.17	17.81	18.50	1.172	0.087	22.6
Back side	100	QPSK 1_1	656000/3840	1:1	0.552	0.07	17.81	18.50	1.172	0.647	22.6
Left side	100	QPSK 1_1	656000/3840	1:1	0.068	0.00	17.81	18.50	1.172	0.080	22.6
Top side	100	QPSK 1_1	656000/3840	1:1	0.081	0.00	17.81	18.50	1.172	0.095	22.6
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135_69	656000/3840	1:1	0.100	-0.01	17.68	18.50	1.208	0.121	22.6
Back side	100	QPSK 135_69	656000/3840	1:1	0.586	-0.09	17.68	18.50	1.208	**0.708**	22.6
Left side	100	QPSK 135_69	656000/3840	1:1	0.102	-0.03	17.68	18.50	1.208	0.123	22.6
Top side	100	QPSK 135_69	656000/3840	1:1	0.124	0.05	17.68	18.50	1.208	0.150	22.6

Table 34：SAR of 5G NR n77 Part 27O for Head and Body.

8.2.26 SAR Result of WIFI 2.4G

Wi-Fi 2.4G SAR Test Record											
Ant16 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	100.00%	1.000	0.572	-0.02	15.13	16.00	1.222	0.699	22.8
Left tilted	802.11b	6/2437	100.00%	1.000	0.631	0.09	15.13	16.00	1.222	0.771	22.8
Right cheek	802.11b	6/2437	100.00%	1.000	0.272	0.05	15.13	16.00	1.222	0.332	22.8
Right tilted	802.11b	6/2437	100.00%	1.000	0.318	0.09	15.13	16.00	1.222	0.389	22.8
Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.097	-0.03	19.09	20.00	1.233	0.120	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.137	-0.06	19.09	20.00	1.233	0.169	22.8
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.189	-0.07	19.09	20.00	1.233	0.233	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.270	0.04	19.09	20.00	1.233	0.333	22.8
Right side	802.11b	6/2437	100.00%	1.000	0.155	0.15	19.09	20.00	1.233	0.191	22.8
Top side	802.11b	6/2437	100.00%	1.000	0.459	-0.03	19.09	20.00	1.233	0.566	22.8
Ant7 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	100.00%	1.000	0.628	0.10	13.33	14.00	1.167	0.733	22.8
Left tilted	802.11b	6/2437	100.00%	1.000	0.194	0.03	13.33	14.00	1.167	0.226	22.8
Right cheek	802.11b	6/2437	100.00%	1.000	0.109	0.04	13.33	14.00	1.167	0.127	22.8
Right tilted	802.11b	6/2437	100.00%	1.000	0.064	-0.03	13.33	14.00	1.167	0.075	22.8
Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.162	0.12	17.35	18.00	1.161	0.188	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.198	0.06	17.35	18.00	1.161	0.230	22.8
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.235	0.07	17.35	18.00	1.161	0.273	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.277	-0.13	17.35	18.00	1.161	0.322	22.8
Right side	802.11b	6/2437	100.00%	1.000	0.632	-0.01	17.35	18.00	1.161	0.734	22.8
Top side	802.11b	6/2437	100.00%	1.000	0.049	0.03	17.35	18.00	1.161	0.057	22.8
MIMO 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	100.00%	1.000	0.661	-0.07	16.25	17.00	1.189	**0.786**	22.8
Left tilted	802.11b	6/2437	100.00%	1.000	0.363	0.01	16.25	17.00	1.189	0.431	22.8
Right cheek	802.11b	6/2437	100.00%	1.000	0.135	-0.04	16.25	17.00	1.189	0.160	22.8
Right tilted	802.11b	6/2437	100.00%	1.000	0.154	0.10	16.25	17.00	1.189	0.183	22.8

Body worn Test data(Separate 15mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.277	0.06	20.32	21.00	1.169	0.324	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.357	0.08	20.32	21.00	1.169	**0.418**	22.8
Hotspot Test data (Separate 10mm)											
Front side	802.11b	6/2437	100.00%	1.000	0.355	0.03	20.32	21.00	1.169	0.415	22.8
Back side	802.11b	6/2437	100.00%	1.000	0.455	-0.09	20.32	21.00	1.169	0.532	22.8
Right side	802.11b	6/2437	100.00%	1.000	0.644	0.07	20.32	21.00	1.169	**0.753**	22.8

Table 35：SAR of WIFI 2.4G for Head and Body.

Note: 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.

8.2.27 SAR Result of WIFI 5G

Wi-Fi 5G SAR Test Record											
Ant6 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	802.11ac VHT80	58/5290	98.72%	1.013	0.520	-0.03	11.31	12.00	1.172	0.617	22.8
Left tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.636	0.15	11.31	12.00	1.172	0.755	22.8
Right cheek	802.11ac VHT80	58/5290	98.72%	1.013	0.281	-0.16	11.31	12.00	1.172	0.334	22.8
Right tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.335	0.17	11.31	12.00	1.172	0.398	22.8
Head Test data of U-NII-2C											
Left cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.438	0.02	11.39	12.00	1.151	0.507	22.8
Left tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.625	0.01	11.39	12.00	1.151	0.723	22.8
Right cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.239	-0.16	11.39	12.00	1.151	0.276	22.8
Right tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.286	-0.15	11.39	12.00	1.151	0.331	22.8
Head Test data of U-NII-3											
Left cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.444	-0.17	11.36	12.00	1.159	0.521	22.8
Left tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.631	-0.10	11.36	12.00	1.159	0.741	22.8
Right cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.242	-0.07	11.36	12.00	1.159	0.284	22.8
Right tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.326	-0.02	11.36	12.00	1.159	0.383	22.8
Body worn Test data of U-NII-2A(Separate 15mm)											
Front side	802.11ac VHT80	58/5290	98.72%	1.013	0.114	0.19	14.68	15.50	1.208	0.139	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	0.184	0.06	14.68	15.50	1.208	0.225	22.8
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.096	-0.18	14.59	15.50	1.233	0.119	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	0.166	-0.17	14.59	15.50	1.233	0.206	22.8
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.093	-0.13	14.68	15.50	1.208	0.114	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.185	-0.01	14.68	15.50	1.208	0.226	22.8
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11ac VHT80	42/5210	98.72%	1.013	0.202	0.11	15.71	16.50	1.199	0.245	22.8
Back side	802.11ac VHT80	42/5210	98.72%	1.013	0.294	-0.06	15.71	16.50	1.199	0.357	22.8
Right side	802.11ac VHT80	42/5210	98.72%	1.013	0.095	0.06	15.71	16.50	1.199	0.115	22.8
Top side	802.11ac VHT80	42/5210	98.72%	1.013	0.642	0.10	15.71	16.50	1.199	**0.780**	22.8
Hotspot Test data of U-NII-3(Separate 10mm)											
Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.149	0.08	15.61	16.50	1.227	0.185	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.315	0.01	15.61	16.50	1.227	0.392	22.8
Right side	802.11ac VHT80	155/5775	98.72%	1.013	0.151	-0.19	15.61	16.50	1.227	0.188	22.8
Top side	802.11ac VHT80	155/5775	98.72%	1.013	0.638	-0.05	15.61	16.50	1.227	**0.793**	22.8
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	802.11ac VHT80	58/5290	98.72%	1.013	0.751	-0.16	14.68	15.50	1.208	0.919	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	1.110	0.06	14.68	15.50	1.208	1.358	22.8
Right side	802.11ac VHT80	58/5290	98.72%	1.013	0.127	-0.08	14.68	15.50	1.208	0.155	22.8
Top side	802.11ac VHT80	58/5290	98.72%	1.013	1.630	0.08	14.68	15.50	1.208	1.994	22.8
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.720	0.01	14.59	15.50	1.233	0.892	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	1.200	-0.18	14.59	15.50	1.233	1.487	22.8
Right side	802.11ac VHT160	114/5570	99.48%	1.005	0.142	-0.03	14.59	15.50	1.233	0.176	22.8
Top side	802.11ac VHT160	114/5570	99.48%	1.005	1.630	0.09	14.59	15.50	1.233	2.020	22.8
Ant17 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	802.11ac VHT80	58/5290	98.72%	1.013	0.612	0.18	13.14	14.00	1.219	0.756	22.8
Left tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.270	0.17	13.14	14.00	1.219	0.333	22.8
Right cheek	802.11ac VHT80	58/5290	98.72%	1.013	0.180	-0.08	13.14	14.00	1.219	0.222	22.8
Right tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.131	0.03	13.14	14.00	1.219	0.162	22.8
Head Test data of U-NII-2C											
Left cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.629	-0.14	13.19	14.00	1.205	0.762	22.8
Left tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.206	-0.02	13.19	14.00	1.205	0.250	22.8
Right cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.141	0.08	13.19	14.00	1.205	0.171	22.8
Right tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.114	-0.10	13.19	14.00	1.205	0.138	22.8
Head Test data of U-NII-3											
Left cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.621	0.15	13.21	14.00	1.199	0.755	22.8
Left tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.184	-0.14	13.21	14.00	1.199	0.224	22.8
Right cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.163	0.07	13.21	14.00	1.199	0.198	22.8
Right tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.089	0.09	13.21	14.00	1.199	0.108	22.8
Body worn Test data of U-NII-2A(Separate 15mm)											
Front side	802.11ac VHT80	58/5290	98.72%	1.013	0.117	0.15	15.17	16.00	1.211	0.143	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	0.195	-0.04	15.17	16.00	1.211	0.239	22.8
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.092	0.18	15.19	16.00	1.205	0.111	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	0.171	-0.16	15.19	16.00	1.205	0.207	22.8
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.139	0.16	15.21	16.00	1.199	0.169	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.325	0.05	15.21	16.00	1.199	0.395	22.8
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11ac VHT80	42/5210	98.72%	1.013	0.196	0.14	16.23	17.00	1.194	0.237	22.8
Back side	802.11ac VHT80	42/5210	98.72%	1.013	0.350	0.05	16.23	17.00	1.194	0.423	22.8
Right side	802.11ac VHT80	42/5210	98.72%	1.013	0.628	0.17	16.23	17.00	1.194	0.760	22.8
Top side	802.11ac VHT80	42/5210	98.72%	1.013	0.120	0.03	16.23	17.00	1.194	0.145	22.8
Hotspot Test data of U-NII-3(Separate 10mm)											

Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.289	0.03	16.19	17.00	1.205	0.353	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.502	-0.13	16.19	17.00	1.205	0.613	22.8
Right side	802.11ac VHT80	155/5775	98.72%	1.013	0.646	0.03	16.19	17.00	1.205	0.789	22.8
Top side	802.11ac VHT80	155/5775	98.72%	1.013	0.132	0.05	16.19	17.00	1.205	0.161	22.8
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	802.11ac VHT80	58/5290	98.72%	1.013	0.850	0.02	15.17	16.00	1.211	1.042	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	1.270	-0.12	15.17	16.00	1.211	1.557	22.8
Right side	802.11ac VHT80	58/5290	98.72%	1.013	1.580	-0.12	15.17	16.00	1.211	1.938	22.8
Top side	802.11ac VHT80	58/5290	98.72%	1.013	0.159	-0.10	15.17	16.00	1.211	0.195	22.8
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.622	-0.19	15.19	16.00	1.205	0.753	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	1.280	0.10	15.19	16.00	1.205	1.551	22.8
Right side	802.11ac VHT160	114/5570	99.48%	1.005	1.530	0.14	15.19	16.00	1.205	1.853	22.8
Top side	802.11ac VHT160	114/5570	99.48%	1.005	0.152	-0.18	15.19	16.00	1.205	0.184	22.8
MIMO 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	802.11ac VHT80	58/5290	98.72%	1.013	0.374	-0.10	14.25	15.00	1.189	0.450	22.8
Left tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.629	-0.12	14.25	15.00	1.189	**0.757**	22.8
Right cheek	802.11ac VHT80	58/5290	98.72%	1.013	0.345	-0.09	14.25	15.00	1.189	0.415	22.8
Right tilted	802.11ac VHT80	58/5290	98.72%	1.013	0.393	0.02	14.25	15.00	1.189	0.473	22.8
Head Test data of U-NII-2C											
Left cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.504	-0.05	14.52	15.50	1.253	0.635	22.8
Left tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.627	0.01	14.52	15.50	1.253	**0.790**	22.8
Right cheek	802.11ac VHT160	114/5570	99.48%	1.005	0.321	-0.12	14.52	15.50	1.253	0.404	22.8
Right tilted	802.11ac VHT160	114/5570	99.48%	1.005	0.373	-0.04	14.52	15.50	1.253	0.470	22.8
Head Test data of U-NII-3											
Left cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.516	0.13	14.28	15.00	1.180	0.617	22.8
Left tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.635	0.05	14.28	15.00	1.180	**0.759**	22.8
Right cheek	802.11ac VHT80	155/5775	98.72%	1.013	0.302	-0.14	14.28	15.00	1.180	0.361	22.8
Right tilted	802.11ac VHT80	155/5775	98.72%	1.013	0.364	-0.07	14.28	15.00	1.180	0.435	22.8
Body worn Test data of U-NII-2A(Separate 15mm)											
Front side	802.11ac VHT80	58/5290	98.72%	1.013	0.200	-0.07	17.94	18.50	1.138	0.230	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	0.310	-0.06	17.94	18.50	1.138	**0.357**	22.8
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.212	0.07	17.91	18.50	1.146	0.244	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	0.256	-0.05	17.91	18.50	1.146	**0.295**	22.8
Body worn Test data of U-NII-3(Separate 15mm)											

Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.232	0.09	17.96	18.50	1.132	0.266	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.442	-0.04	17.96	18.50	1.132	**0.507**	22.8
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11ac VHT80	42/5210	98.72%	1.013	0.301	-0.17	18.99	19.50	1.125	0.343	22.8
Back side	802.11ac VHT80	42/5210	98.72%	1.013	0.498	-0.04	18.99	19.50	1.125	0.567	22.8
Right side	802.11ac VHT80	42/5210	98.72%	1.013	0.553	-0.02	18.99	19.50	1.125	0.630	22.8
Top side	802.11ac VHT80	42/5210	98.72%	1.013	0.659	-0.13	18.99	19.50	1.125	0.751	22.8
Hotspot Test data of U-NII-3(Separate 10mm)											
Front side	802.11ac VHT80	155/5775	98.72%	1.013	0.239	-0.11	18.92	19.50	1.143	0.277	22.8
Back side	802.11ac VHT80	155/5775	98.72%	1.013	0.580	-0.18	18.92	19.50	1.143	0.671	22.8
Right side	802.11ac VHT80	155/5775	98.72%	1.013	0.643	-0.14	18.92	19.50	1.143	0.744	22.8
Top side	802.11ac VHT80	155/5775	98.72%	1.013	0.689	0.16	18.92	19.50	1.143	**0.798**	22.8
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	802.11ac VHT80	58/5290	98.72%	1.013	0.558	-0.13	17.94	18.50	1.138	0.643	22.8
Back side	802.11ac VHT80	58/5290	98.72%	1.013	1.210	-0.17	17.94	18.50	1.138	1.394	22.8
Right side	802.11ac VHT80	58/5290	98.72%	1.013	1.370	0.03	17.94	18.50	1.138	1.579	22.8
Top side	802.11ac VHT80	58/5290	98.72%	1.013	1.770	0.11	17.94	18.50	1.138	**2.040**	22.8
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)											
Front side	802.11ac VHT160	114/5570	99.48%	1.005	0.592	-0.10	17.91	18.50	1.146	0.682	22.8
Back side	802.11ac VHT160	114/5570	99.48%	1.005	1.170	-0.05	17.91	18.50	1.146	1.347	22.8
Right side	802.11ac VHT160	114/5570	99.48%	1.005	1.310	0.09	17.91	18.50	1.146	1.508	22.8
Top side	802.11ac VHT160	114/5570	99.48%	1.005	1.790	-0.08	17.91	18.50	1.146	**2.061**	22.8

Table 36：SAR of WIFI 5G for Head and Body.

Note:

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

8.2.28 SAR Result of BT

Bluetooth SAR Test Record											
Ant16 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	0/2402	76.80%	1.429	0.529	0.05	14.30	15.50	1.318	**0.996**	22.8
Left cheek	DH5	39/2441	76.80%	1.429	0.503	0.06	14.09	15.50	1.384	0.994	22.8
Left cheek	DH5	78/2480	76.80%	1.429	0.475	0.01	13.91	15.50	1.442	0.979	22.8
Left tilted	DH5	0/2402	76.80%	1.429	0.183	0.11	14.30	15.50	1.318	0.345	22.8
Right cheek	DH5	0/2402	76.80%	1.429	0.104	-0.09	14.30	15.50	1.318	0.196	22.8
Right tilted	DH5	0/2402	76.80%	1.429	0.062	0.03	14.30	15.50	1.318	0.117	22.8
Body worn Test data(Separate 15mm)											
Front side	DH5	0/2402	76.80%	1.429	0.053	-0.10	14.30	15.50	1.318	0.100	22.8
Back side	DH5	0/2402	76.80%	1.429	0.061	-0.01	14.30	15.50	1.318	**0.115**	22.8
Hotspot Test data (Separate 10mm)											
Front side	DH5	0/2402	76.80%	1.429	0.112	0.01	14.30	15.50	1.318	0.211	22.8
Back side	DH5	0/2402	76.80%	1.429	0.127	0.04	14.30	15.50	1.318	0.239	22.8
Right side	DH5	0/2402	76.80%	1.429	0.240	0.08	14.30	15.50	1.318	**0.452**	22.8
Top side	DH5	0/2402	76.80%	1.429	0.011	0.09	14.30	15.50	1.318	0.021	22.8
Ant7 Test Record											
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**Duty Cycle Scaled factor**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test data											
Left cheek	DH5	39/2441	76.80%	1.429	0.324	-0.03	14.61	15.50	1.227	0.568	22.8
Left tilted	DH5	39/2441	76.80%	1.429	0.378	0.03	14.61	15.50	1.227	0.663	22.8
Right cheek	DH5	39/2441	76.80%	1.429	0.161	-0.15	14.61	15.50	1.227	0.282	22.8
Right tilted	DH5	39/2441	76.80%	1.429	0.193	0.14	14.61	15.50	1.227	0.338	22.8
Body worn Test data(Separate 15mm)											
Front side	DH5	39/2441	76.80%	1.429	0.023	0.18	14.61	15.50	1.227	0.040	22.8
Back side	DH5	39/2441	76.80%	1.429	0.055	-0.08	14.61	15.50	1.227	0.096	22.8
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	76.80%	1.429	0.054	-0.03	14.61	15.50	1.227	0.095	22.8
Back side	DH5	39/2441	76.80%	1.429	0.094	-0.01	14.61	15.50	1.227	0.165	22.8
Right side	DH5	39/2441	76.80%	1.429	0.049	-0.12	14.61	15.50	1.227	0.086	22.8
Top side	DH5	39/2441	76.80%	1.429	0.146	-0.13	14.61	15.50	1.227	0.256	22.8
MIMO Test Record											

Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
Head Test data											
Left cheek	DH5	39/2441	76.80%	1.429	0.451	0.18	14.63	15.50	1.222	0.787	22.8
Left tilted	DH5	39/2441	76.80%	1.429	0.351	0.05	14.63	15.50	1.222	0.613	22.8
Right cheek	DH5	39/2441	76.80%	1.429	0.159	0.06	14.63	15.50	1.222	0.278	22.8
Right tilted	DH5	39/2441	76.80%	1.429	0.178	-0.15	14.63	15.50	1.222	0.311	22.8
Body worn Test data(Separate 15mm)											
Front side	DH5	39/2441	76.80%	1.429	0.041	-0.01	14.63	15.50	1.222	0.072	22.8
Back side	DH5	39/2441	76.80%	1.429	0.051	-0.15	14.63	15.50	1.222	0.089	22.8
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	76.80%	1.429	0.081	0.14	14.63	15.50	1.222	0.141	22.8
Back side	DH5	39/2441	76.80%	1.429	0.103	-0.08	14.63	15.50	1.222	0.180	22.8
Right side	DH5	39/2441	76.80%	1.429	0.203	-0.15	14.63	15.50	1.222	0.354	22.8
Top side	DH5	39/2441	76.80%	1.429	0.131	-0.19	14.63	15.50	1.222	0.229	22.8

Table 37：SAR of BT for Head and Body.

8.2.29 SAR Result of NFC

NFC SAR Test Record									
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**Duty Cycle Scaled factor**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
NFC Test data (Separate 0mm)									
Front side	NFC	13.56MHz	100.00%	1.000	0.002	-0.03	1.000	0.002	22.2
Back side	NFC	13.56MHz	100.00%	1.000	0.012	-0.03	1.000	**0.012**	22.2
Left side	NFC	13.56MHz	100.00%	1.000	0.001	0.05	1.000	0.001	22.2
Right side	NFC	13.56MHz	100.00%	1.000	0.001	0.13	1.000	0.001	22.2
Top side	NFC	13.56MHz	100.00%	1.000	0.001	0.16	1.000	0.001	22.2
Bottom side	NFC	13.56MHz	100.00%	1.000	0.001	-0.10	1.000	0.001	22.2

Table 38：SAR of NFC for Body.

8.3 FR1 N41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for FR1 N41. The highest available duty cycle for Power Class 2 operations is 50 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear.

Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

FR1 N41 SAR testing with power class 2 at the highest power and available duty factor was additionally performed for the power class 3 configuration with the highest SAR for each exposure condition.

FR1 N41 Ant 3 - Body worn		
	FR1 N41 (Power Class 3)	FR1 N41 (Power Class 2)
Maximum Tune up Power (dBm)	25.20	26.50
Reported 1g SAR (W/kg)	1.037	0.719
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	331.13	223.34
Linearity SAR (W/kg)	0.699	
% deviation from expected linearity		2.80%

FR1 N41 Ant 4 - Body worn		
	FR1 N41 (Power Class 3)	FR1 N41 (Power Class 2)
Maximum Tune up Power (dBm)	24.50	25.50
Reported 1g SAR (W/kg)	0.504	0.328
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	281.84	177.41
Linearity SAR (W/kg)	0.317	
% deviation from expected linearity		3.39%

FR1 N41 Ant 5 - Head		
	FR1 N41 (Power Class 3)	FR1 N41 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	27.00
Reported 1g SAR (W/kg)	0.578	0.375
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	250.59
Linearity SAR (W/kg)	0.390	
% deviation from expected linearity		-3.81%

FR1 N77(78) Part Q Ant 1 - Body worn		
	FR1 N77(78) (Power Class 3)	FR1 N77(78) (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.562	0.426
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.445	
% deviation from expected linearity		-4.35%

FR1 N77(78) Part Q Ant 6 - Body worn		
	FR1 N77(78) (Power Class 3)	FR1 N77(78) (Power Class 2)
Maximum Tune up Power (dBm)	26.00	28.50
Reported 1g SAR (W/kg)	0.855	0.729
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	398.11	353.97
Linearity SAR (W/kg)	0.760	
% deviation from expected linearity		-4.11%

FR1 N77(78) Part O Ant 1 - Body worn		
	FR1 N77(78) (Power Class 3)	FR1 N77(78) (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.518	0.390
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.410	
% deviation from expected linearity		-4.99%

FR1 N77(78) Part O Ant 6 - Body worn		
	FR1 N77(78) (Power Class 3)	FR1 N77(78) (Power Class 2)
Maximum Tune up Power (dBm)	26.00	28.50
Reported 1g SAR (W/kg)	0.567	0.501
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	398.11	353.97
Linearity SAR (W/kg)	0.504	
% deviation from expected linearity		-0.62%

9 Equipment list

Test Platform	SPEAG DASY5 Professional
	SPEAG DASY8 Professional
Description	SAR Test System (Frequency range 10MHz-10GHz)
Software Reference	DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)
	Measurement Software: cDASY8 V16.2.4.2524

Hardware Reference

	Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM3	1143	NCR	NCR
☒	Twin Phantom	SPEAG	SAM8	1824	NCR	NCR
☒	Twin Phantom	SPEAG	SAM7	1702	NCR	NCR
☒	Twin Phantom	SPEAG	Twin-SAM V8.0	2155	NCR	NCR
☒	DAE	SPEAG	DAE4	1740	2023-11-03	2024-11-02
☒	DAE	SPEAG	DAE4	1245	2024-06-05	2025-06-04
☒	DAE	SPEAG	DAE4ip	1826	2023-12-27	2024-12-26
☒	E-Field Probe	SPEAG	EX3DV4	3982	2024-04-29	2025-04-28
☒	E-Field Probe	SPEAG	EX3DV4	3793	2024-03-04	2024-03-05
☒	E-Field Probe	SPEAG	EX3DV4	7735	2023-10-17	2024-10-16
☒	E-Field Probe	SPEAG	EX3DV4	7735	2023-12-19	2024-12-18
☒	Validation Kits	SPEAG	CLA13	1032	2023-02-09	2026-02-08
☒	Validation Kits	SPEAG	D835V2	4d161	2023-08-25	2026-08-24
☒	Validation Kits	SPEAG	D1750V2	1038	2021-12-16	2024-12-15
☒	Validation Kits	SPEAG	D1950V3	1218	2023-05-04	2026-05-03
☒	Validation Kits	SPEAG	D2450V2	922	2023-08-28	2026-08-27
☒	Validation Kits	SPEAG	D2600V2	1187	2022-02-03	2025-02-02
☒	Validation Kits	SPEAG	D3500V2	1133	2022-02-08	2025-02-07
☒	Validation Kits	SPEAG	D3700V2	1108	2022-02-07	2025-02-06
☒	Validation Kits	SPEAG	D3900V2	1083	2022-02-08	2025-02-07
☒	Validation Kits	SPEAG	D5GHzV2	1174	2023-08-23	2026-08-22
☒	SUEM100842	SPEAG	DAKS-12	1043	2024-08-20	2025-08-19
☒	SUEM100843	SPEAG	DAKS_VNA R60	21423005	2024-08-20	2025-08-19
☒	Dielectric parameter probes	SPEAG	DAKS-3.5	1102	N/A	N/A
☒	Universal Radio Communication Tester	R&S	CMW500	111637	2024-09-16	2025-09-15
☒	RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR

☒	Signal Generator	R&S	SMB100A	182393	2024-02-05	2025-02-04
☒	Preamplifier	Qiji	YX28980933	202104001	NCR	NCR
☒	Power Sensor	Keysight	U2002H	121251	2024-09-10	2025-09-09
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
☒	Coaxial low pass filter	Mini-Circuits	VLF-2500(+)	NA	NCR	NCR
☒	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
☒	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
☒	Speed reading thermometer	LKM	DTM3000	NA	2024-09-16	2025-09-15
☒	Humidity and Temperature Indicator	MingGao	MingGao	NA	2024-09-16	2025-09-15

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

10 Calibration certificate

Please see the Appendix C

11 Photographs

Please see the Appendix D

Appendix A: Detailed System Check Results

Appendix B: Detailed Test Results

Appendix C: Calibration certificate

Appendix D: Photographs

Appendix E: Conducted RF Output Power

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