FCC SAR TEST REPORT

Application No.:	SUCR2501000027WM
Applicant:	TCL Communication Ltd.
Manufacturer:	TCL Communication Ltd.
Product Name:	Smartphone
Model No.(EUT):	T519N, T521N
FCC ID:	2ACCJH190
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2025-01-08
Date of Test:	2025-01-19 to 2025-01-27
Date of Issue:	2025-02-06
Test conclusion:	**PASS ***

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

Leon Liu

Prepared by：Leon Liu/ Project Manager

Nick Hu

Approved by：Nick HU/ Technical Manager

Revision Record			
Version	**Description**	**Date**	**Remark**
01	Original	2025-02-06	

TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	1.18	0.41	0.73	/
GSM1900	1.26	0.39	0.88	/
WCDMA Band II	0.68	0.34	0.66	/
WCDMA Band IV	0.94	0.32	0.64	/
WCDMA Band V	0.81	0.36	0.73	/
LTE Band 7	0.41	0.30	0.62	/
LTE Band 12(17)	0.73	0.15	0.34	/
LTE Band 13	1.11	0.23	0.50	/
LTE Band 14	1.17	0.25	0.60	/
LTE Band 25(2)	0.46	0.26	0.58	/
LTE Band 26(5)	0.86	0.28	0.62	/
LTE Band 38	0.36	0.22	0.78	1.03
LTE Band 41	0.25	0.20	0.32	/
LTE Band 42	0.48	**0.64**	0.76	**3.10**
LTE Band 48	0.66	0.50	0.64	/
LTE Band 66(4)	0.60	0.26	**0.89**	/
LTE Band 71	0.06	0.07	0.09	/
NR Band n2	0.58	0.43	0.70	/
NR Band n5	**1.34**	0.35	0.72	/
NR Band n7	0.38	0.41	0.51	/
NR Band n41	0.37	0.34	0.68	/
NR Band n48	0.49	0.45	0.82	/
NR Band n66	0.75	0.29	0.88	/
NR Band n71	0.07	0.07	0.17	/
NR Band n78	0.55	0.47	0.69	/
WI-FI (2.4GHz)	0.42	0.11	0.14	/
WI-FI (5GHz)	0.82	0.35	0.15	1.43
BT	0.04	0.04	0.07	/
NFC	/	/	/	0.01
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.59	1.13	1.49	3.99
SPLSR	/	/	/	/
SPLSR Limited	0.04			0.1

Note: The Simultaneous transmission SAR is the same test position of the WWAN Antenna + WiFi/BT Antenna.
According to TCB workshop October,2014 RF Exposure Procedures Update (Overlapping Bands): SAR for LTE Band 2 (Frequency range:1850 - 1910 MHz)/LTE Band 4 (Frequency range:1710 - 1755 MHz)/LTE Band 5 (Frequency range:824 - 849 MHz)/ LTE band 17 (frequency range: 704-716 MHz) is respectively covered by LTE Band66 (Frequency range:1710 - 1780 MHz)/LTE Band25 (Frequency range:1850 - 1915 MHz)/LTE Band26 (Frequency range:814 - 849 MHz)/LTE band 12 (frequency range: 699-716 MHz) due to similar frequency range, same maximum tune up limit and same channel bandwidth.
Because the frequency range is similar, the maximum tuning limit is the same, and the channel bandwidth and other operating parameters for the smaller band is fully supported by the larger band.
Remark:
T519N and T521N are identical except:

1. Change pin to pin memory from 4+128 to 6+256G
2. T521N add Eye protection coating on LCD
3. T521N adds an additional compatible charging IC chip, and the charging power is changed from 10W to 18W, and the peripheral circuitry remains unchanged
4. T521N add extra side key

Therefore, only T519N has been tested in this report.

CONTENTS

1 General Information

1.1 Details of Client

Applicant:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Manufacturer:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

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:	Xu Bert; Liu Leon-l

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

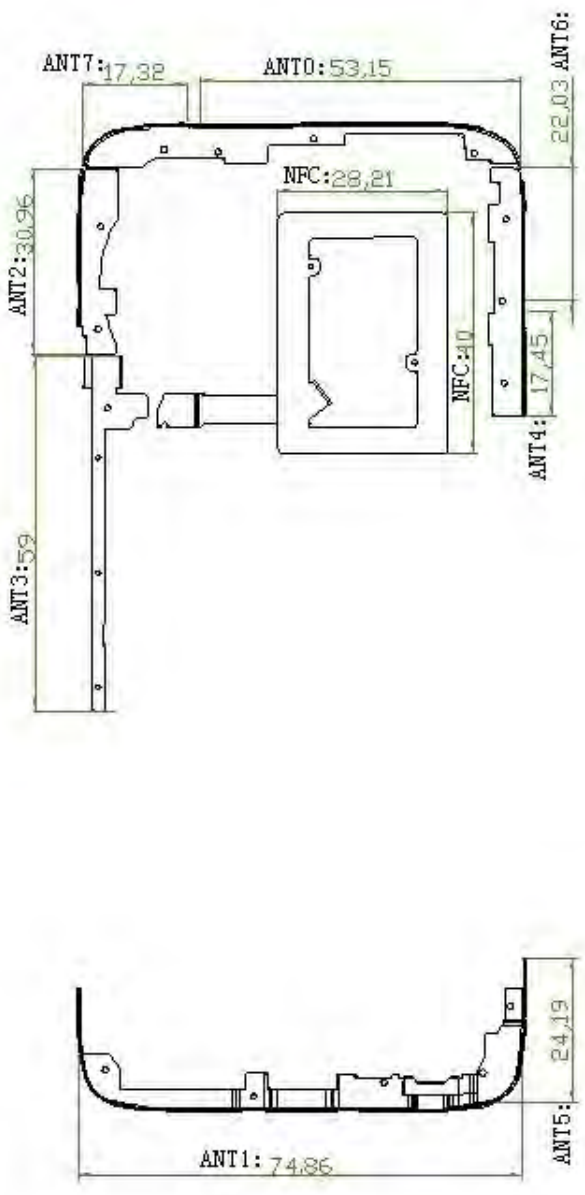
1.4 General Description of EUT

Device Type :	portable device		
Exposure Category:	uncontrolled environment / general population		
Product Name:	Smartphone		
Model No.(EUT):	T519N, T521N		
Product Phase:	Production Unit		
Hardware Version:	06		
Software Version:	5JS8		
IMEI:	#3 354924950003379/354924950003445 #4 354924950003098/354924950003106 #5 354924950003395/354924950003460		
Device Operating Configurations :			
Modulation Mode:	**GSM:** GMSK, 8PSK; **WCDMA:** QPSK,16QAM; **LTE:** QPSK,16QAM, 64QAM, 256QAM; **5G NR:** DFT-s-OFDM (PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM), CP-OFDM (QPSK, 16QAM, 64QAM, 256QAM) **WIFI:** DSSS, OFDM; **BT:** GFSK, π/4DQPSK,8DPSK NFC: ASK		
Device Class:	B		
GPRS Multi-slots Class:	12	EGPRS Multi-slots Class:	12
HSDPA UE Category:	24	HSUPA UE Category	7
DC-HSDPA UE Category:	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band)		
	3, tested with power control Max Power(LTE Band)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 - 849	869 - 894
	GSM1900	1850 - 1910	1930 - 1990
	WCDMA Band II	1850 - 1910	1930 - 1990
	WCDMA Band IV	1710 - 1755	2110 - 2155
	WCDMA Band V	824 - 849	869 - 894
	LTE Band 2	1850 - 1910	1930 - 1990
	LTE Band 4	1710 - 1755	2110 - 2155
	LTE Band 5	824 - 849	869 - 894
	LTE Band 7	2500 - 2570	2620 - 2690
	LTE Band 12	699 - 716	729 - 746
	LTE Band 13	777 - 787	746 - 756
	LTE Band 14	788 - 798	758 - 768
	LTE Band 17	704 - 716	734 - 746
	LTE Band 25	1850 - 1915	1930 - 1995
	LTE Band 26	814 – 849	859 – 894
	LTE Band 66	1710 – 1780	2110 – 2200

	LTE Band 71	663-698	617-652
	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 n66	1710 - 1780	2110 - 2200
	NR Band n41(NSA only)	2496 - 2690	2496 - 2690
	NR Band n48(NSA only)	3550 - 3700	3550 - 3700
	NR Band n71	663 – 698	617 – 652
	NR Band n78	3450 - 3700	3450 - 3700
	Bluetooth	2400 - 2483.5	2400 - 2483.5
	Wi-Fi 2.4G	2412 - 2462	2412 - 2462
	Wi-Fi 5G	5150 - 5250	5150 - 5250
		5250 - 5350	5250 - 5350
		5470 - 5725	5470 - 5725
		5725 - 5850	5725 - 5850
	NFC	13.56MHz	13.56MHz
RF Cable:	☒ Provided by the applicant ☐ Provided by the laboratory		
Battery Information:	Model:	TLp050C7	
	Normal Voltage:	3.91V	
	Rated capacity:	5000mAh	
	Manufacturer:	Dongguan Veken Battery Co.,Ltd	

Note: *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, SGS is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
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: G850 WCDMA: B5 LTE: B5/12/13/14/17/26/71 5G NR: N5/71
Ant1	LTE: B7/66 5G NR: N66/41
Ant2	GSM: G1900 WCDMA: B2/4 LTE: B2/4/25/42/48/66 5G NR: N2/48/66/78
Ant4	LTE: B7/38/41 5G NR: N7/41
Ant7	WIFI2.4G WIFI5G Bluetooth

Note:

1) The test device is a smart phone. The overall diagonal dimension of this device is 175 mm. Per KDB 648474 D04, because the diagonal distance of this device is ≥160mm, so it is a phablet.

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

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:

Note:

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

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.)

1.6.1 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 simultaneously transmitting with the other antennas in certain simultaneous transmission conditions. The standalone SAR compliance still uses the standalone SAR results tested at the maximum output power level without any power reduction

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.

The detailed power reduction information can be referred to Appendix E.

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

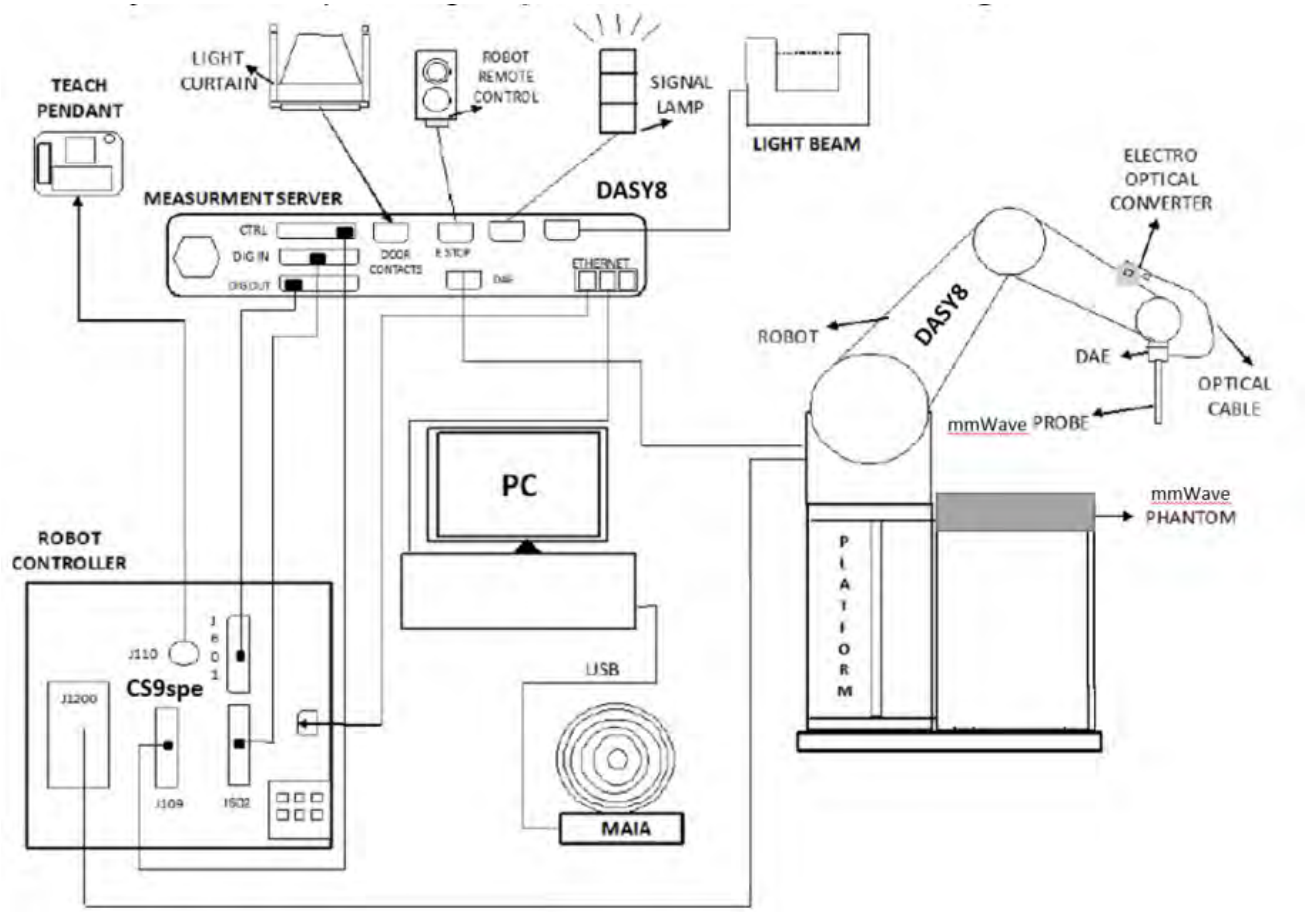
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

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	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.

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

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

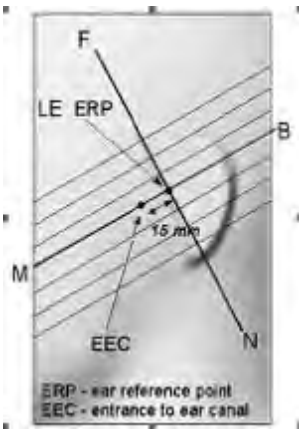
5.1 Head Exposure Condition

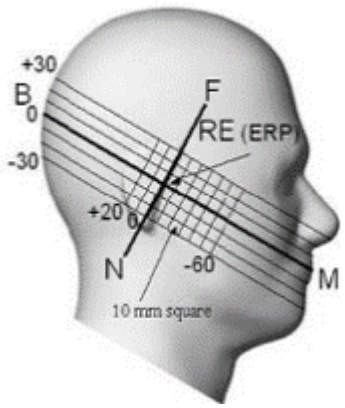
5.1.1 SAM Phantom Shape

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)

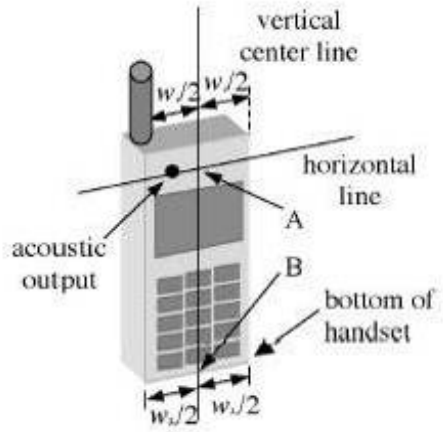


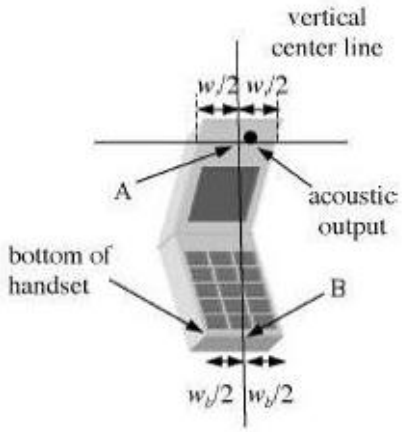


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

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.

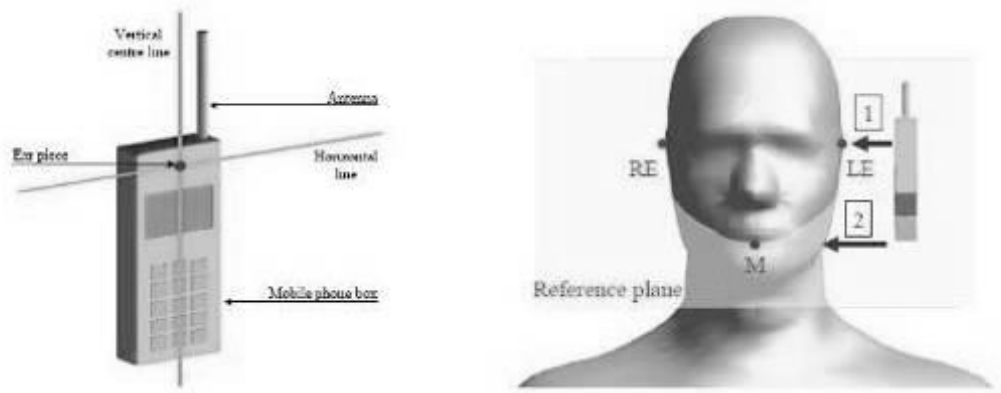
5.2 Extremity exposure conditions

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

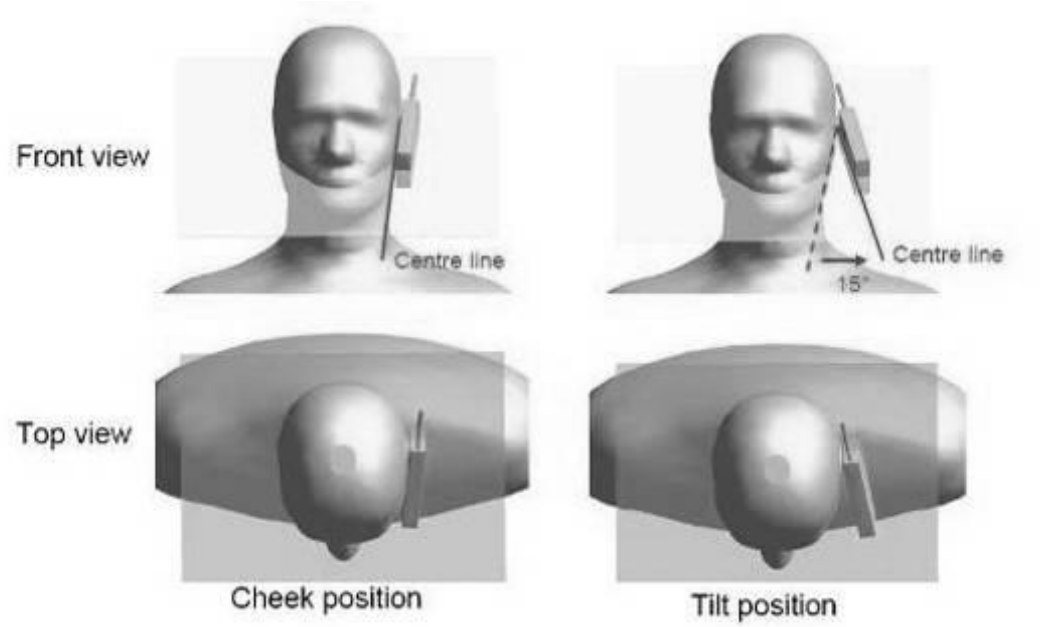
W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
Due to the SAR result, only the following frequency bands need to test with 0mm for the Product Specific 10-g SAR, the others are not required.

5.2.1 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**

5.3 Body Exposure Condition

5.3.1 Body-worn accessory exposure conditions

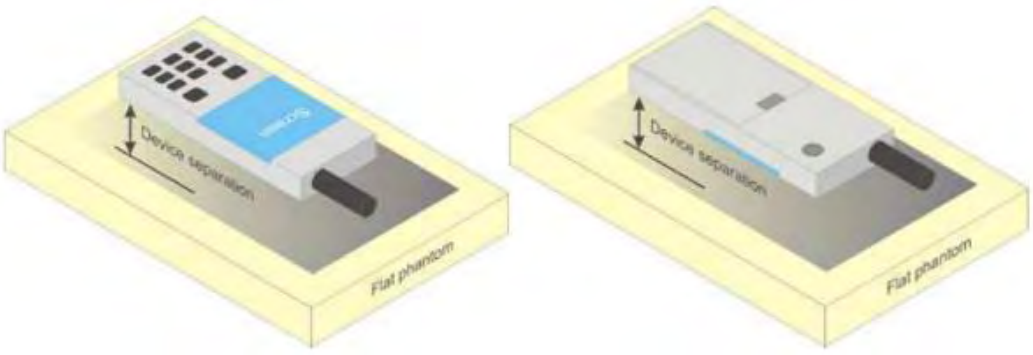
Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

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.**

5.3.2 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.

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 Sucrose: 98+% Pure Sucrose Water: De-ionized, 16 MΩ+ resistivity HEC: Hydroxyethyl Cellulose Tween: Polyoxyethylene (20) sorbitan monolaurate					
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

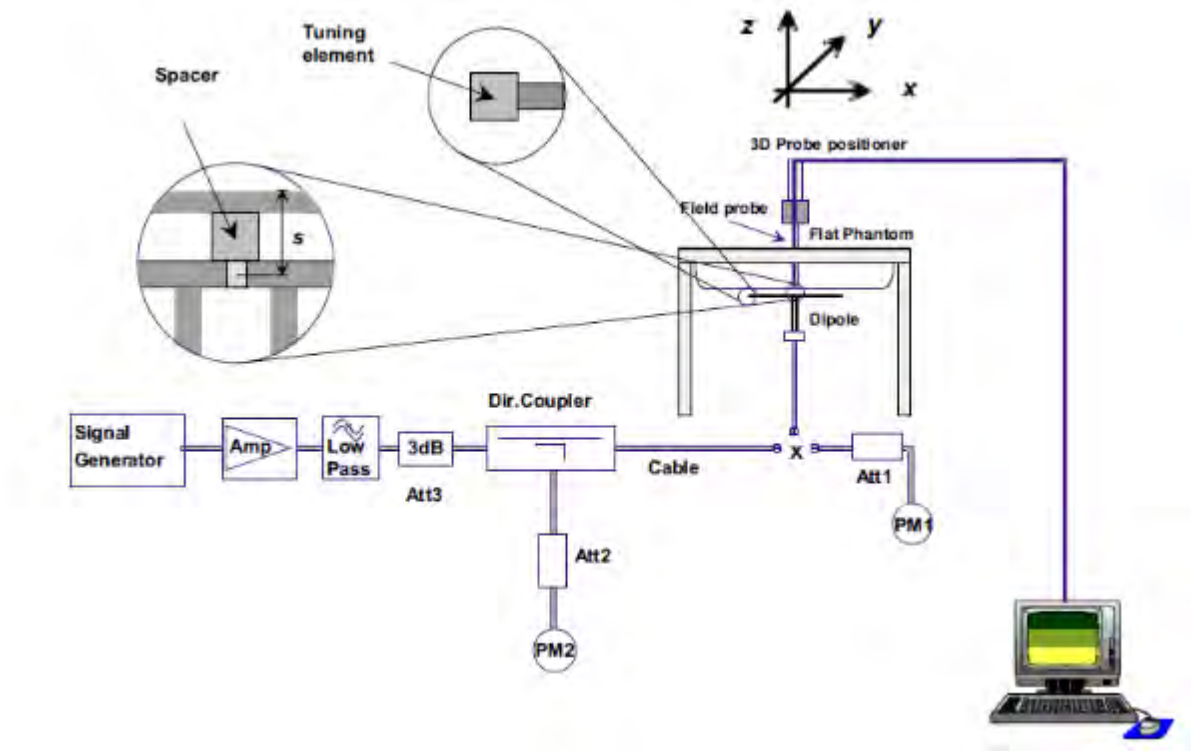
The Conductivity (σ) and Permittivity (ρ) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Measurement for Tissue Simulate Liquid									
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	57.257	0.766	4.10%	2.13%	22.3	2025/1/19
750 Head	750	41.9	0.89	41.800	0.888	-0.24%	-0.22%	22.1	2025/1/10
835 Head	835	41.5	0.90	42.100	0.911	1.45%	1.22%	22.5	2025/1/12
1750 Head	1750	40.1	1.37	38.600	1.330	-3.74%	-2.92%	22.3	2025/1/13
1950 Head	1950	40.0	1.40	38.800	1.420	-3.00%	1.43%	22.3	2025/1/15
2450 Head	2450	39.2	1.80	39.100	1.790	-0.26%	-0.56%	22.5	2025/1/17
2600 Head	2600	39.0	1.96	37.500	2.030	-3.85%	3.57%	22.4	2025/1/19
2600 Head	2600	39.0	1.96	37.700	2.040	-3.33%	4.08%	22.4	2025/1/21
3500 Head	3500	37.9	2.91	38.300	2.910	1.06%	0.00%	22.3	2025/1/23
3700 Head	3700	37.7	3.12	37.900	3.070	0.53%	-1.60%	22.3	2025/1/24
5250 Head	5250	35.9	4.71	36.000	4.650	0.28%	-1.27%	22.2	2025/1/25
5600 Head	5600	35.5	5.07	35.300	5.120	-0.56%	0.99%	22.2	2025/1/26
5750 Head	5750	35.4	5.22	35.000	5.290	-1.13%	1.34%	22.2	2025/1/27

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

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	0.114	0.072	0.46	0.29	0.421	0.266	8.31%	8.27%	22.3	2025/1/19
D750V3	Head	2.03	1.31	8.12	5.24	8.4	5.52	-3.33%	-5.07%	22.1	2025/1/10
D835V2	Head	2.49	1.62	9.96	6.48	9.6	6.16	3.75%	5.19%	22.5	2025/1/12
D1750V2	Head	9.16	4.93	36.64	19.72	36.3	19.3	0.94%	2.18%	22.3	2025/1/13
D1950V3	Head	9.79	5.13	39.16	20.52	40.4	20.8	-3.07%	-1.35%	22.3	2025/1/15
D2450V2	Head	12.70	6.03	50.80	24.12	52.7	24.6	-3.61%	-1.95%	22.5	2025/1/17
D2600V2	Head	13.50	6.15	54.00	24.60	57.3	25.4	-5.76%	-3.15%	22.4	2025/1/19
D2600V2	Head	13.80	6.23	55.20	24.92	57.3	25.4	-3.66%	-1.89%	22.4	2025/1/21
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(3.5GHz)	6.73	2.59	67.30	25.90	65.9	24.7	2.12%	4.86%	22.3	2025/1/23
D3700V2	Head(3.7GHz)	6.81	2.49	68.10	24.90	67.6	24.4	0.74%	2.05%	22.3	2025/1/24
D5GHzV2	Head(5.25GHz)	8.01	2.31	80.10	23.10	77.2	21.9	3.76%	5.48%	22.2	2025/1/25
	Head(5.6GHz)	8.01	2.33	80.10	23.30	81.1	22.8	-1.23%	2.19%	22.2	2025/1/26
	Head(5.75GHz)	7.55	2.21	75.50	22.10	77.8	21.7	-2.96%	1.84%	22.2	2025/1/27

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.

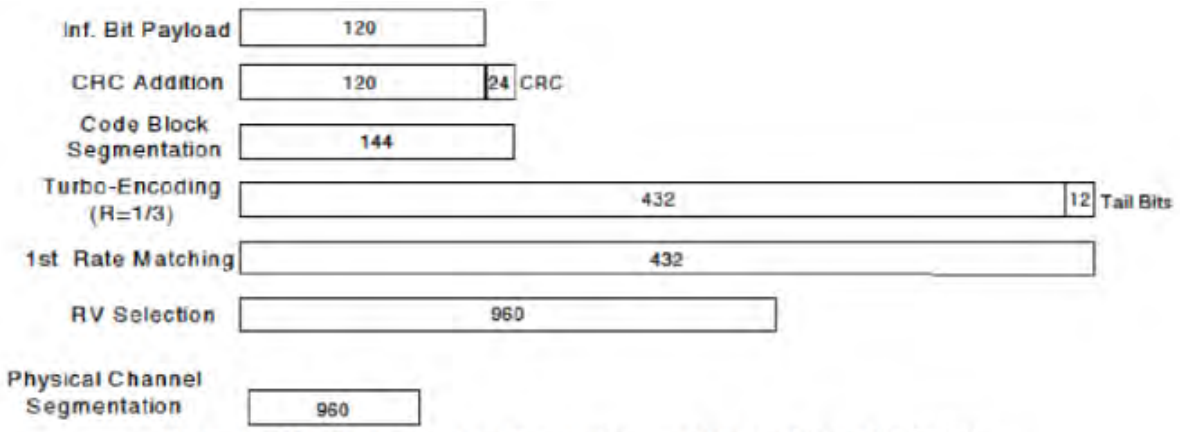


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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.

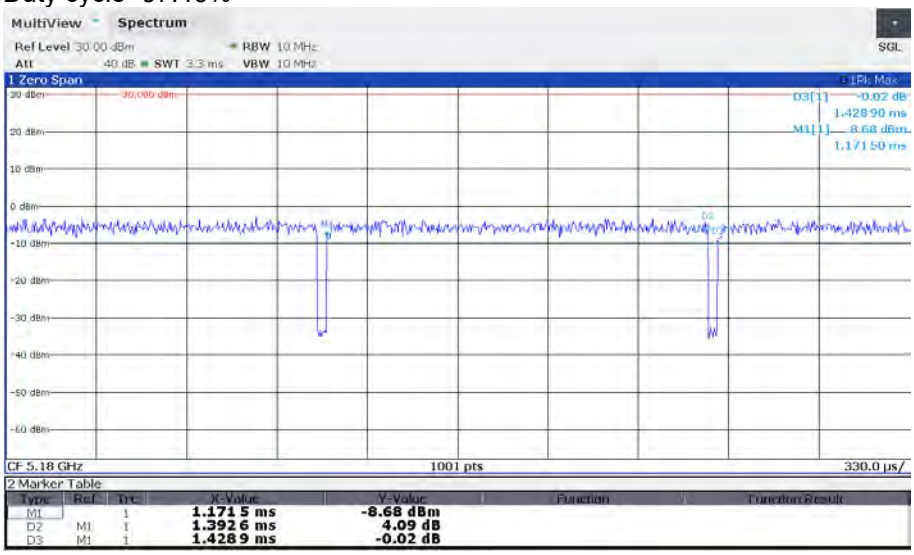
7.2.3 WiFi Test Configuration

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= 99.74%

Wi-Fi 5GHz 802.11a:
Duty cycle=97.46%



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.

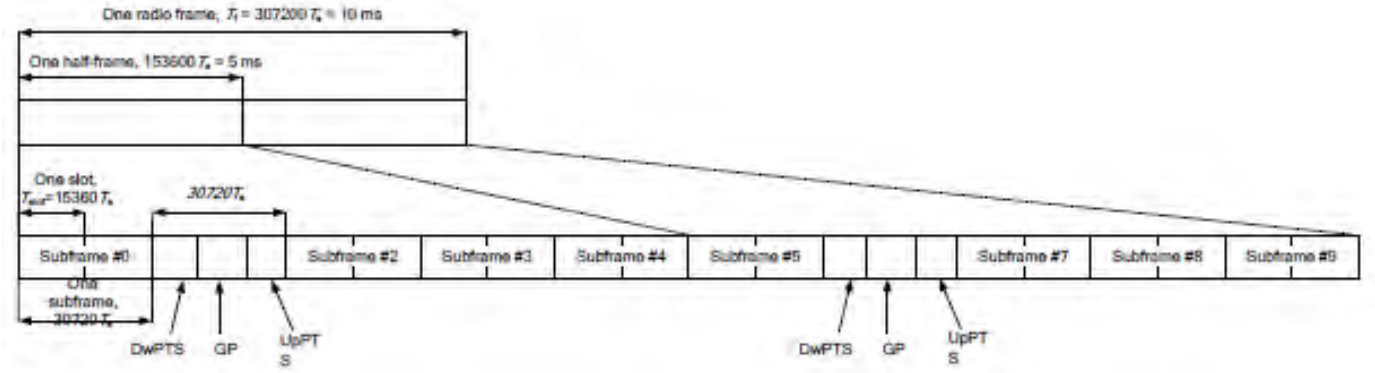
TDD LTE test consideration

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.

F) LTE CA additional specification

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

a) Intra-band carrier aggregation requirements for uplink.

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

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

2CC Downlink Carrier Aggregation	2CC Downlink Carrier Aggregation	2CC Downlink Carrier Aggregation	3CC Downlink Carrier Aggregation
CA_2B	CA_2A-12A	CA_5A-66A	-
CA_2C	CA_2A-14A	CA_7A-7A	-
CA_7B	CA_2A-17A	CA_12A-48A	-
CA_7C	CA_2A-26A	CA_12A_66A	-
CA_42B	CA_2A-66A	CA_14A-66A	-
CA_42C	CA_4A-5A	CA_41A-41A	-
CA_48B	CA_4A-7A	CA_41A-48A	-
CA_48C	CA_4A-12A	CA_48A-48A	-
CA_2A-2A	CA_4A-17A	CA_48A-66A	-
CA_2A-4A	CA_5A-7A	CA_66A-66A	-
CA_2A-5A	CA_5A-41A	CA_7A-66A	-
CA_2A-7A	CA_5A-48A	-	-

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)

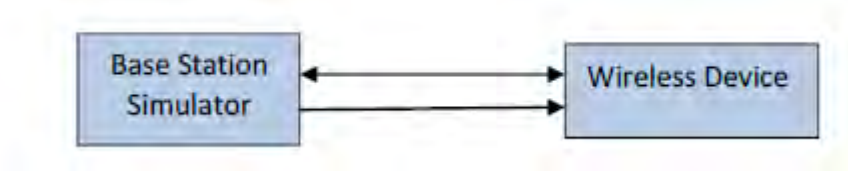
5)UL CA SAR is also required for standalone SAR configurations > 1.2 W/kg when they are scaled to the UL CA power level.

Intra-band contiguous CA operating bands:

E-UTRA CA Band	E-UTRA Band	Uplink (UL) operating band			Downlink (DL) operating band			Duplex Mode
		BS receive / UE transmit			BS transmit / UE receive			
		$F_{UL\_low} – F_{UL\_high}$			$F_{DL\_low} – F_{DL\_high}$			
CA_7C	7	2502.5 MHz	–	2567.5 MHz	2622.5 MHz	–	2687.5 MHz	FDD
CA_7B	7	2502.5 MHz	–	2567.5 MHz	2622.5 MHz	–	2687.5 MHz	FDD
CA_42C	42	3457.5 MHz	–	3592.5 MHz	3457.5 MHz	–	3592.5 MHz	TDD
CA_42B	42	3457.5 MHz	–	3592.5 MHz	3457.5 MHz	–	3592.5 MHz	TDD
CA_48C	48	3557.5 MHz	–	3692.5 MHz	3557.5 MHz	–	3692.5 MHz	TDD
CA_48B	48	3557.5 MHz	–	3692.5 MHz	3557.5 MHz	–	3692.5 MHz	TDD

6)General PCC and SCC configuration selection procedure
- PCC uplink channel, channel bandwidth, modulation and RB configurations were selected based on section C)3)b)ii) of KDB 941225 D05 V01r02. All LTE bandwidth conducted powers needed for PCC uplink configuration selection can be found in appendix E. The downlink PCC channel was paired with the selected PCC uplink channel according to normal configurations without carrier aggregation.

- To maximize aggregated bandwidth, highest channel bandwidth available for that CA combination was selected for SCC. For inter-band CA, the SCC downlink channels were selected near the middle of their transmission bands. For contiguous intra-band CA, the downlink channel spacing between the component carriers was set to multiple of 300 kHz less than the nominal channel spacing defined in section 5.4.1A of 3GPP TS 36.521. For non-contiguous intra-band CA, the downlink channel spacing between the component carriers was set to be larger than the nominal channel spacing and provided maximum separation between the component carriers.
All selected PCC and SCC(s) remained fully within the uplink/downlink transmission band of the respective component carrier.



DL CA Power Measurement Setup

c) Inter-band carrier aggregation requirements for uplink.

1. For Inter-band uplink CA mode, Qualcomm TA SAR in WWAN directly adds the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from another 4G(LTE). TA-SAR algorithm controls the total RF exposure of Inter-band uplink CA to not exceed FCC limit.

The Inter band Uplink CA as below table:

Band/Antenna		LTE Band 4	LTE Band 5	LTE Band 7	LTE Band 48	LTE Band 66	
		Ant1	Ant0	Ant4	Ant2	Ant1	Ant2
LTE Band 2	Ant2	√	√	√			
LTE Band 4	Ant2		√	√			
LTE Band 5	Ant0			√	√		√
LTE Band 12	Ant0						√
LTE Band 48	Ant2					√	

7.2.6 NR Band Test Configuration

2. NR Band n2/5/7/66/71/78 support SA mode and NR Band n2/5/7/41/48/66/71/78 support NSA mode. LTE+NR Band operations are possible only with LTE under EN-DC mode and the operations are possible as following table:

Band/Antenna		LTE Band 2	LTE Band 4		LTE Band 5	LTE Band 7	LTE Band 12	LTE Band 14	LTE Band 66		LTE Band 48
		Ant2	Ant1	Ant2	Ant0	Ant1	Ant0	Ant0	Ant1	Ant2	Ant2
n2	Ant2		√		√		√	√	√		
n5	Ant0	√		√						√	
n7	Ant4				√				√		
n38	Ant										
n41	Ant1						√				
	Ant4	√							√		
n48	Ant2	√									
n66	Ant1	√					√	√			√
	Ant2				√				√		
n71	Ant0	√								√	
n78	Ant2	√	√		√	√	√		√		

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

Band			N2	N5	N7	N41	N48	N66	N71	n78
Modulation	DFT-s-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CP-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duty Cycle			100%	100%	100%	100%	100%	100%	100%	100%

Band	SCS	Bandwidth														
		5MHz	10MHz	15MHz	20MHz	25MHz	30MHz	35MHz	40MHz	45MHz	50MHz	60MHz	70MHz	80MHz	90MHz	100MHz
N2	15KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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	N/A	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A
N41	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N48	30KHZ	Yes	Yes	Yes	Yes	N/A	N/A	N/A	Yes	N/A	Yes	Yes	N/A	Yes	Yes	Yes
N66	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N71	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
N78	30KHZ	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes

4. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 3GPP 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, for PI/2 BPSK/16QAM/64QMA/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the PI/2 BPSK/16QAM/64QMA/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest SCS and largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller SCS/bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device

5. MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS 38.101-1 Section 6.2.2 under Table 6.2.2 -1.

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	PI/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability powerBoosting-pi2BPSK and if the IE powerBoostPi2BPSK is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands 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.

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

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

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

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

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

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

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

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

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.

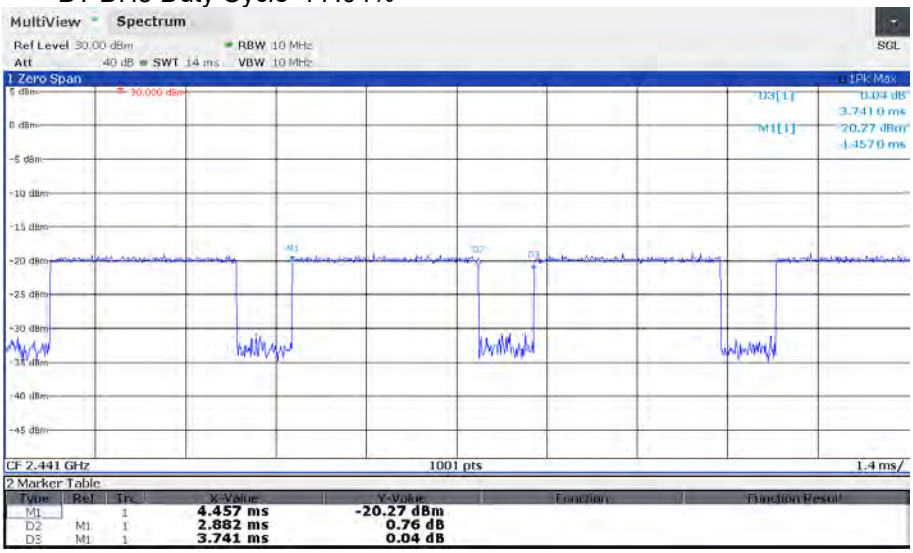
7）. Conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A.Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum 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=77.04%



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	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data												
Left cheek	GPRS 3TS	190/836.6	1:2.77	0.887	0.496	-0.06	29.48	30.50	1.265	1.122	0.627	22.5
Left cheek	GPRS 3TS	128/824.2	1:2.77	0.771	0.431	-0.18	29.46	30.50	1.271	0.979	0.548	22.5
Left cheek	GPRS 3TS	251/848.8	1:2.77	0.851	0.476	-0.12	29.44	30.50	1.276	1.086	0.607	22.5
Left tilted	GPRS 3TS	190/836.6	1:2.77	0.841	0.470	0.04	29.48	30.50	1.265	1.064	0.594	22.5
Left tilted	GPRS 3TS	128/824.2	1:2.77	0.731	0.408	-0.09	29.46	30.50	1.271	0.929	0.519	22.5
Left tilted	GPRS 3TS	251/848.8	1:2.77	0.807	0.451	-0.11	29.44	30.50	1.276	1.030	0.576	22.5
Right cheek	GPRS 3TS	190/836.6	1:2.77	0.934	0.522	-0.05	29.48	30.50	1.265	**1.181**	0.660	22.5
Right cheek-repeated	GPRS 3TS	190/836.6	1:2.77	0.928	0.517	0.13	29.48	30.50	1.265	1.174	0.654	22.5
Right cheek	GPRS 3TS	128/824.2	1:2.77	0.812	0.454	0.01	29.46	30.50	1.271	1.031	0.576	22.5
Right cheek	GPRS 3TS	251/848.8	1:2.77	0.896	0.501	-0.10	29.44	30.50	1.276	1.144	0.639	22.5
Right tilted	GPRS 3TS	190/836.6	1:2.77	0.855	0.478	0.04	29.48	30.50	1.265	1.081	0.605	22.5
Right tilted	GPRS 3TS	128/824.2	1:2.77	0.743	0.415	-0.16	29.46	30.50	1.271	0.944	0.528	22.5
Right tilted	GPRS 3TS	251/848.8	1:2.77	0.820	0.459	0.09	29.44	30.50	1.276	1.047	0.585	22.5
Body worn Test data(Separate 15mm)												
Front side	GPRS 3TS	190/836.6	1:2.77	0.246	0.144	0.07	29.48	30.50	1.265	0.311	0.182	22.5
Back side	GPRS 3TS	190/836.6	1:2.77	0.320	0.187	-0.04	29.48	30.50	1.265	**0.405**	0.237	22.5
Hotspot Test data(Separate 10mm)												
Front side	GPRS 3TS	190/836.6	1:2.77	0.317	0.177	-0.11	29.48	30.50	1.265	0.401	0.224	22.5
Back side	GPRS 3TS	190/836.6	1:2.77	0.580	0.324	-0.03	29.48	30.50	1.265	**0.734**	0.410	22.5
Left side	GPRS 3TS	190/836.6	1:2.77	0.143	0.080	0.04	29.48	30.50	1.265	0.181	0.101	22.5
Right side	GPRS 3TS	190/836.6	1:2.77	0.049	0.028	0.11	29.48	30.50	1.265	0.062	0.035	22.5
Top side	GPRS 3TS	190/836.6	1:2.77	0.401	0.224	-0.12	29.48	30.50	1.265	0.507	0.283	22.5

Table 10：SAR of GSM850 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	190/836.6	0.934	0.928	1.006465517	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						

8.2.2 SAR Result of GSM1900

GSM1900 SAR Test Record												
Ant 2 Test Record												
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data												
Left cheek	GPRS 2TS	661/1880	1:4.15	0.931	0.492	-0.11	26.49	27.80	1.352	**1.259**	0.665	22.3
Left cheek-repeated	GPRS 2TS	661/1880	1:4.15	0.921	0.490	0.11	26.49	27.80	1.352	1.245	0.663	22.3
Left cheek	GPRS 2TS	512/1850.2	1:4.15	0.814	0.475	-0.09	26.37	27.80	1.390	1.131	0.660	22.3
Left cheek	GPRS 2TS	810/1909.8	1:4.15	0.849	0.482	-0.14	26.41	27.80	1.377	1.169	0.664	22.3
Left tilted	GPRS 2TS	661/1880	1:4.15	0.555	0.292	0.03	26.49	27.80	1.352	0.750	0.395	22.3
Right cheek	GPRS 2TS	661/1880	1:4.15	0.470	0.247	0.03	26.49	27.80	1.352	0.635	0.334	22.3
Right tilted	GPRS 2TS	661/1880	1:4.15	0.435	0.229	-0.11	26.49	27.80	1.352	0.588	0.310	22.3
Body worn Test data(Separate 15mm)												
Front side	GPRS 4TS	661/1880	1:2.075	0.176	0.101	0.05	25.27	26.50	1.327	0.234	0.134	22.3
Back side	GPRS 4TS	661/1880	1:2.075	0.296	0.170	-0.03	25.27	26.50	1.327	**0.393**	0.226	22.3
Hotspot Test data(Separate 10mm)												
Front side	GPRS 4TS	661/1880	1:2.075	0.331	0.178	0.06	25.27	26.50	1.327	0.439	0.236	22.3
Back side	GPRS 4TS	661/1880	1:2.075	0.648	0.349	-0.09	25.27	26.50	1.327	0.860	0.463	22.3
Back side	GPRS 4TS	512/1850.2	1:2.075	0.639	0.343	0.12	25.13	26.50	1.371	**0.876**	0.470	22.3
Back side	GPRS 4TS	810/1909.8	1:2.075	0.621	0.331	-0.05	25.13	26.50	1.371	0.851	0.454	22.3
Right side	GPRS 4TS	661/1880	1:2.075	0.506	0.273	0.10	25.27	26.50	1.327	0.672	0.362	22.3
Top side	GPRS 4TS	661/1880	1:2.075	0.264	0.142	-0.01	25.27	26.50	1.327	0.350	0.188	22.3

Table 11： SAR of GSM1900 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Left cheek	661/1880	0.933	0.921	1.013029316	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						

8.2.3 SAR Result of WCDMA Band 2

WCDMA Band 2 SAR Test Record												
Ant 2 Test Record												
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data												
Left cheek	RMC	9400/1880	1:1	0.569	0.301	0.04	19.22	20.00	1.197	**0.681**	0.360	22.3
Left tilted	RMC	9400/1880	1:1	0.268	0.142	0.07	19.22	20.00	1.197	0.321	0.170	22.3
Right cheek	RMC	9400/1880	1:1	0.251	0.133	0.18	19.22	20.00	1.197	0.300	0.159	22.3
Right tilted	RMC	9400/1880	1:1	0.244	0.129	0.00	19.22	20.00	1.197	0.292	0.154	22.3
Body worn Test data(Separate 15mm)												
Front side	RMC	9400/1880	1:1	0.184	0.105	-0.02	22.39	23.00	1.151	0.212	0.121	22.3
Back side	RMC	9400/1880	1:1	0.293	0.167	-0.01	22.39	23.00	1.151	**0.337**	0.192	22.3
Hotspot Test data(Separate 10mm)												
Front side	RMC	9400/1880	1:1	0.303	0.160	-0.08	22.39	23.00	1.151	0.349	0.184	22.3
Back side	RMC	9400/1880	1:1	0.572	0.302	-0.05	22.39	23.00	1.151	**0.658**	0.348	22.3
Right side	RMC	9400/1880	1:1	0.441	0.233	0.13	22.39	23.00	1.151	0.508	0.268	22.3
Top side	RMC	9400/1880	1:1	0.274	0.145	0.11	22.39	23.00	1.151	0.315	0.167	22.3

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

8.2.4 SAR Result of WCDMA Band 4

WCDMA Band 4 SAR Test Record												
Ant 2 Test Record												
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data												
Left cheek	RMC	1412/1732.4	1:1	0.724	0.386	-0.03	20.37	21.50	1.297	**0.939**	0.501	22.3
Left cheek	RMC	1312/1712.4	1:1	0.681	0.357	0.06	20.33	21.50	1.309	0.892	0.467	22.3
Left cheek	RMC	1513/1752.6	1:1	0.695	0.373	0.07	20.35	21.50	1.303	0.906	0.486	22.3
Left tilted	RMC	1412/1732.4	1:1	0.327	0.173	0.11	20.37	21.50	1.297	0.424	0.224	22.3
Right cheek	RMC	1412/1732.4	1:1	0.342	0.181	-0.02	20.37	21.50	1.297	0.444	0.235	22.3
Right tilted	RMC	1412/1732.4	1:1	0.260	0.138	-0.02	20.37	21.50	1.297	0.337	0.179	22.3
Body worn Test data(Separate 15mm)												
Front side	RMC	1412/1732.4	1:1	0.160	0.097	0.19	22.35	23.50	1.303	0.209	0.126	22.3
Back side	RMC	1412/1732.4	1:1	0.243	0.149	-0.01	22.35	23.50	1.303	**0.317**	0.194	22.3
Hotspot Test data(Separate 10mm)												
Front side	RMC	1412/1732.4	1:1	0.304	0.172	-0.18	22.35	23.50	1.303	0.396	0.224	22.3
Back side	RMC	1412/1732.4	1:1	0.494	0.280	-0.01	22.35	23.50	1.303	**0.644**	0.365	22.3
Right side	RMC	1412/1732.4	1:1	0.374	0.212	-0.11	22.35	23.50	1.303	0.487	0.276	22.3
Top side	RMC	1412/1732.4	1:1	0.351	0.199	0.06	22.35	23.50	1.303	0.457	0.259	22.3

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

8.2.5 SAR Result of WCDMA Band 5

WCDMA Band 5 SAR Test Record												
Ant 0 Test Record												
Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data												
Left cheek	RMC	4182/836.4	1:1	0.515	0.295	0.02	23.26	24.50	1.330	0.685	0.392	22.5
Left tilted	RMC	4182/836.4	1:1	0.491	0.281	-0.07	23.26	24.50	1.330	0.653	0.374	22.5
Right cheek	RMC	4182/836.4	1:1	0.608	0.348	-0.04	23.26	24.50	1.330	**0.809**	0.463	22.5
Right cheek	RMC	4132/826.4	1:1	0.589	0.341	-0.16	23.21	24.50	1.346	0.793	0.459	22.5
Right cheek	RMC	4233/846.6	1:1	0.595	0.343	-0.13	23.25	24.50	1.334	0.793	0.457	22.5
Right tilted	RMC	4182/836.4	1:1	0.568	0.325	-0.11	23.26	24.50	1.330	0.756	0.432	22.5
Body worn Test data(Separate 15mm)												
Front side	RMC	4182/836.4	1:1	0.221	0.130	-0.16	23.26	24.50	1.330	0.294	0.173	22.5
Back side	RMC	4182/836.4	1:1	0.270	0.158	-0.01	23.26	24.50	1.330	**0.359**	0.210	22.5
Hotspot Test data(Separate 10mm)												
Front side	RMC	4182/836.4	1:1	0.325	0.181	0.04	23.26	24.50	1.330	0.432	0.241	22.5
Back side	RMC	4182/836.4	1:1	0.548	0.305	0.01	23.26	24.50	1.330	**0.729**	0.406	22.5
Left side	RMC	4182/836.4	1:1	0.155	0.086	0.16	23.26	24.50	1.330	0.206	0.114	22.5
Right side	RMC	4182/836.4	1:1	0.034	0.019	0.01	23.26	24.50	1.330	0.045	0.025	22.5
Top side	RMC	4182/836.4	1:1	0.438	0.244	-0.10	23.26	24.50	1.330	0.583	0.325	22.5

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

8.2.6 SAR Result of LTE Band 7

LTE Band 7 SAR Test Record													
Ant 4 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.129	0.056	0.15	16.24	17.50	1.337	0.172	0.075	22.4
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.071	0.032	-0.11	16.24	17.50	1.337	0.095	0.043	22.4
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.309	0.139	-0.05	16.24	17.50	1.337	**0.413**	0.186	22.4
Right cheek-UL_CA	20	QPSK 1_0	21100+21298/2535+2554	1:1	0.305	0.137	0.06	16.22	17.50	1.343	0.410	0.184	22.4
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.118	0.053	0.13	16.24	17.50	1.337	0.158	0.071	22.4
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.117	0.053	0.09	16.20	17.50	1.349	0.158	0.071	22.4
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.057	0.026	-0.01	16.20	17.50	1.349	0.077	0.035	22.4
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.270	0.122	-0.06	16.20	17.50	1.349	0.364	0.165	22.4
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.089	0.040	-0.15	16.20	17.50	1.349	0.120	0.054	22.4
Head Test Data(1RB) For ULCA													
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.129	0.056	-0.03	16.24	15.50	0.843	0.109	0.047	22.4
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.071	0.032	-0.17	16.24	15.50	0.843	0.060	0.027	22.4
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.309	0.139	-0.05	16.24	15.50	0.843	0.261	0.117	22.4
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.118	0.053	-0.15	16.24	15.50	0.843	0.100	0.045	22.4
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.117	0.053	0.11	16.20	15.50	0.851	0.100	0.045	22.4
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.057	0.026	0.00	16.20	15.50	0.851	0.049	0.022	22.4
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.270	0.122	0.13	16.20	15.50	0.851	0.230	0.104	22.4
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.089	0.040	-0.09	16.20	15.50	0.851	0.076	0.034	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	21100/2535	1:1	0.174	0.086	0.12	18.99	19.50	1.125	0.196	0.097	22.4
Back side	20	QPSK 1_0	21100/2535	1:1	0.269	0.133	-0.09	18.99	19.50	1.125	**0.303**	0.150	22.4
Back side-UL_CA	20	QPSK 1_0	21100+21298/2535+2554	1:1	0.256	0.124	-0.10	18.92	19.50	1.143	0.293	0.142	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.160	0.079	-0.15	18.95	19.50	1.135	0.182	0.090	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.240	0.119	-0.18	18.95	19.50	1.135	0.272	0.135	22.4
Body worn Test data(Separate 15mm 1RB) For ULCA													
Front side	20	QPSK 1_0	21100/2535	1:1	0.174	0.086	0.18	18.99	18.50	0.893	0.155	0.077	22.4
Back side	20	QPSK 1_0	21100/2535	1:1	0.269	0.133	-0.09	18.99	18.50	0.893	0.240	0.119	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.160	0.079	-0.19	18.95	18.50	0.902	0.144	0.071	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.240	0.119	0.09	18.95	18.50	0.902	0.216	0.107	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	21100/2535	1:1	0.185	0.085	0.16	17.95	18.50	1.135	0.210	0.096	22.4

Back side	20	QPSK 1_0	21100/2535	1:1	0.429	0.198	-0.07	17.95	18.50	1.135	0.487	0.225	22.4
Back side-UL_CA	20	QPSK 1_0	21100+21298/2535+2554	1:1	0.425	0.196	-0.18	17.93	18.50	1.140	0.485	0.223	22.4
Left side	20	QPSK 1_0	21100/2535	1:1	0.242	0.112	0.01	17.95	18.50	1.135	0.275	0.127	22.4
Top side	20	QPSK 1_0	21100/2535	1:1	0.101	0.046	-0.03	17.95	18.50	1.135	0.115	0.052	22.4
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.147	0.068	0.12	17.88	18.50	1.153	0.170	0.078	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.388	0.179	-0.09	17.88	18.50	1.153	0.448	0.206	22.4
Left side	20	QPSK 50_0	21100/2535	1:1	0.203	0.094	0.04	17.88	18.50	1.153	0.234	0.108	22.4
Top side	20	QPSK 50_0	21100/2535	1:1	0.057	0.027	-0.04	17.88	18.50	1.153	0.066	0.031	22.4
Hotspot Test data(Separate 10mm 1RB) For ULCA													
Front side	20	QPSK 1_0	21100/2535	1:1	0.185	0.085	0.13	17.95	16.50	0.716	0.132	0.061	22.4
Back side	20	QPSK 1_0	21100/2535	1:1	0.429	0.198	-0.07	17.95	16.50	0.716	0.307	0.142	22.4
Left side	20	QPSK 1_0	21100/2535	1:1	0.242	0.112	-0.18	17.95	16.50	0.716	0.173	0.080	22.4
Top side	20	QPSK 1_0	21100/2535	1:1	0.101	0.046	0.16	17.95	16.50	0.716	0.072	0.033	22.4
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.147	0.068	0.02	17.88	16.50	0.728	0.107	0.049	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.388	0.179	0.15	17.88	16.50	0.728	0.282	0.130	22.4
Left side	20	QPSK 50_0	21100/2535	1:1	0.203	0.094	-0.02	17.88	16.50	0.728	0.148	0.068	22.4
Top side	20	QPSK 50_0	21100/2535	1:1	0.057	0.027	-0.06	17.88	16.50	0.728	0.041	0.020	22.4
Ant 1 Test Record For ENDC													
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.165	0.081	0.01	23.85	24.00	1.035	0.171	0.084	22.4
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.131	0.064	0.07	23.85	24.00	1.035	0.136	0.066	22.4
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.211	0.103	0.05	23.85	24.00	1.035	0.218	0.107	22.4
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.194	0.094	-0.13	23.85	24.00	1.035	0.201	0.097	22.4
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.148	0.072	0.08	22.76	23.00	1.057	0.156	0.076	22.4
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.115	0.056	-0.12	22.76	23.00	1.057	0.122	0.059	22.4
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.201	0.098	-0.13	22.76	23.00	1.057	0.212	0.104	22.4
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.172	0.084	0.04	22.76	23.00	1.057	0.182	0.089	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	21100/2535	1:1	0.136	0.070	0.12	20.34	20.50	1.038	0.141	0.073	22.4
Back side	20	QPSK 1_0	21100/2535	1:1	0.212	0.109	-0.19	20.34	20.50	1.038	0.220	0.113	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.121	0.062	-0.06	20.29	20.50	1.050	0.127	0.065	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.198	0.102	-0.11	20.29	20.50	1.050	0.208	0.107	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	21100/2535	1:1	0.173	0.083	-0.10	18.33	18.50	1.040	0.180	0.086	22.4
Back side	20	QPSK 1_0	21100/2535	1:1	0.267	0.128	0.02	18.33	18.50	1.040	0.278	0.133	22.4
Left side	20	QPSK 1_0	21100/2535	1:1	0.050	0.024	-0.08	18.33	18.50	1.040	0.052	0.025	22.4

Right side	20	QPSK 1_0	21100/2535	1:1	0.057	0.027	-0.12	18.33	18.50	1.040	0.059	0.028	22.4
Bottom side	20	QPSK 1_0	21100/2535	1:1	0.596	0.286	-0.03	18.33	18.50	1.040	**0.620**	0.297	22.4
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	21100/2535	1:1	0.151	0.073	-0.06	18.24	18.50	1.062	0.160	0.078	22.4
Back side	20	QPSK 50_0	21100/2535	1:1	0.252	0.121	-0.09	18.24	18.50	1.062	0.268	0.128	22.4
Left side	20	QPSK 50_0	21100/2535	1:1	0.043	0.020	0.01	18.24	18.50	1.062	0.046	0.021	22.4
Right side	20	QPSK 50_0	21100/2535	1:1	0.048	0.023	-0.12	18.24	18.50	1.062	0.051	0.024	22.4
Bottom side	20	QPSK 50_0	21100/2535	1:1	0.585	0.281	-0.06	18.24	18.50	1.062	0.621	0.298	22.4

Table 15： SAR of LTE Band 7 for Head, Body and Hotspot.

8.2.7 SAR Result of LTE Band 12

LTE Band 12 SAR Test Record													
Ant 0 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	10	QPSK 1_0	23095/707.5	1:1	0.492	0.272	0.02	23.74	24.00	1.062	0.522	0.289	22.1
Left tilted	10	QPSK 1_0	23095/707.5	1:1	0.441	0.244	0.16	23.74	24.00	1.062	0.468	0.259	22.1
Right cheek	10	QPSK 1_0	23095/707.5	1:1	0.688	0.380	0.01	23.74	24.00	1.062	**0.730**	0.403	22.1
Right tilted	10	QPSK 1_0	23095/707.5	1:1	0.655	0.362	0.14	23.74	24.00	1.062	0.695	0.384	22.1
Head Test Data(50%RB)													
Left cheek	10	QPSK 25_0	23095/707.5	1:1	0.459	0.254	-0.06	22.64	23.00	1.086	0.499	0.276	22.1
Left tilted	10	QPSK 25_0	23095/707.5	1:1	0.413	0.228	0.10	22.64	23.00	1.086	0.449	0.248	22.1
Right cheek	10	QPSK 25_0	23095/707.5	1:1	0.670	0.370	-0.08	22.64	23.00	1.086	0.728	0.402	22.1
Right tilted	10	QPSK 25_0	23095/707.5	1:1	0.637	0.352	-0.07	22.64	23.00	1.086	0.692	0.382	22.1
Head Test Data(1RB) For ULCA/ENDC													
Left cheek	10	QPSK 1_0	23095/707.5	1:1	0.492	0.272	0.19	23.74	21.00	0.532	0.262	0.145	22.1
Left tilted	10	QPSK 1_0	23095/707.5	1:1	0.441	0.244	0.03	23.74	21.00	0.532	0.235	0.130	22.1
Right cheek	10	QPSK 1_0	23095/707.5	1:1	0.688	0.380	0.01	23.74	21.00	0.532	0.366	0.202	22.1
Right tilted	10	QPSK 1_0	23095/707.5	1:1	0.655	0.362	0.17	23.74	21.00	0.532	0.349	0.193	22.1
Head Test Data(50%RB)													
Left cheek	10	QPSK 25_0	23095/707.5	1:1	0.459	0.254	-0.01	22.64	20.00	0.545	0.250	0.138	22.1
Left tilted	10	QPSK 25_0	23095/707.5	1:1	0.413	0.228	-0.16	22.64	20.00	0.545	0.225	0.124	22.1
Right cheek	10	QPSK 25_0	23095/707.5	1:1	0.670	0.370	0.01	22.64	20.00	0.545	0.365	0.201	22.1
Right tilted	10	QPSK 25_0	23095/707.5	1:1	0.637	0.352	-0.07	22.64	20.00	0.545	0.347	0.192	22.1
Body worn Test data(Separate 15mm 1RB)													
Front side	10	QPSK 1_0	23095/707.5	1:1	0.115	0.088	0.00	23.74	24.00	1.062	0.122	0.093	22.1
Back side	10	QPSK 1_0	23095/707.5	1:1	0.139	0.107	-0.01	23.74	24.00	1.062	**0.148**	0.114	22.1
Body worn Test data(Separate 15mm 50%RB)													
Front side	10	QPSK 25_0	23095/707.5	1:1	0.103	0.079	0.02	22.64	23.00	1.086	0.112	0.086	22.1
Back side	10	QPSK 25_0	23095/707.5	1:1	0.118	0.091	-0.06	22.64	23.00	1.086	0.128	0.099	22.1
Hotspot Test data(Separate 10mm 1RB)													
Front side	10	QPSK 1_0	23095/707.5	1:1	0.174	0.096	-0.02	23.74	24.00	1.062	0.185	0.102	22.1
Back side	10	QPSK 1_0	23095/707.5	1:1	0.319	0.177	0.02	23.74	24.00	1.062	**0.339**	0.188	22.1
Left side	10	QPSK 1_0	23095/707.5	1:1	0.111	0.062	-0.09	23.74	24.00	1.062	0.118	0.066	22.1
Right side	10	QPSK 1_0	23095/707.5	1:1	0.062	0.035	-0.16	23.74	24.00	1.062	0.066	0.037	22.1
Top side	10	QPSK 1_0	23095/707.5	1:1	0.248	0.138	0.11	23.74	24.00	1.062	0.263	0.147	22.1
Hotspot Test data(Separate 10mm 50%RB)													
Front side	10	QPSK 25_0	23095/707.5	1:1	0.158	0.087	-0.04	22.64	23.00	1.086	0.172	0.095	22.1
Back side	10	QPSK 25_0	23095/707.5	1:1	0.286	0.159	-0.16	22.64	23.00	1.086	0.311	0.173	22.1
Left side	10	QPSK 25_0	23095/707.5	1:1	0.090	0.050	0.07	22.64	23.00	1.086	0.098	0.054	22.1
Right side	10	QPSK 25_0	23095/707.5	1:1	0.023	0.013	-0.03	22.64	23.00	1.086	0.025	0.014	22.1
Top side	10	QPSK 25_0	23095/707.5	1:1	0.229	0.127	0.16	22.64	23.00	1.086	0.249	0.138	22.1

Table 16： SAR of LTE Band 12 for Head, Body and Hotspot is covering LTE Band 17.

8.2.8 SAR Result of LTE Band 13

LTE Band 13 SAR Test Record													
Ant 0 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	10	QPSK 1_0	23230/782	1:1	0.851	0.476	0.03	23.77	24.00	1.054	0.897	0.502	22.1
Left tilted	10	QPSK 1_0	23230/782	1:1	0.715	0.400	0.17	23.77	24.00	1.054	0.754	0.422	22.1
Right cheek	10	QPSK 1_0	23230/782	1:1	1.050	0.587	-0.02	23.77	24.00	1.054	**1.107**	0.619	22.1
Right cheek-repeated	10	QPSK 1_0	23230/782	1:1	1.040	0.585	0.08	23.77	24.00	1.054	1.097	0.617	22.1
Right tilted	10	QPSK 1_0	23230/782	1:1	0.931	0.520	0.19	23.77	24.00	1.054	0.982	0.548	22.1
Head Test Data(50%RB)													
Left cheek	10	QPSK 25_0	23230/782	1:1	0.681	0.387	0.00	22.66	23.00	1.081	0.736	0.419	22.1
Left tilted	10	QPSK 25_0	23230/782	1:1	0.568	0.319	-0.07	22.66	23.00	1.081	0.614	0.345	22.1
Right cheek	10	QPSK 25_0	23230/782	1:1	0.838	0.468	0.13	22.66	23.00	1.081	0.906	0.506	22.1
Right tilted	10	QPSK 25_0	23230/782	1:1	0.742	0.415	0.18	22.66	23.00	1.081	0.802	0.449	22.1
Head Test Data(100%RB)													
Left cheek	10	QPSK 50_0	23230/782	1:1	0.659	0.359	0.08	22.62	23.00	1.091	0.719	0.392	22.1
Right cheek	10	QPSK 50_0	23230/782	1:1	0.821	0.462	-0.14	22.62	23.00	1.091	0.896	0.504	22.1
Right tilted	10	QPSK 50_0	23230/782	1:1	0.728	0.409	0.06	22.62	23.00	1.091	0.795	0.446	22.1
Body worn Test data(Separate 15mm 1RB)													
Front side	10	QPSK 1_0	23230/782	1:1	0.198	0.154	0.16	23.77	24.00	1.054	0.209	0.162	22.1
Back side	10	QPSK 1_0	23230/782	1:1	0.219	0.170	-0.01	23.77	24.00	1.054	**0.231**	0.179	22.1
Body worn Test data(Separate 15mm 50%RB)													
Front side	10	QPSK 25_0	23230/782	1:1	0.159	0.126	-0.12	22.66	23.00	1.081	0.172	0.136	22.1
Back side	10	QPSK 25_0	23230/782	1:1	0.178	0.138	0.07	22.66	23.00	1.081	0.192	0.149	22.1
Hotspot Test data(Separate 10mm 1RB)													
Front side	10	QPSK 1_0	23230/782	1:1	0.303	0.167	0.09	23.77	24.00	1.054	0.319	0.176	22.1
Back side	10	QPSK 1_0	23230/782	1:1	0.471	0.260	-0.01	23.77	24.00	1.054	**0.497**	0.274	22.1
Left side	10	QPSK 1_0	23230/782	1:1	0.166	0.092	0.13	23.77	24.00	1.054	0.175	0.097	22.1
Right side	10	QPSK 1_0	23230/782	1:1	0.042	0.023	-0.04	23.77	24.00	1.054	0.044	0.024	22.1
Top side	10	QPSK 1_0	23230/782	1:1	0.418	0.231	0.17	23.77	24.00	1.054	0.441	0.244	22.1
Hotspot Test data(Separate 10mm 50%RB)													
Front side	10	QPSK 25_0	23230/782	1:1	0.241	0.131	-0.04	22.66	23.00	1.081	0.261	0.142	22.1
Back side	10	QPSK 25_0	23230/782	1:1	0.379	0.205	0.07	22.66	23.00	1.081	0.410	0.222	22.1
Left side	10	QPSK 25_0	23230/782	1:1	0.138	0.071	-0.05	22.66	23.00	1.081	0.149	0.077	22.1
Right side	10	QPSK 25_0	23230/782	1:1	0.039	0.018	-0.15	22.66	23.00	1.081	0.042	0.019	22.1
Top side	10	QPSK 25_0	23230/782	1:1	0.331	0.183	0.02	22.66	23.00	1.081	0.358	0.198	22.1

Table 17： SAR of LTE Band 13 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	23230/782	1.05	1.04	1.009615385	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						

8.2.9 SAR Result of LTE Band 14

LTE Band 14 SAR Test Record													
Ant 0 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	10	QPSK 1_0	23330/793	1:1	0.930	0.522	0.15	23.72	24.00	1.067	0.992	0.557	22.1
Left tilted	10	QPSK 1_0	23330/793	1:1	0.829	0.465	0.16	23.72	24.00	1.067	0.884	0.496	22.1
Right cheek	10	QPSK 1_0	23330/793	1:1	1.100	0.617	0.02	23.72	24.00	1.067	**1.173**	0.658	22.1
Right cheek-repeated	10	QPSK 1_0	23330/793	1:1	1.080	0.616	0.04	23.72	24.00	1.067	1.152	0.657	22.1
Right tilted	10	QPSK 1_0	23330/793	1:1	1.050	0.594	-0.09	23.72	24.00	1.067	1.120	0.634	22.1
Head Test Data(50%RB)													
Left cheek	10	QPSK 25_0	23330/793	1:1	0.774	0.434	0.03	22.65	23.00	1.084	0.839	0.470	22.1
Left tilted	10	QPSK 25_0	23330/793	1:1	0.690	0.387	0.13	22.65	23.00	1.084	0.748	0.419	22.1
Right cheek	10	QPSK 25_0	23330/793	1:1	0.915	0.513	-0.17	22.65	23.00	1.084	0.992	0.556	22.1
Right tilted	10	QPSK 25_0	23330/793	1:1	0.873	0.494	-0.10	22.65	23.00	1.084	0.946	0.535	22.1
Head Test Data(100%RB)													
Left cheek	10	QPSK 50_0	23330/793	1:1	0.753	0.419	0.03	22.64	23.00	1.086	0.818	0.455	22.1
Left tilted	10	QPSK 50_0	23330/793	1:1	0.668	0.370	0.02	22.64	23.00	1.086	0.726	0.402	22.1
Right cheek	10	QPSK 50_0	23330/793	1:1	0.889	0.501	-0.10	22.64	23.00	1.086	0.966	0.544	22.1
Right tilted	10	QPSK 50_0	23330/793	1:1	0.853	0.482	0.05	22.64	23.00	1.086	0.927	0.524	22.1
Head Test Data(1RB) For ENDC													
Left cheek	10	QPSK 1_0	23330/793	1:1	0.930	0.522	0.08	23.72	21.00	0.535	0.497	0.279	22.1
Left tilted	10	QPSK 1_0	23330/793	1:1	0.829	0.465	0.10	23.72	21.00	0.535	0.443	0.249	22.1
Right cheek	10	QPSK 1_0	23330/793	1:1	1.100	0.617	0.02	23.72	21.00	0.535	0.588	0.330	22.1
Right tilted	10	QPSK 1_0	23330/793	1:1	1.050	0.594	0.14	23.72	21.00	0.535	0.561	0.318	22.1
Head Test Data(50%RB)													
Left cheek	10	QPSK 25_0	23330/793	1:1	0.774	0.434	-0.06	22.65	20.00	0.543	0.420	0.236	22.1
Left tilted	10	QPSK 25_0	23330/793	1:1	0.690	0.387	0.17	22.65	20.00	0.543	0.375	0.210	22.1
Right cheek	10	QPSK 25_0	23330/793	1:1	0.915	0.513	-0.19	22.65	20.00	0.543	0.497	0.279	22.1
Right tilted	10	QPSK 25_0	23330/793	1:1	0.873	0.494	0.05	22.65	20.00	0.543	0.474	0.268	22.1
Head Test Data(100%RB)													
Left cheek	10	QPSK 50_0	23330/793	1:1	0.753	0.419	0.03	22.64	20.00	0.545	0.410	0.228	22.1
Left tilted	10	QPSK 50_0	23330/793	1:1	0.668	0.370	0.02	22.64	20.00	0.545	0.364	0.201	22.1
Right cheek	10	QPSK 50_0	23330/793	1:1	0.889	0.501	-0.10	22.64	20.00	0.545	0.484	0.273	22.1
Right tilted	10	QPSK 50_0	23330/793	1:1	0.853	0.482	0.05	22.64	20.00	0.545	0.464	0.262	22.1
Body worn Test data(Separate 15mm 1RB)													
Front side	10	QPSK 1_0	23330/793	1:1	0.197	0.151	0.14	23.72	24.00	1.067	0.210	0.161	22.1
Back side	10	QPSK 1_0	23330/793	1:1	0.234	0.180	-0.02	23.72	24.00	1.067	**0.250**	0.192	22.1
Body worn Test data(Separate 15mm 50%RB)													
Front side	10	QPSK 25_0	23330/793	1:1	0.164	0.126	-0.16	22.65	23.00	1.084	0.178	0.137	22.1

Back side	10	QPSK 25_0	23330/793	1:1	0.195	0.150	0.04	22.65	23.00	1.084	0.211	0.163	22.1
Hotspot Test data(Separate 10mm 1RB)													
Front side	10	QPSK 1_0	23330/793	1:1	0.335	0.184	0.05	23.72	24.00	1.067	0.357	0.196	22.1
Back side	10	QPSK 1_0	23330/793	1:1	0.561	0.309	0.02	23.72	24.00	1.067	**0.598**	0.330	22.1
Left side	10	QPSK 1_0	23330/793	1:1	0.177	0.097	0.05	23.72	24.00	1.067	0.189	0.103	22.1
Right side	10	QPSK 1_0	23330/793	1:1	0.081	0.045	-0.12	23.72	24.00	1.067	0.086	0.048	22.1
Top side	10	QPSK 1_0	23330/793	1:1	0.484	0.267	0.15	23.72	24.00	1.067	0.516	0.285	22.1
Hotspot Test data(Separate 10mm 50%RB)													
Front side	10	QPSK 25_0	23330/793	1:1	0.279	0.153	-0.04	22.65	23.00	1.084	0.302	0.166	22.1
Back side	10	QPSK 25_0	23330/793	1:1	0.467	0.257	0.05	22.65	23.00	1.084	0.506	0.279	22.1
Left side	10	QPSK 25_0	23330/793	1:1	0.147	0.081	-0.02	22.65	23.00	1.084	0.159	0.088	22.1
Right side	10	QPSK 25_0	23330/793	1:1	0.067	0.037	-0.18	22.65	23.00	1.084	0.073	0.040	22.1
Top side	10	QPSK 25_0	23330/793	1:1	0.403	0.222	0.03	22.65	23.00	1.084	0.437	0.241	22.1

Table 18： SAR of LTE Band 14 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	23330/793	1.1	1.08	1.018518519	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 25

LTE Band 25 SAR Test Record													
Ant 2 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	26365/1882.5	1:1	0.433	0.231	-0.02	18.23	18.50	1.064	**0.461**	0.246	22.3
Left tilted	20	QPSK 1_0	26365/1882.5	1:1	0.238	0.127	0.19	18.23	18.50	1.064	0.253	0.135	22.3
Right cheek	20	QPSK 1_0	26365/1882.5	1:1	0.190	0.102	-0.03	18.23	18.50	1.064	0.202	0.109	22.3
Right tilted	20	QPSK 1_0	26365/1882.5	1:1	0.174	0.093	-0.18	18.23	18.50	1.064	0.185	0.099	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	26365/1882.5	1:1	0.411	0.222	0.11	18.09	18.50	1.099	0.452	0.244	22.3
Left tilted	20	QPSK 50_0	26365/1882.5	1:1	0.210	0.112	0.18	18.09	18.50	1.099	0.231	0.123	22.3
Right cheek	20	QPSK 50_0	26365/1882.5	1:1	0.176	0.094	0.08	18.09	18.50	1.099	0.193	0.103	22.3
Right tilted	20	QPSK 50_0	26365/1882.5	1:1	0.164	0.087	0.09	18.09	18.50	1.099	0.180	0.096	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	26365/1882.5	1:1	0.139	0.081	-0.04	22.26	22.50	1.057	0.147	0.086	22.3
Back side	20	QPSK 1_0	26365/1882.5	1:1	0.242	0.141	-0.05	22.26	22.50	1.057	**0.256**	0.149	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	26365/1882.5	1:1	0.119	0.069	0.03	22.11	22.50	1.094	0.130	0.075	22.3
Back side	20	QPSK 50_0	26365/1882.5	1:1	0.219	0.127	0.09	22.11	22.50	1.094	0.240	0.139	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	26365/1882.5	1:1	0.262	0.139	0.13	21.19	21.50	1.074	0.281	0.149	22.3
Back side	20	QPSK 1_0	26365/1882.5	1:1	0.542	0.288	0.01	21.19	21.50	1.074	**0.582**	0.309	22.3
Right side	20	QPSK 1_0	26365/1882.5	1:1	0.403	0.214	-0.05	21.19	21.50	1.074	0.433	0.230	22.3
Top side	20	QPSK 1_0	26365/1882.5	1:1	0.279	0.148	-0.04	21.19	21.50	1.074	0.300	0.159	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	26365/1882.5	1:1	0.241	0.128	0.16	21.09	21.50	1.099	0.265	0.141	22.3
Back side	20	QPSK 50_0	26365/1882.5	1:1	0.516	0.274	0.07	21.09	21.50	1.099	0.567	0.301	22.3
Right side	20	QPSK 50_0	26365/1882.5	1:1	0.384	0.204	0.03	21.09	21.50	1.099	0.422	0.224	22.3
Top side	20	QPSK 50_0	26365/1882.5	1:1	0.272	0.144	0.14	21.09	21.50	1.099	0.299	0.158	22.3
Hotspot Test data(Separate 10mm 1RB) For LTE B2 For ULCA/ENDC													
Front side	20	QPSK 1_0	26365/1882.5	1:1	0.262	0.139	0.14	21.19	19.50	0.678	0.178	0.094	22.3
Back side	20	QPSK 1_0	26365/1882.5	1:1	0.542	0.288	0.01	21.19	19.50	0.678	0.367	0.195	22.3
Right side	20	QPSK 1_0	26365/1882.5	1:1	0.403	0.214	0.11	21.19	19.50	0.678	0.273	0.145	22.3
Top side	20	QPSK 1_0	26365/1882.5	1:1	0.279	0.148	0.01	21.19	19.50	0.678	0.189	0.100	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	26365/1882.5	1:1	0.241	0.128	-0.12	21.09	19.50	0.693	0.167	0.089	22.3
Back side	20	QPSK 50_0	26365/1882.5	1:1	0.516	0.274	-0.15	21.09	19.50	0.693	0.358	0.190	22.3
Right side	20	QPSK 50_0	26365/1882.5	1:1	0.384	0.204	-0.13	21.09	19.50	0.693	0.266	0.141	22.3
Top side	20	QPSK 50_0	26365/1882.5	1:1	0.272	0.144	-0.04	21.09	19.50	0.693	0.189	0.100	22.3

Table 19： SAR of LTE Band 25 for Head, Body and Hotspot is covering LTE Band 2.

8.2.11 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	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.626	0.353	-0.12	21.83	22.00	1.040	0.651	0.367	22.5
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.612	0.345	-0.06	21.83	22.00	1.040	0.636	0.359	22.5
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.823	0.464	-0.01	21.83	22.00	1.040	**0.856**	0.483	22.5
Right cheek-repeated	15	QPSK 1_0	26865/831.5	1:1	0.819	0.462	-0.06	21.83	22.00	1.040	0.852	0.480	22.5
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.766	0.438	-0.10	21.83	22.00	1.040	0.797	0.455	22.5
Head Test Data(50%RB)													
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.603	0.328	-0.04	21.79	22.00	1.050	0.633	0.344	22.5
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.594	0.315	0.18	21.79	22.00	1.050	0.623	0.331	22.5
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.809	0.456	0.14	21.79	22.00	1.050	0.849	0.479	22.5
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.744	0.425	0.12	21.79	22.00	1.050	0.781	0.446	22.5
Head Test Data(100%RB)													
Right cheek	15	QPSK 75_0	26865/831.5	1:1	0.792	0.453	0.06	21.84	22.00	1.038	0.822	0.470	22.5
Head Test Data(1RB) For LTE B5 ULCA/ENDC													
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.626	0.353	0.05	21.83	21.00	0.826	0.517	0.292	22.5
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.612	0.345	0.11	21.83	21.00	0.826	0.506	0.285	22.5
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.823	0.464	-0.01	21.83	21.00	0.826	0.680	0.383	22.5
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.766	0.438	0.17	21.83	21.00	0.826	0.633	0.362	22.5
Head Test Data(50%RB)													
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.603	0.328	-0.03	21.79	21.00	0.834	0.503	0.273	22.5
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.594	0.315	0.01	21.79	21.00	0.834	0.495	0.263	22.5
Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.809	0.456	-0.10	21.79	21.00	0.834	0.674	0.380	22.5
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.744	0.425	0.10	21.79	21.00	0.834	0.620	0.354	22.5
Head Test Data(100%RB)													
Right cheek	15	QPSK 75_0	26865/831.5	1:1	0.792	0.453	0.14	21.84	21.00	0.824	0.653	0.373	22.5
Body worn Test data(Separate 15mm 1RB)													
Front side	15	QPSK 1_0	26865/831.5	1:1	0.242	0.183	0.01	22.89	23.00	1.026	0.248	0.188	22.5
Back side	15	QPSK 1_0	26865/831.5	1:1	0.268	0.202	0.08	22.89	23.00	1.026	**0.275**	0.207	22.5
Body worn Test data(Separate 15mm 50%RB)													
Front side	15	QPSK 36_0	26865/831.5	1:1	0.192	0.145	0.17	21.86	22.00	1.033	0.198	0.150	22.5
Back side	15	QPSK 36_0	26865/831.5	1:1	0.213	0.160	-0.01	21.86	22.00	1.033	0.220	0.165	22.5
Hotspot Test data(Separate 10mm 1RB)													
Front side	15	QPSK 1_0	26865/831.5	1:1	0.387	0.213	0.08	22.89	23.00	1.026	0.397	0.218	22.5
Back side	15	QPSK 1_0	26865/831.5	1:1	0.607	0.334	-0.04	22.89	23.00	1.026	**0.623**	0.343	22.5
Left side	15	QPSK 1_0	26865/831.5	1:1	0.195	0.107	0.07	22.89	23.00	1.026	0.200	0.110	22.5
Right side	15	QPSK 1_0	26865/831.5	1:1	0.095	0.052	-0.11	22.89	23.00	1.026	0.097	0.053	22.5

Top side	15	QPSK 1_0	26865/831.5	1:1	0.523	0.288	-0.11	22.89	23.00	1.026	0.536	0.295	22.5
Hotspot Test data(Separate 10mm 50%RB)													
Front side	15	QPSK 36_0	26865/831.5	1:1	0.313	0.172	0.19	21.86	22.00	1.033	0.323	0.178	22.5
Back side	15	QPSK 36_0	26865/831.5	1:1	0.482	0.265	0.10	21.86	22.00	1.033	0.498	0.274	22.5
Left side	15	QPSK 36_0	26865/831.5	1:1	0.158	0.087	0.04	21.86	22.00	1.033	0.163	0.090	22.5
Right side	15	QPSK 36_0	26865/831.5	1:1	0.075	0.041	-0.15	21.86	22.00	1.033	0.077	0.042	22.5
Top side	15	QPSK 36_0	26865/831.5	1:1	0.423	0.233	0.09	21.86	22.00	1.033	0.437	0.241	22.5

Table 20： SAR of LTE Band 26 for Head, Body and Hotspot is covering LTE Band 5.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	26865/831.5	0.823	0.819	1.004884005	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 38

LTE Band 38 SAR Test Record													
Ant 4 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	38000/2595	1:1.58	0.124	0.056	0.02	18.57	19.00	1.104	0.137	0.062	22.4
Left tilted	20	QPSK 1_0	38000/2595	1:1.58	0.083	0.038	-0.03	18.57	19.00	1.104	0.092	0.042	22.4
Right cheek	20	QPSK 1_0	38000/2595	1:1.58	0.327	0.149	-0.12	18.57	19.00	1.104	**0.361**	0.165	22.4
Right tilted	20	QPSK 1_0	38000/2595	1:1.58	0.132	0.060	0.09	18.57	19.00	1.104	0.146	0.066	22.4
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	38000/2595	1:1.58	0.104	0.047	0.15	18.38	19.00	1.153	0.120	0.054	22.4
Left tilted	20	QPSK 50_0	38000/2595	1:1.58	0.049	0.022	-0.05	18.38	19.00	1.153	0.057	0.025	22.4
Right cheek	20	QPSK 50_0	38000/2595	1:1.58	0.307	0.140	-0.07	18.38	19.00	1.153	0.354	0.161	22.4
Right tilted	20	QPSK 50_0	38000/2595	1:1.58	0.107	0.049	-0.14	18.38	19.00	1.153	0.123	0.057	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.133	0.066	0.03	22.48	23.00	1.127	0.150	0.074	22.4
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.191	0.095	-0.02	22.48	23.00	1.127	**0.215**	0.107	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.088	0.044	-0.13	21.41	22.00	1.146	0.101	0.050	22.4
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.145	0.072	0.03	21.41	22.00	1.146	0.166	0.082	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.389	0.179	-0.03	20.08	20.50	1.102	0.428	0.197	22.4
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.708	0.326	-0.03	20.08	20.50	1.102	**0.780**	0.359	22.4
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.377	0.174	0.13	20.08	20.50	1.102	0.415	0.192	22.4
Top side	20	QPSK 1_0	38000/2595	1:1.58	0.237	0.109	0.14	20.08	20.50	1.102	0.261	0.120	22.4
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	38000/2595	1:1.58	0.284	0.131	0.10	19.90	20.50	1.148	0.326	0.150	22.4
Back side	20	QPSK 50_0	38000/2595	1:1.58	0.597	0.275	-0.08	19.90	20.50	1.148	0.685	0.316	22.4
Left side	20	QPSK 50_0	38000/2595	1:1.58	0.316	0.145	-0.15	19.90	20.50	1.148	0.363	0.166	22.4
Top side	20	QPSK 50_0	38000/2595	1:1.58	0.149	0.069	0.18	19.90	20.50	1.148	0.171	0.079	22.4
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Product specific 10gSAR Test data(Separate 0mm 1RB)													
Back side	20	QPSK 1_0	38000/2595	1:1.58	2.450	0.915	-0.11	22.48	23.00	1.127	2.762	**1.031**	22.4
Product specific 10gSAR Test data(Separate 0mm 50%RB)													
Back side	20	QPSK 50_0	38000/2595	1:1.58	2.190	0.889	0.01	21.41	22.00	1.146	2.509	1.018	22.4

Table 21： SAR of LTE Band 38 for Head, Body and Hotspot.

8.2.13 SAR Result of LTE Band 41

LTE Band 41 SAR Test Record													
Ant 4 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	40620/2593	1:1.58	0.115	0.052	0.03	15.39	15.50	1.026	0.118	0.053	22.4
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.060	0.027	-0.18	15.39	15.50	1.026	0.062	0.028	22.4
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.245	0.111	-0.10	15.39	15.50	1.026	**0.251**	0.114	22.4
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.083	0.038	-0.14	15.39	15.50	1.026	0.085	0.039	22.4
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.108	0.049	0.04	15.36	15.50	1.033	0.112	0.051	22.4
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.051	0.023	-0.18	15.36	15.50	1.033	0.053	0.024	22.4
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.240	0.109	0.13	15.36	15.50	1.033	0.248	0.113	22.4
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.078	0.036	0.19	15.36	15.50	1.033	0.081	0.037	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.107	0.052	0.14	20.22	20.50	1.067	0.114	0.055	22.4
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.191	0.094	-0.04	20.22	20.50	1.067	**0.204**	0.100	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.084	0.042	0.09	20.09	20.50	1.099	0.092	0.046	22.4
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.155	0.077	-0.10	20.09	20.50	1.099	0.170	0.085	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.157	0.072	-0.18	18.67	19.00	1.079	0.169	0.078	22.4
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.298	0.136	-0.04	18.67	19.00	1.079	**0.322**	0.147	22.4
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.183	0.084	0.09	18.67	19.00	1.079	0.197	0.091	22.4
Top side	20	QPSK 1_0	40620/2593	1:1.58	0.131	0.060	0.15	18.67	19.00	1.079	0.141	0.065	22.4
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.119	0.054	0.05	18.59	19.00	1.099	0.131	0.059	22.4
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.250	0.114	-0.02	18.59	19.00	1.099	0.275	0.125	22.4
Left side	20	QPSK 50_0	40620/2593	1:1.58	0.145	0.066	-0.10	18.59	19.00	1.099	0.159	0.073	22.4
Top side	20	QPSK 50_0	40620/2593	1:1.58	0.099	0.045	-0.08	18.59	19.00	1.099	0.109	0.049	22.4

Table 22： SAR of LTE Band 41 for Head, Body and Hotspot.

8.2.14 SAR Result of LTE Band 42

LTE Band 42 SAR Test Record													
Ant 2 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	42590/3500	1:1.58	0.448	0.164	-0.07	19.71	20.00	1.069	**0.479**	0.175	22.3
Left cheek-UL CA	20	QPSK 1_0	42590+42788/ 3500+3519.8	1:1.58	0.441	0.163	-0.09	19.68	20.00	1.076	0.475	0.175	22.3
Left tilted	20	QPSK 1_0	42590/3500	1:1.58	0.295	0.108	-0.12	19.71	20.00	1.069	0.315	0.115	22.3
Right cheek	20	QPSK 1_0	42590/3500	1:1.58	0.143	0.052	0.03	19.71	20.00	1.069	0.153	0.056	22.3
Right tilted	20	QPSK 1_0	42590/3500	1:1.58	0.196	0.072	0.03	19.71	20.00	1.069	0.210	0.077	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	42590/3500	1:1.58	0.426	0.156	0.00	19.61	20.00	1.094	0.466	0.171	22.3
Left tilted	20	QPSK 50_0	42590/3500	1:1.58	0.269	0.099	0.09	19.61	20.00	1.094	0.294	0.108	22.3
Right cheek	20	QPSK 50_0	42590/3500	1:1.58	0.118	0.043	0.16	19.61	20.00	1.094	0.129	0.047	22.3
Right tilted	20	QPSK 50_0	42590/3500	1:1.58	0.160	0.059	-0.10	19.61	20.00	1.094	0.175	0.065	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.167	0.072	0.07	21.74	22.00	1.062	0.177	0.076	22.3
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.604	0.260	-0.04	21.74	22.00	1.062	**0.641**	0.276	22.3
Back side-UL CA	20	QPSK 1_0	42590+42788/ 3500+3519.8	1:1.58	0.598	0.257	-0.03	21.72	22.00	1.067	0.638	0.274	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.125	0.054	-0.19	21.61	22.00	1.094	0.137	0.059	22.3
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.579	0.249	-0.12	21.61	22.00	1.094	0.633	0.272	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	42590/3500	1:1.58	0.149	0.058	-0.19	20.76	21.00	1.057	0.157	0.061	22.3
Back side	20	QPSK 1_0	42590/3500	1:1.58	0.714	0.279	-0.01	20.76	21.00	1.057	**0.755**	0.295	22.3
Back side-UL CA	20	QPSK 1_0	42590/3500	1:1.58	0.708	0.272	-0.19	20.73	21.00	1.064	0.753	0.289	22.3
Right side	20	QPSK 1_0	42590/3500	1:1.58	0.685	0.268	0.17	20.76	21.00	1.057	0.724	0.283	22.3
Top side	20	QPSK 1_0	42590/3500	1:1.58	0.171	0.067	-0.05	20.76	21.00	1.057	0.181	0.071	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	42590/3500	1:1.58	0.137	0.054	0.13	20.62	21.00	1.091	0.150	0.059	22.3
Back side	20	QPSK 50_0	42590/3500	1:1.58	0.687	0.268	0.02	20.62	21.00	1.091	0.750	0.293	22.3
Right side	20	QPSK 50_0	42590/3500	1:1.58	0.653	0.255	-0.08	20.62	21.00	1.091	0.713	0.278	22.3
Top side	20	QPSK 50_0	42590/3500	1:1.58	0.116	0.046	0.10	20.62	21.00	1.091	0.127	0.050	22.3
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Product specific 10gSAR Test data (Separate 0mm 1RB)													
Back side	20	QPSK 1_0	42590/3500	1:1.58	5.310	1.660	-0.04	21.74	22.00	1.062	5.638	1.762	22.3
Right side	20	QPSK 1_0	42590/3500	1:1.58	10.200	2.920	-0.01	21.74	22.00	1.062	10.829	**3.100**	22.3
Right side-UL CA	20	QPSK 1_0	42590+42788/	1:1.58	9.890	2.870	0.06	21.72	22.00	1.067	10.549	3.061	22.3

			3500+3519.8										
Right side-repeated	20	QPSK 1_0	42590/3500	1:1.58	10.100	2.890	0.03	21.74	22.00	1.062	10.723	3.068	22.3
Right side	20	QPSK 1_0	42190/3460	1:1.58	9.510	2.720	0.12	21.55	22.00	1.109	10.548	3.017	22.3
Right side	20	QPSK 1_0	42990/3540	1:1.58	9.000	2.570	-0.10	21.48	22.00	1.127	10.145	2.897	22.3
Product specific 10gSAR Test data (Separate 0mm 50%RB)													
Back side	20	QPSK 50_0	42590/3500	1:1.58	5.120	1.530	-0.14	21.61	22.00	1.094	5.601	1.674	22.3
Right side	20	QPSK 50_0	42590/3500	1:1.58	9.810	2.810	0.05	21.61	22.00	1.094	10.732	3.074	22.3
Right side	20	QPSK 50_0	42190/3460	1:1.58	9.150	2.620	-0.07	21.52	22.00	1.117	10.219	2.926	22.3
Right side	20	QPSK 50_0	42990/3540	1:1.58	8.940	2.560	0.12	21.49	22.00	1.125	10.054	2.879	22.3
Product specific 10gSAR Test data (Separate 0mm 100%RB)													
Right side	20	QPSK 100_0	42590/3500	1:1.58	9.530	2.730	0.13	21.54	22.00	1.112	10.595	3.035	22.3

Table 23： SAR of LTE Band 42 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right side	42590/3500	2.92	2.89	1.010380623	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						

8.2.15 SAR Result of LTE Band 48

LTE Band 48 SAR Test Record													
Ant 2 Test Record													
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	55990/3625	1:1.58	0.520	0.201	0.02	20.49	21.50	1.262	**0.656**	0.254	22.3
Left cheek-UL CA	20	QPSK 1_0	55990+56188/ 3625+3644.8	1:1.58	0.508	0.195	-0.06	20.49	21.50	1.262	0.641	0.246	22.3
Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.433	0.167	-0.19	20.49	21.50	1.262	0.546	0.211	22.3
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.227	0.088	0.19	20.49	21.50	1.262	0.286	0.111	22.3
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.264	0.102	0.07	20.49	21.50	1.262	0.333	0.129	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.462	0.179	-0.04	20.49	21.50	1.262	0.583	0.226	22.3
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.405	0.157	-0.08	20.49	21.50	1.262	0.511	0.198	22.3
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.189	0.073	0.18	20.49	21.50	1.262	0.238	0.092	22.3
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.235	0.091	-0.17	20.49	21.50	1.262	0.297	0.115	22.3
Head Test Data(1RB) For ULCA/ENDC													
Left cheek	20	QPSK 1_0	55990/3625	1:1.58	0.520	0.201	0.02	20.38	19.50	0.817	0.425	0.164	22.3
Left tilted	20	QPSK 1_0	55990/3625	1:1.58	0.433	0.167	-0.05	20.38	19.50	0.817	0.354	0.136	22.3
Right cheek	20	QPSK 1_0	55990/3625	1:1.58	0.227	0.088	-0.11	20.38	19.50	0.817	0.185	0.072	22.3
Right tilted	20	QPSK 1_0	55990/3625	1:1.58	0.264	0.102	0.03	20.38	19.50	0.817	0.216	0.083	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	55990/3625	1:1.58	0.462	0.179	0.07	20.38	19.50	0.817	0.377	0.146	22.3
Left tilted	20	QPSK 50_0	55990/3625	1:1.58	0.405	0.157	0.08	20.38	19.50	0.817	0.331	0.128	22.3
Right cheek	20	QPSK 50_0	55990/3625	1:1.58	0.189	0.073	0.13	20.38	19.50	0.817	0.154	0.060	22.3
Right tilted	20	QPSK 50_0	55990/3625	1:1.58	0.235	0.091	-0.13	20.38	19.50	0.817	0.192	0.074	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.101	0.043	-0.02	20.94	22.50	1.432	0.145	0.062	22.3
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.347	0.147	0.07	20.94	22.50	1.432	**0.497**	0.211	22.3
Back side-UL CA	20	QPSK 1_0	55990+56188/ 3625+3644.8	1:1.58	0.335	0.145	-0.06	20.94	22.50	1.432	0.480	0.208	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.060	0.026	0.16	20.35	22.00	1.462	0.088	0.038	22.3
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.315	0.134	0.01	20.35	22.00	1.462	0.461	0.196	22.3
Body worn Test data(Separate 15mm 1RB) For ULCA/ENDC													
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.101	0.043	0.04	20.94	20.50	0.904	0.091	0.039	22.3
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.347	0.147	0.07	20.94	20.50	0.904	0.314	0.133	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.060	0.026	-0.04	20.35	20.00	0.923	0.055	0.024	22.3
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.315	0.134	-0.19	20.35	20.00	0.923	0.291	0.124	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.127	0.049	0.15	19.55	21.00	1.396	0.177	0.068	22.3

Back side	20	QPSK 1_0	55990/3625	1:1.58	0.460	0.177	0.01	19.55	21.00	1.396	**0.642**	0.247	22.3
Back side-UL CA	20	QPSK 1_0	55990+56188/ 3625+3644.8	1:1.58	0.451	0.173	-0.04	19.55	21.00	1.396	0.630	0.242	22.3
Right side	20	QPSK 1_0	55990/3625	1:1.58	0.424	0.163	0.05	19.55	21.00	1.396	0.592	0.228	22.3
Top side	20	QPSK 1_0	55990/3625	1:1.58	0.191	0.073	0.14	19.55	21.00	1.396	0.267	0.102	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.096	0.037	0.15	19.44	21.00	1.432	0.137	0.053	22.3
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.422	0.163	0.10	19.44	21.00	1.432	0.604	0.233	22.3
Right side	20	QPSK 50_0	55990/3625	1:1.58	0.411	0.158	0.14	19.44	21.00	1.432	0.589	0.226	22.3
Top side	20	QPSK 50_0	55990/3625	1:1.58	0.171	0.066	0.05	19.44	21.00	1.432	0.245	0.095	22.3
Hotspot Test data(Separate 10mm 1RB) For ULCA/ENDC													
Front side	20	QPSK 1_0	55990/3625	1:1.58	0.127	0.049	-0.08	19.55	19.00	0.881	0.112	0.043	22.3
Back side	20	QPSK 1_0	55990/3625	1:1.58	0.460	0.177	0.01	19.55	19.00	0.881	0.405	0.156	22.3
Right side	20	QPSK 1_0	55990/3625	1:1.58	0.424	0.163	0.01	19.55	19.00	0.881	0.374	0.144	22.3
Top side	20	QPSK 1_0	55990/3625	1:1.58	0.191	0.073	0.01	19.55	19.00	0.881	0.168	0.064	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	55990/3625	1:1.58	0.096	0.037	-0.04	19.44	19.00	0.904	0.087	0.033	22.3
Back side	20	QPSK 50_0	55990/3625	1:1.58	0.422	0.163	0.16	19.44	19.00	0.904	0.381	0.147	22.3
Right side	20	QPSK 50_0	55990/3625	1:1.58	0.411	0.158	0.19	19.44	19.00	0.904	0.371	0.143	22.3
Top side	20	QPSK 50_0	55990/3625	1:1.58	0.171	0.066	-0.13	19.44	19.00	0.904	0.155	0.060	22.3

Table 24： SAR of LTE Band 48 for Head, Body and Hotspot.

8.2.16 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	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.566	0.304	0.08	19.22	19.50	1.067	**0.604**	0.324	22.3
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.253	0.136	-0.12	19.22	19.50	1.067	0.270	0.145	22.3
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.277	0.149	0.14	19.22	19.50	1.067	0.295	0.159	22.3
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.224	0.121	0.04	19.22	19.50	1.067	0.239	0.129	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.516	0.277	0.05	19.14	19.50	1.086	0.561	0.301	22.3
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.224	0.121	0.16	19.14	19.50	1.086	0.243	0.131	22.3
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.241	0.129	-0.18	19.14	19.50	1.086	0.262	0.140	22.3
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.199	0.107	-0.13	19.14	19.50	1.086	0.216	0.116	22.3
Head Test Data(1RB) For ULCA/ENDC													
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.566	0.304	0.08	19.22	18.50	0.847	0.480	0.258	22.3
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.253	0.136	-0.10	19.22	18.50	0.847	0.214	0.115	22.3
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.277	0.149	0.04	19.22	18.50	0.847	0.235	0.126	22.3
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.224	0.121	0.15	19.22	18.50	0.847	0.190	0.103	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.516	0.277	-0.08	19.14	18.50	0.863	0.445	0.239	22.3
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.224	0.121	-0.14	19.14	18.50	0.863	0.193	0.104	22.3
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.241	0.129	0.03	19.14	18.50	0.863	0.208	0.111	22.3
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.199	0.107	0.12	19.14	18.50	0.863	0.172	0.092	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	132322/1745	1:1	0.167	0.110	-0.09	22.31	22.50	1.045	0.174	0.115	22.3
Back side	20	QPSK 1_0	132322/1745	1:1	0.248	0.164	-0.01	22.31	22.50	1.045	**0.259**	0.171	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	132322/1745	1:1	0.151	0.100	-0.07	22.15	22.50	1.084	0.164	0.108	22.3
Back side	20	QPSK 50_0	132322/1745	1:1	0.219	0.145	-0.01	22.15	22.50	1.084	0.237	0.157	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	132322/1745	1:1	0.192	0.119	-0.03	21.25	21.50	1.059	0.203	0.126	22.3
Back side	20	QPSK 1_0	132322/1745	1:1	0.341	0.211	0.01	21.25	21.50	1.059	0.361	0.224	22.3
Right side	20	QPSK 1_0	132322/1745	1:1	0.219	0.136	0.06	21.25	21.50	1.059	0.232	0.144	22.3
Top side	20	QPSK 1_0	132322/1745	1:1	0.287	0.177	-0.18	21.25	21.50	1.059	0.304	0.187	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	132322/1745	1:1	0.180	0.111	0.06	21.15	21.50	1.084	0.195	0.120	22.3
Back side	20	QPSK 50_0	132322/1745	1:1	0.315	0.195	-0.03	21.15	21.50	1.084	0.341	0.211	22.3
Right side	20	QPSK 50_0	132322/1745	1:1	0.203	0.126	-0.05	21.15	21.50	1.084	0.220	0.137	22.3
Top side	20	QPSK 50_0	132322/1745	1:1	0.274	0.169	0.11	21.15	21.50	1.084	0.297	0.183	22.3

Hotspot Test data(Separate 10mm 1RB) For ULCA/ENDC													
Front side	20	QPSK 1_0	132322/1745	1:1	0.192	0.119	0.07	21.25	20.50	0.841	0.162	0.100	22.3
Back side	20	QPSK 1_0	132322/1745	1:1	0.341	0.211	0.01	21.25	20.50	0.841	0.287	0.178	22.3
Right side	20	QPSK 1_0	132322/1745	1:1	0.219	0.136	0.01	21.25	20.50	0.841	0.184	0.114	22.3
Top side	20	QPSK 1_0	132322/1745	1:1	0.287	0.177	0.11	21.25	20.50	0.841	0.241	0.149	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	132322/1745	1:1	0.180	0.111	-0.11	21.15	20.50	0.861	0.155	0.096	22.3
Back side	20	QPSK 50_0	132322/1745	1:1	0.315	0.195	0.05	21.15	20.50	0.861	0.271	0.168	22.3
Right side	20	QPSK 50_0	132322/1745	1:1	0.203	0.126	0.04	21.15	20.50	0.861	0.175	0.108	22.3
Top side	20	QPSK 50_0	132322/1745	1:1	0.274	0.169	0.06	21.15	20.50	0.861	0.236	0.146	22.3
Ant 1 Test Record For ULCA/ENDC													
Test position	**BW.**	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.077	0.047	0.08	23.67	24.50	1.211	0.093	0.057	22.3
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.024	0.015	0.01	23.67	24.50	1.211	0.029	0.018	22.3
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.063	0.039	0.02	23.67	24.50	1.211	0.076	0.047	22.3
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.016	0.010	0.01	23.67	24.50	1.211	0.019	0.012	22.3
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	132322/1745	1:1	0.066	0.040	0.19	22.62	23.50	1.225	0.081	0.049	22.3
Left tilted	20	QPSK 50_0	132322/1745	1:1	0.016	0.010	0.16	22.62	23.50	1.225	0.020	0.012	22.3
Right cheek	20	QPSK 50_0	132322/1745	1:1	0.053	0.032	0.09	22.62	23.50	1.225	0.065	0.039	22.3
Right tilted	20	QPSK 50_0	132322/1745	1:1	0.011	0.007	-0.16	22.62	23.50	1.225	0.013	0.009	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	132322/1745	1:1	0.131	0.075	-0.10	21.64	22.50	1.219	0.160	0.091	22.3
Back side	20	QPSK 1_0	132322/1745	1:1	0.211	0.118	-0.07	21.64	22.50	1.219	0.257	0.144	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	132322/1745	1:1	0.119	0.069	-0.09	21.57	22.50	1.239	0.147	0.085	22.3
Back side	20	QPSK 50_0	132322/1745	1:1	0.182	0.110	0.12	21.57	22.50	1.239	0.225	0.136	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	132322/1745	1:1	0.272	0.152	-0.16	20.68	21.50	1.208	0.329	0.184	22.3
Back side	20	QPSK 1_0	132322/1745	1:1	0.592	0.330	-0.09	20.68	21.50	1.208	0.715	0.399	22.3
Left side	20	QPSK 1_0	132322/1745	1:1	0.039	0.021	-0.01	20.68	21.50	1.208	0.047	0.025	22.3
Right side	20	QPSK 1_0	132322/1745	1:1	0.023	0.013	-0.06	20.68	21.50	1.208	0.028	0.016	22.3
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.738	0.411	0.02	20.68	21.50	1.208	**0.891**	0.496	22.3
Bottom side	20	QPSK 1_0	132072/1720	1:1	0.689	0.397	-0.15	20.41	21.50	1.285	0.886	0.510	22.3
Bottom side	20	QPSK 1_0	132572/1770	1:1	0.711	0.403	-0.18	20.53	21.50	1.250	0.889	0.504	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	132322/1745	1:1	0.254	0.141	-0.09	20.62	21.50	1.225	0.311	0.173	22.3
Back side	20	QPSK 50_0	132322/1745	1:1	0.571	0.318	0.14	20.62	21.50	1.225	0.699	0.389	22.3
Left side	20	QPSK 50_0	132322/1745	1:1	0.022	0.012	-0.18	20.62	21.50	1.225	0.027	0.015	22.3
Right side	20	QPSK 50_0	132322/1745	1:1	0.011	0.006	-0.06	20.62	21.50	1.225	0.013	0.007	22.3

Bottom side	20	QPSK 50_0	132322/1745	1:1	0.724	0.403	0.18	20.62	21.50	1.225	0.887	0.494	22.3
Bottom side	20	QPSK 50_0	132072/1720	1:1	0.675	0.381	0.15	20.51	21.50	1.256	0.848	0.479	22.3
Bottom side	20	QPSK 50_0	132572/1770	1:1	0.706	0.392	-0.04	20.60	21.50	1.230	0.869	0.482	22.3
Hotspot Test data(Separate 10mm 50%RB)													
Bottom side	20	QPSK 100_0	132322/1745	1:1	0.687	0.388	-0.08	20.52	21.50	1.253	0.861	0.486	22.3

Table 25： SAR of LTE Band 66 for Head, Body and Hotspot is covering LTE Band 4.

8.2.17 SAR Result of LTE Band 71

LTE Band 71 SAR Test Record														
Ant 0 Test Record														
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data(1RB)													
Left cheek	20	QPSK 1_0	133322/683	1:1	0.017	0.008	-0.16	22.67	23.00	1.079	0.018	0.009	22.1
Left tilted	20	QPSK 1_0	133322/683	1:1	0.027	0.012	-0.17	22.67	23.00	1.079	0.029	0.013	22.1
Right cheek	20	QPSK 1_0	133322/683	1:1	0.036	0.016	-0.07	22.67	23.00	1.079	0.039	0.017	22.1
Right tilted	20	QPSK 1_0	133322/683	1:1	0.053	0.024	-0.02	22.67	23.00	1.079	**0.057**	0.026	22.1
Head Test Data(50%RB)													
Left cheek	20	QPSK 50_0	133322/683	1:1	0.010	0.005	-0.10	21.68	22.00	1.076	0.011	0.005	22.1
Left tilted	20	QPSK 50_0	133322/683	1:1	0.021	0.009	0.16	21.68	22.00	1.076	0.023	0.010	22.1
Right cheek	20	QPSK 50_0	133322/683	1:1	0.024	0.011	0.16	21.68	22.00	1.076	0.026	0.012	22.1
Right tilted	20	QPSK 50_0	133322/683	1:1	0.045	0.020	0.07	21.68	22.00	1.076	0.048	0.022	22.1
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_0	133322/683	1:1	0.017	0.008	0.11	22.67	23.00	1.079	0.018	0.009	22.1
Back side	20	QPSK 1_0	133322/683	1:1	0.062	0.030	-0.07	22.67	23.00	1.079	**0.067**	0.032	22.1
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_0	133322/683	1:1	0.008	0.004	0.07	21.68	22.00	1.076	0.009	0.004	22.1
Back side	20	QPSK 50_0	133322/683	1:1	0.054	0.026	0.16	21.68	22.00	1.076	0.058	0.028	22.1
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_0	133322/683	1:1	0.034	0.016	0.05	22.67	23.00	1.079	0.037	0.017	22.1
Back side	20	QPSK 1_0	133322/683	1:1	0.084	0.040	-0.13	22.67	23.00	1.079	**0.091**	0.043	22.1
Left side	20	QPSK 1_0	133322/683	1:1	0.018	0.008	0.11	22.67	23.00	1.079	0.019	0.009	22.1
Right side	20	QPSK 1_0	133322/683	1:1	0.003	0.002	0.04	22.67	23.00	1.079	0.003	0.002	22.1
Top side	20	QPSK 1_0	133322/683	1:1	0.061	0.029	0.17	22.67	23.00	1.079	0.066	0.031	22.1
Hotspot Test data(Separate 10mm 50%RB)													
Front side	20	QPSK 50_0	133322/683	1:1	0.020	0.010	-0.07	21.68	22.00	1.076	0.022	0.011	22.1
Back side	20	QPSK 50_0	133322/683	1:1	0.069	0.033	0.12	21.68	22.00	1.076	0.074	0.036	22.1
Left side	20	QPSK 50_0	133322/683	1:1	0.009	0.004	0.17	21.68	22.00	1.076	0.010	0.004	22.1
Right side	20	QPSK 50_0	133322/683	1:1	0.002	0.001	-0.12	21.68	22.00	1.076	0.002	0.001	22.1
Top side	20	QPSK 50_0	133322/683	1:1	0.055	0.026	0.03	21.68	22.00	1.076	0.059	0.028	22.1

Table 26： SAR of LTE Band 71 for Head, Body and Hotspot.

8.2.18 SAR Result of 5G NR n2

SA N2 SAR Test Record													
Ant2 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	20	QPSK 1_1	376000/1880	1:1	0.426	0.230	0.00	18.39	19.50	1.291	0.550	0.297	22.3
Left tilted	20	QPSK 1_1	376000/1880	1:1	0.194	0.105	0.04	18.39	19.50	1.291	0.250	0.136	22.3
Right cheek	20	QPSK 1_1	376000/1880	1:1	0.191	0.103	0.10	18.39	19.50	1.291	0.247	0.133	22.3
Right tilted	20	QPSK 1_1	376000/1880	1:1	0.154	0.083	-0.06	18.39	19.50	1.291	0.199	0.107	22.3
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	376000/1880	1:1	0.436	0.235	-0.01	18.24	19.50	1.337	**0.583**	0.314	22.3
Left tilted	20	QPSK 50_28	376000/1880	1:1	0.211	0.114	0.07	18.24	19.50	1.337	0.282	0.152	22.3
Right cheek	20	QPSK 50_28	376000/1880	1:1	0.205	0.110	0.10	18.24	19.50	1.337	0.274	0.147	22.3
Right tilted	20	QPSK 50_28	376000/1880	1:1	0.167	0.090	0.04	18.24	19.50	1.337	0.223	0.120	22.3
Head Test data(1RB) For ENDC													
Left cheek	20	QPSK 1_1	376000/1880	1:1	0.426	0.230	0.19	18.39	17.50	0.815	0.347	0.187	22.3
Left tilted	20	QPSK 1_1	376000/1880	1:1	0.194	0.105	0.11	18.39	17.50	0.815	0.158	0.086	22.3
Right cheek	20	QPSK 1_1	376000/1880	1:1	0.191	0.103	-0.19	18.39	17.50	0.815	0.156	0.084	22.3
Right tilted	20	QPSK 1_1	376000/1880	1:1	0.154	0.083	-0.06	18.39	17.50	0.815	0.125	0.068	22.3
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	376000/1880	1:1	0.436	0.235	-0.01	18.24	17.50	0.843	0.368	0.198	22.3
Left tilted	20	QPSK 50_28	376000/1880	1:1	0.211	0.114	0.01	18.24	17.50	0.843	0.178	0.096	22.3
Right cheek	20	QPSK 50_28	376000/1880	1:1	0.205	0.110	0.04	18.24	17.50	0.843	0.173	0.093	22.3
Right tilted	20	QPSK 50_28	376000/1880	1:1	0.167	0.090	0.02	18.24	17.50	0.843	0.141	0.076	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_1	376000/1880	1:1	0.193	0.110	0.11	22.36	23.50	1.300	0.251	0.143	22.3
Back side	20	QPSK 1_1	376000/1880	1:1	0.310	0.177	0.16	22.36	23.50	1.300	0.403	0.230	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_28	376000/1880	1:1	0.216	0.123	-0.18	22.33	23.50	1.309	0.283	0.161	22.3
Back side	20	QPSK 50_28	376000/1880	1:1	0.329	0.188	0.01	22.33	23.50	1.309	**0.431**	0.246	22.3
Body worn Test data(Separate 15mm 1RB) For ENDC													
Front side	20	QPSK 1_1	376000/1880	1:1	0.193	0.110	0.16	22.36	22.50	1.033	0.199	0.114	22.3
Back side	20	QPSK 1_1	376000/1880	1:1	0.310	0.177	0.02	22.36	22.50	1.033	0.320	0.183	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_28	376000/1880	1:1	0.216	0.123	-0.14	22.33	22.50	1.040	0.225	0.128	22.3
Back side	20	QPSK 50_28	376000/1880	1:1	0.329	0.188	0.01	22.33	22.50	1.040	0.342	0.196	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_1	376000/1880	1:1	0.275	0.149	0.02	21.29	22.50	1.321	0.363	0.197	22.3
Back side	20	QPSK 1_1	376000/1880	1:1	0.485	0.263	0.10	21.29	22.50	1.321	0.641	0.348	22.3
Right side	20	QPSK 1_1	376000/1880	1:1	0.289	0.156	0.19	21.29	22.50	1.321	0.382	0.206	22.3

Top side	20	QPSK 1_1	376000/1880	1:1	0.265	0.144	-0.12	21.29	22.50	1.321	0.350	0.190	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	20	QPSK 50_28	376000/1880	1:1	0.295	0.160	0.00	21.28	22.50	1.324	0.391	0.212	22.3
Back side	20	QPSK 50_28	376000/1880	1:1	0.526	0.285	-0.07	21.28	22.50	1.324	**0.697**	0.377	22.3
Right side	20	QPSK 50_28	376000/1880	1:1	0.338	0.183	-0.07	21.28	22.50	1.324	0.448	0.242	22.3
Top side	20	QPSK 50_28	376000/1880	1:1	0.300	0.163	0.14	21.28	22.50	1.324	0.397	0.216	22.3
Hotspot Test data(Separate 10mm 1RB) For ENDC													
Front side	20	QPSK 1_1	376000/1880	1:1	0.275	0.149	-0.04	21.29	21.50	1.050	0.289	0.156	22.3
Back side	20	QPSK 1_1	376000/1880	1:1	0.485	0.263	0.10	21.29	21.50	1.050	0.509	0.276	22.3
Right side	20	QPSK 1_1	376000/1880	1:1	0.289	0.156	0.14	21.29	21.50	1.050	0.303	0.164	22.3
Top side	20	QPSK 1_1	376000/1880	1:1	0.265	0.144	0.09	21.29	21.50	1.050	0.278	0.151	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	20	QPSK 50_28	376000/1880	1:1	0.295	0.160	-0.07	21.28	21.50	1.052	0.310	0.168	22.3
Back side	20	QPSK 50_28	376000/1880	1:1	0.526	0.285	-0.07	21.28	21.50	1.052	0.553	0.300	22.3
Right side	20	QPSK 50_28	376000/1880	1:1	0.338	0.183	-0.01	21.28	21.50	1.052	0.356	0.193	22.3
Top side	20	QPSK 50_28	376000/1880	1:1	0.300	0.163	0.03	21.28	21.50	1.052	0.316	0.171	22.3

Table 27： SAR of 5G NR n2 for Head, Body and Hotspot.

8.2.19 SAR Result of 5G NR n5

SA N5 SAR Test Record													
Ant0 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	20	QPSK 1_1	167300/836.5	1:1	0.832	0.515	0.15	22.19	23.00	1.205	1.003	0.621	22.5
Left tilted	20	QPSK 1_1	167300/836.5	1:1	0.801	0.475	-0.16	22.19	23.00	1.205	0.965	0.572	22.5
Right cheek	20	QPSK 1_1	167300/836.5	1:1	1.060	0.587	0.18	22.19	23.00	1.205	1.277	0.707	22.5
Right tilted	20	QPSK 1_1	167300/836.5	1:1	1.010	0.581	0.19	22.19	23.00	1.205	1.217	0.700	22.5
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	167300/836.5	1:1	0.961	0.531	-0.12	22.09	23.00	1.233	1.185	0.655	22.5
Left tilted	20	QPSK 50_28	167300/836.5	1:1	0.875	0.483	0.09	22.09	23.00	1.233	1.079	0.596	22.5
Right cheek	20	QPSK 50_28	167300/836.5	1:1	1.090	0.602	0.09	22.09	23.00	1.233	**1.344**	0.742	22.5
Right cheek-repeated	20	QPSK 50_28	167300/836.5	1:1	1.070	0.601	-0.01	22.09	23.00	1.233	1.319	0.741	22.5
Right tilted	20	QPSK 50_28	167300/836.5	1:1	1.050	0.598	0.14	22.09	23.00	1.233	1.295	0.737	22.5
Head Test data(1RB) For ENDC													
Left cheek	20	QPSK 1_1	167300/836.5	1:1	0.832	0.515	0.09	22.19	20.50	0.678	0.564	0.349	22.5
Left tilted	20	QPSK 1_1	167300/836.5	1:1	0.801	0.475	-0.05	22.19	20.50	0.678	0.543	0.322	22.5
Right cheek	20	QPSK 1_1	167300/836.5	1:1	1.060	0.587	-0.11	22.19	20.50	0.678	0.718	0.398	22.5
Right tilted	20	QPSK 1_1	167300/836.5	1:1	1.010	0.581	-0.16	22.19	20.50	0.678	0.684	0.394	22.5
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	167300/836.5	1:1	0.961	0.531	-0.19	22.09	20.50	0.693	0.666	0.368	22.5
Left tilted	20	QPSK 50_28	167300/836.5	1:1	0.875	0.483	0.02	22.09	20.50	0.693	0.607	0.335	22.5
Right cheek	20	QPSK 50_28	167300/836.5	1:1	1.090	0.602	0.09	22.09	20.50	0.693	0.756	0.417	22.5
Right tilted	20	QPSK 50_28	167300/836.5	1:1	1.050	0.598	-0.16	22.09	20.50	0.693	0.728	0.415	22.5
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_1	167300/836.5	1:1	0.158	0.093	-0.18	23.59	24.50	1.233	0.195	0.115	22.5
Back side	20	QPSK 1_1	167300/836.5	1:1	0.263	0.155	-0.18	23.59	24.50	1.233	0.324	0.191	22.5
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_28	167300/836.5	1:1	0.170	0.101	0.16	23.54	24.50	1.247	0.212	0.126	22.5
Back side	20	QPSK 50_28	167300/836.5	1:1	0.279	0.165	0.01	23.54	24.50	1.247	**0.348**	0.206	22.5
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_1	167300/836.5	1:1	0.295	0.168	0.03	23.59	24.50	1.233	0.364	0.207	22.5
Back side	20	QPSK 1_1	167300/836.5	1:1	0.550	0.313	0.03	23.59	24.50	1.233	0.678	0.386	22.5
Left side	20	QPSK 1_1	167300/836.5	1:1	0.175	0.099	0.16	23.59	24.50	1.233	0.216	0.122	22.5
Right side	20	QPSK 1_1	167300/836.5	1:1	0.074	0.042	0.19	23.59	24.50	1.233	0.091	0.052	22.5
Top side	20	QPSK 1_1	167300/836.5	1:1	0.399	0.227	-0.11	23.59	24.50	1.233	0.492	0.280	22.5
Hotspot Test data (Separate 10mm 50%RB)													
Front side	20	QPSK 50_28	167300/836.5	1:1	0.319	0.181	-0.03	23.54	24.50	1.247	0.398	0.226	22.5
Back side	20	QPSK 50_28	167300/836.5	1:1	0.573	0.326	-0.03	23.54	24.50	1.247	**0.715**	0.407	22.5

Left side	20	QPSK 50_28	167300/836.5	1:1	0.198	0.113	-0.07	23.54	24.50	1.247	0.247	0.141	22.5
Right side	20	QPSK 50_28	167300/836.5	1:1	0.094	0.053	0.05	23.54	24.50	1.247	0.117	0.066	22.5
Top side	20	QPSK 50_28	167300/836.5	1:1	0.422	0.240	-0.10	23.54	24.50	1.247	0.526	0.299	22.5

Table 28： SAR of 5G NR n5 for Head, Body and Hotspot.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	3rd Repeated SAR (1g)
Right cheek	167300/836.5	1.09	1.07	1.018691589	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 n7

SA N7 SAR Test Record													
Ant4 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	50	QPSK 1_1	507000/2535	1:1	0.114	0.050	-0.11	16.48	17.50	1.265	0.144	0.063	22.4
Left tilted	50	QPSK 1_1	507000/2535	1:1	0.047	0.021	-0.01	16.48	17.50	1.265	0.059	0.027	22.4
Right cheek	50	QPSK 1_1	507000/2535	1:1	0.265	0.118	0.14	16.48	17.50	1.265	0.335	0.149	22.4
Right tilted	50	QPSK 1_1	507000/2535	1:1	0.070	0.031	0.08	16.48	17.50	1.265	0.089	0.039	22.4
Head Test data(50%RB)													
Left cheek	50	QPSK 135_68	507000/2535	1:1	0.122	0.054	-0.01	16.22	17.50	1.343	0.164	0.073	22.4
Left tilted	50	QPSK 135_68	507000/2535	1:1	0.052	0.023	-0.13	16.22	17.50	1.343	0.070	0.031	22.4
Right cheek	50	QPSK 135_68	507000/2535	1:1	0.284	0.126	-0.02	16.22	17.50	1.343	**0.381**	0.169	22.4
Right tilted	50	QPSK 135_68	507000/2535	1:1	0.073	0.032	-0.09	16.22	17.50	1.343	0.098	0.043	22.4
Head Test data(1RB) For ENDC													
Left cheek	50	QPSK 1_1	507000/2535	1:1	0.114	0.050	-0.06	16.48	16.00	0.895	0.102	0.045	22.4
Left tilted	50	QPSK 1_1	507000/2535	1:1	0.047	0.021	-0.10	16.48	16.00	0.895	0.042	0.019	22.4
Right cheek	50	QPSK 1_1	507000/2535	1:1	0.265	0.118	0.09	16.48	16.00	0.895	0.237	0.106	22.4
Right tilted	50	QPSK 1_1	507000/2535	1:1	0.070	0.031	0.19	16.48	16.00	0.895	0.063	0.028	22.4
Head Test data(50%RB)													
Left cheek	50	QPSK 135_68	507000/2535	1:1	0.122	0.054	-0.06	16.22	16.00	0.951	0.116	0.051	22.4
Left tilted	50	QPSK 135_68	507000/2535	1:1	0.052	0.023	0.00	16.22	16.00	0.951	0.049	0.022	22.4
Right cheek	50	QPSK 135_68	507000/2535	1:1	0.284	0.126	-0.02	16.22	16.00	0.951	0.270	0.120	22.4
Right tilted	50	QPSK 135_68	507000/2535	1:1	0.073	0.032	-0.02	16.22	16.00	0.951	0.069	0.030	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	50	QPSK 1_1	507000/2535	1:1	0.117	0.057	-0.13	18.32	19.50	1.312	0.154	0.075	22.4
Back side	50	QPSK 1_1	507000/2535	1:1	0.276	0.135	0.10	18.32	19.50	1.312	0.362	0.177	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	50	QPSK 135_68	507000/2535	1:1	0.158	0.077	0.01	18.26	19.50	1.330	0.210	0.102	22.4
Back side	50	QPSK 135_68	507000/2535	1:1	0.306	0.150	-0.06	18.26	19.50	1.330	**0.407**	0.200	22.4
Body worn Test data(Separate 15mm 1RB) For ENDC													
Front side	50	QPSK 1_1	507000/2535	1:1	0.117	0.057	-0.15	18.32	19.00	1.169	0.137	0.067	22.4
Back side	50	QPSK 1_1	507000/2535	1:1	0.276	0.135	0.16	18.32	19.00	1.169	0.323	0.158	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	50	QPSK 135_68	507000/2535	1:1	0.158	0.077	-0.15	18.26	19.00	1.186	0.187	0.091	22.4
Back side	50	QPSK 135_68	507000/2535	1:1	0.306	0.150	-0.06	18.26	19.00	1.186	0.363	0.178	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	50	QPSK 1_1	507000/2535	1:1	0.143	0.066	0.17	17.33	18.50	1.309	0.187	0.086	22.4
Back side	50	QPSK 1_1	507000/2535	1:1	0.375	0.174	0.13	17.33	18.50	1.309	0.491	0.228	22.4
Left side	50	QPSK 1_1	507000/2535	1:1	0.188	0.087	-0.04	17.33	18.50	1.309	0.246	0.114	22.4

Top side	50	QPSK 1_1	507000/2535	1:1	0.052	0.024	0.02	17.33	18.50	1.309	0.068	0.031	22.4
Hotspot Test data (Separate 10mm 50%RB)													
Front side	50	QPSK 135_68	507000/2535	1:1	0.158	0.073	0.05	17.24	18.50	1.337	0.211	0.098	22.4
Back side	50	QPSK 135_68	507000/2535	1:1	0.384	0.178	0.02	17.24	18.50	1.337	**0.513**	0.238	22.4
Left side	50	QPSK 135_68	507000/2535	1:1	0.217	0.101	-0.07	17.24	18.50	1.337	0.290	0.135	22.4
Top side	50	QPSK 135_68	507000/2535	1:1	0.080	0.037	-0.05	17.24	18.50	1.337	0.107	0.049	22.4
Hotspot Test data(Separate 10mm 1RB) For ENDC													
Front side	50	QPSK 1_1	507000/2535	1:1	0.143	0.066	-0.13	17.33	17.00	0.927	0.133	0.061	22.4
Back side	50	QPSK 1_1	507000/2535	1:1	0.375	0.174	-0.05	17.33	17.00	0.927	0.348	0.161	22.4
Left side	50	QPSK 1_1	507000/2535	1:1	0.188	0.087	-0.15	17.33	17.00	0.927	0.174	0.081	22.4
Top side	50	QPSK 1_1	507000/2535	1:1	0.052	0.024	0.10	17.33	17.00	0.927	0.048	0.022	22.4
Hotspot Test data (Separate 10mm 50%RB)													
Front side	50	QPSK 135_68	507000/2535	1:1	0.158	0.073	-0.15	17.24	17.00	0.946	0.150	0.069	22.4
Back side	50	QPSK 135_68	507000/2535	1:1	0.384	0.178	0.02	17.24	17.00	0.946	0.363	0.168	22.4
Left side	50	QPSK 135_68	507000/2535	1:1	0.217	0.101	-0.02	17.24	17.00	0.946	0.205	0.096	22.4
Top side	50	QPSK 135_68	507000/2535	1:1	0.080	0.037	0.01	17.24	17.00	0.946	0.076	0.035	22.4

Table 29： SAR of 5G NR n7 for Head, Body and Hotspot.

8.2.21 SAR Result of 5G NR n41

SA N41 SAR Test Record													
Ant4 Test Record													
Test position	**BW.**	**Modulation**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test data(1RB)													
Left cheek	100	QPSK 1_1	518598/2592.99	1:1	0.118	0.053	-0.14	15.97	17.00	1.268	0.150	0.067	22.4
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.049	0.022	0.02	15.97	17.00	1.268	0.062	0.028	22.4
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.275	0.124	0.06	15.97	17.00	1.268	0.349	0.157	22.4
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.091	0.041	-0.13	15.97	17.00	1.268	0.115	0.052	22.4
Head Test data(50%RB)													
Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.137	0.062	0.08	15.92	17.00	1.282	0.176	0.080	22.4
Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.068	0.031	-0.16	15.92	17.00	1.282	0.087	0.040	22.4
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.288	0.130	-0.05	15.92	17.00	1.282	**0.369**	0.167	22.4
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.105	0.047	0.03	15.92	17.00	1.282	0.135	0.060	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.131	0.064	-0.03	19.49	20.50	1.262	0.165	0.081	22.4
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.240	0.118	-0.02	19.49	20.50	1.262	0.303	0.149	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.140	0.069	0.06	19.38	20.50	1.294	0.181	0.089	22.4
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.263	0.129	-0.08	19.38	20.50	1.294	**0.340**	0.167	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.138	0.061	0.10	17.43	18.50	1.279	0.177	0.078	22.4
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.326	0.147	0.18	17.43	18.50	1.279	0.417	0.188	22.4
Left side	100	QPSK 1_1	518598/2592.99	1:1	0.151	0.068	-0.04	17.43	18.50	1.279	0.193	0.087	22.4
Top side	100	QPSK 1_1	518598/2592.99	1:1	0.033	0.015	-0.05	17.43	18.50	1.279	0.042	0.019	22.4
Hotspot Test data (Separate 10mm 50%RB)													
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.149	0.067	-0.05	17.40	18.50	1.288	0.192	0.086	22.4
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.359	0.162	0.06	17.40	18.50	1.288	0.462	0.209	22.4
Left side	100	QPSK 135_69	518598/2592.99	1:1	0.180	0.081	0.17	17.40	18.50	1.288	0.232	0.104	22.4
Top side	100	QPSK 135_69	518598/2592.99	1:1	0.066	0.030	-0.09	17.40	18.50	1.288	0.085	0.039	22.4
Ant1 Test Record For ENDC													
Test position	**BW.**	**Modulation**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test data(1RB)													
Left cheek	100	QPSK 1_1	518598/2592.99	1:1	0.170	0.085	0.12	23.64	24.00	1.086	0.185	0.092	22.4
Left tilted	100	QPSK 1_1	518598/2592.99	1:1	0.132	0.066	-0.14	23.64	24.00	1.086	0.143	0.072	22.4
Right cheek	100	QPSK 1_1	518598/2592.99	1:1	0.231	0.115	0.03	23.64	24.00	1.086	0.251	0.125	22.4
Right tilted	100	QPSK 1_1	518598/2592.99	1:1	0.199	0.099	-0.02	23.64	24.00	1.086	0.216	0.108	22.4
Head Test data(50%RB)													
Left cheek	100	QPSK 135_69	518598/2592.99	1:1	0.190	0.095	-0.08	23.53	24.00	1.114	0.212	0.106	22.4

Left tilted	100	QPSK 135_69	518598/2592.99	1:1	0.151	0.075	0.04	23.53	24.00	1.114	0.168	0.084	22.4
Right cheek	100	QPSK 135_69	518598/2592.99	1:1	0.243	0.121	-0.19	23.53	24.00	1.114	0.271	0.135	22.4
Right tilted	100	QPSK 135_69	518598/2592.99	1:1	0.223	0.111	0.05	23.53	24.00	1.114	0.248	0.124	22.4
Body worn Test data(Separate 15mm 1RB)													
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.048	0.026	0.10	20.65	21.00	1.084	0.052	0.028	22.4
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.066	0.036	0.08	20.65	21.00	1.084	0.072	0.039	22.4
Body worn Test data(Separate 15mm 50%RB)													
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.053	0.029	-0.11	20.57	21.00	1.104	0.059	0.032	22.4
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.075	0.041	0.05	20.57	21.00	1.104	0.083	0.045	22.4
Hotspot Test data(Separate 10mm 1RB)													
Front side	100	QPSK 1_1	518598/2592.99	1:1	0.205	0.099	-0.03	18.56	19.00	1.107	0.227	0.110	22.4
Back side	100	QPSK 1_1	518598/2592.99	1:1	0.296	0.143	-0.09	18.56	19.00	1.107	0.328	0.158	22.4
Left side	100	QPSK 1_1	518598/2592.99	1:1	0.041	0.020	0.09	18.56	19.00	1.107	0.045	0.022	22.4
Right side	100	QPSK 1_1	518598/2592.99	1:1	0.072	0.035	-0.01	18.56	19.00	1.107	0.080	0.039	22.4
Bottom side	100	QPSK 1_1	518598/2592.99	1:1	0.580	0.281	-0.08	18.56	19.00	1.107	0.642	0.311	22.4
Hotspot Test data (Separate 10mm 50%RB)													
Front side	100	QPSK 135_69	518598/2592.99	1:1	0.218	0.105	-0.02	18.46	19.00	1.132	0.247	0.119	22.4
Back side	100	QPSK 135_69	518598/2592.99	1:1	0.301	0.146	-0.05	18.46	19.00	1.132	0.341	0.165	22.4
Left side	100	QPSK 135_69	518598/2592.99	1:1	0.056	0.027	0.07	18.46	19.00	1.132	0.063	0.031	22.4
Right side	100	QPSK 135_69	518598/2592.99	1:1	0.074	0.036	-0.02	18.46	19.00	1.132	0.084	0.041	22.4
Bottom side	100	QPSK 135_69	518598/2592.99	1:1	0.597	0.289	-0.07	18.46	19.00	1.132	**0.676**	0.327	22.4

Table 30： SAR of 5G NR n41 for Head, Body and Hotspot.

8.2.22 SAR Result of 5G NR n48

SA N48 SAR Test Record													
Ant2 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	100	QPSK 1_1	641666/3624.99	1:1	0.424	0.172	-0.16	17.58	18.00	1.102	0.467	0.189	22.3
Left tilted	100	QPSK 1_1	641666/3624.99	1:1	0.398	0.161	-0.14	17.58	18.00	1.102	0.438	0.177	22.3
Right cheek	100	QPSK 1_1	641666/3624.99	1:1	0.219	0.089	-0.07	17.58	18.00	1.102	0.241	0.098	22.3
Right tilted	100	QPSK 1_1	641666/3624.99	1:1	0.205	0.083	-0.02	17.58	18.00	1.102	0.226	0.091	22.3
Head Test data(50%RB)													
Left cheek	100	QPSK 135_69	641666/3624.99	1:1	0.439	0.178	-0.01	17.52	18.00	1.117	**0.490**	0.199	22.3
Left tilted	100	QPSK 135_69	641666/3624.99	1:1	0.430	0.174	-0.11	17.52	18.00	1.117	0.480	0.194	22.3
Right cheek	100	QPSK 135_69	641666/3624.99	1:1	0.236	0.096	-0.05	17.52	18.00	1.117	0.264	0.107	22.3
Right tilted	100	QPSK 135_69	641666/3624.99	1:1	0.215	0.087	-0.10	17.52	18.00	1.117	0.240	0.097	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	100	QPSK 1_1	641666/3624.99	1:1	0.092	0.039	0.16	19.59	20.00	1.099	0.101	0.043	22.3
Back side	100	QPSK 1_1	641666/3624.99	1:1	0.376	0.160	0.01	19.59	20.00	1.099	0.413	0.176	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	100	QPSK 135_69	641666/3624.99	1:1	0.117	0.050	-0.07	19.57	20.00	1.104	0.129	0.055	22.3
Back side	100	QPSK 135_69	641666/3624.99	1:1	0.403	0.172	-0.02	19.57	20.00	1.104	**0.445**	0.190	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	100	QPSK 1_1	641666/3624.99	1:1	0.124	0.046	0.04	16.56	17.00	1.107	0.137	0.051	22.3
Back side	100	QPSK 1_1	641666/3624.99	1:1	0.713	0.266	0.06	16.56	17.00	1.107	0.789	0.294	22.3
Right side	100	QPSK 1_1	641666/3624.99	1:1	0.646	0.241	0.03	16.56	17.00	1.107	0.715	0.267	22.3
Top side	100	QPSK 1_1	641666/3624.99	1:1	0.234	0.087	-0.01	16.56	17.00	1.107	0.259	0.096	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	100	QPSK 135_69	641666/3624.99	1:1	0.140	0.052	-0.19	16.49	17.00	1.125	0.157	0.058	22.3
Back side	100	QPSK 135_69	641666/3624.99	1:1	0.727	0.271	0.09	16.49	17.00	1.125	**0.818**	0.305	22.3
Right side	100	QPSK 135_69	641666/3624.99	1:1	0.668	0.249	0.02	16.49	17.00	1.125	0.751	0.280	22.3
Top side	100	QPSK 135_69	641666/3624.99	1:1	0.261	0.097	0.00	16.49	17.00	1.125	0.294	0.109	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Back side	100	QPSK 270_0	641666/3624.99	1:1	0.658	0.248	0.00	15.46	16.00	1.132	0.745	0.281	22.3

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

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	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	40	QPSK 1_1	349000/1745	1:1	0.553	0.299	0.02	19.86	21.00	1.300	0.719	0.389	22.3
Left tilted	40	QPSK 1_1	349000/1745	1:1	0.238	0.129	0.09	19.86	21.00	1.300	0.309	0.168	22.3
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.290	0.157	-0.01	19.86	21.00	1.300	0.377	0.204	22.3
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.240	0.130	0.03	19.86	21.00	1.300	0.312	0.169	22.3
Head Test data(50%RB)													
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.575	0.311	-0.12	19.85	21.00	1.303	**0.749**	0.405	22.3
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.280	0.152	-0.13	19.85	21.00	1.303	0.365	0.198	22.3
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.304	0.165	0.07	19.85	21.00	1.303	0.396	0.215	22.3
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.274	0.148	-0.18	19.85	21.00	1.303	0.357	0.193	22.3
Head Test data(1RB) For ENDC													
Left cheek	40	QPSK 1_1	349000/1745	1:1	0.553	0.299	-0.03	19.86	18.00	0.652	0.360	0.195	22.3
Left tilted	40	QPSK 1_1	349000/1745	1:1	0.238	0.129	0.09	19.86	18.00	0.652	0.155	0.084	22.3
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.290	0.157	0.01	19.86	18.00	0.652	0.189	0.102	22.3
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.240	0.130	0.03	19.86	18.00	0.652	0.156	0.085	22.3
Head Test data(50%RB)													
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.575	0.311	-0.12	19.85	18.00	0.653	0.376	0.203	22.3
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.280	0.152	-0.19	19.85	18.00	0.653	0.183	0.099	22.3
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.304	0.165	-0.18	19.85	18.00	0.653	0.199	0.108	22.3
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.274	0.148	-0.19	19.85	18.00	0.653	0.179	0.097	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	40	QPSK 1_1	349000/1745	1:1	0.122	0.082	0.17	22.96	24.00	1.271	0.155	0.104	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.212	0.142	-0.06	22.96	24.00	1.271	0.269	0.180	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	40	QPSK 108_54	349000/1745	1:1	0.138	0.092	0.06	22.85	24.00	1.303	0.180	0.120	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.221	0.148	-0.06	22.85	24.00	1.303	**0.288**	0.193	22.3
Body worn Test data(Separate 15mm 1RB) For ENDC													
Front side	40	QPSK 1_1	349000/1745	1:1	0.122	0.082	0.05	22.96	22.00	0.802	0.098	0.066	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.212	0.142	-0.01	22.96	22.00	0.802	0.170	0.114	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	40	QPSK 108_54	349000/1745	1:1	0.138	0.092	-0.08	22.85	22.00	0.822	0.113	0.076	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.221	0.148	-0.06	22.85	22.00	0.822	0.182	0.122	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	40	QPSK 1_1	349000/1745	1:1	0.168	0.154	0.11	20.98	22.00	1.265	0.212	0.195	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.301	0.162	0.00	20.98	22.00	1.265	0.381	0.205	22.3
Right side	40	QPSK 1_1	349000/1745	1:1	0.222	0.117	-0.14	20.98	22.00	1.265	0.281	0.148	22.3

Top side	40	QPSK 1_1	349000/1745	1:1	0.175	0.092	0.07	20.98	22.00	1.265	0.221	0.116	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	40	QPSK 108_54	349000/1745	1:1	0.183	0.096	0.19	20.82	22.00	1.312	0.240	0.126	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.329	0.173	0.04	20.82	22.00	1.312	0.432	0.227	22.3
Right side	40	QPSK 108_54	349000/1745	1:1	0.244	0.128	0.00	20.82	22.00	1.312	0.320	0.168	22.3
Top side	40	QPSK 108_54	349000/1745	1:1	0.190	0.100	0.07	20.82	22.00	1.312	0.249	0.131	22.3
Hotspot Test data(Separate 10mm 1RB) For ENDC													
Front side	40	QPSK 1_1	349000/1745	1:1	0.168	0.154	0.16	20.98	20.00	0.798	0.134	0.123	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.301	0.162	-0.10	20.98	20.00	0.798	0.240	0.129	22.3
Right side	40	QPSK 1_1	349000/1745	1:1	0.222	0.117	-0.13	20.98	20.00	0.798	0.177	0.093	22.3
Top side	40	QPSK 1_1	349000/1745	1:1	0.175	0.092	-0.19	20.98	20.00	0.798	0.140	0.073	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	40	QPSK 108_54	349000/1745	1:1	0.183	0.096	-0.02	20.82	20.00	0.828	0.152	0.079	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.329	0.173	0.16	20.82	20.00	0.828	0.272	0.143	22.3
Right side	40	QPSK 108_54	349000/1745	1:1	0.244	0.128	-0.18	20.82	20.00	0.828	0.202	0.106	22.3
Top side	40	QPSK 108_54	349000/1745	1:1	0.190	0.100	-0.16	20.82	20.00	0.828	0.157	0.083	22.3
Ant1 Test Record ENDC													
Test position	**BW.**	**Modulation**	**Test ch./Freq.**	**Duty Cycle**	**SAR (W/kg) 1-g**	**SAR (W/kg) 1-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 1-g (W/kg)**	**Scaled SAR 1-g (W/kg)**	**Liquid Temp.(℃)**
Head Test data(1RB)													
Left cheek	40	QPSK 1_1	349000/1745	1:1	0.093	0.036	-0.04	23.43	24.00	1.140	0.106	0.041	22.3
Left tilted	40	QPSK 1_1	349000/1745	1:1	0.023	0.009	-0.07	23.43	24.00	1.140	0.026	0.010	22.3
Right cheek	40	QPSK 1_1	349000/1745	1:1	0.075	0.029	0.17	23.43	24.00	1.140	0.086	0.033	22.3
Right tilted	40	QPSK 1_1	349000/1745	1:1	0.016	0.006	0.19	23.43	24.00	1.140	0.018	0.007	22.3
Head Test data(50%RB)													
Left cheek	40	QPSK 108_54	349000/1745	1:1	0.109	0.042	0.19	23.36	24.00	1.159	0.126	0.049	22.3
Left tilted	40	QPSK 108_54	349000/1745	1:1	0.034	0.013	-0.14	23.36	24.00	1.159	0.039	0.015	22.3
Right cheek	40	QPSK 108_54	349000/1745	1:1	0.089	0.034	-0.12	23.36	24.00	1.159	0.103	0.039	22.3
Right tilted	40	QPSK 108_54	349000/1745	1:1	0.023	0.009	0.18	23.36	24.00	1.159	0.027	0.010	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	40	QPSK 1_1	349000/1745	1:1	0.106	0.055	0.04	21.47	22.00	1.130	0.120	0.062	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.211	0.109	0.15	21.47	22.00	1.130	0.238	0.123	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	40	QPSK 108_54	349000/1745	1:1	0.136	0.070	-0.13	21.36	22.00	1.159	0.158	0.081	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.235	0.121	-0.19	21.36	22.00	1.159	0.272	0.140	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	40	QPSK 1_1	349000/1745	1:1	0.256	0.146	0.03	20.46	21.00	1.132	0.290	0.165	22.3
Back side	40	QPSK 1_1	349000/1745	1:1	0.576	0.328	0.19	20.46	21.00	1.132	0.652	0.371	22.3
Left side	40	QPSK 1_1	349000/1745	1:1	0.022	0.012	0.02	20.46	21.00	1.132	0.025	0.014	22.3
Right side	40	QPSK 1_1	349000/1745	1:1	0.011	0.006	-0.08	20.46	21.00	1.132	0.012	0.007	22.3
Bottom side	40	QPSK 1_1	349000/1745	1:1	0.730	0.416	-0.17	20.46	21.00	1.132	0.827	0.471	22.3
Hotspot Test data (Separate 10mm 50%RB)													

Front side	40	QPSK 108_54	349000/1745	1:1	0.275	0.156	0.01	20.27	21.00	1.183	0.325	0.185	22.3
Back side	40	QPSK 108_54	349000/1745	1:1	0.598	0.340	0.16	20.27	21.00	1.183	0.707	0.402	22.3
Left side	40	QPSK 108_54	349000/1745	1:1	0.039	0.022	0.10	20.27	21.00	1.183	0.046	0.026	22.3
Right side	40	QPSK 108_54	349000/1745	1:1	0.023	0.013	0.16	20.27	21.00	1.183	0.027	0.015	22.3
Bottom side	40	QPSK 108_54	349000/1745	1:1	0.745	0.424	0.01	20.27	21.00	1.183	**0.881**	0.502	22.3
Hotspot Test data (Separate 10mm 100%RB)													
Bottom side	40	QPSK 216_0	349000/1745	1:1	0.682	0.383	-0.07	19.29	20.00	1.178	0.803	0.451	22.3

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

8.2.24 SAR Result of 5G NR n71

SA N71 SAR Test Record													
Ant0 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	20	QPSK 1_1	136100/680.5	1:1	0.011	0.005	-0.07	23.49	24.00	1.125	0.012	0.006	22.1
Left tilted	20	QPSK 1_1	136100/680.5	1:1	0.022	0.010	-0.08	23.49	24.00	1.125	0.025	0.011	22.1
Right cheek	20	QPSK 1_1	136100/680.5	1:1	0.026	0.011	0.19	23.49	24.00	1.125	0.029	0.012	22.1
Right tilted	20	QPSK 1_1	136100/680.5	1:1	0.047	0.021	0.15	23.49	24.00	1.125	0.053	0.024	22.1
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	136100/680.5	1:1	0.018	0.008	-0.10	23.38	24.00	1.153	0.021	0.009	22.1
Left tilted	20	QPSK 50_28	136100/680.5	1:1	0.028	0.013	-0.02	23.38	24.00	1.153	0.032	0.015	22.1
Right cheek	20	QPSK 50_28	136100/680.5	1:1	0.038	0.017	0.17	23.38	24.00	1.153	0.044	0.020	22.1
Right tilted	20	QPSK 50_28	136100/680.5	1:1	0.056	0.025	0.01	23.38	24.00	1.153	**0.065**	0.029	22.1
Head Test data(1RB) For ENDC													
Left cheek	20	QPSK 1_1	136100/680.5	1:1	0.011	0.005	-0.09	23.49	21.00	0.564	0.006	0.003	22.1
Left tilted	20	QPSK 1_1	136100/680.5	1:1	0.022	0.010	0.00	23.49	21.00	0.564	0.012	0.006	22.1
Right cheek	20	QPSK 1_1	136100/680.5	1:1	0.026	0.011	-0.18	23.49	21.00	0.564	0.015	0.006	22.1
Right tilted	20	QPSK 1_1	136100/680.5	1:1	0.047	0.021	-0.07	23.49	21.00	0.564	0.026	0.012	22.1
Head Test data(50%RB)													
Left cheek	20	QPSK 50_28	136100/680.5	1:1	0.018	0.008	0.19	23.38	21.00	0.578	0.010	0.005	22.1
Left tilted	20	QPSK 50_28	136100/680.5	1:1	0.028	0.013	-0.03	23.38	21.00	0.578	0.016	0.008	22.1
Right cheek	20	QPSK 50_28	136100/680.5	1:1	0.038	0.017	0.00	23.38	21.00	0.578	0.022	0.010	22.1
Right tilted	20	QPSK 50_28	136100/680.5	1:1	0.056	0.025	-0.02	23.38	21.00	0.578	0.032	0.014	22.1
Body worn Test data(Separate 15mm 1RB)													
Front side	20	QPSK 1_1	136100/680.5	1:1	0.009	0.004	-0.01	23.49	24.00	1.125	0.010	0.004	22.1
Back side	20	QPSK 1_1	136100/680.5	1:1	0.055	0.027	0.07	23.49	24.00	1.125	0.062	0.030	22.1
Body worn Test data(Separate 15mm 50%RB)													
Front side	20	QPSK 50_28	136100/680.5	1:1	0.017	0.008	-0.08	23.38	24.00	1.153	0.020	0.009	22.1
Back side	20	QPSK 50_28	136100/680.5	1:1	0.063	0.031	-0.17	23.38	24.00	1.153	**0.073**	0.036	22.1
Hotspot Test data(Separate 10mm 1RB)													
Front side	20	QPSK 1_1	136100/680.5	1:1	0.035	0.012	0.13	23.49	24.00	1.125	0.039	0.013	22.1
Back side	20	QPSK 1_1	136100/680.5	1:1	0.119	0.041	-0.13	23.49	24.00	1.125	0.134	0.046	22.1
Left side	20	QPSK 1_1	136100/680.5	1:1	0.016	0.006	-0.10	23.49	24.00	1.125	0.018	0.007	22.1
Right side	20	QPSK 1_1	136100/680.5	1:1	0.004	0.001	-0.01	23.49	24.00	1.125	0.004	0.001	22.1
Top side	20	QPSK 1_1	136100/680.5	1:1	0.096	0.033	0.08	23.49	24.00	1.125	0.108	0.037	22.1
Hotspot Test data (Separate 10mm 50%RB)													
Front side	20	QPSK 50_28	136100/680.5	1:1	0.059	0.020	-0.19	23.38	24.00	1.153	0.068	0.023	22.1
Back side	20	QPSK 50_28	136100/680.5	1:1	0.145	0.050	0.06	23.38	24.00	1.153	**0.167**	0.058	22.1
Left side	20	QPSK 50_28	136100/680.5	1:1	0.031	0.011	0.14	23.38	24.00	1.153	0.036	0.013	22.1
Right side	20	QPSK 50_28	136100/680.5	1:1	0.006	0.002	-0.09	23.38	24.00	1.153	0.007	0.002	22.1
Top side	20	QPSK 50_28	136100/680.5	1:1	0.105	0.036	0.04	23.38	24.00	1.153	0.121	0.042	22.1

Table 33： SAR of 5G NR n71 for Head, Body and Hotspot.

8.2.25 SAR Result of 5G NR n78

SA N78 SAR Test Record													
Ant2 Test Record													
Test position	BW.	Modulation	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data(1RB)													
Left cheek	100	QPSK 1_1	633334/3500.01	1:1	0.413	0.166	-0.08	17.07	18.00	1.239	0.512	0.206	22.3
Left tilted	100	QPSK 1_1	633334/3500.01	1:1	0.270	0.108	0.14	17.07	18.00	1.239	0.334	0.134	22.3
Right cheek	100	QPSK 1_1	633334/3500.01	1:1	0.145	0.058	-0.17	17.07	18.00	1.239	0.180	0.072	22.3
Right tilted	100	QPSK 1_1	633334/3500.01	1:1	0.155	0.062	-0.12	17.07	18.00	1.239	0.192	0.077	22.3
Head Test data(50%RB)													
Left cheek	100	QPSK 135_69	633334/3500.01	1:1	0.431	0.173	-0.09	16.97	18.00	1.268	**0.546**	0.219	22.3
Left tilted	100	QPSK 135_69	633334/3500.01	1:1	0.297	0.119	-0.02	16.97	18.00	1.268	0.376	0.151	22.3
Right cheek	100	QPSK 135_69	633334/3500.01	1:1	0.174	0.070	-0.19	16.97	18.00	1.268	0.221	0.089	22.3
Right tilted	100	QPSK 135_69	633334/3500.01	1:1	0.185	0.074	0.05	16.97	18.00	1.268	0.235	0.094	22.3
Body worn Test data(Separate 15mm 1RB)													
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.080	0.035	-0.03	18.96	20.00	1.271	0.102	0.044	22.3
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.348	0.150	0.07	18.96	20.00	1.271	0.442	0.191	22.3
Body worn Test data(Separate 15mm 50%RB)													
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.102	0.044	0.17	18.93	20.00	1.279	0.130	0.056	22.3
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.365	0.157	-0.03	18.93	20.00	1.279	**0.467**	0.201	22.3
Hotspot Test data(Separate 10mm 1RB)													
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.102	0.040	-0.09	18.01	19.00	1.256	0.128	0.050	22.3
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.487	0.192	-0.18	18.01	19.00	1.256	0.612	0.241	22.3
Right side	100	QPSK 1_1	633334/3500.01	1:1	0.527	0.207	-0.08	18.01	19.00	1.256	0.662	0.260	22.3
Top side	100	QPSK 1_1	633334/3500.01	1:1	0.154	0.061	-0.09	18.01	19.00	1.256	0.193	0.077	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.120	0.047	0.05	17.93	19.00	1.279	0.154	0.060	22.3
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.504	0.198	-0.13	17.93	19.00	1.279	0.645	0.253	22.3
Right side	100	QPSK 135_69	633334/3500.01	1:1	0.539	0.212	-0.05	17.93	19.00	1.279	**0.690**	0.271	22.3
Top side	100	QPSK 135_69	633334/3500.01	1:1	0.166	0.065	0.01	17.93	19.00	1.279	0.212	0.083	22.3
Hotspot Test data(Separate 10mm 1RB) For ENDC													
Front side	100	QPSK 1_1	633334/3500.01	1:1	0.102	0.040	-0.13	18.01	17.00	0.793	0.081	0.032	22.3
Back side	100	QPSK 1_1	633334/3500.01	1:1	0.487	0.192	0.11	18.01	17.00	0.793	0.386	0.152	22.3
Right side	100	QPSK 1_1	633334/3500.01	1:1	0.527	0.207	-0.04	18.01	17.00	0.793	0.418	0.164	22.3
Top side	100	QPSK 1_1	633334/3500.01	1:1	0.154	0.061	0.14	18.01	17.00	0.793	0.122	0.048	22.3
Hotspot Test data (Separate 10mm 50%RB)													
Front side	100	QPSK 135_69	633334/3500.01	1:1	0.120	0.047	0.10	17.93	17.00	0.807	0.097	0.038	22.3
Back side	100	QPSK 135_69	633334/3500.01	1:1	0.504	0.198	-0.11	17.93	17.00	0.807	0.407	0.160	22.3
Right side	100	QPSK 135_69	633334/3500.01	1:1	0.539	0.212	-0.05	17.93	17.00	0.807	0.435	0.171	22.3
Top side	100	QPSK 135_69	633334/3500.01	1:1	0.166	0.065	0.04	17.93	17.00	0.807	0.134	0.052	22.3

Table 34： SAR of 5G NR n78 Part 27Q for Head, Body and Hotspot.

8.2.26 SAR Result of WIFI 2.4G

Wi-Fi 2.4G SAR Test Record													
Ant7 Test Record chain0													
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data Standalone													
Left cheek	802.11b	6/2437	99.74%	1.003	0.354	0.170	-0.08	16.79	17.50	1.178	**0.417**	0.200	22.5
Left tilted	802.11b	6/2437	99.74%	1.003	0.306	0.147	-0.18	16.79	17.50	1.178	0.360	0.173	22.5
Right cheek	802.11b	6/2437	99.74%	1.003	0.159	0.076	0.15	16.79	17.50	1.178	0.187	0.089	22.5
Right tilted	802.11b	6/2437	99.74%	1.003	0.164	0.079	-0.09	16.79	17.50	1.178	0.193	0.093	22.5
Head Test data Simultaneous													
Left cheek	802.11b	6/2437	99.74%	1.003	0.354	0.170	-0.08	16.79	11.50	0.296	0.105	0.050	22.5
Left tilted	802.11b	6/2437	99.74%	1.003	0.306	0.147	-0.07	16.79	11.50	0.296	0.091	0.043	22.5
Right cheek	802.11b	6/2437	99.74%	1.003	0.159	0.076	0.11	16.79	11.50	0.296	0.047	0.022	22.5
Right tilted	802.11b	6/2437	99.74%	1.003	0.164	0.079	-0.19	16.79	11.50	0.296	0.049	0.023	22.5
Body worn Test data(Separate 15mm)													
Front side	802.11b	6/2437	99.74%	1.003	0.031	0.016	-0.16	17.79	18.50	1.178	0.037	0.019	22.5
Back side	802.11b	6/2437	99.74%	1.003	0.090	0.046	-0.14	17.79	18.50	1.178	**0.106**	0.054	22.5
Hotspot Test data (Separate 10mm)													
Front side	802.11b	6/2437	99.74%	1.003	0.018	0.009	0.19	15.25	15.80	1.135	0.020	0.010	22.5
Back side	802.11b	6/2437	99.74%	1.003	0.122	0.059	-0.07	15.25	15.80	1.135	**0.138**	0.067	22.5
Right side	802.11b	6/2437	99.74%	1.003	0.069	0.033	-0.19	15.25	15.80	1.135	0.078	0.037	22.5
Top side	802.11b	6/2437	99.74%	1.003	0.104	0.050	-0.03	15.25	15.80	1.135	0.118	0.057	22.5

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

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													
Ant7 Test Record chain0													
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data of U-NII-1 Standalone													
Left cheek	802.11a	40/5200	97.46%	1.026	0.434	0.153	-0.09	14.74	15.50	1.191	**0.517**	0.182	22.2
Left tilted	802.11a	40/5200	97.46%	1.026	0.338	0.119	-0.16	14.74	15.50	1.191	0.403	0.142	22.2
Right cheek	802.11a	40/5200	97.46%	1.026	0.166	0.058	-0.18	14.74	15.50	1.191	0.198	0.069	22.2
Right tilted	802.11a	40/5200	97.46%	1.026	0.174	0.061	0.19	14.74	15.50	1.191	0.207	0.073	22.2
Head Test data of U-NII-2A Standalone													
Left cheek	802.11a	60/5300	97.46%	1.026	0.533	0.184	-0.02	15.00	15.50	1.122	**0.598**	0.206	22.2
Left tilted	802.11a	60/5300	97.46%	1.026	0.429	0.148	-0.10	15.00	15.50	1.122	0.481	0.166	22.2
Right cheek	802.11a	60/5300	97.46%	1.026	0.183	0.063	0.09	15.00	15.50	1.122	0.205	0.071	22.2
Right tilted	802.11a	60/5300	97.46%	1.026	0.178	0.061	0.16	15.00	15.50	1.122	0.200	0.068	22.2
Head Test data of U-NII-2C Standalone													
Left cheek	802.11a	116/5580	97.46%	1.026	0.778	0.269	-0.08	15.25	15.50	1.059	**0.824**	0.285	22.2
Left tilted	802.11a	116/5580	97.46%	1.026	0.594	0.205	0.19	15.25	15.50	1.059	0.629	0.217	22.2
Right cheek	802.11a	116/5580	97.46%	1.026	0.468	0.162	-0.04	15.25	15.50	1.059	0.496	0.172	22.2
Right tilted	802.11a	116/5580	97.46%	1.026	0.400	0.138	-0.01	15.25	15.50	1.059	0.424	0.146	22.2
Head Test data of U-NII-3 Standalone													
Left cheek	802.11a	157/5785	97.46%	1.026	0.765	0.258	-0.02	15.32	15.50	1.042	**0.797**	0.269	22.2
Left tilted	802.11a	157/5785	97.46%	1.026	0.636	0.214	0.03	15.32	15.50	1.042	0.663	0.223	22.2
Right cheek	802.11a	157/5785	97.46%	1.026	0.388	0.131	0.09	15.32	15.50	1.042	0.404	0.137	22.2
Right tilted	802.11a	157/5785	97.46%	1.026	0.414	0.140	0.19	15.32	15.50	1.042	0.432	0.146	22.2
Head Test data of U-NII-1 Simultaneous													
Left cheek	802.11a	40/5200	97.46%	1.026	0.434	0.153	-0.09	14.74	11.00	0.423	0.183	0.065	22.2
Left tilted	802.11a	40/5200	97.46%	1.026	0.338	0.119	-0.15	14.74	11.00	0.423	0.143	0.050	22.2
Right cheek	802.11a	40/5200	97.46%	1.026	0.166	0.058	-0.19	14.74	11.00	0.423	0.070	0.025	22.2
Right tilted	802.11a	40/5200	97.46%	1.026	0.174	0.061	0.03	14.74	11.00	0.423	0.074	0.026	22.2
Head Test data of U-NII-2A Simultaneous													
Left cheek	802.11a	60/5300	97.46%	1.026	0.533	0.184	-0.02	15.00	11.00	0.398	0.212	0.073	22.2
Left tilted	802.11a	60/5300	97.46%	1.026	0.429	0.148	-0.04	15.00	11.00	0.398	0.171	0.059	22.2
Right cheek	802.11a	60/5300	97.46%	1.026	0.183	0.063	-0.18	15.00	11.00	0.398	0.073	0.025	22.2
Right tilted	802.11a	60/5300	97.46%	1.026	0.178	0.061	-0.01	15.00	11.00	0.398	0.071	0.024	22.2
Head Test data of U-NII-2C Simultaneous													
Left cheek	802.11a	116/5580	97.46%	1.026	0.778	0.269	-0.08	15.25	11.00	0.376	0.292	0.101	22.2
Left tilted	802.11a	116/5580	97.46%	1.026	0.594	0.205	-0.04	15.25	11.00	0.376	0.223	0.077	22.2
Right cheek	802.11a	116/5580	97.46%	1.026	0.468	0.162	0.05	15.25	11.00	0.376	0.176	0.061	22.2
Right tilted	802.11a	116/5580	97.46%	1.026	0.400	0.138	-0.19	15.25	11.00	0.376	0.150	0.052	22.2
Head Test data of U-NII-3 Simultaneous													
Left cheek	802.11a	157/5785	97.46%	1.026	0.765	0.258	-0.02	15.32	11.00	0.370	0.283	0.095	22.2
Left tilted	802.11a	157/5785	97.46%	1.026	0.636	0.214	-0.14	15.32	11.00	0.370	0.235	0.079	22.2
Right cheek	802.11a	157/5785	97.46%	1.026	0.388	0.131	-0.09	15.32	11.00	0.370	0.143	0.048	22.2
Right tilted	802.11a	157/5785	97.46%	1.026	0.414	0.140	0.10	15.32	11.00	0.370	0.153	0.052	22.2
Body worn Test data of U-NII-2A(Separate 15mm)													

Front side	802.11a	60/5300	97.46%	1.026	0.101	0.042	-0.01	16.99	18.00	1.262	0.127	0.053	22.2
Back side	802.11a	60/5300	97.46%	1.026	0.175	0.073	0.04	16.99	18.00	1.262	**0.221**	0.092	22.2
Body worn Test data of U-NII-2C(Separate 15mm)													
Front side	802.11a	116/5580	97.46%	1.026	0.145	0.061	-0.09	17.29	18.00	1.178	0.171	0.072	22.2
Back side	802.11a	116/5580	97.46%	1.026	0.297	0.124	0.04	17.29	18.00	1.178	**0.350**	0.146	22.2
Body worn Test data of U-NII-3(Separate 15mm)													
Front side	802.11a	157/5785	97.46%	1.026	0.145	0.060	-0.11	17.26	18.00	1.186	0.172	0.071	22.2
Back side	802.11a	157/5785	97.46%	1.026	0.161	0.067	0.01	17.26	18.00	1.186	**0.191**	0.079	22.2
Hotspot Test data of U-NII-1(Separate 10mm)													
Front side	802.11a	40/5200	97.46%	1.026	0.067	0.024	-0.19	13.30	14.50	1.318	0.088	0.032	22.2
Back side	802.11a	40/5200	97.46%	1.026	0.079	0.028	-0.06	13.30	14.50	1.318	0.104	0.037	22.2
Right side	802.11a	40/5200	97.46%	1.026	0.084	0.030	0.09	13.30	14.50	1.318	0.111	0.040	22.2
Top side	802.11a	40/5200	97.46%	1.026	0.093	0.033	-0.04	13.30	14.50	1.318	**0.123**	0.044	22.2
Hotspot Test data of U-NII-3(Separate 10mm)													
Front side	802.11a	157/5785	97.46%	1.026	0.087	0.033	0.01	13.77	14.50	1.183	0.103	0.039	22.2
Back side	802.11a	157/5785	97.46%	1.026	0.103	0.039	0.01	13.77	14.50	1.183	0.122	0.046	22.2
Right side	802.11a	157/5785	97.46%	1.026	0.109	0.042	0.15	13.77	14.50	1.183	0.129	0.050	22.2
Top side	802.11a	157/5785	97.46%	1.026	0.126	0.048	-0.16	13.77	14.50	1.183	**0.149**	0.057	22.2
Test position	**Test mode**	**Test ch./Freq.**	**Duty Cycle**	**Duty Cycle Scaled factor**	**SAR (W/kg) 10-g**	**SAR (W/kg) 10-g**	**Power drift (dB)**	**Conducted Power(dBm)**	**Tune up Limit(dBm)**	**Scaled factor**	**Scaled SAR 10-g (W/kg)**	**Scaled SAR 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10gSAR Test data of U-NII-2A(Separate 0mm)													
Front side	802.11a	60/5300	97.46%	1.026	1.700	0.394	0.09	16.99	18.00	1.262	2.145	0.497	22.2
Back side	802.11a	60/5300	97.46%	1.026	1.690	0.392	0.06	16.99	18.00	1.262	2.132	0.495	22.2
Right side	802.11a	60/5300	97.46%	1.026	1.790	0.415	-0.01	16.99	18.00	1.262	2.259	0.524	22.2
Top side	802.11a	60/5300	97.46%	1.026	2.810	0.650	-0.10	16.99	18.00	1.262	3.546	**0.820**	22.2
Product specific 10gSAR Test data of U-NII-2C(Separate 0mm)													
Front side	802.11a	116/5580	97.46%	1.026	2.380	0.547	0.13	17.29	18.00	1.178	2.803	0.644	22.2
Back side	802.11a	116/5580	97.46%	1.026	2.320	0.533	-0.06	17.29	18.00	1.178	2.732	0.628	22.2
Right side	802.11a	116/5580	97.46%	1.026	3.300	0.759	0.11	17.29	18.00	1.178	3.886	0.894	22.2
Top side	802.11a	116/5580	97.46%	1.026	5.280	1.210	-0.02	17.29	18.00	1.178	6.218	**1.425**	22.2

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

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													
Ant7 Test Record													
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
Head Test data													
Left cheek	DH5	39/2441	77.04%	1.298	0.034	0.016	0.15	9.07	9.50	1.104	**0.038**	0.018	22.5
Left tilted	DH5	39/2441	77.04%	1.298	0.019	0.009	-0.18	9.07	9.50	1.104	0.021	0.010	22.5
Right cheek	DH5	39/2441	77.04%	1.298	0.008	0.004	0.18	9.07	9.50	1.104	0.009	0.004	22.5
Right tilted	DH5	39/2441	77.04%	1.298	0.010	0.005	0.17	9.07	9.50	1.104	0.011	0.006	22.5
Body worn Test data(Separate 15mm)													
Front side	DH5	39/2441	77.04%	1.298	0.032	0.015	0.18	9.07	9.50	1.104	0.035	0.017	22.5
Back side	DH5	39/2441	77.04%	1.298	0.035	0.016	0.05	9.07	9.50	1.104	**0.039**	0.018	22.5
Hotspot Test data (Separate 10mm)													
Front side	DH5	39/2441	77.04%	1.298	0.051	0.022	0.17	9.07	9.50	1.104	0.056	0.024	22.5
Back side	DH5	39/2441	77.04%	1.298	0.060	0.026	0.09	9.07	9.50	1.104	**0.066**	0.029	22.5
Right side	DH5	39/2441	77.04%	1.298	0.033	0.014	0.18	9.07	9.50	1.104	0.036	0.015	22.5
Top side	DH5	39/2441	77.04%	1.298	0.039	0.017	0.14	9.07	9.50	1.104	0.043	0.019	22.5

Table 37：SAR of BT for Head, Body and Hotspot.

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) 1-g	SAR (W/kg) 10-g	Power drift (dB)	Scaled factor	Scaled SAR 1-g (W/kg)	Scaled SAR 10-g (W/kg)	Liquid Temp.(℃)
NFC Test data (Separate 0mm)											
Front side	NFC	13.56MHz	100.00%	1.000	0.000	0.000	0.03	1.000	0.000	0.000	22.3
Back side	NFC	13.56MHz	100.00%	1.000	0.021	0.009	0.15	1.000	0.021	**0.009**	22.3
Left side	NFC	13.56MHz	100.00%	1.000	0.000	0.000	0.05	1.000	0.000	0.000	22.3
Right side	NFC	13.56MHz	100.00%	1.000	0.000	0.000	0.01	1.000	0.000	0.000	22.3
Top side	NFC	13.56MHz	100.00%	1.000	0.000	0.000	0.09	1.000	0.000	0.000	22.3
Bottom side	NFC	13.56MHz	100.00%	1.000	0.000	0.000	0.12	1.000	0.000	0.000	22.3

Table 38：SAR of NFC for Body.

8.3 Multiple Transmitter Evaluation

8.3.1 Simultaneous SAR test evaluation

•Simultaneous Transmission Possibilities

No.	Simultaneous Tx Combination	Head	Body	Hotspot	Product Specific 10-g (0mm)
1	WWAN + WLAN 2.4GHz Ant7+NFC	Yes	Yes	Yes	Yes
2	WWAN + WLAN 5GHz Ant7 + BT Ant7+NFC	Yes	Yes	Yes	Yes

Note:

1) For Wi-Fi 5G, U-NII-1 (5150–5250 MHz) and U-NII-3 (5725-5850 MHz) bands does support hotspot function.
2) NFC is different from the working scenario of WWAN/WIFI(Head/Body-worn/Hotspot) and does not participate in the simultaneous transmission.
3) Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required it wireless router 1g SAR(Scaled to the maximum output power ,including tolerance) ＜ 1.2 W/Kg. Therefore, no further analysis beyond tables included in this section was required to determine that possible Simultaneous transmission scenarios would not exceed the SAR limit.

8.3.2 Simultaneous Transmission SAR Summation Scenario

Head:

Test position		SARmax (W/kg)				Summed SAR	
		Max All ant	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	1+2	1+3+4
GSM850	Left cheek	1.122	0.105	0.292	0.038	1.227	1.452
	Left tilted	1.064	0.091	0.235	0.021	1.155	1.320
	Right cheek	1.181	0.047	0.176	0.009	1.228	1.366
	Right tilted	1.081	0.049	0.153	0.011	1.130	1.245
GSM1900	Left cheek	1.259	0.105	0.292	0.038	1.364	1.589
	Left tilted	0.750	0.091	0.235	0.021	0.841	1.006
	Right cheek	0.635	0.047	0.176	0.009	0.682	0.820
	Right tilted	0.588	0.049	0.153	0.011	0.637	0.752
WCDMA B2	Left cheek	0.681	0.105	0.292	0.038	0.786	1.011
	Left tilted	0.321	0.091	0.235	0.021	0.412	0.577
	Right cheek	0.300	0.047	0.176	0.009	0.347	0.485
	Right tilted	0.292	0.049	0.153	0.011	0.341	0.456
WCDMA B4	Left cheek	0.939	0.105	0.292	0.038	1.044	1.269
	Left tilted	0.424	0.091	0.235	0.021	0.515	0.680
	Right cheek	0.444	0.047	0.176	0.009	0.491	0.629
	Right tilted	0.337	0.049	0.153	0.011	0.386	0.501
WCDMA B5	Left cheek	0.685	0.105	0.292	0.038	0.790	1.015
	Left tilted	0.653	0.091	0.235	0.021	0.744	0.909
	Right cheek	0.809	0.047	0.176	0.009	0.856	0.994
	Right tilted	0.756	0.049	0.153	0.011	0.805	0.920
LTE B7	Left cheek	0.172	0.105	0.292	0.038	0.277	0.502
	Left tilted	0.136	0.091	0.235	0.021	0.227	0.392
	Right cheek	0.413	0.047	0.176	0.009	0.460	0.598
	Right tilted	0.201	0.049	0.153	0.011	0.250	0.365
LTE B12(17)	Left cheek	0.522	0.105	0.292	0.038	0.627	0.852
	Left tilted	0.468	0.091	0.235	0.021	0.559	0.724
	Right cheek	0.730	0.047	0.176	0.009	0.777	0.915
	Right tilted	0.695	0.049	0.153	0.011	0.744	0.859
LTE B13	Left cheek	0.897	0.105	0.292	0.038	1.002	1.227
	Left tilted	0.754	0.091	0.235	0.021	0.845	1.010
	Right cheek	1.107	0.047	0.176	0.009	1.154	1.292
	Right tilted	0.982	0.049	0.153	0.011	1.031	1.146
LTE B14	Left cheek	0.992	0.105	0.292	0.038	1.097	1.322
	Left tilted	0.884	0.091	0.235	0.021	0.975	1.140
	Right cheek	1.173	0.047	0.176	0.009	1.220	1.358
	Right tilted	1.120	0.049	0.153	0.011	1.169	1.284
LTE B25(2)	Left cheek	0.461	0.105	0.292	0.038	0.566	0.791
	Left tilted	0.253	0.091	0.235	0.021	0.344	0.509
	Right cheek	0.202	0.047	0.176	0.009	0.249	0.387

	Right tilted	0.185	0.049	0.153	0.011	0.234	0.349
LTE B26(5)	Left cheek	0.651	0.105	0.292	0.038	0.756	0.981
	Left tilted	0.636	0.091	0.235	0.021	0.727	0.892
	Right cheek	0.856	0.047	0.176	0.009	0.903	1.041
	Right tilted	0.797	0.049	0.153	0.011	0.846	0.961
LTE B66(4)	Left cheek	0.604	0.105	0.292	0.038	0.709	0.934
	Left tilted	0.270	0.091	0.235	0.021	0.361	0.526
	Right cheek	0.295	0.047	0.176	0.009	0.342	0.480
	Right tilted	0.239	0.049	0.153	0.011	0.288	0.403
LTE B71	Left cheek	0.018	0.105	0.292	0.038	0.123	0.348
	Left tilted	0.029	0.091	0.235	0.021	0.120	0.285
	Right cheek	0.039	0.047	0.176	0.009	0.086	0.224
	Right tilted	0.057	0.049	0.153	0.011	0.106	0.221
LTE B38	Left cheek	0.137	0.105	0.292	0.038	0.242	0.467
	Left tilted	0.092	0.091	0.235	0.021	0.183	0.348
	Right cheek	0.361	0.047	0.176	0.009	0.408	0.546
	Right tilted	0.146	0.049	0.153	0.011	0.195	0.310
LTE B41	Left cheek	0.118	0.105	0.292	0.038	0.223	0.448
	Left tilted	0.062	0.091	0.235	0.021	0.153	0.318
	Right cheek	0.251	0.047	0.176	0.009	0.298	0.436
	Right tilted	0.085	0.049	0.153	0.011	0.134	0.249
LTE B42	Left cheek	0.479	0.105	0.292	0.038	0.584	0.809
	Left tilted	0.315	0.091	0.235	0.021	0.406	0.571
	Right cheek	0.153	0.047	0.176	0.009	0.200	0.338
	Right tilted	0.210	0.049	0.153	0.011	0.259	0.374
LTE B48	Left cheek	0.656	0.105	0.292	0.038	0.761	0.986
	Left tilted	0.546	0.091	0.235	0.021	0.637	0.802
	Right cheek	0.286	0.047	0.176	0.009	0.333	0.471
	Right tilted	0.333	0.049	0.153	0.011	0.382	0.497
N2	Left cheek	0.583	0.105	0.292	0.038	0.688	0.913
	Left tilted	0.282	0.091	0.235	0.021	0.373	0.538
	Right cheek	0.274	0.047	0.176	0.009	0.321	0.459
	Right tilted	0.223	0.049	0.153	0.011	0.272	0.387
N5	Left cheek	1.185	0.105	0.292	0.038	1.290	1.515
	Left tilted	1.079	0.091	0.235	0.021	1.170	1.335
	Right cheek	1.344	0.047	0.176	0.009	1.391	1.529
	Right tilted	1.295	0.049	0.153	0.011	1.344	1.459
N7	Left cheek	0.164	0.105	0.292	0.038	0.269	0.494
	Left tilted	0.070	0.091	0.235	0.021	0.161	0.326
	Right cheek	0.381	0.047	0.176	0.009	0.428	0.566
	Right tilted	0.098	0.049	0.153	0.011	0.147	0.262
N66	Left cheek	0.749	0.105	0.292	0.038	0.854	1.079
	Left tilted	0.365	0.091	0.235	0.021	0.456	0.621
	Right cheek	0.396	0.047	0.176	0.009	0.443	0.581
	Right tilted	0.357	0.049	0.153	0.011	0.406	0.521

N71	Left cheek	0.021	0.105	0.292	0.038	0.126	0.351
	Left tilted	0.032	0.091	0.235	0.021	0.123	0.288
	Right cheek	0.044	0.047	0.176	0.009	0.091	0.229
	Right tilted	0.065	0.049	0.153	0.011	0.114	0.229
N41	Left cheek	0.212	0.105	0.292	0.038	0.317	0.542
	Left tilted	0.168	0.091	0.235	0.021	0.259	0.424
	Right cheek	0.369	0.047	0.176	0.009	0.416	0.554
	Right tilted	0.248	0.049	0.153	0.011	0.297	0.412
N48	Left cheek	0.490	0.105	0.292	0.038	0.595	0.820
	Left tilted	0.480	0.091	0.235	0.021	0.571	0.736
	Right cheek	0.264	0.047	0.176	0.009	0.311	0.449
	Right tilted	0.240	0.049	0.153	0.011	0.289	0.404
N78	Left cheek	0.546	0.105	0.292	0.038	0.651	0.876
	Left tilted	0.376	0.091	0.235	0.021	0.467	0.632
	Right cheek	0.221	0.047	0.176	0.009	0.268	0.406
	Right tilted	0.235	0.049	0.153	0.011	0.284	0.399

UL CA:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B4 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-4A	Left cheek	0.461	0.093	0.105	0.292	0.038	0.659	0.884
	Left tilted	0.253	0.029	0.091	0.235	0.021	0.373	0.538
	Right cheek	0.202	0.076	0.047	0.176	0.009	0.325	0.463
	Right tilted	0.185	0.019	0.049	0.153	0.011	0.253	0.368

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-5A	Left cheek	0.461	0.517	0.105	0.292	0.038	1.083	1.308
	Left tilted	0.253	0.506	0.091	0.235	0.021	0.850	1.015
	Right cheek	0.202	0.680	0.047	0.176	0.009	0.929	1.067
	Right tilted	0.185	0.633	0.049	0.153	0.011	0.867	0.982

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-7A	Left cheek	0.461	0.109	0.105	0.292	0.038	0.675	0.900
	Left tilted	0.253	0.060	0.091	0.235	0.021	0.404	0.569
	Right cheek	0.202	0.261	0.047	0.176	0.009	0.510	0.648
	Right tilted	0.185	0.100	0.049	0.153	0.011	0.334	0.449

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-5A	Left cheek	0.480	0.517	0.105	0.292	0.038	1.102	1.327
	Left tilted	0.214	0.506	0.091	0.235	0.021	0.811	0.976
	Right cheek	0.235	0.680	0.047	0.176	0.009	0.962	1.100
	Right tilted	0.190	0.633	0.049	0.153	0.011	0.872	0.987

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-7A	Left cheek	0.480	0.109	0.105	0.292	0.038	0.694	0.919
	Left tilted	0.214	0.060	0.091	0.235	0.021	0.365	0.530
	Right cheek	0.235	0.261	0.047	0.176	0.009	0.543	0.681
	Right tilted	0.190	0.100	0.049	0.153	0.011	0.339	0.454

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-7A	Left cheek	0.517	0.109	0.105	0.292	0.038	0.731	0.956
	Left tilted	0.506	0.060	0.091	0.235	0.021	0.657	0.822
	Right cheek	0.680	0.261	0.047	0.176	0.009	0.988	1.126
	Right tilted	0.633	0.100	0.049	0.153	0.011	0.782	0.897

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-48A	Left cheek	0.517	0.425	0.105	0.292	0.038	1.047	1.272
	Left tilted	0.506	0.354	0.091	0.235	0.021	0.951	1.116
	Right cheek	0.680	0.185	0.047	0.176	0.009	0.912	1.050
	Right tilted	0.633	0.216	0.049	0.153	0.011	0.898	1.013

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-66A	Left cheek	0.517	0.480	0.105	0.292	0.038	1.102	1.327
	Left tilted	0.506	0.214	0.091	0.235	0.021	0.811	0.976
	Right cheek	0.680	0.235	0.047	0.176	0.009	0.962	1.100
	Right tilted	0.633	0.190	0.049	0.153	0.011	0.872	0.987

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_12A-66A	Left cheek	0.262	0.480	0.105	0.292	0.038	0.847	1.072
	Left tilted	0.235	0.214	0.091	0.235	0.021	0.540	0.705
	Right cheek	0.366	0.235	0.047	0.176	0.009	0.648	0.786
	Right tilted	0.349	0.190	0.049	0.153	0.011	0.588	0.703

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	LTE B66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_48A-66A	Left cheek	0.425	0.093	0.105	0.292	0.038	0.623	0.848
	Left tilted	0.354	0.029	0.091	0.235	0.021	0.474	0.639
	Right cheek	0.185	0.076	0.047	0.176	0.009	0.308	0.446
	Right tilted	0.216	0.019	0.049	0.153	0.011	0.284	0.399

ENDC:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n5	Left cheek	0.461	0.666	0.105	0.292	0.038	1.232	1.457
	Left tilted	0.253	0.607	0.091	0.235	0.021	0.951	1.116
	Right cheek	0.202	0.756	0.047	0.176	0.009	1.005	1.143
	Right tilted	0.185	0.728	0.049	0.153	0.011	0.962	1.077

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n41	Left cheek	0.461	0.176	0.105	0.292	0.038	0.742	0.967
	Left tilted	0.253	0.087	0.091	0.235	0.021	0.431	0.596
	Right cheek	0.202	0.369	0.047	0.176	0.009	0.618	0.756
	Right tilted	0.185	0.135	0.049	0.153	0.011	0.369	0.484

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n48	Left cheek	0.461	0.490	0.105	0.292	0.038	1.056	1.281
	Left tilted	0.253	0.480	0.091	0.235	0.021	0.824	0.989
	Right cheek	0.202	0.264	0.047	0.176	0.009	0.513	0.651
	Right tilted	0.185	0.240	0.049	0.153	0.011	0.474	0.589

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n66	Left cheek	0.461	0.126	0.105	0.292	0.038	0.692	0.917
	Left tilted	0.253	0.039	0.091	0.235	0.021	0.383	0.548
	Right cheek	0.202	0.103	0.047	0.176	0.009	0.352	0.490
	Right tilted	0.185	0.027	0.049	0.153	0.011	0.261	0.376

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n71	Left cheek	0.461	0.010	0.105	0.292	0.038	0.576	0.801
	Left tilted	0.253	0.016	0.091	0.235	0.021	0.360	0.525
	Right cheek	0.202	0.022	0.047	0.176	0.009	0.271	0.409
	Right tilted	0.185	0.032	0.049	0.153	0.011	0.266	0.381

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n78	Left cheek	0.461	0.546	0.105	0.292	0.038	1.112	1.337
	Left tilted	0.253	0.376	0.091	0.235	0.021	0.720	0.885
	Right cheek	0.202	0.221	0.047	0.176	0.009	0.470	0.608
	Right tilted	0.185	0.235	0.049	0.153	0.011	0.469	0.584

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n2	Left cheek	0.093	0.368	0.105	0.292	0.038	0.566	0.791
	Left tilted	0.029	0.178	0.091	0.235	0.021	0.298	0.463
	Right cheek	0.076	0.173	0.047	0.176	0.009	0.296	0.434
	Right tilted	0.019	0.141	0.049	0.153	0.011	0.209	0.324

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n78	Left cheek	0.093	0.546	0.105	0.292	0.038	0.744	0.969
	Left tilted	0.029	0.376	0.091	0.235	0.021	0.496	0.661
	Right cheek	0.076	0.221	0.047	0.176	0.009	0.344	0.482
	Right tilted	0.019	0.235	0.049	0.153	0.011	0.303	0.418

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n5	Left cheek	0.480	0.666	0.105	0.292	0.038	1.251	1.476
	Left tilted	0.214	0.607	0.091	0.235	0.021	0.912	1.077
	Right cheek	0.235	0.756	0.047	0.176	0.009	1.038	1.176
	Right tilted	0.190	0.728	0.049	0.153	0.011	0.967	1.082

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n2	Left cheek	0.517	0.368	0.105	0.292	0.038	0.990	1.215
	Left tilted	0.506	0.178	0.091	0.235	0.021	0.775	0.940
	Right cheek	0.680	0.173	0.047	0.176	0.009	0.900	1.038
	Right tilted	0.633	0.141	0.049	0.153	0.011	0.823	0.938

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n7	Left cheek	0.517	0.116	0.105	0.292	0.038	0.738	0.963
	Left tilted	0.506	0.049	0.091	0.235	0.021	0.646	0.811
	Right cheek	0.680	0.270	0.047	0.176	0.009	0.997	1.135
	Right tilted	0.633	0.069	0.049	0.153	0.011	0.751	0.866

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n66	Left cheek	0.517	0.376	0.105	0.292	0.038	0.998	1.223
	Left tilted	0.506	0.183	0.091	0.235	0.021	0.780	0.945
	Right cheek	0.680	0.199	0.047	0.176	0.009	0.926	1.064
	Right tilted	0.633	0.179	0.049	0.153	0.011	0.861	0.976

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n78	Left cheek	0.517	0.546	0.105	0.292	0.038	1.168	1.393
	Left tilted	0.506	0.376	0.091	0.235	0.021	0.973	1.138
	Right cheek	0.680	0.221	0.047	0.176	0.009	0.948	1.086
	Right tilted	0.633	0.235	0.049	0.153	0.011	0.917	1.032

Test position		SARmax (W/kg)					Summed SAR	
		LTE B7 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B7-n78	Left cheek	0.171	0.546	0.105	0.292	0.038	0.822	1.047
	Left tilted	0.136	0.376	0.091	0.235	0.021	0.603	0.768
	Right cheek	0.218	0.221	0.047	0.176	0.009	0.486	0.624
	Right tilted	0.201	0.235	0.049	0.153	0.011	0.485	0.600

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n2	Left cheek	0.262	0.368	0.105	0.292	0.038	0.735	0.960
	Left tilted	0.235	0.178	0.091	0.235	0.021	0.504	0.669
	Right cheek	0.366	0.173	0.047	0.176	0.009	0.586	0.724
	Right tilted	0.349	0.141	0.049	0.153	0.011	0.539	0.654

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N41 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n41	Left cheek	0.262	0.212	0.105	0.292	0.038	0.579	0.804
	Left tilted	0.235	0.168	0.091	0.235	0.021	0.494	0.659
	Right cheek	0.366	0.271	0.047	0.176	0.009	0.684	0.822
	Right tilted	0.349	0.248	0.049	0.153	0.011	0.646	0.761

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n66	Left cheek	0.262	0.126	0.105	0.292	0.038	0.493	0.718
	Left tilted	0.235	0.039	0.091	0.235	0.021	0.365	0.530
	Right cheek	0.366	0.103	0.047	0.176	0.009	0.516	0.654
	Right tilted	0.349	0.027	0.049	0.153	0.011	0.425	0.540

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n78	Left cheek	0.262	0.546	0.105	0.292	0.038	0.913	1.138
	Left tilted	0.235	0.376	0.091	0.235	0.021	0.702	0.867
	Right cheek	0.366	0.221	0.047	0.176	0.009	0.634	0.772
	Right tilted	0.349	0.235	0.049	0.153	0.011	0.633	0.748

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n2	Left cheek	0.497	0.368	0.105	0.292	0.038	0.970	1.195
	Left tilted	0.443	0.178	0.091	0.235	0.021	0.712	0.877
	Right cheek	0.588	0.173	0.047	0.176	0.009	0.808	0.946
	Right tilted	0.561	0.141	0.049	0.153	0.011	0.751	0.866

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n66	Left cheek	0.497	0.126	0.105	0.292	0.038	0.728	0.953
	Left tilted	0.443	0.039	0.091	0.235	0.021	0.573	0.738
	Right cheek	0.588	0.103	0.047	0.176	0.009	0.738	0.876
	Right tilted	0.561	0.027	0.049	0.153	0.011	0.637	0.752

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n2	Left cheek	0.093	0.368	0.105	0.292	0.038	0.566	0.791
	Left tilted	0.029	0.178	0.091	0.235	0.021	0.298	0.463
	Right cheek	0.076	0.173	0.047	0.176	0.009	0.296	0.434
	Right tilted	0.019	0.141	0.049	0.153	0.011	0.209	0.324

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n5	Left cheek	0.480	0.666	0.105	0.292	0.038	1.251	1.476
	Left tilted	0.214	0.607	0.091	0.235	0.021	0.912	1.077
	Right cheek	0.235	0.756	0.047	0.176	0.009	1.038	1.176
	Right tilted	0.190	0.728	0.049	0.153	0.011	0.967	1.082

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n7	Left cheek	0.093	0.116	0.105	0.292	0.038	0.314	0.539
	Left tilted	0.029	0.049	0.091	0.235	0.021	0.169	0.334
	Right cheek	0.076	0.270	0.047	0.176	0.009	0.393	0.531
	Right tilted	0.019	0.069	0.049	0.153	0.011	0.137	0.252

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n41	Left cheek	0.093	0.176	0.105	0.292	0.038	0.374	0.599
	Left tilted	0.029	0.087	0.091	0.235	0.021	0.207	0.372
	Right cheek	0.076	0.369	0.047	0.176	0.009	0.492	0.630
	Right tilted	0.019	0.135	0.049	0.153	0.011	0.203	0.318

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n66	Left cheek	0.093	0.376	0.105	0.292	0.038	0.574	0.799
	Left tilted	0.029	0.183	0.091	0.235	0.021	0.303	0.468
	Right cheek	0.076	0.199	0.047	0.176	0.009	0.322	0.460
	Right tilted	0.019	0.179	0.049	0.153	0.011	0.247	0.362

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n71	Left cheek	0.480	0.010	0.105	0.292	0.038	0.595	0.820
	Left tilted	0.214	0.016	0.091	0.235	0.021	0.321	0.486
	Right cheek	0.235	0.022	0.047	0.176	0.009	0.304	0.442
	Right tilted	0.190	0.032	0.049	0.153	0.011	0.271	0.386

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n78	Left cheek	0.093	0.546	0.105	0.292	0.038	0.744	0.969
	Left tilted	0.029	0.376	0.091	0.235	0.021	0.496	0.661
	Right cheek	0.076	0.221	0.047	0.176	0.009	0.344	0.482
	Right tilted	0.019	0.235	0.049	0.153	0.011	0.303	0.418

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B48-n66	Left cheek	0.425	0.126	0.105	0.292	0.038	0.656	0.881
	Left tilted	0.354	0.039	0.091	0.235	0.021	0.484	0.649
	Right cheek	0.185	0.103	0.047	0.176	0.009	0.335	0.473
	Right tilted	0.216	0.027	0.049	0.153	0.011	0.292	0.407

Body:

Test position		SARmax (W/kg)				Summed SAR	
		Max All ant	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	1+2	1+3+4
GSM850	Front side	0.311	0.037	0.172	0.035	0.348	0.518
	Back side	0.405	0.106	0.350	0.039	0.511	0.794
GSM1900	Front side	0.234	0.037	0.172	0.035	0.271	0.441
	Back side	0.393	0.106	0.350	0.039	0.499	0.782
WCDMA B2	Front side	0.212	0.037	0.172	0.035	0.249	0.419
	Back side	0.337	0.106	0.350	0.039	0.443	0.726
WCDMA B4	Front side	0.209	0.037	0.172	0.035	0.246	0.416
	Back side	0.317	0.106	0.350	0.039	0.423	0.706
WCDMA B5	Front side	0.294	0.037	0.172	0.035	0.331	0.501
	Back side	0.359	0.106	0.350	0.039	0.465	0.748
LTE B7	Front side	0.196	0.037	0.172	0.035	0.233	0.403
	Back side	0.303	0.106	0.350	0.039	0.409	0.692
LTE B12(17)	Front side	0.122	0.037	0.172	0.035	0.159	0.329
	Back side	0.148	0.106	0.350	0.039	0.254	0.537
LTE B13	Front side	0.209	0.037	0.172	0.035	0.246	0.416
	Back side	0.231	0.106	0.350	0.039	0.337	0.620
LTE B14	Front side	0.210	0.037	0.172	0.035	0.247	0.417
	Back side	0.250	0.106	0.350	0.039	0.356	0.639
LTE B25(2)	Front side	0.147	0.037	0.172	0.035	0.184	0.354
	Back side	0.256	0.106	0.350	0.039	0.362	0.645
LTE B26(5)	Front side	0.248	0.037	0.172	0.035	0.285	0.455
	Back side	0.275	0.106	0.350	0.039	0.381	0.664
LTE B66(4)	Front side	0.174	0.037	0.172	0.035	0.211	0.381
	Back side	0.259	0.106	0.350	0.039	0.365	0.648
LTE B71	Front side	0.018	0.037	0.172	0.035	0.055	0.225
	Back side	0.067	0.106	0.350	0.039	0.173	0.456
LTE B38	Front side	0.150	0.037	0.172	0.035	0.187	0.357
	Back side	0.215	0.106	0.350	0.039	0.321	0.604
LTE B41	Front side	0.114	0.037	0.172	0.035	0.151	0.321
	Back side	0.204	0.106	0.350	0.039	0.310	0.593
LTE B42	Front side	0.177	0.037	0.172	0.035	0.214	0.384
	Back side	0.641	0.106	0.350	0.039	0.747	1.030
LTE B48	Front side	0.145	0.037	0.172	0.035	0.182	0.352
	Back side	0.497	0.106	0.350	0.039	0.603	0.886
N2	Front side	0.283	0.037	0.172	0.035	0.320	0.490
	Back side	0.431	0.106	0.350	0.039	0.537	0.820
N5	Front side	0.212	0.037	0.172	0.035	0.249	0.419
	Back side	0.348	0.106	0.350	0.039	0.454	0.737
N7	Front side	0.210	0.037	0.172	0.035	0.247	0.417
	Back side	0.407	0.106	0.350	0.039	0.513	0.796

N66	Front side	0.180	0.037	0.172	0.035	0.217	0.387
	Back side	0.288	0.106	0.350	0.039	0.394	0.677
N71	Front side	0.020	0.037	0.172	0.035	0.057	0.227
	Back side	0.073	0.106	0.350	0.039	0.179	0.462
N41	Front side	0.181	0.037	0.172	0.035	0.218	0.388
	Back side	0.340	0.106	0.350	0.039	0.446	0.729
N48	Front side	0.129	0.037	0.172	0.035	0.166	0.336
	Back side	0.445	0.106	0.350	0.039	0.551	0.834
N78	Front side	0.130	0.037	0.172	0.035	0.167	0.337
	Back side	0.467	0.106	0.350	0.039	0.573	0.856

UL CA:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B4 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-4A	Front side	0.147	0.160	0.037	0.172	0.035	0.344	0.514
	Back side	0.256	0.257	0.106	0.350	0.039	0.619	0.902

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-5A	Front side	0.147	0.248	0.037	0.172	0.035	0.432	0.602
	Back side	0.256	0.275	0.106	0.350	0.039	0.637	0.920

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-7A	Front side	0.147	0.155	0.037	0.172	0.035	0.339	0.509
	Back side	0.256	0.240	0.106	0.350	0.039	0.602	0.885

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-5A	Front side	0.174	0.248	0.037	0.172	0.035	0.459	0.629
	Back side	0.259	0.275	0.106	0.350	0.039	0.640	0.923

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-7A	Front side	0.174	0.155	0.037	0.172	0.035	0.366	0.536
	Back side	0.259	0.240	0.106	0.350	0.039	0.605	0.888

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-7A	Front side	0.248	0.155	0.037	0.172	0.035	0.440	0.610
	Back side	0.275	0.240	0.106	0.350	0.039	0.621	0.904

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-48A	Front side	0.248	0.091	0.037	0.172	0.035	0.376	0.546
	Back side	0.275	0.314	0.106	0.350	0.039	0.695	0.978

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-66A	Front side	0.248	0.174	0.037	0.172	0.035	0.459	0.629
	Back side	0.275	0.259	0.106	0.350	0.039	0.640	0.923

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_12A-66A	Front side	0.122	0.174	0.037	0.172	0.035	0.333	0.503
	Back side	0.148	0.259	0.106	0.350	0.039	0.513	0.796

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	LTE B66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_48A-66A	Front side	0.091	0.160	0.037	0.172	0.035	0.288	0.458
	Back side	0.314	0.257	0.106	0.350	0.039	0.677	0.960

ENDC:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n5	Front side	0.147	0.212	0.037	0.172	0.035	0.396	0.566
	Back side	0.256	0.348	0.106	0.350	0.039	0.710	0.993

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n41	Front side	0.147	0.181	0.037	0.172	0.035	0.365	0.535
	Back side	0.256	0.340	0.106	0.350	0.039	0.702	0.985

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n48	Front side	0.147	0.129	0.037	0.172	0.035	0.313	0.483
	Back side	0.256	0.445	0.106	0.350	0.039	0.807	1.090

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n66	Front side	0.147	0.158	0.037	0.172	0.035	0.342	0.512
	Back side	0.256	0.272	0.106	0.350	0.039	0.634	0.917

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n71	Front side	0.147	0.020	0.037	0.172	0.035	0.204	0.374
	Back side	0.256	0.073	0.106	0.350	0.039	0.435	0.718

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n78	Front side	0.147	0.130	0.037	0.172	0.035	0.314	0.484
	Back side	0.256	0.467	0.106	0.350	0.039	0.829	1.112

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n2	Front side	0.160	0.225	0.037	0.172	0.035	0.422	0.592
	Back side	0.257	0.342	0.106	0.350	0.039	0.705	0.988

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n78	Front side	0.160	0.130	0.037	0.172	0.035	0.327	0.497
	Back side	0.257	0.467	0.106	0.350	0.039	0.830	1.113

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n5	Front side	0.174	0.212	0.037	0.172	0.035	0.423	0.593
	Back side	0.259	0.348	0.106	0.350	0.039	0.713	0.996

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n2	Front side	0.248	0.225	0.037	0.172	0.035	0.510	0.680
	Back side	0.275	0.342	0.106	0.350	0.039	0.723	1.006

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n7	Front side	0.248	0.187	0.037	0.172	0.035	0.472	0.642
	Back side	0.275	0.363	0.106	0.350	0.039	0.744	1.027

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n66	Front side	0.248	0.113	0.037	0.172	0.035	0.398	0.568
	Back side	0.275	0.182	0.106	0.350	0.039	0.563	0.846

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n78	Front side	0.248	0.130	0.037	0.172	0.035	0.415	0.585
	Back side	0.275	0.467	0.106	0.350	0.039	0.848	1.131

Test position		SARmax (W/kg)					Summed SAR	
		LTE B7 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B7-n78	Front side	0.141	0.130	0.037	0.172	0.035	0.308	0.478
	Back side	0.220	0.467	0.106	0.350	0.039	0.793	1.076

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n2	Front side	0.122	0.225	0.037	0.172	0.035	0.384	0.554
	Back side	0.148	0.342	0.106	0.350	0.039	0.596	0.879

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N41 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n41	Front side	0.122	0.059	0.037	0.172	0.035	0.218	0.388
	Back side	0.148	0.083	0.106	0.350	0.039	0.337	0.620

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n66	Front side	0.122	0.158	0.037	0.172	0.035	0.317	0.487
	Back side	0.148	0.272	0.106	0.350	0.039	0.526	0.809

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n78	Front side	0.122	0.130	0.037	0.172	0.035	0.289	0.459
	Back side	0.148	0.467	0.106	0.350	0.039	0.721	1.004

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n2	Front side	0.210	0.225	0.037	0.172	0.035	0.472	0.642
	Back side	0.250	0.342	0.106	0.350	0.039	0.698	0.981

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n66	Front side	0.210	0.158	0.037	0.172	0.035	0.405	0.575
	Back side	0.250	0.272	0.106	0.350	0.039	0.628	0.911

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n2	Front side	0.160	0.225	0.037	0.172	0.035	0.422	0.592
	Back side	0.257	0.342	0.106	0.350	0.039	0.705	0.988

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n5	Front side	0.174	0.212	0.037	0.172	0.035	0.423	0.593
	Back side	0.259	0.348	0.106	0.350	0.039	0.713	0.996

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n7	Front side	0.160	0.187	0.037	0.172	0.035	0.384	0.554
	Back side	0.257	0.363	0.106	0.350	0.039	0.726	1.009

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n41	Front side	0.160	0.181	0.037	0.172	0.035	0.378	0.548
	Back side	0.257	0.340	0.106	0.350	0.039	0.703	0.986

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n66	Front side	0.160	0.113	0.037	0.172	0.035	0.310	0.480
	Back side	0.257	0.182	0.106	0.350	0.039	0.545	0.828

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n71	Front side	0.174	0.020	0.037	0.172	0.035	0.231	0.401
	Back side	0.259	0.073	0.106	0.350	0.039	0.438	0.721

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n78	Front side	0.160	0.130	0.037	0.172	0.035	0.327	0.497
	Back side	0.257	0.467	0.106	0.350	0.039	0.830	1.113

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B48-n66	Front side	0.091	0.158	0.037	0.172	0.035	0.286	0.456
	Back side	0.314	0.272	0.106	0.350	0.039	0.692	0.975

Hotspot:

Test position		SARmax (W/kg)				Summed SAR	
		Max All ant	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	1+2	1+3+4
GSM850	Front side	0.401	0.020	0.103	0.056	0.421	0.560
	Back side	0.734	0.138	0.122	0.066	0.872	0.922
	Left side	0.181	0.000	0.000	0.000	0.181	0.181
	Right side	0.062	0.078	0.129	0.036	0.140	0.227
	Top side	0.507	0.118	0.149	0.043	0.625	0.699
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
GSM1900	Front side	0.439	0.020	0.103	0.056	0.459	0.598
	Back side	0.876	0.138	0.122	0.066	1.014	1.064
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.672	0.078	0.129	0.036	0.750	0.837
	Top side	0.350	0.118	0.149	0.043	0.468	0.542
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Front side	0.349	0.020	0.103	0.056	0.369	0.508
	Back side	0.658	0.138	0.122	0.066	0.796	0.846
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.508	0.078	0.129	0.036	0.586	0.673
	Top side	0.315	0.118	0.149	0.043	0.433	0.507
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B4	Front side	0.396	0.020	0.103	0.056	0.416	0.555
	Back side	0.644	0.138	0.122	0.066	0.782	0.832
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.487	0.078	0.129	0.036	0.565	0.652
	Top side	0.457	0.118	0.149	0.043	0.575	0.649
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Front side	0.432	0.020	0.103	0.056	0.452	0.591
	Back side	0.729	0.138	0.122	0.066	0.867	0.917
	Left side	0.206	0.000	0.000	0.000	0.206	0.206
	Right side	0.045	0.078	0.129	0.036	0.123	0.210
	Top side	0.583	0.118	0.149	0.043	0.701	0.775
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B7	Front side	0.210	0.020	0.103	0.056	0.230	0.369
	Back side	0.487	0.138	0.122	0.066	0.625	0.675
	Left side	0.275	0.000	0.000	0.000	0.275	0.275
	Right side	0.059	0.078	0.129	0.036	0.137	0.224
	Top side	0.115	0.118	0.149	0.043	0.233	0.307
	Bottom side	0.621	0.000	0.000	0.000	0.621	0.621
LTE B12(17)	Front side	0.185	0.020	0.103	0.056	0.205	0.344
	Back side	0.339	0.138	0.122	0.066	0.477	0.527
	Left side	0.118	0.000	0.000	0.000	0.118	0.118
	Right side	0.066	0.078	0.129	0.036	0.144	0.231

	Top side	0.263	0.118	0.149	0.043	0.381	0.455
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B13	Front side	0.319	0.020	0.103	0.056	0.339	0.478
	Back side	0.497	0.138	0.122	0.066	0.635	0.685
	Left side	0.175	0.000	0.000	0.000	0.175	0.175
	Right side	0.044	0.078	0.129	0.036	0.122	0.209
	Top side	0.441	0.118	0.149	0.043	0.559	0.633
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B14	Front side	0.357	0.020	0.103	0.056	0.377	0.516
	Back side	0.598	0.138	0.122	0.066	0.736	0.786
	Left side	0.189	0.000	0.000	0.000	0.189	0.189
	Right side	0.086	0.078	0.129	0.036	0.164	0.251
	Top side	0.516	0.118	0.149	0.043	0.634	0.708
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B25(2)	Front side	0.281	0.020	0.103	0.056	0.301	0.440
	Back side	0.582	0.138	0.122	0.066	0.720	0.770
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.433	0.078	0.129	0.036	0.511	0.598
	Top side	0.300	0.118	0.149	0.043	0.418	0.492
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B26(5)	Front side	0.397	0.020	0.103	0.056	0.417	0.556
	Back side	0.623	0.138	0.122	0.066	0.761	0.811
	Left side	0.200	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.078	0.129	0.036	0.175	0.262
	Top side	0.536	0.118	0.149	0.043	0.654	0.728
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B66(4)	Front side	0.329	0.020	0.103	0.056	0.349	0.488
	Back side	0.715	0.138	0.122	0.066	0.853	0.903
	Left side	0.047	0.000	0.000	0.000	0.047	0.047
	Right side	0.232	0.078	0.129	0.036	0.310	0.397
	Top side	0.304	0.118	0.149	0.043	0.422	0.496
	Bottom side	0.891	0.000	0.000	0.000	0.891	0.891
LTE B71	Front side	0.037	0.020	0.103	0.056	0.057	0.196
	Back side	0.091	0.138	0.122	0.066	0.229	0.279
	Left side	0.019	0.000	0.000	0.000	0.019	0.019
	Right side	0.003	0.078	0.129	0.036	0.081	0.168
	Top side	0.066	0.118	0.149	0.043	0.184	0.258
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B38	Front side	0.428	0.020	0.103	0.056	0.448	0.587
	Back side	0.780	0.138	0.122	0.066	0.918	0.968
	Left side	0.415	0.000	0.000	0.000	0.415	0.415
	Right side	0.000	0.078	0.129	0.036	0.078	0.165
	Top side	0.261	0.118	0.149	0.043	0.379	0.453
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B41	Front side	0.169	0.020	0.103	0.056	0.189	0.328

	Back side	0.322	0.138	0.122	0.066	0.460	0.510
	Left side	0.197	0.000	0.000	0.000	0.197	0.197
	Right side	0.000	0.078	0.129	0.036	0.078	0.165
	Top side	0.141	0.118	0.149	0.043	0.259	0.333
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B42	Front side	0.157	0.020	0.103	0.056	0.177	0.316
	Back side	0.755	0.138	0.122	0.066	0.893	0.943
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.724	0.078	0.129	0.036	0.802	0.889
	Top side	0.181	0.118	0.149	0.043	0.299	0.373
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
LTE B48	Front side	0.177	0.020	0.103	0.056	0.197	0.336
	Back side	0.642	0.138	0.122	0.066	0.780	0.830
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.592	0.078	0.129	0.036	0.670	0.757
	Top side	0.267	0.118	0.149	0.043	0.385	0.459
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N2	Front side	0.391	0.020	0.103	0.056	0.411	0.550
	Back side	0.697	0.138	0.122	0.066	0.835	0.885
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.448	0.078	0.129	0.036	0.526	0.613
	Top side	0.397	0.118	0.149	0.043	0.515	0.589
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N5	Front side	0.398	0.020	0.103	0.056	0.418	0.557
	Back side	0.715	0.138	0.122	0.066	0.853	0.903
	Left side	0.247	0.000	0.000	0.000	0.247	0.247
	Right side	0.117	0.078	0.129	0.036	0.195	0.282
	Top side	0.526	0.118	0.149	0.043	0.644	0.718
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N7	Front side	0.211	0.020	0.103	0.056	0.231	0.370
	Back side	0.513	0.138	0.122	0.066	0.651	0.701
	Left side	0.290	0.000	0.000	0.000	0.290	0.290
	Right side	0.000	0.078	0.129	0.036	0.078	0.165
	Top side	0.107	0.118	0.149	0.043	0.225	0.299
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N66	Front side	0.325	0.020	0.103	0.056	0.345	0.484
	Back side	0.707	0.138	0.122	0.066	0.845	0.895
	Left side	0.046	0.000	0.000	0.000	0.046	0.046
	Right side	0.320	0.078	0.129	0.036	0.398	0.485
	Top side	0.249	0.118	0.149	0.043	0.367	0.441
	Bottom side	0.881	0.000	0.000	0.000	0.881	0.881
N71	Front side	0.068	0.020	0.103	0.056	0.088	0.227
	Back side	0.167	0.138	0.122	0.066	0.305	0.355
	Left side	0.036	0.000	0.000	0.000	0.036	0.036
	Right side	0.007	0.078	0.129	0.036	0.085	0.172

	Top side	0.121	0.118	0.149	0.043	0.239	0.313
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N41	Front side	0.247	0.020	0.103	0.056	0.267	0.406
	Back side	0.462	0.138	0.122	0.066	0.600	0.650
	Left side	0.232	0.000	0.000	0.000	0.232	0.232
	Right side	0.084	0.078	0.129	0.036	0.162	0.249
	Top side	0.085	0.118	0.149	0.043	0.203	0.277
	Bottom side	0.676	0.000	0.000	0.000	0.676	0.676
N48	Front side	0.157	0.020	0.103	0.056	0.177	0.316
	Back side	0.818	0.138	0.122	0.066	0.956	1.006
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.751	0.078	0.129	0.036	0.829	0.916
	Top side	0.294	0.118	0.149	0.043	0.412	0.486
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000
N78	Front side	0.154	0.020	0.103	0.056	0.174	0.313
	Back side	0.645	0.138	0.122	0.066	0.783	0.833
	Left side	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.690	0.078	0.129	0.036	0.768	0.855
	Top side	0.212	0.118	0.149	0.043	0.330	0.404
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000

UL CA:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B4 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-4A	Front side	0.178	0.329	0.020	0.103	0.056	0.527	0.666
	Back side	0.367	0.715	0.138	0.122	0.066	1.220	1.270
	Left side	0.000	0.047	0.000	0.000	0.000	0.047	0.047
	Right side	0.273	0.028	0.078	0.129	0.036	0.379	0.466
	Top side	0.189	0.000	0.118	0.149	0.043	0.307	0.381
	Bottom side	0.000	0.891	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-5A	Front side	0.178	0.397	0.020	0.103	0.056	0.595	0.734
	Back side	0.367	0.623	0.138	0.122	0.066	1.128	1.178
	Left side	0.000	0.200	0.000	0.000	0.000	0.200	0.200
	Right side	0.273	0.097	0.078	0.129	0.036	0.448	0.535
	Top side	0.189	0.536	0.118	0.149	0.043	0.843	0.917
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_2A-7A	Front side	0.178	0.132	0.020	0.103	0.056	0.330	0.469
	Back side	0.367	0.307	0.138	0.122	0.066	0.812	0.862
	Left side	0.000	0.173	0.000	0.000	0.000	0.173	0.173
	Right side	0.273	0.000	0.078	0.129	0.036	0.351	0.438
	Top side	0.189	0.072	0.118	0.149	0.043	0.379	0.453
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-5A	Front side	0.162	0.397	0.020	0.103	0.056	0.579	0.718
	Back side	0.287	0.623	0.138	0.122	0.066	1.048	1.098
	Left side	0.000	0.200	0.000	0.000	0.000	0.200	0.200
	Right side	0.184	0.097	0.078	0.129	0.036	0.359	0.446
	Top side	0.241	0.536	0.118	0.149	0.043	0.895	0.969
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_4A-7A	Front side	0.162	0.132	0.020	0.103	0.056	0.314	0.453
	Back side	0.287	0.307	0.138	0.122	0.066	0.732	0.782
	Left side	0.000	0.173	0.000	0.000	0.000	0.173	0.173
	Right side	0.184	0.000	0.078	0.129	0.036	0.262	0.349
	Top side	0.241	0.072	0.118	0.149	0.043	0.431	0.505
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-7A	Front side	0.397	0.132	0.020	0.103	0.056	0.549	0.688
	Back side	0.623	0.307	0.138	0.122	0.066	1.068	1.118
	Left side	0.200	0.173	0.000	0.000	0.000	0.373	0.373
	Right side	0.097	0.000	0.078	0.129	0.036	0.175	0.262
	Top side	0.536	0.072	0.118	0.149	0.043	0.726	0.800
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-48A	Front side	0.397	0.112	0.020	0.103	0.056	0.529	0.668
	Back side	0.623	0.405	0.138	0.122	0.066	1.166	1.216
	Left side	0.200	0.000	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.374	0.078	0.129	0.036	0.549	0.636
	Top side	0.536	0.168	0.118	0.149	0.043	0.822	0.896
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_5A-66A	Front side	0.397	0.162	0.020	0.103	0.056	0.579	0.718
	Back side	0.623	0.287	0.138	0.122	0.066	1.048	1.098
	Left side	0.200	0.000	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.184	0.078	0.129	0.036	0.359	0.446
	Top side	0.536	0.241	0.118	0.149	0.043	0.895	0.969
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	LTE B66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_12A-66A	Front side	0.185	0.162	0.020	0.103	0.056	0.367	0.506
	Back side	0.339	0.287	0.138	0.122	0.066	0.764	0.814
	Left side	0.118	0.000	0.000	0.000	0.000	0.118	0.118
	Right side	0.066	0.184	0.078	0.129	0.036	0.328	0.415
	Top side	0.263	0.241	0.118	0.149	0.043	0.622	0.696
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	LTE B66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
CA_48A-66A	Front side	0.112	0.329	0.020	0.103	0.056	0.461	0.600
	Back side	0.405	0.715	0.138	0.122	0.066	1.258	1.308
	Left side	0.000	0.047	0.000	0.000	0.000	0.047	0.047
	Right side	0.374	0.028	0.078	0.129	0.036	0.480	0.567
	Top side	0.168	0.000	0.118	0.149	0.043	0.286	0.360
	Bottom side	0.000	0.891	0.000	0.000	0.000	0.891	0.891

ENDC:

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n5	Front side	0.178	0.398	0.020	0.103	0.056	0.596	0.735
	Back side	0.367	0.715	0.138	0.122	0.066	1.220	1.270
	Left side	0.000	0.247	0.000	0.000	0.000	0.247	0.247
	Right side	0.273	0.117	0.078	0.129	0.036	0.468	0.555
	Top side	0.189	0.526	0.118	0.149	0.043	0.833	0.907
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n41	Front side	0.178	0.192	0.020	0.103	0.056	0.390	0.529
	Back side	0.367	0.462	0.138	0.122	0.066	0.967	1.017
	Left side	0.000	0.232	0.000	0.000	0.000	0.232	0.232
	Right side	0.273	0.000	0.078	0.129	0.036	0.351	0.438
	Top side	0.189	0.085	0.118	0.149	0.043	0.392	0.466
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N48 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n48	Front side	0.178	0.157	0.020	0.103	0.056	0.355	0.494
	Back side	0.367	0.818	0.138	0.122	0.066	1.323	1.373
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.273	0.751	0.078	0.129	0.036	1.102	1.189
	Top side	0.189	0.294	0.118	0.149	0.043	0.601	0.675
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n66	Front side	0.178	0.325	0.020	0.103	0.056	0.523	0.662
	Back side	0.367	0.707	0.138	0.122	0.066	1.212	1.262
	Left side	0.000	0.046	0.000	0.000	0.000	0.046	0.046
	Right side	0.273	0.027	0.078	0.129	0.036	0.378	0.465
	Top side	0.189	0.000	0.118	0.149	0.043	0.307	0.381
	Bottom side	0.000	0.881	0.000	0.000	0.000	0.881	0.881

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n71	Front side	0.178	0.068	0.020	0.103	0.056	0.266	0.405
	Back side	0.367	0.167	0.138	0.122	0.066	0.672	0.722
	Left side	0.000	0.036	0.000	0.000	0.000	0.036	0.036
	Right side	0.273	0.007	0.078	0.129	0.036	0.358	0.445
	Top side	0.189	0.121	0.118	0.149	0.043	0.428	0.502
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B2 Ant 2	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B2-n78	Front side	0.178	0.097	0.020	0.103	0.056	0.295	0.434
	Back side	0.367	0.407	0.138	0.122	0.066	0.912	0.962
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.273	0.435	0.078	0.129	0.036	0.786	0.873
	Top side	0.189	0.134	0.118	0.149	0.043	0.441	0.515
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n2	Front side	0.329	0.310	0.020	0.103	0.056	0.659	0.798
	Back side	0.715	0.553	0.138	0.122	0.066	1.406	1.456
	Left side	0.047	0.000	0.000	0.000	0.000	0.047	0.047
	Right side	0.028	0.356	0.078	0.129	0.036	0.462	0.549
	Top side	0.000	0.316	0.118	0.149	0.043	0.434	0.508
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n78	Front side	0.329	0.097	0.020	0.103	0.056	0.446	0.585
	Back side	0.715	0.407	0.138	0.122	0.066	1.260	1.310
	Left side	0.047	0.000	0.000	0.000	0.000	0.047	0.047
	Right side	0.028	0.435	0.078	0.129	0.036	0.541	0.628
	Top side	0.000	0.134	0.118	0.149	0.043	0.252	0.326
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B4 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B4-n5	Front side	0.162	0.398	0.020	0.103	0.056	0.580	0.719
	Back side	0.287	0.715	0.138	0.122	0.066	1.140	1.190
	Left side	0.000	0.247	0.000	0.000	0.000	0.247	0.247
	Right side	0.184	0.117	0.078	0.129	0.036	0.379	0.466
	Top side	0.241	0.526	0.118	0.149	0.043	0.885	0.959
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n2	Front side	0.397	0.310	0.020	0.103	0.056	0.727	0.866
	Back side	0.623	0.553	0.138	0.122	0.066	1.314	1.364
	Left side	0.200	0.000	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.356	0.078	0.129	0.036	0.531	0.618
	Top side	0.536	0.316	0.118	0.149	0.043	0.970	1.044
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n7	Front side	0.397	0.150	0.020	0.103	0.056	0.567	0.706
	Back side	0.623	0.363	0.138	0.122	0.066	1.124	1.174
	Left side	0.200	0.205	0.000	0.000	0.000	0.405	0.405
	Right side	0.097	0.000	0.078	0.129	0.036	0.175	0.262
	Top side	0.536	0.076	0.118	0.149	0.043	0.730	0.804
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n66	Front side	0.397	0.152	0.020	0.103	0.056	0.569	0.708
	Back side	0.623	0.272	0.138	0.122	0.066	1.033	1.083
	Left side	0.200	0.000	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.202	0.078	0.129	0.036	0.377	0.464
	Top side	0.536	0.157	0.118	0.149	0.043	0.811	0.885
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B5 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B5-n78	Front side	0.397	0.097	0.020	0.103	0.056	0.514	0.653
	Back side	0.623	0.407	0.138	0.122	0.066	1.168	1.218
	Left side	0.200	0.000	0.000	0.000	0.000	0.200	0.200
	Right side	0.097	0.435	0.078	0.129	0.036	0.610	0.697
	Top side	0.536	0.134	0.118	0.149	0.043	0.788	0.862
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B7 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B7-n78	Front side	0.180	0.097	0.020	0.103	0.056	0.297	0.436
	Back side	0.278	0.407	0.138	0.122	0.066	0.823	0.873
	Left side	0.052	0.000	0.000	0.000	0.000	0.052	0.052
	Right side	0.059	0.435	0.078	0.129	0.036	0.572	0.659
	Top side	0.000	0.134	0.118	0.149	0.043	0.252	0.326
	Bottom side	0.621	0.000	0.000	0.000	0.000	0.621	0.621

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n2	Front side	0.185	0.310	0.020	0.103	0.056	0.515	0.654
	Back side	0.339	0.553	0.138	0.122	0.066	1.030	1.080
	Left side	0.118	0.000	0.000	0.000	0.000	0.118	0.118
	Right side	0.066	0.356	0.078	0.129	0.036	0.500	0.587
	Top side	0.263	0.316	0.118	0.149	0.043	0.697	0.771
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N41 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n41	Front side	0.185	0.247	0.020	0.103	0.056	0.452	0.591
	Back side	0.339	0.341	0.138	0.122	0.066	0.818	0.868
	Left side	0.118	0.063	0.000	0.000	0.000	0.181	0.181
	Right side	0.066	0.084	0.078	0.129	0.036	0.228	0.315
	Top side	0.263	0.000	0.118	0.149	0.043	0.381	0.455
	Bottom side	0.000	0.676	0.000	0.000	0.000	0.676	0.676

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n66	Front side	0.185	0.325	0.020	0.103	0.056	0.530	0.669
	Back side	0.339	0.707	0.138	0.122	0.066	1.184	1.234
	Left side	0.118	0.046	0.000	0.000	0.000	0.164	0.164
	Right side	0.066	0.027	0.078	0.129	0.036	0.171	0.258
	Top side	0.263	0.000	0.118	0.149	0.043	0.381	0.455
	Bottom side	0.000	0.881	0.000	0.000	0.000	0.881	0.881

Test position		SARmax (W/kg)					Summed SAR	
		LTE B12 Ant 0	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B12-n78	Front side	0.185	0.097	0.020	0.103	0.056	0.302	0.441
	Back side	0.339	0.407	0.138	0.122	0.066	0.884	0.934
	Left side	0.118	0.000	0.000	0.000	0.000	0.118	0.118
	Right side	0.066	0.435	0.078	0.129	0.036	0.579	0.666
	Top side	0.263	0.134	0.118	0.149	0.043	0.515	0.589
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n2	Front side	0.357	0.310	0.020	0.103	0.056	0.687	0.826
	Back side	0.598	0.553	0.138	0.122	0.066	1.289	1.339
	Left side	0.189	0.000	0.000	0.000	0.000	0.189	0.189
	Right side	0.086	0.356	0.078	0.129	0.036	0.520	0.607
	Top side	0.516	0.316	0.118	0.149	0.043	0.950	1.024
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B14 Ant 0	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B14-n66	Front side	0.357	0.325	0.020	0.103	0.056	0.702	0.841
	Back side	0.598	0.707	0.138	0.122	0.066	1.443	1.493
	Left side	0.189	0.046	0.000	0.000	0.000	0.235	0.235
	Right side	0.086	0.027	0.078	0.129	0.036	0.191	0.278
	Top side	0.516	0.000	0.118	0.149	0.043	0.634	0.708
	Bottom side	0.000	0.881	0.000	0.000	0.000	0.881	0.881

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N2 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n2	Front side	0.329	0.310	0.020	0.103	0.056	0.659	0.798
	Back side	0.715	0.553	0.138	0.122	0.066	1.406	1.456
	Left side	0.047	0.000	0.000	0.000	0.000	0.047	0.047
	Right side	0.028	0.356	0.078	0.129	0.036	0.462	0.549
	Top side	0.000	0.316	0.118	0.149	0.043	0.434	0.508
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N5 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n5	Front side	0.162	0.398	0.020	0.103	0.056	0.580	0.719
	Back side	0.287	0.715	0.138	0.122	0.066	1.140	1.190
	Left side	0.000	0.247	0.000	0.000	0.000	0.247	0.247
	Right side	0.184	0.117	0.078	0.129	0.036	0.379	0.466
	Top side	0.241	0.526	0.118	0.149	0.043	0.885	0.959
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N7 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n7	Front side	0.329	0.150	0.020	0.103	0.056	0.499	0.638
	Back side	0.715	0.363	0.138	0.122	0.066	1.216	1.266
	Left side	0.047	0.205	0.000	0.000	0.000	0.252	0.252
	Right side	0.028	0.000	0.078	0.129	0.036	0.106	0.193
	Top side	0.000	0.076	0.118	0.149	0.043	0.194	0.268
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N41 Ant 4	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n41	Front side	0.329	0.192	0.020	0.103	0.056	0.541	0.680
	Back side	0.715	0.462	0.138	0.122	0.066	1.315	1.365
	Left side	0.047	0.232	0.000	0.000	0.000	0.279	0.279
	Right side	0.028	0.000	0.078	0.129	0.036	0.106	0.193
	Top side	0.000	0.085	0.118	0.149	0.043	0.203	0.277
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N66 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n66	Front side	0.329	0.152	0.020	0.103	0.056	0.501	0.640
	Back side	0.715	0.272	0.138	0.122	0.066	1.125	1.175
	Left side	0.047	0.000	0.000	0.000	0.000	0.047	0.047
	Right side	0.028	0.202	0.078	0.129	0.036	0.308	0.395
	Top side	0.000	0.157	0.118	0.149	0.043	0.275	0.349
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 2	FR1 N71 Ant 0	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n71	Front side	0.162	0.068	0.020	0.103	0.056	0.250	0.389
	Back side	0.287	0.167	0.138	0.122	0.066	0.592	0.642
	Left side	0.000	0.036	0.000	0.000	0.000	0.036	0.036
	Right side	0.184	0.007	0.078	0.129	0.036	0.269	0.356
	Top side	0.241	0.121	0.118	0.149	0.043	0.480	0.554
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)					Summed SAR	
		LTE B66 Ant 1	FR1 N78 Ant 2	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B66-n78	Front side	0.329	0.097	0.020	0.103	0.056	0.446	0.585
	Back side	0.715	0.407	0.138	0.122	0.066	1.260	1.310
	Left side	0.047	0.000	0.000	0.000	0.000	0.047	0.047
	Right side	0.028	0.435	0.078	0.129	0.036	0.541	0.628
	Top side	0.000	0.134	0.118	0.149	0.043	0.252	0.326
	Bottom side	0.891	0.000	0.000	0.000	0.000	0.891	0.891

Test position		SARmax (W/kg)					Summed SAR	
		LTE B48 Ant 2	FR1 N66 Ant 1	WiFi 2.4G Ant7	WiFi 5G Ant7	BT Ant7		
		1	2	3	4	5	1+2+3	1+2+4+5
B48-n66	Front side	0.112	0.325	0.020	0.103	0.056	0.457	0.596
	Back side	0.405	0.707	0.138	0.122	0.066	1.250	1.300
	Left side	0.000	0.046	0.000	0.000	0.000	0.046	0.046
	Right side	0.374	0.027	0.078	0.129	0.036	0.479	0.566
	Top side	0.168	0.000	0.118	0.149	0.043	0.286	0.360
	Bottom side	0.000	0.881	0.000	0.000	0.000	0.881	0.881

Product Specific 10-g (0mm):

Test position		SARmax (W/kg)			Summed SAR
		Max All ant	WiFi 5G Ant7	NFC	
		1	2	3	1+2+3
LTE B38	Front side	0.000	0.644	0.000	0.644
	Back side	1.031	0.628	0.009	1.668
	Left side	0.000	0.000	0.000	0.000
	Right side	0.000	0.894	0.000	0.894
	Top side	0.000	1.425	0.000	1.425
	Bottom side	0.000	0.000	0.000	0.000
LTE B42	Front side	0.000	0.644	0.000	0.644
	Back side	1.762	0.628	0.009	2.399
	Left side	0.000	0.000	0.000	0.000
	Right side	3.100	0.894	0.000	3.994
	Top side	0.000	1.425	0.000	1.425
	Bottom side	0.000	0.000	0.000	0.000

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 V16.4.0.5005

Hardware Reference

	Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM3	1143	NCR	NCR
☒	Twin Phantom	SPEAG	Twin-SAM V8.0	2155	NCR	NCR
☒	DAE	SPEAG	DAE4	1374	2024-10-30	2025-10-29
☒	DAE	SPEAG	DAE4	1245	2024-06-05	2025-06-04
☒	E-Field Probe	SPEAG	EX3DV4	3801	2024-06-20	2025-06-19
☒	E-Field Probe	SPEAG	EX3DV4	7761	2024-09-19	2025-09-18
☒	Validation Kits	SPEAG	CLA13	1032	2023-02-09	2026-02-08
☒	Validation Kits	SPEAG	D750V3	1214	2022-02-07	2025-02-06
☒	Validation Kits	SPEAG	D835V2	4d161	2023-08-25	2026-08-24
☒	Validation Kits	SPEAG	D1750V2	1105	2023-11-03	2026-11-02
☒	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	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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