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

FCC SAR TEST REPORT

Application No.:	SZCR2404001307WMM
Applicant:	vivo Mobile Communication Co., Ltd.
Manufacturer:	vivo Mobile Communication Co., Ltd.
EUT Description:	Mobile phone
Model No.:	V2348
Trade Mark:	vivo
FCC ID:	2AUCY-V2348
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2024/04/30
Date of Test:	2024/05/06 to 2024/05/27
Date of Issue:	2024/05/28
Test Result :	**PASS ***

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

Authorized Signature:

Keny Xu
Laboratory Manager

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Revision History			
Report Number	***Revision***	***Description***	***Issue Date***
SZCR240400130708	01	Original	2024/05/28

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

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Test Summary

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	0.44	0.31	0.68	/
GSM1900	0.60	0.21	0.46	/
WCDMA Band II	0.78	0.27	0.46	/
WCDMA Band IV	0.81	0.47	0.59	/
WCDMA Band V	0.60	0.49	0.73	/
LTE Band 2	0.80	0.29	0.65	/
LTE Band 4/66	0.80	0.39	0.52	/
LTE Band 5/26	0.40	0.20	0.36	/
LTE Band 7	0.96	0.48	0.59	/
LTE Band 12/17	0.57	0.32	0.63	/
LTE Band 13	0.73	0.42	0.77	/
LTE Band 38/41	**0.99**	0.42	0.60	/
NR Band n2	0.66	0.23	0.60	/
NR Band n5	0.65	0.48	0.71	/
NR Band n7	0.83	0.53	0.48	/
NR Band n26	0.50	0.25	0.78	/
NR Band n38	0.85	0.44	0.66	/
NR Band n41	0.74	0.38	0.72	/
NR Band n66	0.79	0.52	0.58	/
NR Band n77	0.90	0.60	**0.84**	2.29
NR Band n78	0.91	**0.74**	0.55	**2.38**
WI-FI (2.4GHz)	0.76	0.25	0.46	/
WI-FI (5GHz)	0.61	0.51	0.74	1.74
BT	0.19	0.04	0.11	/
NFC	/	/	/	<0.10
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous transmission with WWAN SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.39	1.29	1.34	3.48
SPLSR	0.035	/	/	/
SPLSR Limited	0.04			0.1

1) The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.
2) According to TCB workshop (Overlapping LTE Bands): SAR in LTE band 4 (frequency range: 1710-1755 MHz) is covered by LTE band 66 (frequency range: 1710-1780 MHz). SAR in LTE band 5 (frequency range: 824-849 MHz) are covered by LTE band 26 (frequency range: 814-849 MHz).SAR in LTE band 17 (frequency range: 704-716 MHz) is covered by LTE band 12 (frequency range: 699-716 MHz). The SAR in LTE band 38 (frequency range: 2570-2620 MHz) is covered by LTE band 41 (frequency range: 2496-2690 MHz). 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.

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1 General Information

1.1 Details of Client

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

1.2 Test Location

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

1.3 Test Facility

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

• A2LA (Certificate No. 3816.01)

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

• Innovation, Science and Economic Development Canada

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

CAB identifier: CN0006.

IC#: 4620C.

• FCC –Designation Number: CN1336

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

Designation Number: CN1336.

Test Firm Registration Number: 787754

1.4 General Description of EUT

Product Name:	Mobile phone		
Model No.:	V2348		
Trade Mark:	vivo		
Product Phase:	Identical Prototype		
Device Type:	portable device		
Exposure Category:	uncontrolled environment / general population		
IMEI:	861380079982884, 861380079999491, 861380079983106 861380079983247, 866897079999399, 866897079999095		
Hardware Version:	MP_0.1		
Software Version:	PD2363JF_EX_A_14.0.5.5.W30		
Antenna Type:	IFA Antenna		
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,OFDMA; **BT**:GFSK, π/4DQPSK,8DPSK **NFC:** ASK		
Device Class:	B		
GPRS Multi-slots Class:	33	EGPRS Multi-slots Class:	33
HSDPA UE Category:	24	HSUPA UE Category:	6
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

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	LTE Band 4	1710~1755	2110~2155
	LTE Band 5	824~849	869-894
	LTE Band 7	2500~2570	2620~2690
	LTE Band 12	699~716	729~746
	LTE Band 13	777~787	746~756
	LTE Band 17	704-716	734-746
	LTE Band 26	814~849	859~894
	LTE Band 38	2570~2620	2570~2620
	LTE Band 41	2496~2690	2496~2690
	LTE Band 66	1710~1780	2110~2200
	NR Band n2	1850 ~1910	1930 ~1990
	NR Band n5	824~849	869-894
	NR Band n7	2500~2570	2620~2690
	NR Band n26	814~849	859~894
	NR Band n38	2570~2620	2570~2620
	NR Band n41 (Class 2/3)	2496~2690	2496~2690
	NR Band n66	1710~1780	2110~2200
	NR Band n77	3450~3550	3450~3550
		3700~3980	3700~3980
	NR Band n78(Class 2/3)	3450~3550	3450~3550
		3700~3800	3700~3800
	WIFI 2.4G	2412~2462	2412~2462
	WIFI 5G	5150~5350	5150~5350
		5470~5600	5470~5600
		5650~5725	5650~5725
		5725~5850	5725~5850
	BT	2402~2480	2402~2480
	NFC	13.56	13.56
RF Cable:	☒Provided by applicant ☐Provided by the laboratory		
Battery Information:	Model:	BA49	
	Normal Voltage:	3.86V	
	Rated capacity:	5380mAh	

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	Manufacturer:	Dongguan NVT Technology Co.,Ltd.

Note: *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information , SGS is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.
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1.4.1 DUT Antenna Locations (Back View)

The DUT Antenna Locations can be referred to Appendix F

Note:

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

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

Distance of the Antenna to the EUT surface/edge						
Mode	Front	Back	Left	Right	Top	Bottom
Ant11	≤25mm	≤25mm	≤25mm	>25mm	>25mm	>25mm
Ant12	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant13	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant14	≤25mm	≤25mm	≤25mm	>25mm	≤25mm	>25mm
Ant21	≤25mm	≤25mm	≤25mm	≤25mm	≤25mm	>25mm
Ant22	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant23	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant24	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant25	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant31	≤25mm	≤25mm	>25mm	≤25mm	>25mm	≤25mm
Ant41	≤25mm	≤25mm	≤25mm	≤25mm	>25mm	≤25mm

Table 1： Distance of the Antenna to the EUT surface/edge

Note:

1) When the antenna-to-edge distance is greater than 25mm, such position does not need to be tested.

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1.4.2 Smart Transmit feature for RF Exposure compliance

The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmit power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR(transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

The patameters obtained form SAR characterization(referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System(EFS) to enable the Smart Transmit Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_target
P_{max}	Maximum tune-up power level
SAR_design_target	The design target for SAR compliance. It should be less than SAR limit to account for all device design related uncertainties.
SAR char	Plimit for all the technologies/bands

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for Smart Transmit to control and manage RF exposure for f < 6 GHz.

SAR_design_target and Uncertainty

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer.

SAR_design_target < SARregulatory_limit x 10(-total uncertainty)/10

Uncertainty dB(k=2)	All Band
Total uncertainty	1.49

Exposure position	**Frequency band**	**SAR Regulatory Limit W/kg(1g)**	**SAR design target W/kg(1g)**
Head	WWAN	1.6	0.6

Body	WWAN	1.6	0.6
Hotspot	WWAN	1.6	0.6
Exposure position	**Frequency band**	**SAR Regulatory Limit W/kg(10g)**	**SAR design target W/kg(10g)**
Limbs	WWAN	4.0	2.0

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit, for each characterized technology and band.
Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (DSI: Device State Index).

P_{limt} for supported technologies and bands (actual EFS settings)

Band	Antenna	Mode	P_{max}	P_{limit} (average)				
				Head	Body Worn		Hotspot	Limbs
				DSI 2 All WWAN Ant	DSI 4 Ant11/12/13/21/23/31/41	DSI 7 Ant14	DSI 6 All WWAN Ant	DSI 4 All WWAN Ant
GSM 850	31#	GPRS 2TS	25.0	25.0	25.0	/	/	25.0
		GPRS 4TS	24.5	/	/	/	24.2	/
	11#	GPRS 4TS	24.5	21.2	22.3	/	21.2	25.3
GSM 1900	41#	GPRS 2TS	22.3	22.3	22.3	/	/	22.3
		GPRS 3TS	22.0	/	/	/	21.0	/
	14#	GPRS 2TS	22.0	18.0	/	22.0	22.0	22.0
WCDMA_B2	41#	RMC	23.0	23.0	20.5	/	19.0	20.5
	14#	RMC	22.6	17.1	/	22.6	21.6	22.6
WCDMA_B4	41#	RMC	24.0	24.0	21.5	/	20.5	21.5
	14#	RMC	23.6	16.6	/	23.6	20.6	22.1
WCDMA_B5	31#	RMC	24.0	24.0	24.0	/	23.5	24.0
	11#	RMC	24.0	21.0	23.0	/	21.0	23.0
LTE_B2	41#	QPSK	23.0	23.0	21.0	/	20.0	21.0
	14#	QPSK	22.6	17.1	/	22.6	22.1	22.6
	12#	QPSK	22.8	19.8	22.3	/	20.8	22.3
LTE_B4	41#	QPSK	24.0	24.0	21.5	/	20.5	21.5
	14#	QPSK	23.6	16.6	/	23.6	20.1	21.1
	12#	QPSK	23.8	21.3	21.8	/	20.3	21.8
	24#	QPSK	23.3	20.3	23.3	/	21.8	23.3
LTE_B5	31#	QPSK	24.0	24.0	24.0	/	23.5	24.0
	11#	QPSK	24.0	21.5	22.5	/	21.0	22.5
LTE_B7	41#	QPSK	24.0	24.0	20.5	/	19.5	20.5
	14#	QPSK	23.6	15.1	/	22.1	19.6	21.1
	12#	QPSK	23.8	18.8	20.8	/	19.3	20.8
	24#	QPSK	23.0	16.0	19.5	/	18.0	19.5
LTE_B12	31#	QPSK	23.5	23.5	23.5	/	23.5	23.5
	11#	QPSK	23.5	23.5	23.5	/	22.0	23.5
LTE_B13	31#	QPSK	23.5	23.5	23.5	/	23.5	23.5
	11#	QPSK	23.5	22.5	23.0	/	22.0	23.0
LTE_B17	31#	QPSK	23.5	23.5	23.5	/	23.5	23.5
	11#	QPSK	23.5	23.0	23.0	/	22.0	23.0
LTE_B26	31#	QPSK	24.0	24.0	24.0	/	23.0	24.0
	11#	QPSK	24.0	24.0	23.0	/	21.5	23.0
LTE_B38	41#	QPSK	22.0	22.0	20.5	/	19.5	20.5
	14#	QPSK	21.6	15.6	/	21.6	20.1	20.6
	12#	QPSK	21.8	16.8	21.8	/	20.3	21.8
	24#	QPSK	21.0	15.0	19.0	/	18.0	19.0

LTE_B41	41#	QPSK	22.0	22.0	20.5	/	19.0	20.5
	14#	QPSK	21.6	15.6	/	21.6	20.1	20.6
	12#	QPSK	21.8	17.3	21.8	/	20.8	21.8
	24#	QPSK	21.0	15.0	19.0	/	18.0	19.0
LTE_B66	41#	QPSK	23.5	23.5	21.5	/	20.5	21.5
	14#	QPSK	23.1	16.1	/	23.1	19.1	20.6
	12#	QPSK	23.3	20.8	21.3	/	19.8	21.3
	24#	QPSK	23.3	20.3	23.3	/	21.8	23.3
NR5G_N2	41#	QPSK	23.0	23.0	21.0	/	20.5	21.0
	14#	QPSK	22.6	16.6	/	21.6	20.6	21.6
	12#	QPSK	22.8	19.3	22.3	/	21.3	22.3
NR5G_N5	31#	QPSK	24.0	24.0	24.0	/	23.5	24.0
	11#	QPSK	24.0	21.5	23.0	/	21.5	23.0
NR5G_N7	41#	QPSK	23.5	23.5	20.0	/	19.5	20.0
	14#	QPSK	23.1	15.1	/	22.1	19.1	20.1
	12#	QPSK	23.3	17.8	20.3	/	19.3	20.3
	24#	QPSK	23.3	16.3	20.3	/	18.8	20.3
NR5G_N26	31#	QPSK	23.7	23.7	23.7	/	23.7	23.7
	11#	QPSK	23.7	23.7	23.7	/	23.7	23.7
NR5G_N66	41#	QPSK	23.5	23.5	21.5	/	20.5	21.5
	14#	QPSK	23.1	16.1	/	23.1	20.6	21.1
	12#	QPSK	23.3	19.8	21.8	/	20.3	21.8
	24#	QPSK	23.3	20.3	23.3	/	21.8	23.3
NR5G_N38	41#	QPSK	24.0	24.0	20.0	/	19.0	20.0
	14#	QPSK	23.5	14.0	/	21.5	19.5	20.0
	12#	QPSK	24.0	17.0	21.0	/	19.5	21.0
	24#	QPSK	23.0	14.5	18.5	/	17.0	18.5
NR5G_N41 PC2	41#	QPSK	25.5	25.5	20.5	/	19.5	20.5
	14#	QPSK	24.5	14.0	/	21.0	20.0	20.0
	12#	QPSK	25.0	16.0	20.5	/	19.0	20.5
	24#	QPSK	24.5	14.5	18.5	/	17.0	18.5
NR5G_N41 PC3	41#	QPSK	23.0	23.0	20.5	/	19.5	20.5
	14#	QPSK	22.0	14.0	/	21.0	20.0	20.0
	12#	QPSK	22.5	16.0	20.5	/	19.0	20.5
	24#	QPSK	22.0	14.5	18.5	/	17.0	18.5
NR5G_N77	14#	QPSK	23.5	13.0	/	20.0	15.5	17.0
	23#	QPSK	23.5	13.5	20.5	/	19.0	20.5
	13#	QPSK	23.5	17.0	19.0	/	17.5	19.0
	21#	QPSK	23.0	16.5	19.0	/	17.5	19.0
NR5G_N78 PC2	14#	QPSK	26.0	13.0	/	20.0	15.5	17.0
	23#	QPSK	25.5	14.0	19.0	/	18.5	19.0
	13#	QPSK	26.0	16.5	18.0	/	16.5	18.0
	21#	QPSK	25.5	17.0	19.5	/	18.0	19.5
NR5G_N78 PC3	14#	QPSK	23.0	13.0	/	20.0	15.5	17.0
	23#	QPSK	22.5	14.0	19.0	/	18.5	19.0
	13#	QPSK	23.0	16.5	18.0	/	16.5	18.0
	21#	QPSK	22.5	17.0	19.5	/	18.0	19.5

Note:
1) *Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + Total uncertainty.
2) The max allowed output power is the Plimit + Total uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.
3) Note that WLAN operations are not enabled with Smart Transmit.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

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1.4.3 Power reduction specification

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

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

2) A fixed level power reduction is applied for some frequency bands when simultaneously transmitting with the other antennas in certain simultaneous transmission conditions. The standalone SAR compliance still uses the standalone SAR results tested at the maximum output power level without any power reduction

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

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

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

1.5 Test Specification

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

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1.6 RF exposure limits

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

Notes:

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

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

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

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

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

2 Laboratory Environment

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

Table 2： The Ambient Conditions

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3 SAR Measurements System Configuraion

3.1 The SAR Measurement System

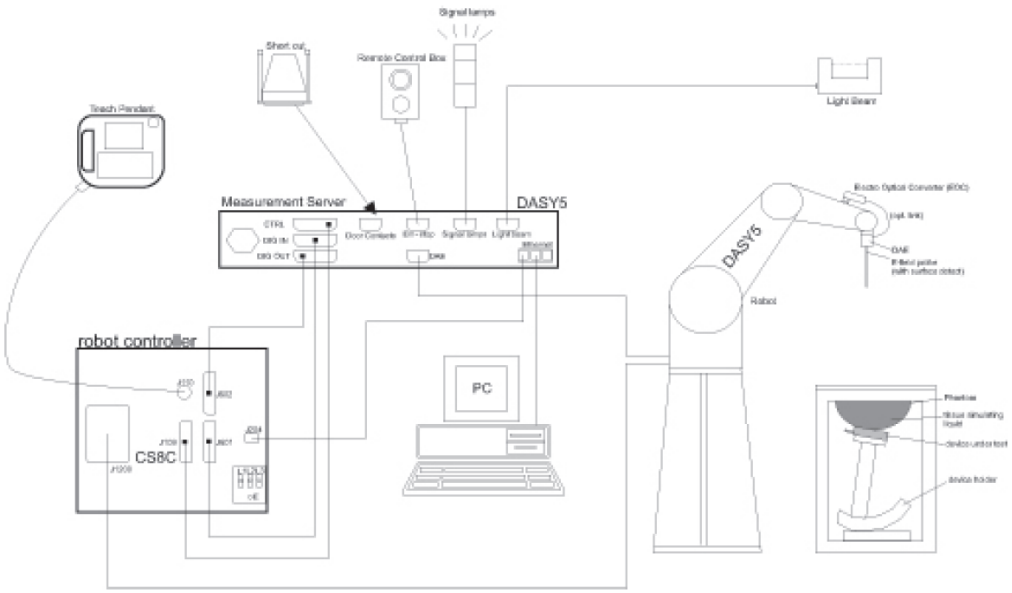
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

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 Proble EX3DV4

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

3.3 Data Acquistion 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	pprox.. 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	pprox.. 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.

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3.7 Measurement Procedure

3.7.1 Scanning procedure

Step 1: Power reference measurement

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

Step 2: Area scan

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

Step 3: Zoom scan

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

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.

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

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

4 SAR measurement variability and uncertainty

4.1 SAR measurement variability

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

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

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

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

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

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

4.2 SAR measurement uncertainty

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

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 21.02%.

a	b	c	d	e = f(d,k)	g	i = C*g/e	K
Uncertainty Component	Section in IEC/EN 62209-1	Tol (%)	Prob . Dist.	Div.	Ci (10g)	10g ui (%)	Vi (Veff)
Probe calibration	7.2.1	6.65	N	1	1	6.65	∞
Axial isotropy	7.2.1.2	0.5	R	$\sqrt{3}$	$(1-\mathrm{Cp})^{1/2}$	0.20	∞
hemispherical isotropy	7.2.1.2	2.6	R	$\sqrt{3}$	$\sqrt{\mathrm{Cp}}$	1.06	∞
Boundary effect	7.2.1.5	1.0	R	$\sqrt{3}$	1	0.58	∞
Linearity	7.2.1.3	0.6	R	$\sqrt{3}$	1	0.35	∞
System detection limit	7.2.1.4	0.25	R	$\sqrt{3}$	1	0.14	∞
Readout electronics	7.2.1.6	0.3	N	1	1	0.30	∞
Response time	7.2.1.7	0	R	$\sqrt{3}$	1	0.00	∞
Integration time	7.2.1.8	2.6	R	$\sqrt{3}$	1	1.50	∞
RF ambient Condition - Noise	7.2.3.6	3	R	$\sqrt{3}$	1	1.73	∞
RF ambient Condition - reflections	7.2.3.6	3	R	$\sqrt{3}$	1	1.73	∞
Probe positioning- mechanical tolerance	7.2.2.1	1.5	R	$\sqrt{3}$	1	0.87	∞
Probe positioning- with respect to phantom	7.2.2.3	2.9	R	$\sqrt{3}$	1	1.67	∞
Max. SAR evaluation	7.2.4	1	R	$\sqrt{3}$	1	0.58	∞
Test sample positioning	7.2.2.4	4.0	N	1	1	4.0	9
Device holder uncertainty	7.2.2.4.2	3.6	N	1	1	3.60	∞
Output power variation - SAR drift measurement	7.2.3.5	5	R	$\sqrt{3}$	1	2.89	∞
Phantom uncertainty (shape and thickness tolerances)	7.2.2.2	4	R	$\sqrt{3}$	1	2.31	∞
Liquid conductivity - deviation from target values	7.2.3.3	5	R	$\sqrt{3}$	0.43	1.24	∞

Liquid conductivity - measurement uncertainty	7.2.3.3	5.78	N	1	0.43	2.49	5
Liquid permittivity - deviation from target values	7.2.3.4	5	R	$\sqrt{3}$	0.49	1.41	∞
Liquid permittivity - measurement uncertainty	7.2.3.4	0.62	N	1	0.49	0.30	5
Combined standard uncertainty	/	/	/	RSS	/	10.51	334
Expanded uncertainty (95% CONFIDENCE INTERVAL)	/	/	/	k=2	/	**21.02**	/

Table 3： Measurement Uncertainty

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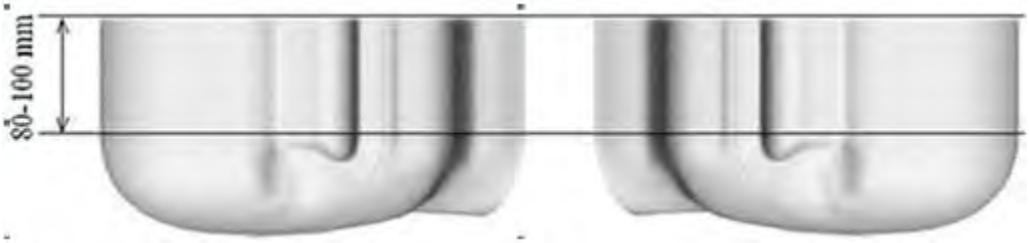
5 Desciption of Test Position

5.1 The Head Test Position

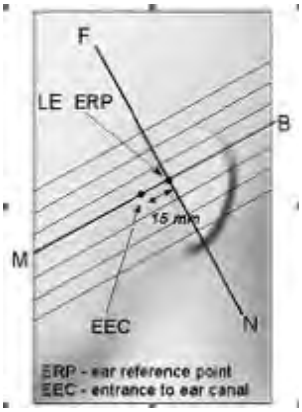
5.1.1 SAM Phantom Shape

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

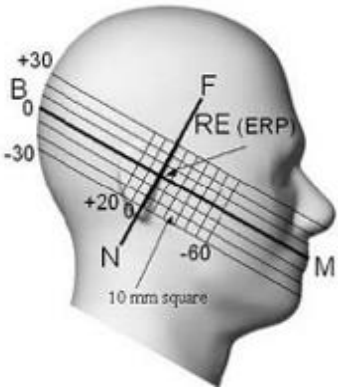
Note: The centre strip including the nose region has a different thickness tolerance.



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

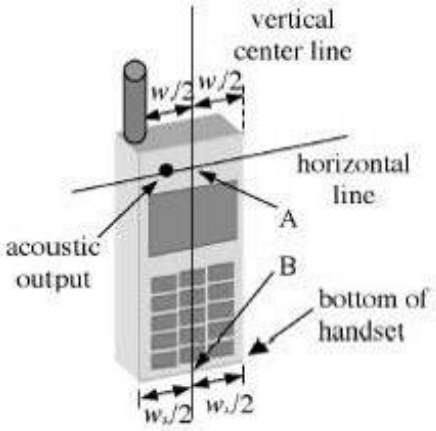


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

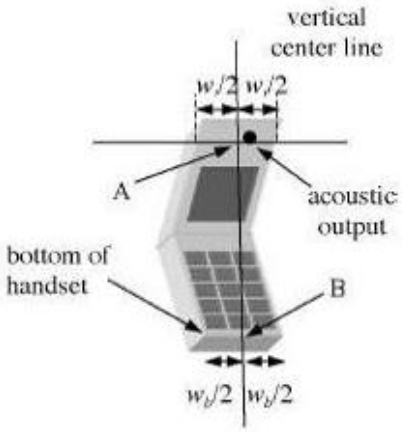


F-6.Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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 “check” position

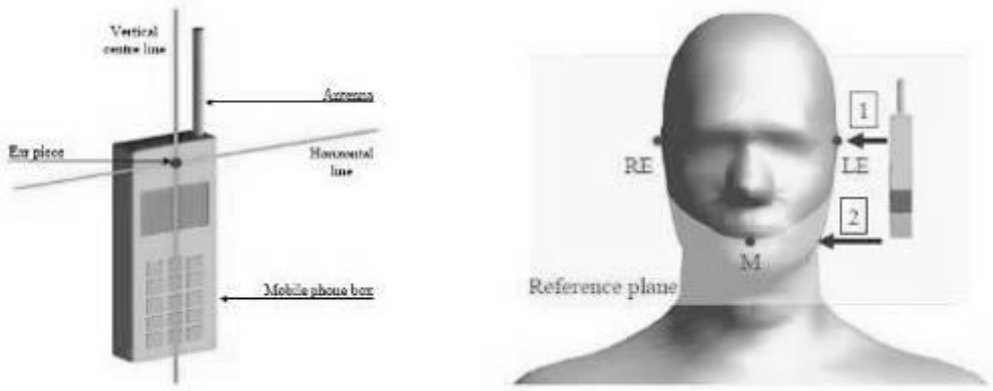
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom (“initial position”). While maintaining the device in this plane, align the vertical centre line with the reference plane containing the three ear and mouth reference points (M, RE and LE) and align the centre of the ear piece with the line RE-LE.

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

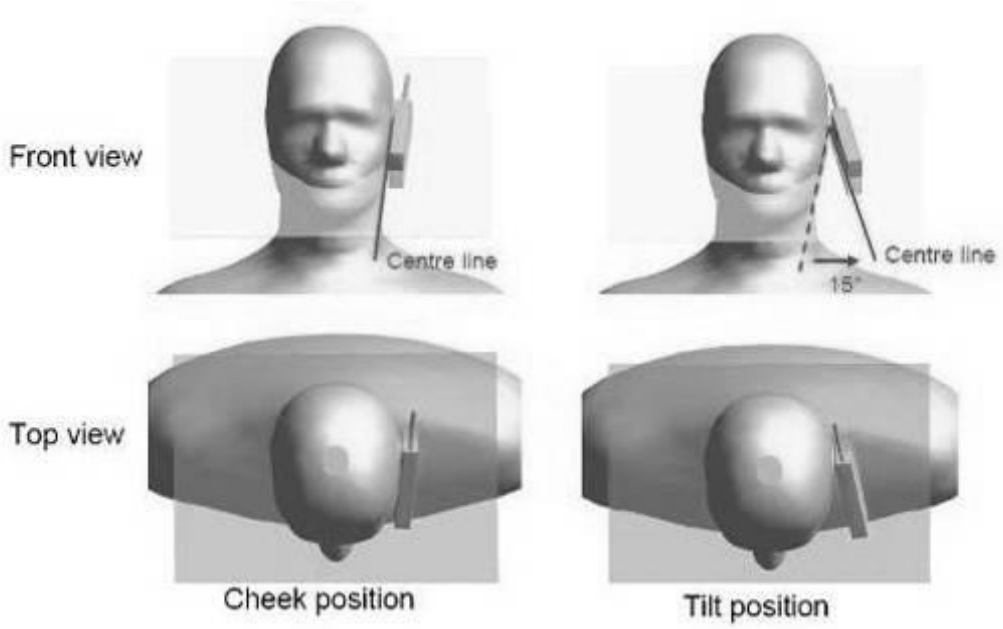
5.1.4 Definition of the “tilted” position

a) Position the device in the “cheek” position described above.

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



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



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

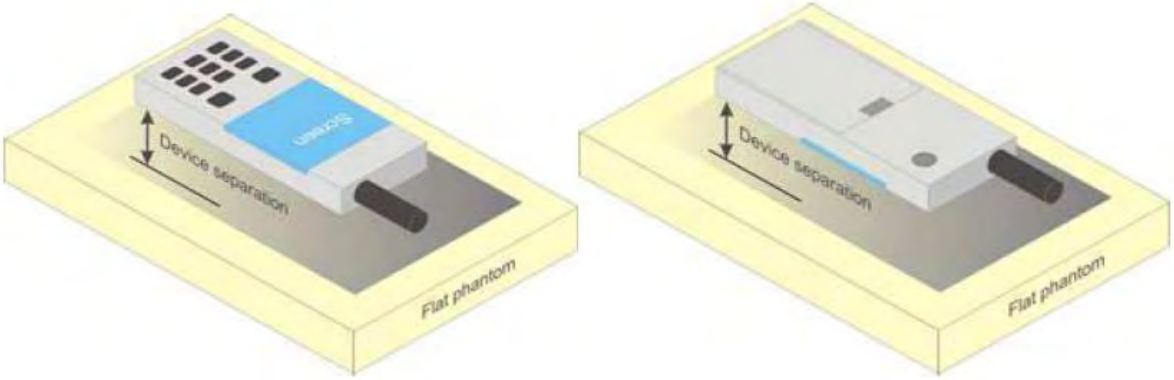
5.2 The Body Test Position

5.2.1 Body-worn accessory exposure conditions

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

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

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



F-11.Test positions for body-worn devices

5.2.2 Wireless Router exposure conditions

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

5.3 Extremity exposure conditions

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

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

N77 (3450-3550) (Ant14):

Ant14 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 10-g (W/kg)	Liquid Temp.(℃)	Product Specific 10-g SAR Exclusion
Hotspot Test data (Separate 10mm 1RB) DSI 6													
Front side	100	QPSK 1_271	633334/3500	100%	0.119	0.049	0.19	14.98	21.00	3.999	0.476	22.1	Yes
Back side	100	QPSK 1_271	633334/3500	100%	0.293	0.117	-0.06	14.98	21.00	3.999	1.172	22.1	Yes
Left side	100	QPSK 1_271	633334/3500	100%	0.024	0.007	-0.07	14.98	21.00	3.999	0.096	22.1	Yes
Top side	100	QPSK 1_271	633334/3500	100%	0.350	0.143	-0.06	14.98	21.00	3.999	1.400	22.1	No
Hotspot Test data (Separate 10mm 50%RB) DSI 6													
Front side	100	QPSK 135_69	633334/3500	100%	0.111	0.046	-0.16	14.93	21.00	4.046	0.449	22.1	Yes
Back side	100	QPSK 135_69	633334/3500	100%	0.278	0.112	0.04	14.93	21.00	4.046	1.125	22.1	Yes
Left side	100	QPSK 135_69	633334/3500	100%	0.030	0.008	-0.17	14.93	21.00	4.046	0.121	22.1	Yes
Top side	100	QPSK 135_69	633334/3500	100%	0.351	0.142	0.03	14.93	21.00	4.046	**1.420**	22.1	No

N77 (3700-3980) (Ant14):

Ant14 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)	Liquid Temp.(℃)	Product Specific 10-g SAR Exclusion
Hotspot Test data (Separate 10mm 1RB) DSI 6													
Front side	100	QPSK 1_137	650000/3750	100%	0.152	0.062	0.05	14.80	21.00	4.169	0.634	22.1	Yes
Back side	100	QPSK 1_137	650000/3750	100%	0.380	0.143	0.17	14.80	21.00	4.169	1.584	22.1	No
Left side	100	QPSK 1_137	650000/3750	100%	0.039	0.018	0.07	14.80	21.00	4.169	0.163	22.1	Yes
Top side	100	QPSK 1_137	650000/3750	100%	0.382	0.146	0.05	14.80	21.00	4.169	1.592	22.1	No
Hotspot Test data (Separate 10mm 50%RB) DSI 6													
Front side	100	QPSK 135_69	652400/3786	100%	0.141	0.060	0.01	14.70	21.00	4.266	0.601	22.1	Yes
Back side	100	QPSK 135_69	652400/3786	100%	0.351	0.140	0.03	14.70	21.00	4.266	1.497	22.1	No
Left side	100	QPSK 135_69	652400/3786	100%	0.037	0.018	0.13	14.70	21.00	4.266	0.158	22.1	Yes
Top side	100	QPSK 135_69	652400/3786	100%	0.557	0.222	0.06	14.70	21.00	4.266	**2.376**	22.1	No

N78 (3450-3550) (Ant14):

Ant14 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)	Liquid Temp.(℃)	Product Specific 10-g SAR Exclusion
Hotspot Test data (Separate 10mm 1RB) DSI 6													
Front side	100	QPSK 1_271	633334/3500	100%	0.110	0.047	0.16	14.86	21.00	4.111	0.452	22.3	Yes
Back side	100	QPSK 1_271	633334/3500	100%	0.302	0.122	0.03	14.86	21.00	4.111	1.242	22.3	No
Left side	100	QPSK 1_271	633334/3500	100%	0.039	0.011	-0.03	14.86	21.00	4.111	0.160	22.3	Yes
Top side	100	QPSK 1_271	633334/3500	100%	0.313	0.125	-0.15	14.86	21.00	4.111	1.287	22.3	No
Hotspot Test data (Separate 10mm 50%RB) DSI 6													
Front side	100	QPSK 135_69	633334/3500	100%	0.119	0.050	-0.06	14.85	21.00	4.121	0.490	22.3	Yes
Back side	100	QPSK 135_69	633334/3500	100%	0.307	0.123	0.01	14.85	21.00	4.121	1.265	22.3	No
Left side	100	QPSK 135_69	633334/3500	100%	0.050	0.011	0.00	14.85	21.00	4.121	0.206	22.3	Yes
Top side	100	QPSK 135_69	633334/3500	100%	0.362	0.125	0.06	14.85	21.00	4.121	**1.492**	22.3	No

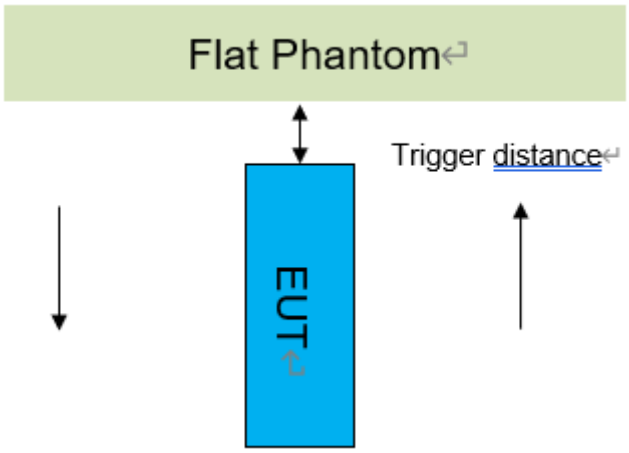
N78 (3700-3800) (Ant14):

Ant14 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)	Liquid Temp.(℃)	Product Specific 10-g SAR Exclusion
Hotspot Test data (Separate 10mm 1RB) DSI 6													
Front side	100	QPSK 1_1	650000/3750	100%	0.126	0.051	0.12	15.11	21.00	3.882	0.489	22.3	Yes
Back side	100	QPSK 1_1	650000/3750	100%	0.342	0.131	0.15	15.11	21.00	3.882	1.327	22.3	No
Left side	100	QPSK 1_1	650000/3750	100%	0.033	0.008	0.02	15.11	21.00	3.882	0.128	22.3	Yes
Top side	100	QPSK 1_1	650000/3750	100%	0.343	0.134	-0.19	15.11	21.00	3.882	**1.331**	22.3	No
Hotspot Test data (Separate 10mm 50%RB) DSI 6													
Front side	100	QPSK 135_69	650000/3750	100%	0.130	0.054	0.10	14.88	21.00	4.093	0.532	22.3	Yes
Back side	100	QPSK 135_69	650000/3750	100%	0.361	0.144	-0.09	14.88	21.00	4.093	**1.477**	22.3	No
Left side	100	QPSK 135_69	650000/3750	100%	0.043	0.018	0.07	14.88	21.00	4.093	0.176	22.3	Yes
Top side	100	QPSK 135_69	650000/3750	100%	0.346	0.138	-0.06	14.88	21.00	4.093	1.416	22.3	No

5.4 Proximity Sensor Triggering Test

Proximity sensor triggering distances:

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

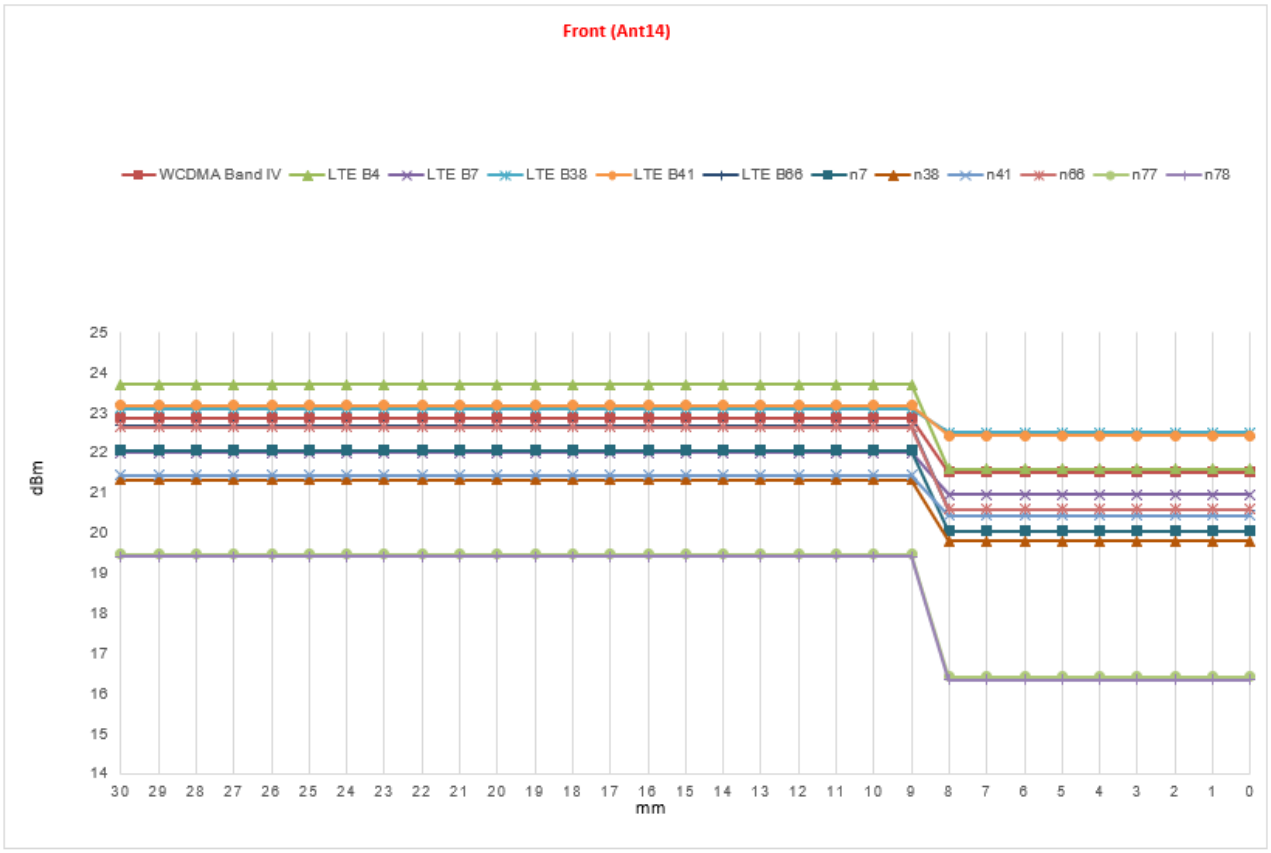


Proximity Sensor Triggering Distance(mm)	
Ant	Ant14
Band	WCDMA Band IV LTE Band 4/7/38/41/66 N7/N38/N41/N66/N77/N78
Position	Front Side 8mm Back Side 13mm Top Side13mm

Note:

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

- DUT Moving Toward(Trigger)the Phantom



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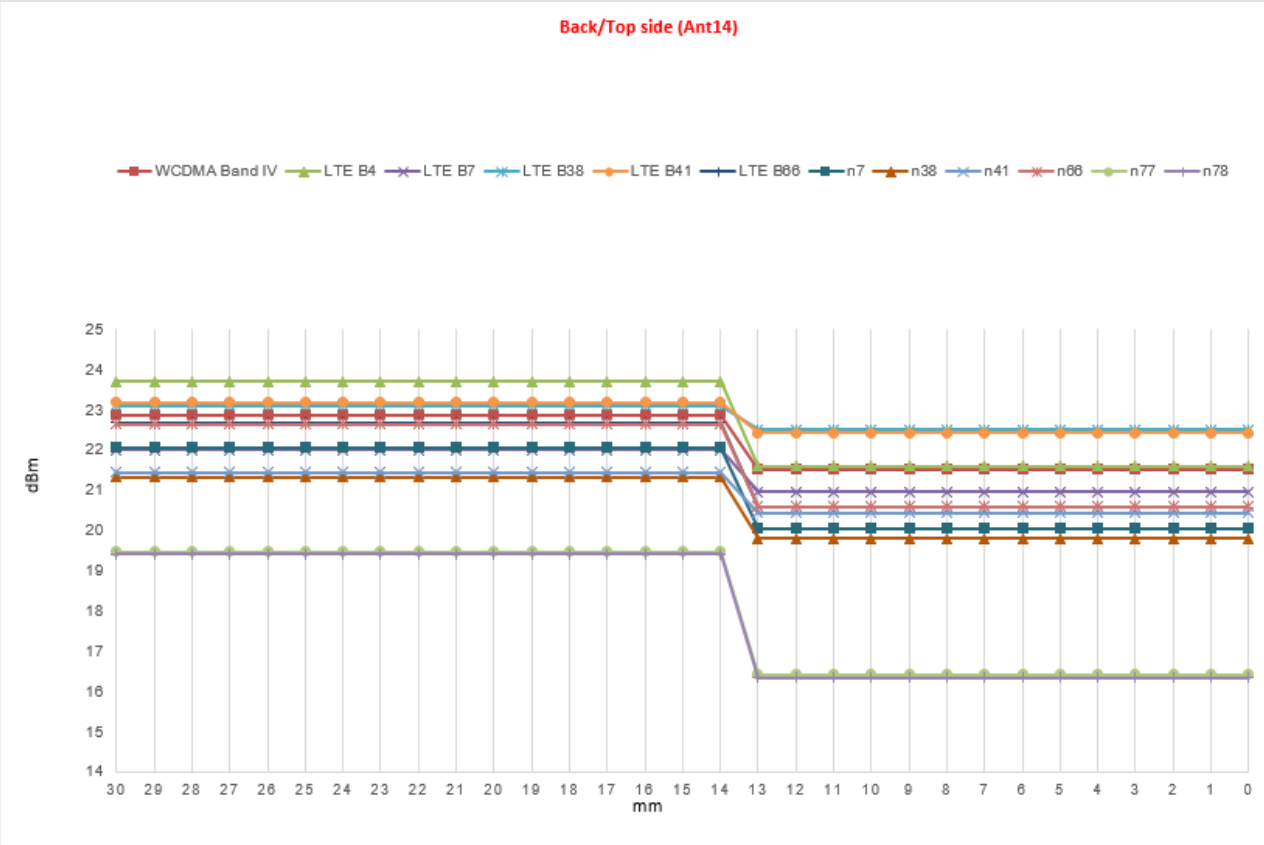

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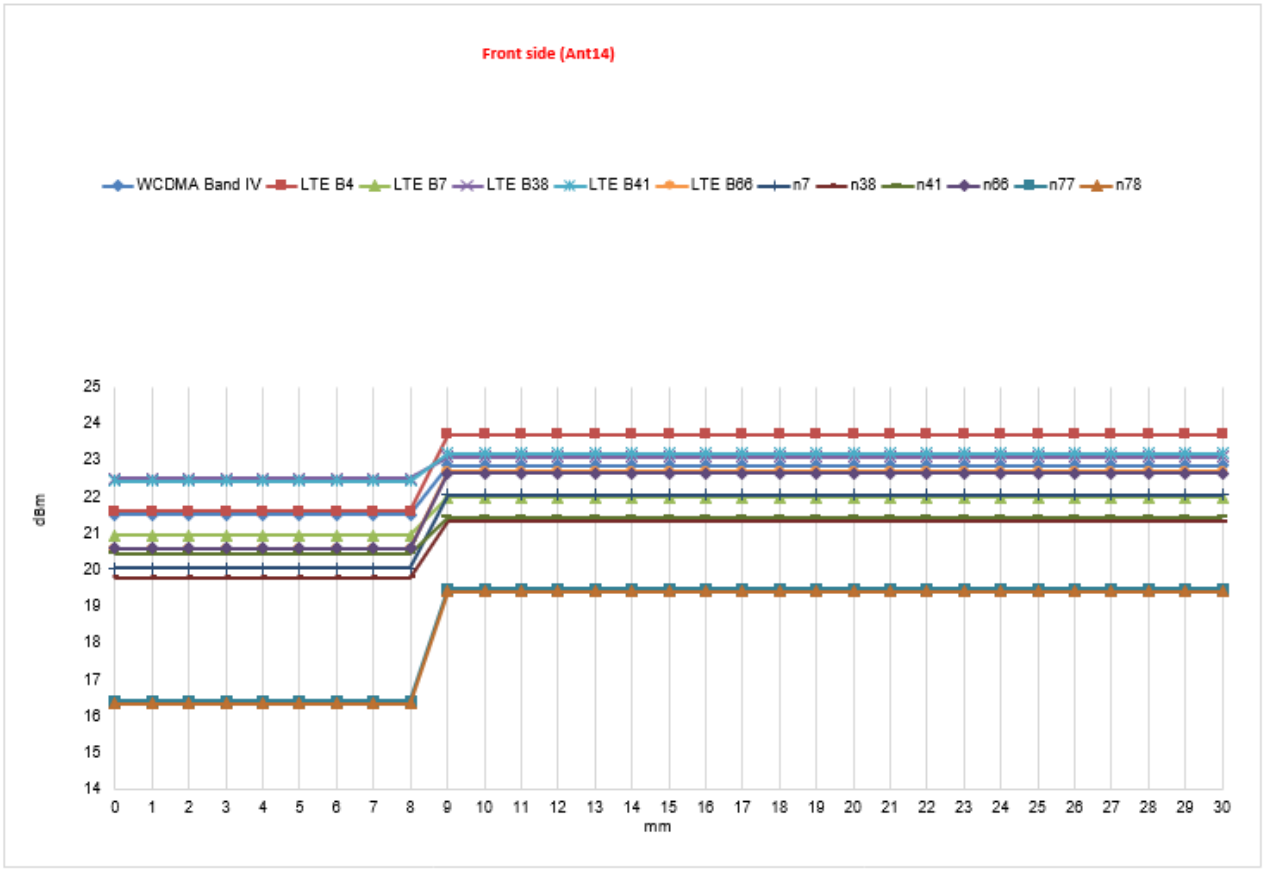
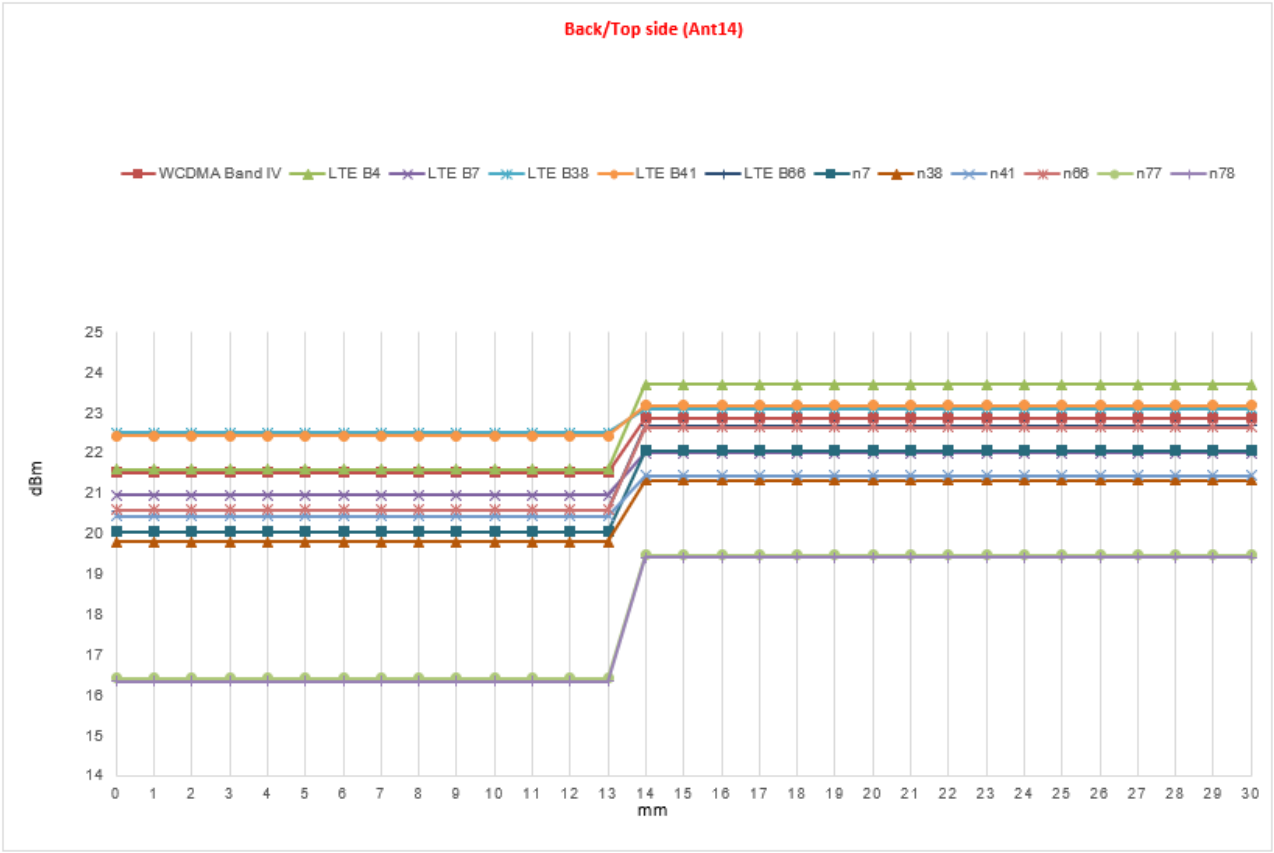
中国・广东・深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 sgs.china@sgs.com

- DUT Moving Away(Release) from the Phantom





Proximity sensor coverage

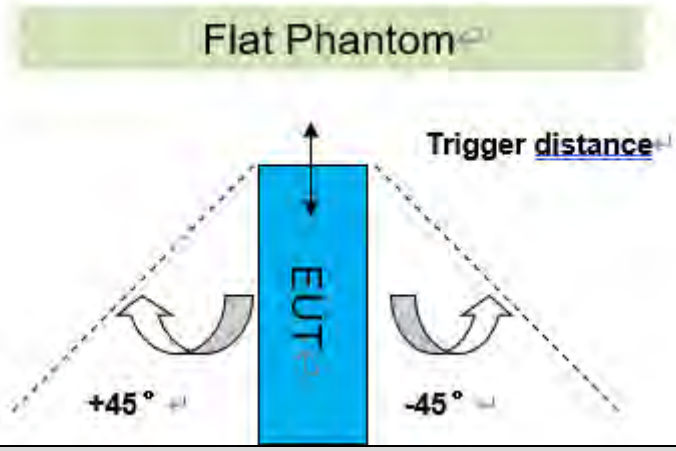
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user, but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage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

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

Device tilt angle influences on proximity sensor triggering

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

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



Summary of Tablet Tilt Angle Influence on Proximity Sensor Triggering for Edge Side												
Band (MHz)	Minimum trigger distance Per KDB616217§6.2	Minimum trigger distance at which power reduction was maintained over ±45°	Power Reduction Status									
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
Ant 14: WCDMA Band IV LTE Band 4/7/38/41/66 N2/N7/N38/N41/N66 /N77/N78	Top Side 13mm	Top Side 13mm	on	on	on	on	on	on	on	on	on	on	on

6 SAR System Verificaion 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	700-1000	1700-2000	2300-2500	2500-2700
Water	38.56	40.30	55.24	55.00	54.92
Salt (NaCl)	3.95	1.38	0.31	0.2	0.23
Sucrose	56.32	57.90	0	0	0
HEC	0.98	0.24	0	0	0
Bactericide	0.19	0.18	0	0	0
Tween	0	0	44.45	44.80	44.85
Salt: 99+% Pure Sodium Chloride Water: De-ionized, 16 MΩ+ resistivity Tween: Polyoxyethylene (20) sorbitan monolaurate			Sucrose: 98+% Pure Sucrose HEC: Hydroxyethyl Cellulose		
HSL5GHz is composed of the following ingredients: (Manufactured by SPEAG) Water: 50-65% Mineral oil: 10-30% Emulsifiers: 8-25% Sodium salt: 0-1.5% HSL13MHz is composed of the following ingredients: Water: 50-90% Non-ionic detergents: 5-50% Nacl: 0-2% Preservative: 0.03-0.1%					

Table 4： Recipe of Tissue Simulate Liquid

6.1.2 Measurement for Tissue Simulate Liquid

The Conductivity (σ) and Permittivity (εr) are listed in Table 2. For the SAR measurement given in this report.

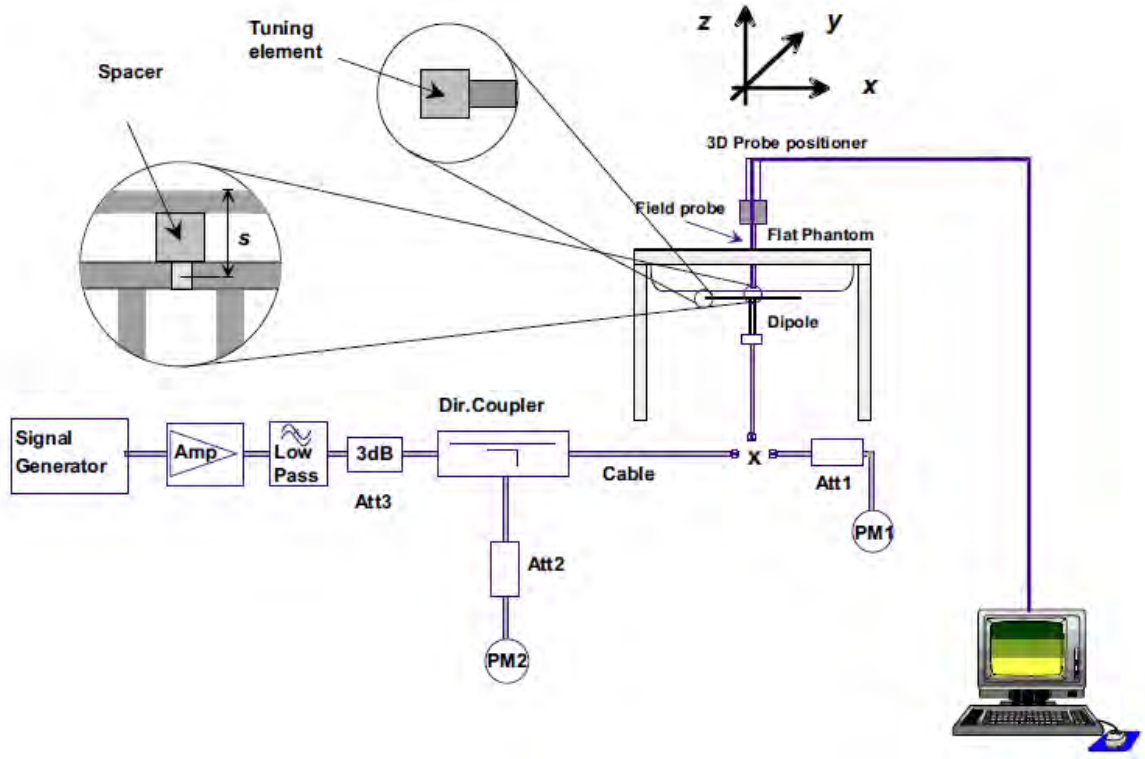
The temperature variation of the Tissue Simulate Liquids was 22±2°C.

Measurement for Tissue Simulate Liquid									
Tissue Type	Measured Frequency (MHz)	Measured Tissue		Target Tissue (±5%)		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	55.925	0.747	55.00	0.75	1.68%	-0.40%	22.7	2024/5/27
750 Head	750	43.808	0.880	41.90	0.89	4.55%	-1.12%	22.2	2024/5/8
835 Head	835	42.137	0.916	41.50	0.90	1.53%	1.78%	22.4	2024/5/9
835 Head	835	43.361	0.943	41.50	0.90	4.48%	4.78%	22.2	2024/5/10
835 Head	835	43.195	0.938	41.50	0.90	4.08%	4.22%	22.3	2024/5/21
1750 Head	1750	40.795	1.353	40.10	1.37	1.73%	-1.24%	22.2	2024/5/6
1750 Head	1750	38.992	1.308	40.10	1.37	-2.76%	-4.53%	22.1	2024/5/14
1750 Head	1750	38.885	1.334	40.10	1.37	-3.03%	-2.63%	22.3	2024/5/16
1900 Head	1900	40.546	1.418	40.00	1.40	1.37%	1.29%	22.2	2024/5/7
1900 Head	1900	38.415	1.444	40.00	1.40	-3.96%	3.14%	22.3	2024/5/18
1900 Head	1900	40.074	1.367	40.00	1.40	0.18%	-2.36%	22.4	2024/5/21
2450 Head	2450	39.316	1.764	39.20	1.80	0.30%	-2.00%	22.0	2024/5/15
2450 Head	2450	39.945	1.822	39.20	1.80	1.90%	1.22%	22.2	2024/5/17
2600 Head	2600	40.167	1.945	39.00	1.96	2.99%	-0.77%	22.0	2024/5/8
2600 Head	2600	39.898	1.960	39.00	1.96	2.30%	0.00%	21.8	2024/5/13
2600 Head	2600	38.993	2.034	39.00	1.96	-0.02%	3.78%	21.2	2024/5/16
2600 Head	2600	37.798	1.979	39.00	1.96	-3.08%	0.97%	22.1	2024/5/17
2600 Head	2600	39.382	1.987	39.00	1.96	0.98%	1.38%	22.2	2024/5/22
3400 Head	3400	38.104	2.720	38.00	2.81	0.27%	-3.20%	22.5	2024/5/14
3500 Head	3500	37.731	2.827	37.90	2.91	-0.45%	-2.85%	22.7	2024/5/18
3700 Head	3700	37.015	3.016	37.70	3.12	-1.82%	-3.33%	22.3	2024/5/22
3900 Head	3900	36.305	3.226	37.50	3.32	-3.19%	-2.83%	22.1	2024/5/20
5250 Head	5250	36.651	4.730	35.90	4.66	2.09%	1.50%	22.1	2024/5/17
5600 Head	5600	35.748	5.139	35.50	5.07	0.70%	1.36%	22.2	2024/5/19
5750 Head	5750	35.322	5.299	35.40	5.22	-0.22%	1.51%	22.4	2024/5/20

Table 5： 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) 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 20% 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 Test System Verification

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements.

Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

All the probes also have been calibrated for both CW and modulated signals. Related modulation test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

For some wider frequency points, such as the n77 frequency range from 3700MHz to 3980MHz, our test probe has been calibrated at 3700MHz and 3900MHz. According to KDB Publication 865664 D02v01r02 and System Verification, our probe meets the requirements for broadband SAR testing. For more probe calibration information, please refer to Appendix C.

6.2.3 Summary System Check Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (℃)	Test Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10-g(W/kg)		
CLA-13	Head	0.108	0.068	0.43	0.27	0.42	0.27	2.61%	2.26%	22.7	2024/5/27
D750V3	Head	2.21	1.45	8.84	5.80	8.37	5.53	5.62%	4.88%	22.2	2024/5/8
D835V2	Head	2.31	1.51	9.24	6.04	9.53	6.29	-3.04%	-3.97%	22.4	2024/5/9
D835V2	Head	2.39	1.56	9.56	6.24	9.53	6.29	0.31%	-0.79%	22.2	2024/5/10
D835V2	Head	2.42	1.60	9.68	6.40	9.53	6.29	1.57%	1.75%	22.3	2024/5/21
D1750V2	Head	8.94	4.80	35.76	19.20	36.60	19.30	-2.30%	-0.52%	22.2	2024/5/6
D1750V2	Head	8.95	4.80	35.80	19.20	36.60	19.30	-2.19%	-0.52%	22.1	2024/5/14
D1750V2	Head	9.45	5.06	37.80	20.24	36.60	19.30	3.28%	4.87%	22.3	2024/5/16
D1900V2	Head	10.5	5.63	42.00	22.52	39.50	20.60	6.33%	9.32%	22.2	2024/5/7
D1900V2	Head	10.30	5.26	41.20	21.04	39.50	20.60	4.30%	2.14%	22.3	2024/5/18
D1900V2	Head	10.10	5.26	40.40	21.04	39.50	20.60	2.28%	2.14%	22.4	2024/5/21
D2450V2	Head	12.70	5.99	50.80	23.96	52.20	24.30	-2.68%	-1.40%	22.0	2024/5/15
D2450V2	Head	13.90	6.47	55.60	25.88	52.20	24.30	6.51%	6.50%	22.2	2024/5/17
D2600V2	Head	13.90	6.33	55.60	25.32	57.70	25.80	-3.64%	-1.86%	22.0	2024/5/8
D2600V2	Head	14.30	6.43	57.20	25.72	57.70	25.80	-0.87%	-0.31%	21.8	2024/5/13
D2600V2	Head	13.60	6.19	54.40	24.76	57.70	25.80	-5.72%	-4.03%	21.2	2024/5/16
D2600V2	Head	14.70	6.54	58.80	26.16	57.70	25.80	1.91%	1.40%	22.1	2024/5/17
D2600V2	Head	14.50	6.52	58.00	26.08	57.70	25.80	0.52%	1.09%	22.2	2024/5/22
Validation Kit		**Measured SAR 100mW**	**Measured SAR 100mW**	**Measured SAR (normalized to 1W)**	**Measured SAR (normalized to 1W)**	**Target SAR (normalized to 1W)**	**Target SAR (normalized to 1W)**	**Deviation (Within ±10%)**		**Liquid Temp. (℃)**	**Test Date**
		1g (W/kg)	**10g (W/kg)**	**1g (W/kg)**	**10g (W/kg)**	**1-g(W/kg)**	**10-g(W/kg)**	**1-g(W/kg)**	**10-g(W/kg)**		
D3500V2	Head(3.4GHz)	6.54	2.52	65.40	25.20	66.50	26.10	-1.65%	-3.45%	22.5	2024/5/14
	Head(3.5GHz)	6.61	2.52	66.10	25.20	65.80	25.70	0.46%	-1.95%	22.7	2024/5/18
D3700V2	Head(3.7GHz)	6.50	2.42	65.00	24.20	66.10	24.70	-1.66%	-2.02%	22.3	2024/5/22
D3900V2	Head(3.9GHz)	6.85	2.41	68.50	24.10	66.70	23.80	2.70%	1.26%	22.1	2024/5/20
D5GHzV2	Head(5.25GHz)	7.82	2.29	78.20	22.90	77.30	22.10	1.16%	3.62%	22.1	2024/5/17
	Head(5.6GHz)	8.30	2.39	83.00	23.90	81.30	23.10	2.09%	3.46%	22.2	2024/5/19
	Head(5.75GHz)	7.30	2.12	73.00	21.20	77.10	21.30	-5.32%	-0.47%	22.4	2024/5/20

Table 6： SAR System Check Result

6.2.4 Detailed System Check Results

Please see the Appendix A

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7 Test Configuration

7.1 3G SAR Test Reduction Procedure

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

7.2 Operation Configurations

7.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using Radio Communication Analyzer, the power lever is set to “5”and “0” in SAR of GSM 850 and GSM 1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 33 for this EUT, it has at most 4 timeslots in uplink and at most 5 timeslots in downlink, the maximum total timeslot is 6. The EGPRS class is 33 for this EUT, it has at most 4 timeslots in uplink, and at most 5 timeslots in downlink, the maximum total timeslot is 6.

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units. 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, 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

RMC 12.2kbps setting is used to evaluate SAR. If the maximum output power for production units in HSDPA / HSUPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest measured SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power of HSDPA / HSUPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.5 W/kg, SAR measurement is not required for HSDPA / HSUPA.

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

HS-DSCH Category	MaximumHS-DSCH Codes Received	Minimum Inter-TTI Interval	MaximumHS-DSCH TransportBlockBits/HS-DSCH TTI	TotalSoft 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 8： 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_c (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 9： 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 10：HSUPA UE category

c) HSPA+

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

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

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

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

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

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

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

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

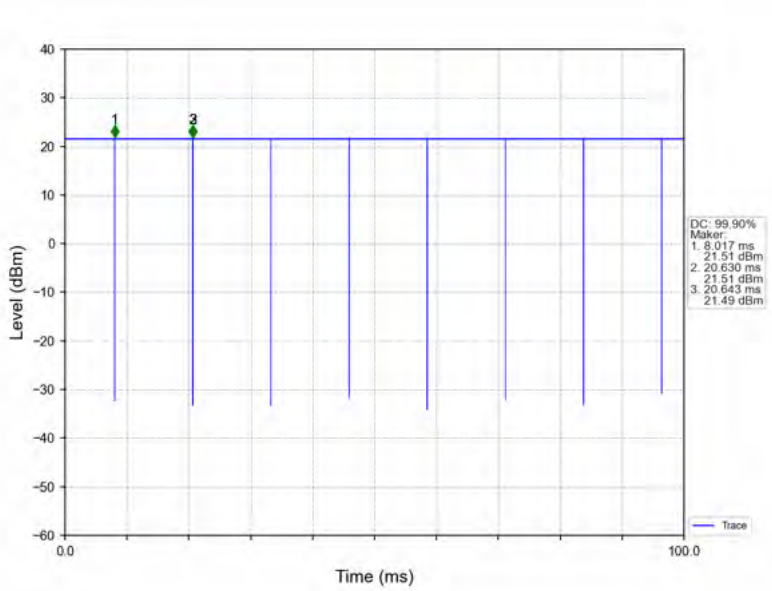
7.2.3 WLAN Test Configuration

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

7.2.3.1 Duty cycle

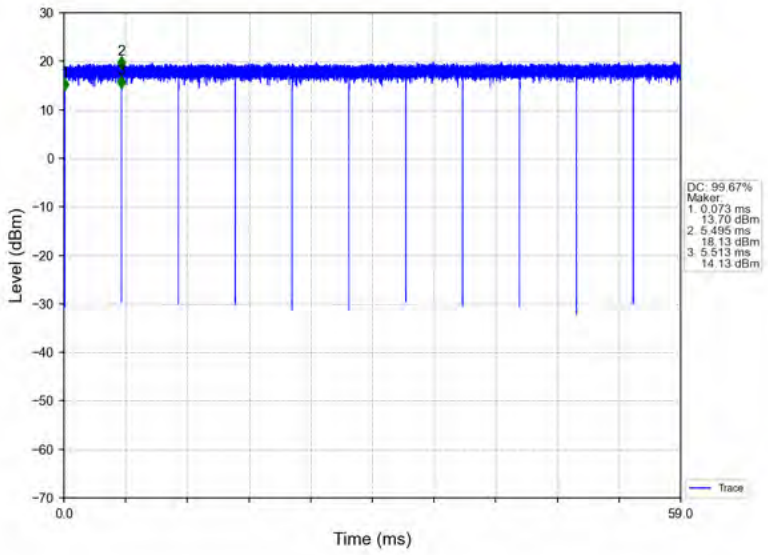
1) Wi-Fi 2.4GHz 802.11b:

Duty cycle=99.90%



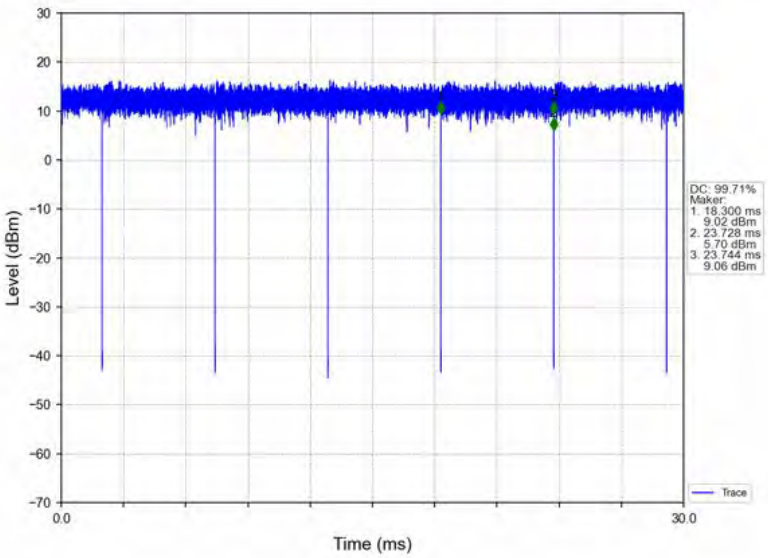
2) Wi-Fi 5GHz 802.11n40:

Duty cycle=99.67%



3) Wi-Fi 5GHz 802.11ac80:

Duty cycle=99.71 %



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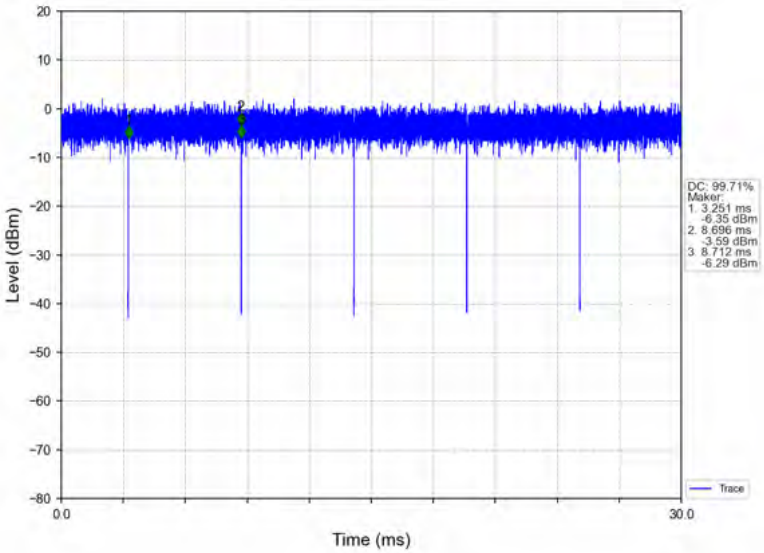
4) Wi-Fi 5GHz 802.11ac160:

Duty cycle=99.71%



7.2.3.2 Initial Test Position SAR Test Reduction Procedure

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

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

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7.2.3.3 Subsequent Test Configuration Procedures

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

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

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

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

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

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

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

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

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

7.2.3.4 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.

7.2.3.5 5 GHz WiFi SAR Procedures

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

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

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

- **U-NII-2C and U-NII-3 Bands**

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

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

OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements

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

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

- **SAR Test Requirements for OFDM configurations**

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

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7.2.3.6 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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7.2.4 LTE Test Configuration

Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The Radio Communication Analyzer was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

TDD LTE test consideration

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

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

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

Frame structure type 2:

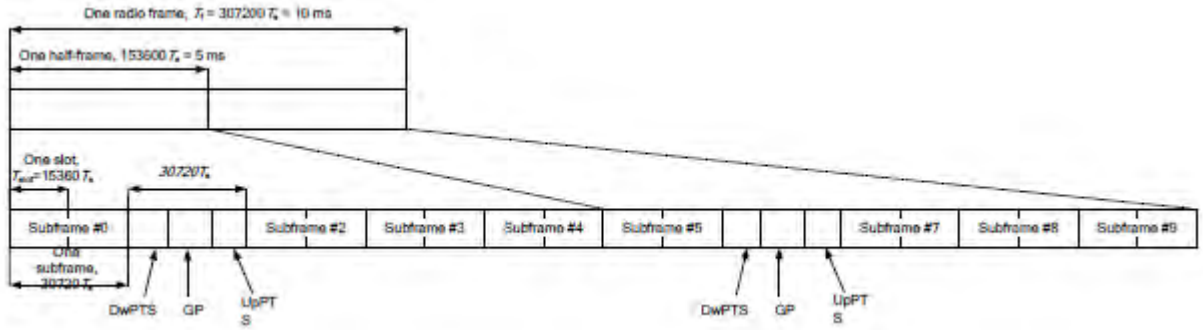

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

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			-	-	-

Table 4.2-2: Uplink-downlink configurations.

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

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

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

A) Spectrum Plots for RB Configurations

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

B) MPR

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

Modulation	Channel bandwidth/Transmission bandwidth	MPR

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	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	(dB)
QPSK	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	0
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3
256QAM	≥1						5

C) A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

Band	Bandwidth					
	1.4 MHz	3M MHz	5MHz	10MHz	15MHz	20MHz
LTE Band 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 5	Yes	Yes	Yes	Yes	N/A	N/A
LTE Band 7	N/A	N/A	Yes	Yes	Yes	Yes
LTE Band 12	Yes	Yes	Yes	Yes	N/A	N/A
LTE Band 13	N/A	N/A	Yes	Yes	N/A	N/A
LTE Band 17	N/A	N/A	Yes	Yes	N/A	N/A
LTE Band 26	Yes	Yes	Yes	Yes	Yes	N/A
LTE Band 38	N/A	N/A	Yes	Yes	Yes	Yes
LTE Band 41	N/A	N/A	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes

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 ≤ 50% limit SAR value, 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 >90% limit SAR value, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

For QPSK with 50%RB, SAR is not required when the highest maximum output power for 50%RB is not higher than the maximum output power in 1 RB allocations and the highest reported SAR for 1 RB in 1) is ≤ 75% limit SAR value. Otherwise, SAR is only required measure for the worst case of 1RB allocation used the highest maximum output power channel and if the reported SAR is> 90% limit SAR value, the remaining required test channels must also be tested.

3) QPSK with 100% RB allocation

For QPSK 100% RB allocation, SAR is not required when the highest maximum output power for 100%RB allocation is not higher than the maximum output power in 1 RB allocations and the highest reported SAR for 1 RB in 1) is ≤ 75% limit SAR value. Otherwise, SAR is only required measure for the worst case of 1RB allocation used the highest maximum output power channel and if the reported SAR is> 90% limit SAR value, 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 > 90% limit SAR value.

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 > 90% limit SAR value.

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.

Downlink LTE CA
7C
38C
41C
66C
2A-4A
2A-5A
2A-7A
2A-26A
2A-66A

4A-5A
4A-7A
5A-7A
5A-66A
7A-26A
7A-66A
2A-4A-5A
2A-4A-7A
2A-5A-7A
2A-5A-66A
2A-7A-66A
5A-7A-66A
7A-7C
41A-41C
2A-7A-7C
4A-7A-7C
5A-7A-7C
5A-66A-66C
7A-7C-66A
5A-7A-7C-66A
Uplink LTE CA
CA_7C
CA_38C
CA_41C
CA_66C

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.

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 Smart Transmit algorithm in WWAN directly adds the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from another 4G(LTE). Smart Transmit algorithm controls the total RF exposure of Inter-band uplink CA to not exceed FCC limit.

The Inter band Uplink CA as below table:

LTE Band/Antenna		LTE B2		LTE B4				LTE B5	
		Ant41	Ant14	Ant41	Ant14	Ant12	Ant24	ANT31	ANT11
LTE B5	ANT31			√	√	√	√		
	ANT11			√	√	√	√		
LTE B7	ANT12	√	√	√	√			√	√
	ANT24	√	√	√	√			√	√

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7.2.5 NR Band Test Configuration

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

Band		LTE Band 2			LTE Band 4		LTE Band 5		LTE Band 7				LTE Band 26	
		ANT41	ANT14	ANT12	ANT41	ANT14	ANT31	ANT11	ANT41	ANT14	ANT12	ANT24	ANT31	ANT11
n5	ANT31								√	√	√			
	ANT11								√	√	√			
n7	ANT12	√	√		√	√								
	ANT24	√	√		√	√								
n38	ANT12				√	√								
	ANT24				√	√								
n41	ANT41												√	√
	ANT14												√	√
	ANT12				√	√							√	√
	ANT24				√	√							√	√
n66	ANT41						√	√						
	ANT14						√	√						
	ANT12	√	√				√	√			√	√		
	ANT24	√	√				√	√			√	√		
n77	ANT14								√	√	√			
	ANT23								√	√	√			
	ANT13								√	√	√			
	ANT21								√	√	√			
n78	ANT14	√	√	√	√	√	√	√	√	√	√			
	ANT23	√	√	√	√	√	√	√	√	√	√			
	ANT13	√	√	√	√	√	√	√	√	√	√			
	ANT21	√	√	√	√	√	√	√	√	√	√			

Band		LTE Band 38			LTE Band 40			LTE Band 41			LTE Band 66		
		ANT41	ANT14	ANT12	ANT41	ANT14	ANT12	ANT41	ANT14	ANT12	ANT41	ANT14	ANT12
n5	ANT31												
	ANT11												
n7	ANT12										√	√	
	ANT24										√	√	
n38	ANT12										√	√	
	ANT24										√	√	
n41	ANT41												
	ANT14												
	ANT12										√	√	
	ANT24										√	√	
n66	ANT41												
	ANT14												
	ANT12												
	ANT24												
n77	ANT14				√	√	√						
	ANT23				√	√	√						
	ANT13				√	√	√						
	ANT21				√	√	√						
n78	ANT14	√	√	√	√	√	√	√	√	√	√	√	√
	ANT23	√	√	√	√	√	√	√	√	√	√	√	√
	ANT13	√	√	√	√	√	√	√	√	√	√	√	√
	ANT21	√	√	√	√	√	√	√	√	√	√	√	√

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

Band			n2	n5	n7	n26	n38	n41	n66	n77	n78
NR mode		SA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		NSA	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Modulation	DFT-s-OFDM	PI/2 BPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	CP-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max Duty Cycle			100%	100%	100%	100%	100%	100%	100%	100%	100%

Band	SCS	Bandwidth													
		5MHz	10MHz	15MHz	20MHz	25MHz	30MHz	35MHz	40MHz	50MHz	60MHz	70MHz	80MHz	90MHz	100MHz
n2	15 kHz	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n5	15 kHz	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n7	15 kHz	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n26	15 kHz	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n38	15 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	Yes	Yes	Yes	Yes	Yes	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A
n41	15 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes
n66	15 kHz	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n77	15 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes
n78	15 kHz	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30 kHz	N/A	Yes	Yes	Yes	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes

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

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4. MPR

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

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

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability powerBoosting-pi2BPSK and if the IE powerBoostPi2BPSK is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE powerBoostPi2BPSK is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

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

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

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

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

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

7. For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN directly adds the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed regulatory limit.

8 Test Result

8.1 Measurement of RF Conducted Power

The detailed conducted power can be referred to Appendix E.

Note:

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

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

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

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

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

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

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

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

7）. Conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A.Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive, therefore SAR evaluation with downlink carrier aggregation can be excluded.

The possible downlink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.101 V15.4.0. The detailed conducted power measurement results of downlink LTE CA are provided in the SAR report per 3GPP TS 36.521-1 V14.4.0. According to KDB 941225 D05A, the downlink only carrier aggregation conditions for this device can be excluded from SAR testing.

The conducted power measurement results of downlink LTE CA Conducted Power are as Appendix E conducted RF output power, so the downlink only carrier aggregation conditions for this device can be excluded from SAR testing.

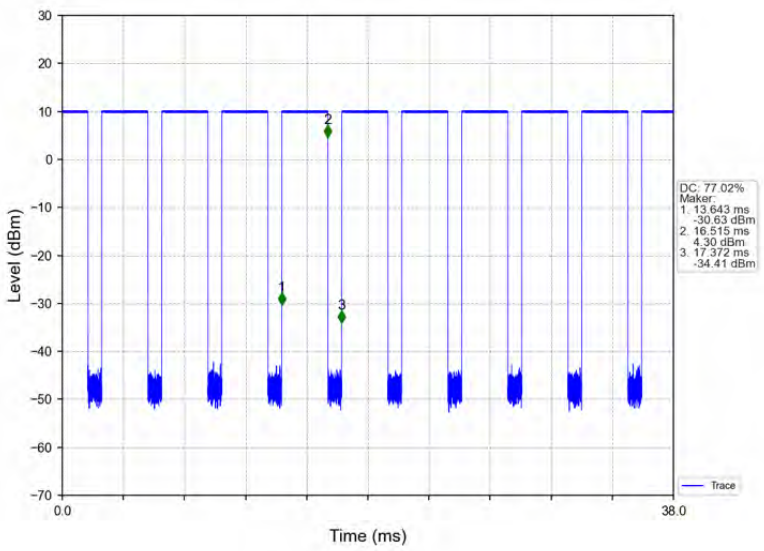
8）. For conducted power of WIFI must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band. For each

transmission mode configuration, power must be measured for the highest and lowest channels; and at the mid-band channel(s) when there are at least 3 channels. For configurations with multiple mid-band channels, due to an even number of channels, both channels should be measured. Power measurement is required for the transmission mode configuration with the highest maximum output power specified for production units.

1) When the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured.

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

9）. The conducted power of BT is measured with RMS detector.
BT DH5 Duty Cycle=77.02%



8.2 Measurement of SAR Data

Note:

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

2) Per KDB447498 D04, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

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

● ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.

WiFi 2.4G:

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

WiFi 5G:

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

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

8.2.1 SAR Result of GSM850

GSM850 SAR Test Record											
Ant 31 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	GPRS 2TS	190/836.6	1:4.15	0.128	0.088	0.08	30.73	31.70	1.250	0.160	22.4
Left tilted	GPRS 2TS	190/836.6	1:4.15	0.060	0.042	0.06	30.73	31.70	1.250	0.075	22.4
Right cheek	GPRS 2TS	190/836.6	1:4.15	0.161	0.130	0.03	30.73	31.70	1.250	0.201	22.4
Right tilted	GPRS 2TS	190/836.6	1:4.15	0.069	0.048	0.02	30.73	31.70	1.250	0.086	22.4
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 2TS	190/836.6	1:4.15	0.117	0.083	0.00	30.73	31.70	1.250	0.146	22.4
Back side	GPRS 2TS	190/836.6	1:4.15	0.161	0.124	-0.08	30.73	31.70	1.250	0.201	22.4
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 4TS	190/836.6	1:2.075	0.166	0.109	0.15	26.44	27.90	1.400	0.232	22.4
Back side	GPRS 4TS	190/836.6	1:2.075	0.178	0.119	0.04	26.44	27.90	1.400	0.249	22.4
Right side	GPRS 4TS	190/836.6	1:2.075	0.180	0.124	0.10	26.44	27.90	1.400	0.252	22.4
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.109	0.073	0.19	26.44	27.90	1.400	0.153	22.4
Ant 11 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	GPRS 4TS	190/836.6	1:2.075	0.302	0.183	0.06	23.98	25.20	1.324	0.400	22.4
Left tilted	GPRS 4TS	190/836.6	1:2.075	0.084	0.055	0.05	23.98	25.20	1.324	0.112	22.4
Right cheek	GPRS 4TS	190/836.6	1:2.075	0.334	0.188	0.01	23.98	25.20	1.324	**0.442**	22.4
Right tilted	GPRS 4TS	190/836.6	1:2.075	0.108	0.070	0.05	23.98	25.20	1.324	0.143	22.4
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 4TS	190/836.6	1:2.075	0.136	0.089	0.07	25.24	26.30	1.276	0.174	22.4
Back side	GPRS 4TS	190/836.6	1:2.075	0.242	0.153	0.03	25.24	26.30	1.276	**0.309**	22.4
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 4TS	190/836.6	1:2.075	0.184	0.117	0.06	23.98	25.20	1.324	0.244	22.4
Back side	GPRS 4TS	190/836.6	1:2.075	0.353	0.204	0.08	23.98	25.20	1.324	0.467	22.4
Left side	GPRS 4TS	190/836.6	1:2.075	0.513	0.287	0.03	23.98	25.20	1.324	**0.679**	22.4

Table 11：SAR of GSM850 for Head, Body and Hotspot.

8.2.2 SAR Result of GSM1900

GSM1900 SAR Test Record											
Ant 41 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	GPRS 2TS	661/1880	1:4.15	0.051	0.029	-0.05	27.93	29.00	1.279	0.065	22.4
Left tilted	GPRS 2TS	661/1880	1:4.15	0.018	0.011	0.16	27.93	29.00	1.279	0.023	22.4
Right cheek	GPRS 2TS	661/1880	1:4.15	0.067	0.039	-0.10	27.93	29.00	1.279	0.086	22.4
Right tilted	GPRS 2TS	661/1880	1:4.15	0.023	0.013	0.07	27.93	29.00	1.279	0.029	22.4
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 2TS	661/1880	1:4.15	0.117	0.071	0.10	27.93	29.00	1.279	0.150	22.4
Back side	GPRS 2TS	661/1880	1:4.15	0.166	0.098	0.01	27.93	29.00	1.279	**0.212**	22.4
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 3TS	661/1880	1:2.77	0.163	0.091	0.05	24.77	26.00	1.327	0.216	22.3
Back side	GPRS 3TS	661/1880	1:2.77	0.219	0.121	-0.11	24.77	26.00	1.327	0.291	22.3
Left side	GPRS 3TS	661/1880	1:2.77	0.072	0.040	0.01	24.77	26.00	1.327	0.096	22.3
Right side	GPRS 3TS	661/1880	1:2.77	0.051	0.029	0.02	24.77	26.00	1.327	0.068	22.3
Bottom side	GPRS 3TS	661/1880	1:2.77	0.290	0.155	0.05	24.77	26.00	1.327	0.385	22.3
Ant 14 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	GPRS 2TS	661/1880	1:4.15	0.227	0.138	0.06	23.22	25.00	1.507	0.342	22.3
Left tilted	GPRS 2TS	661/1880	1:4.15	0.231	0.133	-0.04	23.22	25.00	1.507	0.348	22.3
Right cheek	GPRS 2TS	661/1880	1:4.15	0.396	0.209	0.05	23.22	25.00	1.507	**0.597**	22.3
Right tilted	GPRS 2TS	661/1880	1:4.15	0.337	0.168	0.05	23.22	25.00	1.507	0.508	22.3
Body worn Test data(Separate 15mm) DSI7											
Front side	GPRS 2TS	661/1880	1:4.15	0.097	0.057	0.06	27.32	29.00	1.472	0.143	22.4
Back side	GPRS 2TS	661/1880	1:4.15	0.133	0.076	0.07	27.32	29.00	1.472	0.196	22.4
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 2TS	661/1880	1:4.15	0.194	0.116	0.02	27.32	29.00	1.472	0.286	22.4
Back side	GPRS 2TS	661/1880	1:4.15	0.283	0.153	0.01	27.32	29.00	1.472	0.417	22.4
Left side	GPRS 2TS	661/1880	1:4.15	0.155	0.079	0.07	27.32	29.00	1.472	0.228	22.4
Top side	GPRS 2TS	661/1880	1:4.15	0.311	0.174	0.05	27.32	29.00	1.472	**0.458**	22.4

Table 12：SAR of GSM1900 for Head, Body and Hotspot.

8.2.3 SAR Result of WCDMA Band II

WB2 SAR Test Record											
Ant 41 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	9400/1880	1:1	0.102	0.067	0.05	22.89	23.70	1.205	0.123	22.1
Left tilted	RMC	9400/1880	1:1	0.062	0.034	-0.03	22.89	23.70	1.205	0.075	22.1
Right cheek	RMC	9400/1880	1:1	0.091	0.052	0.06	22.89	23.70	1.205	0.110	22.1
Right tilted	RMC	9400/1880	1:1	0.061	0.031	0.09	22.89	23.70	1.205	0.074	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	9400/1880	1:1	0.174	0.103	-0.03	20.43	21.20	1.194	0.208	22.2
Back side	RMC	9400/1880	1:1	0.198	0.119	-0.06	20.43	21.20	1.194	0.236	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	9400/1880	1:1	0.233	0.130	-0.19	18.80	19.70	1.230	0.287	22.2
Back side	RMC	9400/1880	1:1	0.286	0.158	0.04	18.80	19.70	1.230	0.352	22.2
Left side	RMC	9400/1880	1:1	0.093	0.054	0.05	18.80	19.70	1.230	0.114	22.2
Right side	RMC	9400/1880	1:1	0.070	0.038	-0.04	18.80	19.70	1.230	0.086	22.2
Bottom side	RMC	9400/1880	1:1	0.370	0.203	0.03	18.80	19.70	1.230	0.455	22.2
Ant 14 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	9400/1880	1:1	0.256	0.159	0.11	16.49	18.10	1.449	0.371	22.1
Left tilted	RMC	9400/1880	1:1	0.250	0.137	0.15	16.49	18.10	1.449	0.362	22.1
Right cheek	RMC	9400/1880	1:1	0.480	0.260	0.13	16.49	18.10	1.449	0.695	22.1
Right tilted	RMC	9400/1880	1:1	0.538	0.254	0.18	16.49	18.10	1.449	**0.779**	22.1
Body worn Test data(Separate 15mm) DSI7											
Front side	RMC	9400/1880	1:1	0.139	0.084	-0.08	22.06	23.60	1.426	0.198	22.2
Back side	RMC	9400/1880	1:1	0.187	0.107	0.02	22.06	23.60	1.426	**0.267**	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	9400/1880	1:1	0.203	0.120	-0.10	21.09	22.60	1.416	0.287	22.2
Back side	RMC	9400/1880	1:1	0.326	0.178	0.02	21.09	22.60	1.416	**0.462**	22.2
Left side	RMC	9400/1880	1:1	0.191	0.095	0.12	21.09	22.60	1.416	0.270	22.2
Top side	RMC	9400/1880	1:1	0.314	0.174	-0.11	21.09	22.60	1.416	0.445	22.2

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

8.2.4 SAR Result of WCDMA Band IV

WB4 SAR Test Record											
Ant 41 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	1412/1732.4	1:1	0.080	0.050	0.03	23.83	24.70	1.222	0.098	22.1
Left tilted	RMC	1412/1732.4	1:1	0.065	0.038	0.04	23.83	24.70	1.222	0.079	22.1
Right cheek	RMC	1412/1732.4	1:1	0.097	0.059	0.04	23.83	24.70	1.222	0.118	22.1
Right tilted	RMC	1412/1732.4	1:1	0.064	0.034	0.08	23.83	24.70	1.222	0.078	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	1412/1732.4	1:1	0.146	0.089	0.15	21.27	22.20	1.239	0.181	22.2
Back side	RMC	1412/1732.4	1:1	0.163	0.098	0.06	21.27	22.20	1.239	0.202	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	1412/1732.4	1:1	0.236	0.134	0.19	20.39	21.20	1.205	0.284	22.2
Back side	RMC	1412/1732.4	1:1	0.294	0.162	0.14	20.39	21.20	1.205	0.354	22.2
Left side	RMC	1412/1732.4	1:1	0.093	0.052	0.03	20.39	21.20	1.205	0.112	22.2
Right side	RMC	1412/1732.4	1:1	0.081	0.047	-0.09	20.39	21.20	1.205	0.098	22.2
Bottom side	RMC	1412/1732.4	1:1	0.350	0.196	0.04	20.39	21.20	1.205	0.422	22.2
Ant 14 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	1412/1732.4	1:1	0.305	0.190	0.04	15.85	17.60	1.496	0.456	22.1
Left tilted	RMC	1412/1732.4	1:1	0.310	0.183	0.01	15.85	17.60	1.496	0.464	22.1
Right cheek	RMC	1412/1732.4	1:1	0.529	0.305	0.15	15.85	17.60	1.496	0.792	22.1
Right tilted	RMC	1412/1732.4	1:1	0.539	0.266	0.10	15.85	17.60	1.496	**0.806**	22.1
Body worn Test data(Separate 15mm) DSI7											
Front side	RMC	1412/1732.4	1:1	0.271	0.175	0.18	22.87	24.60	1.489	0.404	22.2
Back side	RMC	1412/1732.4	1:1	0.318	0.207	0.16	22.87	24.60	1.489	**0.474**	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	1412/1732.4	1:1	0.226	0.145	-0.11	19.94	21.60	1.466	0.331	22.2
Back side	RMC	1412/1732.4	1:1	0.307	0.190	0.15	19.94	21.60	1.466	0.450	22.2
Left side	RMC	1412/1732.4	1:1	0.101	0.057	0.16	19.94	21.60	1.466	0.148	22.2
Top side	RMC	1412/1732.4	1:1	0.401	0.231	0.02	19.94	21.60	1.466	**0.588**	22.2

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

8.2.5 SAR Result of WCDMA Band V

WB5 SAR Test Record											
Ant 31 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	4182/836.4	1:1	0.121	0.083	0.09	23.93	24.70	1.194	0.144	22.1
Left tilted	RMC	4182/836.4	1:1	0.052	0.036	0.08	23.93	24.70	1.194	0.061	22.1
Right cheek	RMC	4182/836.4	1:1	0.132	0.091	0.06	23.93	24.70	1.194	0.158	22.1
Right tilted	RMC	4182/836.4	1:1	0.060	0.041	0.04	23.93	24.70	1.194	0.071	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	4182/836.4	1:1	0.115	0.082	0.09	23.93	24.70	1.194	0.137	22.2
Back side	RMC	4182/836.4	1:1	0.143	0.110	0.08	23.93	24.70	1.194	0.171	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	4182/836.4	1:1	0.166	0.104	0.17	23.49	24.20	1.178	0.195	22.2
Back side	RMC	4182/836.4	1:1	0.218	0.147	0.03	23.49	24.20	1.178	0.257	22.2
Right side	RMC	4182/836.4	1:1	0.127	0.084	-0.02	23.49	24.20	1.178	0.150	22.2
Bottom side	RMC	4182/836.4	1:1	0.128	0.078	-0.04	23.49	24.20	1.178	0.151	22.2
Ant 11 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)	Liquid Temp.(℃)
Head Test Data DSI2											
Left cheek	RMC	4182/836.4	1:1	0.317	0.187	0.06	20.67	22.00	1.358	0.431	22.1
Left tilted	RMC	4182/836.4	1:1	0.085	0.056	0.10	20.67	22.00	1.358	0.115	22.1
Right cheek	RMC	4182/836.4	1:1	0.438	0.243	0.09	20.67	22.00	1.358	**0.595**	22.1
Right tilted	RMC	4182/836.4	1:1	0.122	0.078	0.02	20.67	22.00	1.358	0.166	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	4182/836.4	1:1	0.202	0.123	-0.19	22.55	24.00	1.396	0.282	22.2
Back side	RMC	4182/836.4	1:1	0.353	0.223	0.06	22.55	24.00	1.396	**0.493**	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	4182/836.4	1:1	0.210	0.119	0.04	20.67	22.00	1.358	0.285	22.2
Back side	RMC	4182/836.4	1:1	0.373	0.202	0.00	20.67	22.00	1.358	0.507	22.2
Left side	RMC	4182/836.4	1:1	0.534	0.302	0.01	20.67	22.00	1.358	**0.725**	22.2

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

8.2.6 SAR Result of LTE Band 2

LTE Band 2 SAR Test Record												
Ant 41 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	18900/1880	1:1	0.101	0.058	-0.06	22.45	23.70	1.334	0.135	22.2
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.044	0.026	0.16	22.45	23.70	1.334	0.059	22.2
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.100	0.056	0.17	22.45	23.70	1.334	0.133	22.2
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.046	0.027	0.04	22.45	23.70	1.334	0.062	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	18900/1880	1:1	0.087	0.050	-0.05	21.57	22.70	1.297	0.113	22.2
Left tilted	20	QPSK 50_25	18900/1880	1:1	0.034	0.020	-0.04	21.57	22.70	1.297	0.044	22.2
Right cheek	20	QPSK 50_25	18900/1880	1:1	0.081	0.046	0.07	21.57	22.70	1.297	0.106	22.2
Right tilted	20	QPSK 50_25	18900/1880	1:1	0.040	0.022	-0.01	21.57	22.70	1.297	0.051	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	18900/1880	1:1	0.177	0.106	0.00	20.66	21.70	1.271	0.225	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.223	0.128	-0.13	20.66	21.70	1.271	0.283	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	18900/1880	1:1	0.179	0.108	-0.05	20.61	21.70	1.285	0.230	22.2
Back side	20	QPSK 50_25	18900/1880	1:1	0.229	0.134	-0.06	20.61	21.70	1.285	**0.294**	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	19100/1900	1:1	0.271	0.152	0.01	19.64	20.70	1.276	0.346	22.2
Back side	20	QPSK 1_50	19100/1900	1:1	0.349	0.188	0.04	19.64	20.70	1.276	0.445	22.2
Left side	20	QPSK 1_50	19100/1900	1:1	0.104	0.059	-0.17	19.64	20.70	1.276	0.133	22.2
Right side	20	QPSK 1_50	19100/1900	1:1	0.076	0.043	0.12	19.64	20.70	1.276	0.097	22.2
Bottom side	20	QPSK 1_50	19100/1900	1:1	0.411	0.221	-0.03	19.64	20.70	1.276	0.525	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	18900/1880	1:1	0.291	0.159	0.19	19.48	20.70	1.324	0.385	22.2
Back side	20	QPSK 50_25	18900/1880	1:1	0.370	0.203	-0.13	19.48	20.70	1.324	0.490	22.2
Left side	20	QPSK 50_25	18900/1880	1:1	0.105	0.061	-0.12	19.48	20.70	1.324	0.139	22.2
Right side	20	QPSK 50_25	18900/1880	1:1	0.084	0.047	0.18	19.48	20.70	1.324	0.111	22.2
Bottom side	20	QPSK 50_25	18900/1880	1:1	0.487	0.265	0.05	19.48	20.70	1.324	**0.645**	22.2
Ant 14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	18700/1860	1:1	0.213	0.144	-0.13	16.71	18.30	1.442	0.307	22.4
Left tilted	20	QPSK 1_99	18700/1860	1:1	0.233	0.141	0.18	16.71	18.30	1.442	0.336	22.4
Right cheek	20	QPSK 1_99	18700/1860	1:1	0.397	0.223	0.10	16.71	18.30	1.442	0.573	22.4

Right tilted	20	QPSK 1_99	18700/1860	1:1	0.328	0.165	0.19	16.71	18.30	1.442	0.473	22.4
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	18900/1880	1:1	0.227	0.153	0.15	16.63	18.30	1.469	0.333	22.4
Left tilted	20	QPSK 50_25	18900/1880	1:1	0.245	0.147	-0.01	16.63	18.30	1.469	0.360	22.4
Right cheek	20	QPSK 50_25	18900/1880	1:1	0.532	0.279	0.01	16.63	18.30	1.469	0.781	22.4
Right tilted	20	QPSK 50_25	18900/1880	1:1	0.352	0.178	-0.16	16.63	18.30	1.469	0.517	22.4
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_99	18900/1880	1:1	0.129	0.079	-0.14	22.44	23.80	1.368	0.176	22.2
Back side	20	QPSK 1_99	18900/1880	1:1	0.167	0.099	0.19	22.44	23.80	1.368	0.228	22.2
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_25	18900/1880	1:1	0.113	0.070	-0.16	21.25	22.80	1.429	0.161	22.2
Back side	20	QPSK 50_25	18900/1880	1:1	0.149	0.088	0.09	21.25	22.80	1.429	0.213	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	18900/1880	1:1	0.216	0.129	0.11	21.79	23.30	1.416	0.306	22.2
Back side	20	QPSK 1_99	18900/1880	1:1	0.297	0.163	-0.03	21.79	23.30	1.416	0.420	22.2
Left side	20	QPSK 1_99	18900/1880	1:1	0.140	0.074	-0.15	21.79	23.30	1.416	0.198	22.2
Top side	20	QPSK 1_99	18900/1880	1:1	0.334	0.184	-0.11	21.79	23.30	1.416	0.473	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	18900/1880	1:1	0.203	0.125	0.14	21.25	22.80	1.429	0.290	22.2
Back side	20	QPSK 50_25	18900/1880	1:1	0.272	0.161	0.10	21.25	22.80	1.429	0.389	22.2
Left side	20	QPSK 50_25	18900/1880	1:1	0.141	0.076	-0.04	21.25	22.80	1.429	0.201	22.2
Top side	20	QPSK 50_25	18900/1880	1:1	0.317	0.173	0.15	21.25	22.80	1.429	0.453	22.2
Ant 12 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	18700/1860	1:1	0.185	0.109	0.03	19.41	21.00	1.442	0.267	22.3
Left tilted	20	QPSK 1_0	18700/1860	1:1	0.074	0.044	0.05	19.41	21.00	1.442	0.107	22.3
Right cheek	20	QPSK 1_0	18700/1860	1:1	0.552	0.257	-0.01	19.41	21.00	1.442	**0.796**	22.3
Right tilted	20	QPSK 1_0	18700/1860	1:1	0.177	0.092	-0.06	19.41	21.00	1.442	0.255	22.3
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	18700/1860	1:1	0.184	0.109	0.04	19.43	21.00	1.435	0.264	22.3
Left tilted	20	QPSK 50_25	18700/1860	1:1	0.069	0.042	0.03	19.43	21.00	1.435	0.099	22.3
Right cheek	20	QPSK 50_25	18700/1860	1:1	0.531	0.293	0.16	19.43	21.00	1.435	0.762	22.3
Right tilted	20	QPSK 50_25	18700/1860	1:1	0.173	0.090	-0.17	19.43	21.00	1.435	0.248	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	18900/1880	1:1	0.062	0.035	0.08	22.02	23.50	1.406	0.087	22.3
Back side	20	QPSK 1_99	18900/1880	1:1	0.108	0.060	0.05	22.02	23.50	1.406	0.152	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_50	18700/1860	1:1	0.069	0.038	0.10	21.52	23.00	1.406	0.097	22.3
Back side	20	QPSK 50_50	18700/1860	1:1	0.120	0.066	0.13	21.52	23.00	1.406	0.169	22.3

Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	18900/1880	1:1	0.103	0.056	0.00	20.86	22.00	1.300	0.134	22.3
Back side	20	QPSK 1_50	18900/1880	1:1	0.209	0.104	-0.12	20.86	22.00	1.300	0.272	22.3
Left side	20	QPSK 1_50	18900/1880	1:1	0.218	0.100	-0.12	20.86	22.00	1.300	0.283	22.3
Top side	20	QPSK 1_50	18900/1880	1:1	0.021	0.007	-0.07	20.86	22.00	1.300	0.027	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	18700/1860	1:1	0.124	0.067	0.06	20.42	22.00	1.439	0.178	22.3
Back side	20	QPSK 50_25	18700/1860	1:1	0.247	0.122	0.16	20.42	22.00	1.439	0.355	22.3
Left side	20	QPSK 50_25	18700/1860	1:1	0.283	0.129	0.07	20.42	22.00	1.439	0.407	22.3
Top side	20	QPSK 50_25	18700/1860	1:1	0.018	0.005	-0.15	20.42	22.00	1.439	0.026	22.3

Table 16：SAR of LTE Band 2 for Head, Body and Hotspot.

8.2.7 SAR Result of LTE Band 4

LTE Band 4 SAR Test Record												
Ant 41 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	20175/1732.5	1:1	0.084	0.049	0.05	23.74	24.70	1.247	0.105	22.2
Left tilted	20	QPSK 1_0	20175/1732.5	1:1	0.053	0.032	0.02	23.74	24.70	1.247	0.066	22.2
Right cheek	20	QPSK 1_0	20175/1732.5	1:1	0.108	0.062	0.07	23.74	24.70	1.247	0.135	22.2
Right tilted	20	QPSK 1_0	20175/1732.5	1:1	0.061	0.033	-0.05	23.74	24.70	1.247	0.076	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	20175/1732.5	1:1	0.074	0.043	0.07	22.92	23.70	1.197	0.088	22.2
Left tilted	20	QPSK 50_25	20175/1732.5	1:1	0.046	0.028	0.16	22.92	23.70	1.197	0.055	22.2
Right cheek	20	QPSK 50_25	20175/1732.5	1:1	0.092	0.053	0.08	22.92	23.70	1.197	0.110	22.2
Right tilted	20	QPSK 50_25	20175/1732.5	1:1	0.039	0.023	-0.01	22.92	23.70	1.197	0.047	22.2
Ant 14 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	20175/1732.5	1:1	0.300	0.202	-0.17	16.58	17.80	1.324	0.397	22.4
Left tilted	20	QPSK 1_99	20175/1732.5	1:1	0.319	0.197	0.02	16.58	17.80	1.324	0.422	22.4
Right cheek	20	QPSK 1_99	20175/1732.5	1:1	0.511	0.294	0.18	16.58	17.80	1.324	0.677	22.4
Right tilted	20	QPSK 1_99	20175/1732.5	1:1	0.415	0.217	-0.18	16.58	17.80	1.324	0.550	22.4
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	20175/1732.5	1:1	0.313	0.212	-0.06	16.51	17.80	1.346	0.421	22.4
Left tilted	20	QPSK 50_25	20175/1732.5	1:1	0.334	0.207	0.11	16.51	17.80	1.346	0.450	22.4
Right cheek	20	QPSK 50_25	20175/1732.5	1:1	0.591	0.318	0.10	16.51	17.80	1.346	**0.795**	22.4
Right tilted	20	QPSK 50_25	20175/1732.5	1:1	0.446	0.232	0.14	16.51	17.80	1.346	0.600	22.4
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.165	0.092	0.17	23.71	24.80	1.285	0.212	22.2
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.218	0.117	-0.10	23.71	24.80	1.285	0.280	22.2
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_25	20175/1732.5	1:1	0.173	0.097	-0.13	22.49	23.80	1.352	0.234	22.2
Back side	20	QPSK 50_25	20175/1732.5	1:1	0.287	0.183	0.07	22.49	23.80	1.352	**0.388**	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	20175/1732.5	1:1	0.179	0.098	-0.03	19.99	21.30	1.352	0.242	22.2
Back side	20	QPSK 1_0	20175/1732.5	1:1	0.242	0.142	0.15	19.99	21.30	1.352	0.327	22.2
Left side	20	QPSK 1_0	20175/1732.5	1:1	0.091	0.050	-0.11	19.99	21.30	1.352	0.123	22.2
Top side	20	QPSK 1_0	20175/1732.5	1:1	0.232	0.120	0.06	19.99	21.30	1.352	0.314	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	20175/1732.5	1:1	0.192	0.104	-0.18	19.85	21.30	1.396	0.268	22.2
Back side	20	QPSK 50_25	20175/1732.5	1:1	0.244	0.150	-0.05	19.85	21.30	1.396	**0.341**	22.2
Left side	20	QPSK 50_25	20175/1732.5	1:1	0.127	0.066	-0.05	19.85	21.30	1.396	0.177	22.2
Top side	20	QPSK 50_25	20175/1732.5	1:1	0.239	0.124	-0.08	19.85	21.30	1.396	0.334	22.2
Ant 12 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	20050/1720	1:1	0.169	0.101	0.04	21.35	22.50	1.303	0.220	22.3
Left tilted	20	QPSK 1_99	20050/1720	1:1	0.072	0.044	0.01	21.35	22.50	1.303	0.094	22.3
Right cheek	20	QPSK 1_99	20050/1720	1:1	0.494	0.276	0.04	21.35	22.50	1.303	0.644	22.3
Right tilted	20	QPSK 1_99	20050/1720	1:1	0.165	0.086	0.14	21.35	22.50	1.303	0.215	22.3
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_50	20300/1745	1:1	0.212	0.125	-0.19	21.31	22.50	1.315	0.279	22.3
Left tilted	20	QPSK 50_50	20300/1745	1:1	0.088	0.052	0.00	21.31	22.50	1.315	0.116	22.3
Right cheek	20	QPSK 50_50	20300/1745	1:1	0.465	0.216	0.08	21.31	22.50	1.315	0.612	22.3
Right tilted	20	QPSK 50_50	20300/1745	1:1	0.210	0.108	0.06	21.31	22.50	1.315	0.276	22.3

Right cheek	20	QPSK 50_50	20050/1720	1:1	0.491	0.277	0.05	21.27	22.50	1.327	0.652	22.3
Right cheek	20	QPSK 50_50	20175/1732.5	1:1	0.560	0.316	-0.19	21.27	22.50	1.327	0.743	22.3
Head Test Data (100%RB) DSI2												
Right cheek	20	QPSK 100_0	20300/1745	1:1	0.490	0.312	-0.07	21.30	22.50	1.318	0.646	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_50	20300/1745	1:1	0.057	0.032	0.08	22.13	23.00	1.222	0.070	22.3
Back side	20	QPSK 1_50	20300/1745	1:1	0.106	0.057	-0.10	22.13	23.00	1.222	0.130	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_50	20050/1720	1:1	0.043	0.025	0.11	21.84	23.00	1.306	0.056	22.3
Back side	20	QPSK 50_50	20050/1720	1:1	0.084	0.047	0.03	21.84	23.00	1.306	0.110	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	20300/1745	1:1	0.099	0.049	0.17	20.87	21.50	1.156	0.114	22.3
Back side	20	QPSK 1_99	20300/1745	1:1	0.201	0.103	-0.18	20.87	21.50	1.156	0.232	22.3
Left side	20	QPSK 1_99	20300/1745	1:1	0.222	0.108	-0.15	20.87	21.50	1.156	0.257	22.3
Top side	20	QPSK 1_99	20300/1745	1:1	0.022	0.006	0.17	20.87	21.50	1.156	0.025	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_50	20175/1732.5	1:1	0.084	0.043	0.19	20.24	21.50	1.337	0.112	22.3
Back side	20	QPSK 50_50	20175/1732.5	1:1	0.165	0.086	0.07	20.24	21.50	1.337	0.221	22.3
Left side	20	QPSK 50_50	20175/1732.5	1:1	0.200	0.092	0.16	20.24	21.50	1.337	0.267	22.3
Top side	20	QPSK 50_50	20175/1732.5	1:1	0.019	0.004	0.07	20.24	21.50	1.337	0.025	22.3
Ant 24 Test Record (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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	20175/1732.5	1:1	0.041	0.013	0.04	20.32	21.50	1.312	0.054	22.2
Left tilted	20	QPSK 1_99	20175/1732.5	1:1	0.019	0.006	0.08	20.32	21.50	1.312	0.025	22.2
Right cheek	20	QPSK 1_99	20175/1732.5	1:1	0.023	0.008	-0.04	20.32	21.50	1.312	0.030	22.2
Right tilted	20	QPSK 1_99	20175/1732.5	1:1	0.012	0.003	-0.11	20.32	21.50	1.312	0.016	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	20050/1720	1:1	0.038	0.012	0.05	20.54	21.50	1.247	0.047	22.2
Left tilted	20	QPSK 50_25	20050/1720	1:1	0.015	0.004	-0.07	20.54	21.50	1.247	0.019	22.2
Right cheek	20	QPSK 50_25	20050/1720	1:1	0.018	0.005	-0.13	20.54	21.50	1.247	0.022	22.2
Right tilted	20	QPSK 50_25	20050/1720	1:1	0.008	0.001	0.06	20.54	21.50	1.247	0.010	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	20175/1732.5	1:1	0.032	0.013	-0.04	23.28	24.50	1.324	0.042	22.2
Back side	20	QPSK 1_99	20175/1732.5	1:1	0.041	0.019	0.00	23.28	24.50	1.324	0.054	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	20050/1720	1:1	0.028	0.010	0.04	22.45	23.50	1.274	0.036	22.2
Back side	20	QPSK 50_25	20050/1720	1:1	0.038	0.017	0.07	22.45	23.50	1.274	0.048	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	20175/1732.5	1:1	0.015	0.004	-0.09	21.79	23.00	1.321	0.020	22.2
Back side	20	QPSK 1_99	20175/1732.5	1:1	0.053	0.023	0.14	21.79	23.00	1.321	0.070	22.2
Right side	20	QPSK 1_99	20175/1732.5	1:1	0.050	0.021	0.02	21.79	23.00	1.321	0.066	22.2
Top side	20	QPSK 1_99	20175/1732.5	1:1	0.012	0.002	0.19	21.79	23.00	1.321	0.016	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	20050/1720	1:1	0.013	0.003	0.18	22.00	23.00	1.259	0.016	22.2
Back side	20	QPSK 50_25	20050/1720	1:1	0.050	0.021	-0.04	22.00	23.00	1.259	0.063	22.2
Right side	20	QPSK 50_25	20050/1720	1:1	0.046	0.017	-0.03	22.00	23.00	1.259	0.058	22.2
Top side	20	QPSK 50_25	20050/1720	1:1	0.009	0.002	-0.03	22.00	23.00	1.259	0.011	22.2

Table 17：SAR of LTE Band 4 for Head, Body and Hotspot.

8.2.8 SAR Result of LTE Band 5

LTE Band 5 SAR Test Record												
Ant 31 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)	Liquid Temp.(℃)
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	20525/836.5	1:1	0.147	0.093	-0.11	23.15	24.20	1.274	0.187	22.2
Back side	10	QPSK 1_0	20525/836.5	1:1	0.179	0.121	0.07	23.15	24.20	1.274	**0.228**	22.2
Right side	10	QPSK 1_0	20525/836.5	1:1	0.114	0.075	-0.04	23.15	24.20	1.274	0.145	22.2
Bottom side	10	QPSK 1_0	20525/836.5	1:1	0.113	0.068	-0.07	23.15	24.20	1.274	0.144	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_13	20525/836.5	1:1	0.153	0.096	0.14	23.10	23.70	1.148	0.176	22.2
Back side	10	QPSK 25_13	20525/836.5	1:1	0.190	0.128	-0.01	23.10	23.70	1.148	0.218	22.2
Right side	10	QPSK 25_13	20525/836.5	1:1	0.114	0.074	-0.08	23.10	23.70	1.148	0.131	22.2
Bottom side	10	QPSK 25_13	20525/836.5	1:1	0.117	0.071	-0.04	23.10	23.70	1.148	0.134	22.2

Table 18：SAR of LTE Band 5 for Hotspot.

8.2.9 SAR Result of LTE Band 7

LTE Band 7 SAR Test Record												
Ant 41 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.194	0.098	0.05	24.17	24.70	1.130	0.219	22.3
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.065	0.032	0.08	24.17	24.70	1.130	0.073	22.3
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.138	0.067	0.08	24.17	24.70	1.130	0.156	22.3
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.074	0.036	0.03	24.17	24.70	1.130	0.084	22.3
Left cheek	20	QPSK PCC 1_0	21100/2535	1:1	0.177	0.098	-0.07	23.40	24.70	1.349	0.239	22.2
		QPSK SCC 1_99	20902/2515.2									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	21100/2535	1:1	0.160	0.081	0.02	22.96	23.70	1.000	0.160	22.3
Left tilted	20	QPSK 50_25	21100/2535	1:1	0.044	0.022	-0.08	22.96	23.70	1.000	0.044	22.3
Right cheek	20	QPSK 50_25	21100/2535	1:1	0.110	0.055	0.17	22.96	23.70	1.000	0.110	22.3
Right tilted	20	QPSK 50_25	21100/2535	1:1	0.058	0.027	-0.03	22.96	23.70	1.000	0.058	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	21100/2535	1:1	0.130	0.072	0.13	20.23	21.20	1.250	0.163	22.2
Back side	20	QPSK 1_0	21100/2535	1:1	0.167	0.091	-0.18	20.23	21.20	1.250	0.209	22.2
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.139	0.075	0.16	20.10	21.20	1.288	0.179	22.2
		QPSK SCC 1_99	20902/2515.2									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	21100/2535	1:1	0.140	0.077	-0.09	20.22	21.20	1.253	0.175	22.2
Back side	20	QPSK 50_25	21100/2535	1:1	0.176	0.096	0.06	20.22	21.20	1.253	0.221	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	21100/2535	1:1	0.217	0.110	0.05	19.55	20.20	1.161	0.252	22.2
Back side	20	QPSK 1_0	21100/2535	1:1	0.259	0.133	-0.19	19.55	20.20	1.161	0.301	22.2
Left side	20	QPSK 1_0	21100/2535	1:1	0.070	0.037	-0.08	19.55	20.20	1.161	0.081	22.2
Right side	20	QPSK 1_0	21100/2535	1:1	0.055	0.029	-0.09	19.55	20.20	1.161	0.064	22.2
Bottom side	20	QPSK 1_0	21100/2535	1:1	0.435	0.219	0.06	19.55	20.20	1.161	0.505	22.2
Bottom side	20	QPSK PCC 1_0	21100/2535	1:1	0.397	0.196	-0.02	19.24	20.20	1.247	0.495	22.2
		QPSK SCC 1_99	20902/2515.2									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	21100/2535	1:1	0.200	0.105	-0.06	19.50	20.20	1.175	0.235	22.2
Back side	20	QPSK 50_25	21100/2535	1:1	0.268	0.138	-0.18	19.50	20.20	1.175	0.315	22.2
Left side	20	QPSK 50_25	21100/2535	1:1	0.066	0.031	-0.03	19.50	20.20	1.175	0.078	22.2
Right side	20	QPSK 50_25	21100/2535	1:1	0.057	0.030	0.11	19.50	20.20	1.175	0.067	22.2
Bottom side	20	QPSK 50_25	21100/2535	1:1	0.500	0.253	-0.10	19.50	20.20	1.175	0.587	22.2
Ant 14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.219	0.114	0.09	14.75	16.30	1.429	0.313	22.4
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.223	0.110	0.05	14.75	16.30	1.429	0.319	22.4
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.645	0.278	-0.03	14.75	16.30	1.429	0.922	22.4
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.445	0.195	-0.09	14.75	16.30	1.429	0.636	22.4
Right cheek	20	QPSK 1_0	20850/2510	1:1	0.502	0.250	0.08	14.74	16.30	1.000	0.502	22.4
Right cheek	20	QPSK 1_0	21350/2560	1:1	0.514	0.252	0.01	14.74	16.30	1.000	0.514	22.4
Right cheek	20	QPSK PCC 1_0	21100/2535	1:1	0.533	0.265	-0.19	14.45	16.30	1.531	0.816	22.2
		QPSK SCC 1_99	20902/2515.2									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	21100/2535	1:1	0.221	0.115	-0.12	14.75	16.30	1.429	0.316	22.4
Left tilted	20	QPSK 50_25	21100/2535	1:1	0.241	0.117	-0.16	14.75	16.30	1.429	0.344	22.4
Right cheek	20	QPSK 50_25	21100/2535	1:1	0.668	0.301	0.09	14.75	16.30	1.429	**0.955**	22.4
Right tilted	20	QPSK 50_25	21100/2535	1:1	0.452	0.199	0.15	14.75	16.30	1.429	0.646	22.4
Right cheek	20	QPSK 50_25	20850/2510	1:1	0.522	0.258	-0.16	14.60	16.30	1.479	0.772	22.4
Right cheek	20	QPSK 50_25	21350/2560	1:1	0.520	0.257	-0.05	14.73	16.30	1.435	0.746	22.4
Head Test Data (100%RB) DSI2												
Right cheek	20	QPSK 100_0	21100/2535	1:1	0.522	0.256	0.14	14.64	16.30	1.466	0.765	22.4
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	21100/2535	1:1	0.233	0.123	-0.17	22.00	23.30	1.349	0.314	22.2
Back side	20	QPSK 1_0	21100/2535	1:1	0.313	0.156	0.01	22.00	23.30	1.349	0.422	22.2
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.275	0.144	-0.07	21.42	23.30	1.542	0.424	22.2
		QPSK SCC 1_99	20902/2515.2									
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_25	21100/2535	1:1	0.239	0.125	-0.10	21.76	23.30	1.426	0.341	22.2
Back side	20	QPSK 50_25	21100/2535	1:1	0.339	0.168	-0.11	21.76	23.30	1.426	**0.483**	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	21100/2535	1:1	0.255	0.130	-0.03	19.59	20.80	1.321	0.337	22.2
Back side	20	QPSK 1_0	21100/2535	1:1	0.376	0.181	-0.14	19.59	20.80	1.321	0.497	22.2
Left side	20	QPSK 1_0	21100/2535	1:1	0.147	0.072	0.11	19.59	20.80	1.321	0.194	22.2
Top side	20	QPSK 1_0	21100/2535	1:1	0.355	0.168	0.10	19.59	20.80	1.321	0.469	22.2
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.378	0.180	-0.14	18.99	20.80	1.517	0.573	22.2
		QPSK SCC 1_99	20902/2515.2									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	21100/2535	1:1	0.275	0.137	0.14	19.24	20.80	1.432	0.394	22.2
Back side	20	QPSK 50_25	21100/2535	1:1	0.411	0.194	-0.14	19.24	20.80	1.432	**0.589**	22.2
Left side	20	QPSK 50_25	21100/2535	1:1	0.151	0.074	-0.04	19.24	20.80	1.432	0.216	22.2
Top side	20	QPSK 50_25	21100/2535	1:1	0.357	0.167	0.15	19.24	20.80	1.432	0.511	22.2
Ant 12 Test Record												

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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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	20850/2510	1:1	0.140	0.075	0.01	18.49	20.00	1.416	0.198	22.3
Left tilted	20	QPSK 1_99	20850/2510	1:1	0.076	0.041	0.10	18.49	20.00	1.416	0.108	22.3
Right cheek	20	QPSK 1_99	20850/2510	1:1	0.476	0.228	0.10	18.49	20.00	1.416	0.674	22.3
Right tilted	20	QPSK 1_99	20850/2510	1:1	0.186	0.089	-0.07	18.49	20.00	1.416	0.263	22.3
Right cheek	20	QPSK PCC 1_99	20850/2510	1:1	0.468	0.226	-0.12	18.17	20.00	1.524	0.713	22.2
		QPSK SCC 1_0	21048/2529.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.156	0.083	0.00	18.48	20.00	1.419	0.221	22.3
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.081	0.044	0.17	18.48	20.00	1.419	0.115	22.3
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.532	0.256	0.04	18.48	20.00	1.419	0.755	22.3
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.213	0.103	-0.12	18.48	20.00	1.419	0.302	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	21100/2535	1:1	0.085	0.044	-0.10	20.75	22.00	1.334	0.113	22.3
Back side	20	QPSK 1_0	21100/2535	1:1	0.143	0.070	-0.15	20.75	22.00	1.334	0.191	22.3
Back side	20	QPSK PCC 1_99	21100/2535	1:1	0.154	0.078	0.15	20.10	22.00	1.549	0.239	22.2
		QPSK SCC 1_0	21298/2554.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	20850/2510	1:1	0.070	0.036	-0.09	20.38	22.00	1.452	0.102	22.3
Back side	20	QPSK 50_25	20850/2510	1:1	0.129	0.064	0.05	20.38	22.00	1.452	0.187	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	21100/2535	1:1	0.118	0.057	0.14	19.18	20.50	1.355	0.160	22.3
Back side	20	QPSK 1_0	21100/2535	1:1	0.223	0.105	0.06	19.18	20.50	1.355	0.302	22.3
Left side	20	QPSK 1_0	21100/2535	1:1	0.155	0.077	-0.14	19.18	20.50	1.355	0.210	22.3
Top side	20	QPSK 1_0	21100/2535	1:1	0.057	0.027	-0.11	19.18	20.50	1.355	0.077	22.3
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.229	0.107	0.10	18.62	20.50	1.542	0.353	22.2
		QPSK SCC 1_99	20902/2515.2									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	21100/2535	1:1	0.131	0.065	-0.06	19.05	20.50	1.396	0.183	22.3
Back side	20	QPSK 50_25	21100/2535	1:1	0.238	0.112	0.09	19.05	20.50	1.396	0.332	22.3
Left side	20	QPSK 50_25	21100/2535	1:1	0.161	0.080	-0.01	19.05	20.50	1.396	0.225	22.3
Top side	20	QPSK 50_25	21100/2535	1:1	0.048	0.025	-0.05	19.05	20.50	1.396	0.067	22.3
Ant 24 Test Record（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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_99	20850/2510	1:1	0.308	0.139	0.19	16.42	17.20	1.197	0.369	22.3
Left tilted	20	QPSK 1_99	20850/2510	1:1	0.120	0.059	0.19	16.42	17.20	1.197	0.144	22.3

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Right cheek	20	QPSK 1_99	20850/2510	1:1	0.080	0.042	-0.11	16.42	17.20	1.197	0.096	22.3
Right tilted	20	QPSK 1_99	20850/2510	1:1	0.058	0.030	-0.09	16.42	17.20	1.197	0.069	22.3
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.364	0.161	0.06	16.51	17.20	1.172	0.427	22.3
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.143	0.067	-0.19	16.51	17.20	1.172	0.168	22.3
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.091	0.049	0.11	16.51	17.20	1.172	0.107	22.3
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.045	0.023	0.16	16.51	17.20	1.172	0.053	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	21100/2535	1:1	0.060	0.030	0.01	19.82	20.70	1.225	0.073	22.3
Back side	20	QPSK 1_0	21100/2535	1:1	0.126	0.064	0.10	19.82	20.70	1.225	0.154	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	20850/2510	1:1	0.061	0.032	0.14	19.90	20.70	1.202	0.073	22.3
Back side	20	QPSK 50_25	20850/2510	1:1	0.119	0.061	-0.10	19.90	20.70	1.202	0.143	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	20850/2510	1:1	0.134	0.065	-0.06	18.34	19.20	1.219	0.163	22.3
Back side	20	QPSK 1_99	20850/2510	1:1	0.265	0.123	-0.14	18.34	19.20	1.219	0.323	22.3
Right side	20	QPSK 1_99	20850/2510	1:1	0.299	0.130	0.15	18.34	19.20	1.219	0.364	22.3
Top side	20	QPSK 1_99	20850/2510	1:1	0.075	0.038	0.04	18.34	19.20	1.219	0.091	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	21100/2535	1:1	0.143	0.067	0.00	18.44	19.20	1.191	0.170	22.3
Back side	20	QPSK 50_0	21100/2535	1:1	0.295	0.139	0.16	18.44	19.20	1.191	0.351	22.3
Right side	20	QPSK 50_0	21100/2535	1:1	0.287	0.128	-0.19	18.44	19.20	1.191	0.342	22.3
Top side	20	QPSK 50_0	21100/2535	1:1	0.076	0.038	-0.18	18.44	19.20	1.191	0.091	22.3

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

8.2.10 SAR Result of LTE Band 12

LTE Band 12 SAR Test Record												
Ant 31 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	10	QPSK 1_0	23095/707.5	1:1	0.061	0.038	0.01	23.41	24.20	1.199	0.074	22.2
Left tilted	10	QPSK 1_0	23095/707.5	1:1	0.024	0.017	0.07	23.41	24.20	1.199	0.028	22.2
Right cheek	10	QPSK 1_0	23095/707.5	1:1	0.058	0.041	0.06	23.41	24.20	1.199	0.069	22.4
Right tilted	10	QPSK 1_0	23095/707.5	1:1	0.029	0.021	0.09	23.41	24.20	1.199	0.035	22.4
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_13	23095/707.5	1:1	0.055	0.039	0.08	22.53	23.20	1.167	0.065	22.2
Left tilted	10	QPSK 25_13	23095/707.5	1:1	0.022	0.015	0.10	22.53	23.20	1.167	0.026	22.2
Right cheek	10	QPSK 25_13	23095/707.5	1:1	0.054	0.038	0.05	22.53	23.20	1.167	0.063	22.4
Right tilted	10	QPSK 25_13	23095/707.5	1:1	0.028	0.020	0.08	22.53	23.20	1.167	0.033	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.091	0.065	-0.18	23.41	24.20	1.199	0.109	22.2
Back side	10	QPSK 1_0	23095/707.5	1:1	0.097	0.070	-0.05	23.41	24.20	1.199	0.116	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_13	23095/707.5	1:1	0.084	0.061	-0.14	22.53	23.20	1.167	0.098	22.2
Back side	10	QPSK 25_13	23095/707.5	1:1	0.088	0.063	-0.18	22.53	23.20	1.167	0.103	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.082	0.059	0.05	23.41	24.20	1.199	0.098	22.2
Back side	10	QPSK 1_0	23095/707.5	1:1	0.091	0.060	0.06	23.41	24.20	1.199	0.109	22.2
Right side	10	QPSK 1_0	23095/707.5	1:1	0.129	0.086	-0.13	23.41	24.20	1.199	0.155	22.2
Bottom side	10	QPSK 1_0	23095/707.5	1:1	0.054	0.028	0.04	23.41	24.20	1.199	0.065	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_13	23095/707.5	1:1	0.081	0.058	0.05	22.53	23.20	1.167	0.095	22.2
Back side	10	QPSK 25_13	23095/707.5	1:1	0.096	0.069	0.10	22.53	23.20	1.167	0.112	22.2
Right side	10	QPSK 25_13	23095/707.5	1:1	0.101	0.067	0.11	22.53	23.20	1.167	0.118	22.2
Bottom side	10	QPSK 25_13	23095/707.5	1:1	0.053	0.027	0.11	22.53	23.20	1.167	0.062	22.2
Ant 11 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	10	QPSK 1_0	23095/707.5	1:1	0.388	0.232	0.09	23.45	24.70	1.334	0.517	22.4
Left tilted	10	QPSK 1_0	23095/707.5	1:1	0.104	0.069	-0.16	23.45	24.70	1.334	0.139	22.4
Right cheek	10	QPSK 1_0	23095/707.5	1:1	0.429	0.235	0.05	23.45	24.70	1.334	**0.572**	22.4
Right tilted	10	QPSK 1_0	23095/707.5	1:1	0.120	0.074	-0.13	23.45	24.70	1.334	0.160	22.4
Head Test Data (50%RB) DSI2												

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Left cheek	10	QPSK 25_13	23095/707.5	1:1	0.359	0.213	0.02	22.48	23.70	1.324	0.475	22.4
Left tilted	10	QPSK 25_13	23095/707.5	1:1	0.096	0.064	-0.09	22.48	23.70	1.324	0.127	22.4
Right cheek	10	QPSK 25_13	23095/707.5	1:1	0.382	0.208	0.09	22.48	23.70	1.324	0.506	22.4
Right tilted	10	QPSK 25_13	23095/707.5	1:1	0.110	0.068	-0.03	22.48	23.70	1.324	0.146	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.136	0.084	0.02	23.45	24.70	1.334	0.181	22.2
Back side	10	QPSK 1_0	23095/707.5	1:1	0.240	0.154	0.08	23.45	24.70	1.334	**0.320**	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_13	23095/707.5	1:1	0.123	0.077	0.13	22.48	23.70	1.324	0.163	22.2
Back side	10	QPSK 25_13	23095/707.5	1:1	0.218	0.141	0.08	22.48	23.70	1.324	0.289	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.180	0.105	0.13	21.93	23.20	1.340	0.241	22.2
Back side	10	QPSK 1_0	23095/707.5	1:1	0.320	0.176	-0.13	21.93	23.20	1.340	0.429	22.2
Left side	10	QPSK 1_0	23095/707.5	1:1	0.470	0.285	0.06	21.93	23.20	1.340	**0.630**	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_13	23095/707.5	1:1	0.173	0.096	-0.06	22.00	23.20	1.318	0.228	22.2
Back side	10	QPSK 25_13	23095/707.5	1:1	0.324	0.178	-0.18	22.00	23.20	1.318	0.427	22.2
Left side	10	QPSK 25_13	23095/707.5	1:1	0.467	0.280	0.01	22.00	23.20	1.318	0.616	22.2

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

8.2.11 SAR Result of LTE Band 13

LTE Band 13 SAR Test Record												
Ant 31 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	10	QPSK 1_0	23230/782	1:1	0.115	0.079	0.02	23.18	24.20	1.265	0.145	22.2
Left tilted	10	QPSK 1_0	23230/782	1:1	0.050	0.035	0.06	23.18	24.20	1.265	0.063	22.2
Right cheek	10	QPSK 1_0	23230/782	1:1	0.100	0.069	0.12	23.18	24.20	1.265	0.126	22.4
Right tilted	10	QPSK 1_0	23230/782	1:1	0.056	0.039	0.09	23.18	24.20	1.265	0.071	22.4
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_13	23230/782	1:1	0.081	0.055	0.05	22.37	23.20	1.211	0.098	22.2
Left tilted	10	QPSK 25_13	23230/782	1:1	0.037	0.026	0.06	22.37	23.20	1.211	0.044	22.2
Right cheek	10	QPSK 25_13	23230/782	1:1	0.074	0.052	0.04	22.37	23.20	1.211	0.090	22.4
Right tilted	10	QPSK 25_13	23230/782	1:1	0.046	0.037	0.18	22.37	23.20	1.211	0.055	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23230/782	1:1	0.104	0.075	0.18	23.18	24.20	1.265	0.132	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.107	0.075	0.02	23.18	24.20	1.265	0.135	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_13	23230/782	1:1	0.080	0.054	-0.14	22.37	23.20	1.211	0.097	22.2
Back side	10	QPSK 25_13	23230/782	1:1	0.084	0.058	-0.17	22.37	23.20	1.211	0.102	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23230/782	1:1	0.162	0.103	0.17	23.18	24.20	1.265	0.205	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.178	0.113	-0.06	23.18	24.20	1.265	0.225	22.2
Right side	10	QPSK 1_0	23230/782	1:1	0.122	0.081	-0.17	23.18	24.20	1.265	0.154	22.2
Bottom side	10	QPSK 1_0	23230/782	1:1	0.095	0.056	-0.17	23.18	24.20	1.265	0.120	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_13	23230/782	1:1	0.129	0.083	-0.01	22.37	23.20	1.211	0.156	22.2
Back side	10	QPSK 25_13	23230/782	1:1	0.148	0.095	-0.08	22.37	23.20	1.211	0.179	22.2
Right side	10	QPSK 25_13	23230/782	1:1	0.094	0.063	-0.18	22.37	23.20	1.211	0.114	22.2
Bottom side	10	QPSK 25_13	23230/782	1:1	0.080	0.047	0.06	22.37	23.20	1.211	0.097	22.2
Ant 11 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	10	QPSK 1_0	23230/782	1:1	0.478	0.286	-0.10	22.21	23.70	1.409	0.674	22.4
Left tilted	10	QPSK 1_0	23230/782	1:1	0.125	0.084	-0.18	22.21	23.70	1.409	0.176	22.4
Right cheek	10	QPSK 1_0	23230/782	1:1	0.505	0.279	0.05	22.21	23.70	1.409	0.712	22.4
Right tilted	10	QPSK 1_0	23230/782	1:1	0.141	0.087	0.05	22.21	23.70	1.409	0.199	22.4
Head Test Data (50%RB) DSI2												

Left cheek	10	QPSK 25_13	23230/782	1:1	0.496	0.298	0.11	22.17	23.70	1.422	0.705	22.4
Left tilted	10	QPSK 25_13	23230/782	1:1	0.128	0.086	0.06	22.17	23.70	1.422	0.182	22.4
Right cheek	10	QPSK 25_13	23230/782	1:1	0.516	0.285	0.02	22.17	23.70	1.422	**0.734**	22.4
Right tilted	10	QPSK 25_13	23230/782	1:1	0.144	0.089	-0.11	22.17	23.70	1.422	0.205	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23230/782	1:1	0.165	0.101	-0.12	22.74	24.20	1.400	0.231	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.301	0.191	-0.08	22.74	24.20	1.400	**0.421**	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_13	23230/782	1:1	0.155	0.096	0.05	22.24	23.70	1.400	0.217	22.2
Back side	10	QPSK 25_13	23230/782	1:1	0.250	0.148	-0.15	22.24	23.70	1.400	0.350	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23230/782	1:1	0.214	0.120	-0.07	21.72	23.20	1.406	0.301	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.400	0.214	-0.07	21.72	23.20	1.406	0.562	22.2
Left side	10	QPSK 1_0	23230/782	1:1	0.545	0.316	0.17	21.72	23.20	1.406	**0.766**	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_13	23230/782	1:1	0.244	0.239	-0.05	21.70	23.20	1.413	0.345	22.2
Back side	10	QPSK 25_13	23230/782	1:1	0.398	0.220	0.11	21.70	23.20	1.413	0.562	22.2
Left side	10	QPSK 25_13	23230/782	1:1	0.542	0.292	0.05	21.70	23.20	1.413	**0.766**	22.2

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

8.2.12 SAR Result of LTE Band 26

LTE Band 26 SAR Test Record												
Ant 31 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.115	0.079	0.02	23.93	24.70	1.194	0.137	22.2
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.054	0.038	0.09	23.93	24.70	1.194	0.065	22.2
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.127	0.088	0.02	23.93	24.70	1.194	0.152	22.4
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.072	0.058	0.09	23.93	24.70	1.194	0.086	22.4
Head Test Data (50%RB) DSI2												
Left cheek	15	QPSK 36_18	26865/831.5	1:1	0.097	0.067	0.06	22.85	23.70	1.216	0.118	22.4
Left tilted	15	QPSK 36_18	26865/831.5	1:1	0.038	0.026	0.08	22.85	23.70	1.216	0.046	22.4
Right cheek	15	QPSK 36_18	26865/831.5	1:1	0.104	0.072	0.01	22.85	23.70	1.216	0.126	22.4
Right tilted	15	QPSK 36_18	26865/831.5	1:1	0.051	0.036	0.02	22.85	23.70	1.216	0.062	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.111	0.079	0.05	23.93	24.70	1.194	0.133	22.2
Back side	15	QPSK 1_0	26865/831.5	1:1	0.133	0.094	-0.17	23.93	24.70	1.194	0.159	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	15	QPSK 36_18	26865/831.5	1:1	0.090	0.064	0.11	22.85	23.70	1.216	0.109	22.2
Back side	15	QPSK 36_18	26865/831.5	1:1	0.106	0.075	0.19	22.85	23.70	1.216	0.129	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.118	0.076	0.04	22.81	23.70	1.227	0.145	22.2
Back side	15	QPSK 1_0	26865/831.5	1:1	0.153	0.096	-0.02	22.81	23.70	1.227	0.188	22.2
Right side	15	QPSK 1_0	26865/831.5	1:1	0.104	0.069	0.07	22.81	23.70	1.227	0.128	22.2
Bottom side	15	QPSK 1_0	26865/831.5	1:1	0.096	0.058	-0.17	22.81	23.70	1.227	0.118	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	15	QPSK 36_18	26865/831.5	1:1	0.137	0.085	0.15	22.86	23.70	1.213	0.166	22.2
Back side	15	QPSK 36_18	26865/831.5	1:1	0.158	0.101	0.11	22.86	23.70	1.213	0.192	22.2
Right side	15	QPSK 36_18	26865/831.5	1:1	0.104	0.068	0.05	22.86	23.70	1.213	0.126	22.2
Bottom side	15	QPSK 36_18	26865/831.5	1:1	0.104	0.062	0.16	22.86	23.70	1.213	0.126	22.2
Ant 11 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	15	QPSK 1_0	26865/831.5	1:1	0.285	0.162	0.10	23.61	25.00	1.377	0.393	22.4
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.077	0.052	-0.05	23.61	25.00	1.377	0.106	22.4
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.290	0.161	0.08	23.61	25.00	1.377	**0.399**	22.4
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.092	0.058	0.19	23.61	25.00	1.377	0.127	22.4
Head Test Data (50%RB) DSI2												

Left cheek	15	QPSK 36_18	26865/831.5	1:1	0.262	0.150	0.05	22.67	24.00	1.358	0.356	22.4
Left tilted	15	QPSK 36_18	26865/831.5	1:1	0.070	0.048	0.11	22.67	24.00	1.358	0.095	22.4
Right cheek	15	QPSK 36_18	26865/831.5	1:1	0.268	0.149	0.06	22.67	24.00	1.358	0.364	22.4
Right tilted	15	QPSK 36_18	26865/831.5	1:1	0.085	0.053	-0.19	22.67	24.00	1.358	0.115	22.4
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.068	0.041	-0.04	22.54	24.00	1.400	0.095	22.2
Back side	15	QPSK 1_0	26865/831.5	1:1	0.110	0.064	-0.03	22.54	24.00	1.400	0.154	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	15	QPSK 36_18	26865/831.5	1:1	0.080	0.049	-0.07	22.53	24.00	1.403	0.112	22.2
Back side	15	QPSK 36_18	26865/831.5	1:1	0.140	0.088	-0.04	22.53	24.00	1.403	**0.196**	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.088	0.050	-0.08	21.04	22.50	1.400	0.123	22.2
Back side	15	QPSK 1_0	26865/831.5	1:1	0.142	0.079	-0.12	21.04	22.50	1.400	0.199	22.2
Left side	15	QPSK 1_0	26865/831.5	1:1	0.199	0.108	-0.04	21.04	22.50	1.400	0.279	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	15	QPSK 36_18	26865/831.5	1:1	0.098	0.056	0.04	21.04	22.50	1.400	0.137	22.2
Back side	15	QPSK 36_18	26865/831.5	1:1	0.168	0.094	0.06	21.04	22.50	1.400	0.235	22.2
Left side	15	QPSK 36_18	26865/831.5	1:1	0.254	0.144	0.05	21.04	22.50	1.400	**0.355**	22.2

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

8.2.13 SAR Result of LTE Band 38

LTE Band 38 SAR Test Record												
Ant 41 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)	Liquid Temp.(℃)
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	38000/2595	1:1.58	0.200	0.105	0.02	21.53	22.20	1.167	0.233	22.2
Back side	20	QPSK 1_0	38000/2595	1:1.58	0.262	0.133	0.13	21.53	22.20	1.167	0.306	22.2
Left side	20	QPSK 1_0	38000/2595	1:1.58	0.060	0.032	0.17	21.53	22.20	1.167	0.070	22.2
Right side	20	QPSK 1_0	38000/2595	1:1.58	0.071	0.035	0.13	21.53	22.20	1.167	0.083	22.2
Bottom side	20	QPSK 1_0	38000/2595	1:1.58	0.428	0.211	-0.08	21.53	22.20	1.167	0.499	22.2
Bottom side	20	QPSK PCC 1_0	38099/2604.9	1:1.58	0.412	0.201	0.05	21.82	22.20	1.091	0.450	22.2
		QPSK SCC 0_0	37901/2585.1									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	38000/2595	1:1.58	0.207	0.102	-0.18	21.66	22.20	1.132	0.234	22.2
Back side	20	QPSK 50_25	38000/2595	1:1.58	0.278	0.141	0.10	21.66	22.20	1.132	0.315	22.2
Left side	20	QPSK 50_25	38000/2595	1:1.58	0.064	0.034	0.19	21.66	22.20	1.132	0.072	22.2
Right side	20	QPSK 50_25	38000/2595	1:1.58	0.053	0.025	-0.18	21.66	22.20	1.132	0.060	22.2
Bottom side	20	QPSK 50_25	38000/2595	1:1.58	0.502	0.250	-0.04	21.66	22.20	1.132	**0.568**	22.2

Table 23：SAR of LTE Band 38 for Hotspot.

8.2.14 SAR Result of LTE Band 41

LTE Band 41 SAR Test Record												
Ant 41 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	40620/2593	1:1.58	0.108	0.054	-0.05	24.08	24.70	1.153	0.125	22.3
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.021	0.009	0.01	24.08	24.70	1.153	0.024	22.3
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.076	0.039	-0.04	24.08	24.70	1.153	0.088	22.3
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.038	0.018	0.07	24.08	24.70	1.153	0.044	22.3
Left cheek	20	QPSK PCC 1_0	40620/2593	1:1.58	0.085	0.046	-0.18	23.88	24.70	1.208	0.103	22.2
		QPSK SCC 0_0	40422/2573.2									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	40620/2593	1:1.58	0.083	0.042	-0.04	22.93	23.70	1.194	0.099	22.3
Left tilted	20	QPSK 50_25	40620/2593	1:1.58	0.013	0.063	0.08	22.93	23.70	1.194	0.016	22.3
Right cheek	20	QPSK 50_25	40620/2593	1:1.58	0.064	0.030	-0.02	22.93	23.70	1.194	0.076	22.3
Right tilted	20	QPSK 50_25	40620/2593	1:1.58	0.038	0.015	0.04	22.93	23.70	1.194	0.045	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.149	0.081	-0.16	22.60	23.20	1.148	0.171	22.2
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.178	0.097	0.10	22.60	23.20	1.148	0.204	22.2
Back side	20	QPSK PCC 1_0	40620/2593	1:1.58	0.148	0.081	0.07	22.70	23.20	1.122	0.166	22.2
		QPSK SCC 0_0	40422/2573.2									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.156	0.083	0.16	22.69	23.20	1.125	0.175	22.2
Back side	20	QPSK 50_25	40620/2593	1:1.58	0.201	0.107	-0.08	22.69	23.20	1.125	0.226	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.191	0.096	0.10	21.14	21.70	1.138	0.217	22.2
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.228	0.116	0.14	21.14	21.70	1.138	0.259	22.2
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.053	0.029	-0.16	21.14	21.70	1.138	0.060	22.2
Right side	20	QPSK 1_0	40620/2593	1:1.58	0.045	0.023	0.04	21.14	21.70	1.138	0.051	22.2
Bottom side	20	QPSK 1_0	40620/2593	1:1.58	0.386	0.191	-0.10	21.14	21.70	1.138	0.439	22.2
Bottom side	20	QPSK PCC 1_0	40620/2593	1:1.58	0.387	0.191	0.10	21.08	21.70	1.153	0.446	22.2
		QPSK SCC 0_0	40422/2573.2									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.200	0.104	0.01	21.11	21.70	1.146	0.229	22.2
Back side	20	QPSK 50_25	40620/2593	1:1.58	0.252	0.128	0.07	21.11	21.70	1.146	0.289	22.2
Left side	20	QPSK 50_25	40620/2593	1:1.58	0.057	0.030	0.04	21.11	21.70	1.146	0.065	22.2
Right side	20	QPSK 50_25	40620/2593	1:1.58	0.049	0.024	0.19	21.11	21.70	1.146	0.056	22.2
Bottom side	20	QPSK 50_25	40620/2593	1:1.58	0.452	0.225	-0.06	21.11	21.70	1.146	0.518	22.2
Ant 14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	40620/2593	1:1.58	0.271	0.142	0.02	17.54	18.80	1.337	0.362	22.4
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.290	0.145	-0.02	17.54	18.80	1.337	0.388	22.4
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.744	0.341	0.18	17.54	18.80	1.337	**0.994**	22.4
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.514	0.231	-0.15	17.54	18.80	1.337	0.687	22.4
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.562	0.280	-0.13	17.49	18.80	1.352	0.760	22.4
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.594	0.294	-0.03	17.42	18.80	1.374	0.816	22.4
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.564	0.277	-0.04	17.45	18.80	1.365	0.770	22.4
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.651	0.293	0.03	17.30	18.80	1.413	0.920	22.4
Right cheek	20	QPSK PCC 1_0 / QPSK SCC 0_0	40620/2593 / 40422/2573.2	1:1.58	0.643	0.321	0.12	17.30	18.80	1.413	0.908	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	40620/2593	1:1.58	0.276	0.145	0.05	17.58	18.80	1.000	0.276	22.4
Left tilted	20	QPSK 50_25	40620/2593	1:1.58	0.288	0.143	-0.01	17.58	18.80	1.000	0.288	22.4
Right cheek	20	QPSK 50_25	40620/2593	1:1.58	0.593	0.296	0.14	17.58	18.80	1.000	0.593	22.4
Right tilted	20	QPSK 50_25	40620/2593	1:1.58	0.521	0.233	-0.04	17.58	18.80	1.000	0.521	22.4
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.581	0.289	-0.10	17.56	18.80	1.330	0.773	22.4
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.610	0.303	-0.15	17.48	18.80	1.355	0.827	22.4
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.559	0.275	0.18	17.47	18.80	1.358	0.759	22.4
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.504	0.244	0.01	17.32	18.80	1.406	0.709	22.4
Head Test Data (100%RB) DSI2												
Right cheek	20	QPSK 100_0	40620/2593	1:1.58	0.582	0.288	-0.08	17.26	18.80	1.426	0.830	22.4
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.242	0.124	0.04	23.20	24.80	1.445	0.350	22.2
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.292	0.149	-0.06	23.20	24.80	1.445	**0.422**	22.2
Back side	20	QPSK PCC 1_0 / QPSK SCC 0_0	40620/2593 / 40422/2573.2	1:1.58	0.245	0.118	-0.11	23.09	24.80	1.483	0.363	22.2
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.196	0.103	0.01	22.38	23.80	1.387	0.272	22.2
Back side	20	QPSK 50_25	40620/2593	1:1.58	0.230	0.116	0.14	22.38	23.80	1.387	0.319	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.336	0.171	-0.14	21.97	23.30	1.358	0.456	22.2
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.441	0.214	-0.01	21.97	23.30	1.358	**0.599**	22.2
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.165	0.083	-0.15	21.97	23.30	1.358	0.224	22.2
Top side	20	QPSK 1_0	40620/2593	1:1.58	0.437	0.208	0.15	21.97	23.30	1.358	0.594	22.2
Back side	20	QPSK PCC 1_0 / QPSK SCC 0_0	40620/2593 / 40818/2612.8	1:1.58	0.349	0.167	-0.04	21.82	23.30	1.406	0.491	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.358	0.179	0.04	22.08	23.30	1.324	0.474	22.2

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Back side	20	QPSK 50_25	40620/2593	1:1.58	0.442	0.213	-0.13	22.08	23.30	1.324	0.585	22.2
Left side	20	QPSK 50_25	40620/2593	1:1.58	0.164	0.080	0.08	22.08	23.30	1.324	0.217	22.2
Top side	20	QPSK 50_25	40620/2593	1:1.58	0.431	0.207	-0.08	22.08	23.30	1.324	0.571	22.2
Ant 12 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_50	39750/2506	1:1.58	0.094	0.050	-0.05	19.11	20.50	1.377	0.129	22.3
Left tilted	20	QPSK 1_50	39750/2506	1:1.58	0.050	0.027	-0.02	19.11	20.50	1.377	0.069	22.3
Right cheek	20	QPSK 1_50	39750/2506	1:1.58	0.303	0.144	0.14	19.11	20.50	1.377	0.417	22.3
Right tilted	20	QPSK 1_50	39750/2506	1:1.58	0.122	0.059	0.17	19.11	20.50	1.377	0.168	22.3
Right cheek	20	QPSK PCC 1_0	39750/2506	1:1.58	0.282	0.131	0.01	18.94	20.50	1.432	0.404	22.2
		QPSK SCC 0_0	39948/2525.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	39750/2506	1:1.58	0.100	0.053	0.12	19.26	20.50	1.330	0.133	22.3
Left tilted	20	QPSK 50_25	39750/2506	1:1.58	0.043	0.024	-0.17	19.26	20.50	1.330	0.057	22.3
Right cheek	20	QPSK 50_25	39750/2506	1:1.58	0.315	0.148	0.18	19.26	20.50	1.330	0.419	22.3
Right tilted	20	QPSK 50_25	39750/2506	1:1.58	0.126	0.060	-0.04	19.26	20.50	1.330	0.168	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	39750/2506	1:1.58	0.080	0.041	0.10	23.46	25.00	1.426	0.114	22.3
Back side	20	QPSK 1_0	39750/2506	1:1.58	0.136	0.068	0.00	23.46	25.00	1.426	0.194	22.3
Back side	20	QPSK PCC 1_0	39750/2506	1:1.58	0.150	0.077	0.11	23.38	25.00	1.452	0.218	22.2
		QPSK SCC 0_0	39948/2525.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	39750/2506	1:1.58	0.066	0.034	0.00	22.28	24.00	1.486	0.098	22.3
Back side	20	QPSK 50_25	39750/2506	1:1.58	0.117	0.057	0.09	22.28	24.00	1.486	0.174	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	39750/2506	1:1.58	0.140	0.068	0.03	22.62	24.00	1.374	0.192	22.3
Back side	20	QPSK 1_50	39750/2506	1:1.58	0.238	0.117	0.01	22.62	24.00	1.374	0.327	22.3
Left side	20	QPSK 1_50	39750/2506	1:1.58	0.230	0.106	0.03	22.62	24.00	1.374	0.316	22.3
Top side	20	QPSK 1_50	39750/2506	1:1.58	0.047	0.025	0.17	22.62	24.00	1.374	0.065	22.3
Back side	20	QPSK PCC 1_0	39750/2506	1:1.58	0.241	0.118	-0.01	22.52	24.00	1.406	0.339	22.2
		QPSK SCC 0_0	39948/2525.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	41055/2636.5	1:1.58	0.244	0.124	-0.04	22.59	24.00	1.384	0.338	22.3
Back side	20	QPSK 50_25	41055/2636.5	1:1.58	0.373	0.184	-0.02	22.59	24.00	1.384	0.516	22.3
Left side	20	QPSK 50_25	41055/2636.5	1:1.58	0.290	0.141	-0.16	22.59	24.00	1.384	0.401	22.3
Top side	20	QPSK 50_25	41055/2636.5	1:1.58	0.087	0.046	0.13	22.59	24.00	1.384	0.120	22.3
Ant 24 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.434	0.191	-0.19	16.74	18.00	1.337	0.580	22.3
Left tilted	20	QPSK 1_0	41055/2636.5	1:1.58	0.180	0.083	0.14	16.74	18.00	1.337	0.241	22.3
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.110	0.057	-0.16	16.74	18.00	1.337	0.147	22.3
Right tilted	20	QPSK 1_0	41055/2636.5	1:1.58	0.080	0.038	-0.11	16.74	18.00	1.337	0.107	22.3
Left cheek	20	QPSK PCC 1_0	41055/2636.5	1:1.58	0.385	0.175	0.01	17.11	18.00	1.227	0.473	22.2
		QPSK SCC 0_0	40857/2616.7									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	41055/2636.5	1:1.58	0.418	0.185	-0.13	16.77	18.00	1.327	0.555	22.3
Left tilted	20	QPSK 50_25	41055/2636.5	1:1.58	0.176	0.083	-0.05	16.77	18.00	1.327	0.234	22.3
Right cheek	20	QPSK 50_25	41055/2636.5	1:1.58	0.098	0.052	-0.06	16.77	18.00	1.327	0.130	22.3
Right tilted	20	QPSK 50_25	41055/2636.5	1:1.58	0.072	0.035	-0.08	16.77	18.00	1.327	0.096	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	39750/2506	1:1.58	0.066	0.032	0.09	20.69	22.00	1.352	0.089	22.3
Back side	20	QPSK 1_0	39750/2506	1:1.58	0.104	0.052	-0.03	20.69	22.00	1.352	0.141	22.3
Back side	20	QPSK PCC 1_0	39750/2506	1:1.58	0.097	0.048	0.03	21.15	22.00	1.216	0.118	22.2
		QPSK SCC 0_0	39948/2525.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_0	39750/2506	1:1.58	0.046	0.024	0.11	20.74	22.00	1.337	0.061	22.3
Back side	20	QPSK 50_0	39750/2506	1:1.58	0.104	0.053	-0.15	20.74	22.00	1.337	0.139	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	39750/2506	1:1.58	0.085	0.041	-0.14	19.79	21.00	1.321	0.112	22.3
Back side	20	QPSK 1_0	39750/2506	1:1.58	0.160	0.077	0.13	19.79	21.00	1.321	0.211	22.3
Right side	20	QPSK 1_0	39750/2506	1:1.58	0.195	0.090	-0.10	19.79	21.00	1.321	0.258	22.3
Top side	20	QPSK 1_0	39750/2506	1:1.58	0.056	0.027	-0.01	19.79	21.00	1.321	0.074	22.3
Right side	20	QPSK PCC 1_0	39750/2506	1:1.58	0.179	0.085	0.12	20.07	21.00	1.239	0.222	22.2
		QPSK SCC 0_0	39948/2525.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	39750/2506	1:1.58	0.085	0.040	0.09	19.80	21.00	1.318	0.112	22.3
Back side	20	QPSK 50_0	39750/2506	1:1.58	0.151	0.068	0.09	19.80	21.00	1.318	0.199	22.3
Right side	20	QPSK 50_0	39750/2506	1:1.58	0.186	0.086	0.05	19.80	21.00	1.318	0.245	22.3
Top side	20	QPSK 50_0	39750/2506	1:1.58	0.054	0.027	0.00	19.80	21.00	1.318	0.071	22.3

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

8.2.15 SAR Result of LTE Band 66

LTE Band 66 SAR Test Record												
Ant 41 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	132322/1745	1:1	0.084	0.049	0.04	23.38	24.20	1.208	0.102	22.2
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.058	0.035	0.07	23.38	24.20	1.208	0.070	22.2
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.104	0.059	-0.01	23.38	24.20	1.208	0.126	22.2
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.050	0.029	0.07	23.38	24.20	1.208	0.060	22.2
Right cheek	20	QPSK PCC 1_99	132322/1745	1:1	0.115	0.070	-0.17	22.89	24.20	1.352	0.155	22.2
		QPSK SCC 1_0	132520/1764.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	132322/1745	1:1	0.076	0.044	0.12	22.51	23.20	1.172	0.089	22.2
Left tilted	20	QPSK 50_25	132322/1745	1:1	0.055	0.032	0.02	22.51	23.20	1.172	0.064	22.2
Right cheek	20	QPSK 50_25	132322/1745	1:1	0.093	0.052	-0.03	22.51	23.20	1.172	0.109	22.2
Right tilted	20	QPSK 50_25	132322/1745	1:1	0.042	0.024	-0.02	22.51	23.20	1.172	0.049	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_50	132322/1745	1:1	0.169	0.107	0.02	21.74	22.20	1.112	0.188	22.2
Back side	20	QPSK 1_50	132322/1745	1:1	0.200	0.120	-0.04	21.74	22.20	1.112	0.222	22.2
Back side	20	QPSK PCC 1_99	132322/1745	1:1	0.203	0.123	-0.11	21.07	22.20	1.297	0.263	22.2
		QPSK SCC 1_0	132520/1764.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_50	132322/1745	1:1	0.189	0.113	0.03	21.51	22.20	1.172	0.222	22.2
Back side	20	QPSK 50_50	132322/1745	1:1	0.226	0.136	0.07	21.51	22.20	1.172	0.265	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	132322/1745	1:1	0.256	0.144	-0.14	20.25	21.20	1.245	0.319	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.310	0.172	-0.05	20.25	21.20	1.245	0.386	22.2
Left side	20	QPSK 1_0	132322/1745	1:1	0.082	0.046	0.02	20.25	21.20	1.245	0.102	22.2
Right side	20	QPSK 1_0	132322/1745	1:1	0.075	0.042	-0.13	20.25	21.20	1.245	0.093	22.2
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.360	0.197	-0.10	20.25	21.20	1.245	0.448	22.2
Bottom side	20	QPSK PCC 1_99	132322/1745	1:1	0.335	0.184	0.06	20.07	21.20	1.297	0.435	22.2
		QPSK SCC 1_0	132520/1764.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	132322/1745	1:1	0.278	0.160	0.17	20.29	21.20	1.233	0.343	22.2
Back side	20	QPSK 50_25	132322/1745	1:1	0.344	0.192	-0.13	20.29	21.20	1.233	0.424	22.2
Left side	20	QPSK 50_25	132322/1745	1:1	0.115	0.058	-0.10	20.29	21.20	1.233	0.142	22.2
Right side	20	QPSK 50_25	132322/1745	1:1	0.079	0.045	-0.19	20.29	21.20	1.233	0.097	22.2
Bottom side	20	QPSK 50_25	132322/1745	1:1	0.423	0.234	0.01	20.29	21.20	1.233	**0.522**	22.2

Ant 14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_50	132322/1745	1:1	0.279	0.187	0.08	15.80	17.30	1.413	0.394	22.4
Left tilted	20	QPSK 1_50	132322/1745	1:1	0.304	0.188	0.07	15.80	17.30	1.413	0.429	22.4
Right cheek	20	QPSK 1_50	132322/1745	1:1	0.473	0.272	-0.11	15.80	17.30	1.413	0.668	22.4
Right tilted	20	QPSK 1_50	132322/1745	1:1	0.392	0.203	-0.07	15.80	17.30	1.413	0.554	22.4
Right cheek	20	QPSK PCC 1_99	132322/1745	1:1	0.351	0.195	-0.08	15.44	17.30	1.535	0.539	22.2
		QPSK SCC 1_0	132520/1764.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	132322/1745	1:1	0.288	0.193	-0.05	15.89	17.30	1.384	0.398	22.4
Left tilted	20	QPSK 50_25	132322/1745	1:1	0.304	0.188	0.02	15.89	17.30	1.384	0.421	22.4
Right cheek	20	QPSK 50_25	132322/1745	1:1	0.562	0.302	0.09	15.89	17.30	1.384	**0.778**	22.4
Right tilted	20	QPSK 50_25	132322/1745	1:1	0.406	0.211	-0.04	15.89	17.30	1.384	0.562	22.4
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	132322/1745	1:1	0.224	0.124	0.10	22.69	24.30	1.449	0.325	22.2
Back side	20	QPSK 1_0	132322/1745	1:1	0.271	0.173	0.07	22.69	24.30	1.449	**0.393**	22.2
Back side	20	QPSK PCC 1_99	132322/1745	1:1	0.251	0.167	0.15	22.50	24.30	1.514	0.380	22.2
		QPSK SCC 1_0	132520/1764.8									
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_25	132322/1745	1:1	0.223	0.124	0.11	21.82	23.30	1.406	0.314	22.2
Back side	20	QPSK 50_25	132322/1745	1:1	0.265	0.186	0.14	21.82	23.30	1.406	0.373	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	132322/1745	1:1	0.169	0.108	0.04	19.09	20.30	1.321	0.223	22.2
Back side	20	QPSK 1_50	132322/1745	1:1	0.244	0.148	-0.05	19.09	20.30	1.321	0.322	22.2
Left side	20	QPSK 1_50	132322/1745	1:1	0.079	0.044	0.17	19.09	20.30	1.321	0.104	22.2
Top side	20	QPSK 1_50	132322/1745	1:1	0.268	0.149	-0.18	19.09	20.30	1.321	0.354	22.2
Top side	20	QPSK PCC 1_99	132322/1745	1:1	0.234	0.134	-0.12	18.55	20.30	1.496	0.350	22.2
		QPSK SCC 1_0	132520/1764.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	132322/1745	1:1	0.185	0.117	-0.07	18.79	20.30	1.416	0.262	22.2
Back side	20	QPSK 50_25	132322/1745	1:1	0.257	0.156	-0.10	18.79	20.30	1.416	0.364	22.2
Left side	20	QPSK 50_25	132322/1745	1:1	0.096	0.054	-0.06	18.79	20.30	1.416	0.136	22.2
Top side	20	QPSK 50_25	132322/1745	1:1	0.280	0.156	-0.05	18.79	20.30	1.416	0.396	22.2
Ant 12 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												

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Left cheek	20	QPSK 1_0	132322/1745	1:1	0.102	0.060	0.01	20.63	22.00	1.371	0.140	22.2
Left tilted	20	QPSK 1_0	132322/1745	1:1	0.049	0.028	-0.16	20.63	22.00	1.371	0.067	22.2
Right cheek	20	QPSK 1_0	132322/1745	1:1	0.356	0.197	-0.05	20.63	22.00	1.371	0.488	22.2
Right tilted	20	QPSK 1_0	132322/1745	1:1	0.121	0.062	-0.16	20.63	22.00	1.371	0.166	22.2
Right cheek	20	QPSK PCC 1_0	132322/1745	1:1	0.318	0.165	-0.02	20.07	22.00	1.560	0.496	22.2
		QPSK SCC 1_99	132124/1725.1									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_50	132322/1745	1:1	0.110	0.064	-0.07	20.58	22.00	1.387	0.153	22.2
Left tilted	20	QPSK 50_50	132322/1745	1:1	0.052	0.030	-0.02	20.58	22.00	1.387	0.072	22.2
Right cheek	20	QPSK 50_50	132322/1745	1:1	0.370	0.170	0.10	20.58	22.00	1.387	0.513	22.3
Right tilted	20	QPSK 50_50	132322/1745	1:1	0.142	0.073	-0.04	20.58	22.00	1.387	0.197	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	132072/1720	1:1	0.032	0.012	-0.08	21.13	22.50	1.371	0.044	22.2
Back side	20	QPSK 1_99	132072/1720	1:1	0.073	0.039	0.04	21.13	22.50	1.371	0.100	22.2
Back side	20	QPSK PCC 1_99	132072/1720	1:1	0.079	0.043	0.15	20.55	22.50	1.567	0.124	22.2
		QPSK SCC 1_0	132270/1739.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	132322/1745	1:1	0.048	0.026	0.10	21.15	22.50	1.365	0.065	22.2
Back side	20	QPSK 50_25	132322/1745	1:1	0.087	0.047	-0.08	21.15	22.50	1.365	0.119	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	132322/1745	1:1	0.072	0.039	0.11	20.06	21.00	1.242	0.089	22.2
Back side	20	QPSK 1_50	132322/1745	1:1	0.136	0.072	-0.08	20.06	21.00	1.242	0.169	22.2
Left side	20	QPSK 1_50	132322/1745	1:1	0.177	0.084	-0.04	20.06	21.00	1.242	0.220	22.2
Top side	20	QPSK 1_50	132322/1745	1:1	0.012	0.003	0.17	20.06	21.00	1.242	0.015	22.2
Left side	20	QPSK PCC 1_0	132322/1745	1:1	0.157	0.077	-0.09	19.11	21.00	1.545	0.243	22.2
		QPSK SCC 1_99	132124/1725.1									
Front side	20	QPSK 50_50	132322/1745	1:1	0.079	0.041	-0.04	19.68	21.00	1.355	0.107	22.2
Back side	20	QPSK 50_50	132322/1745	1:1	0.149	0.075	0.07	19.68	21.00	1.355	0.202	22.2
Left side	20	QPSK 50_50	132322/1745	1:1	0.186	0.091	-0.03	19.68	21.00	1.355	0.252	22.2
Top side	20	QPSK 50_50	132322/1745	1:1	0.010	0.002	0.01	19.68	21.00	1.355	0.014	22.2

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

8.2.16 SAR Result of NR Band n2

SA N2 SAR Test Record												
Ant12 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_1	372000/1860	100%	0.150	0.089	0.12	19.15	20.30	1.303	0.195	22.3
Left tilted	20	QPSK 1_1	372000/1860	100%	0.067	0.040	0.10	19.15	20.30	1.303	0.087	22.3
Right cheek	20	QPSK 1_1	372000/1860	100%	0.509	0.231	0.08	19.15	20.30	1.303	**0.663**	22.3
Right tilted	20	QPSK 1_1	372000/1860	100%	0.169	0.087	0.07	19.15	20.30	1.303	0.220	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	372000/1860	100%	0.145	0.086	0.11	19.08	20.30	1.324	0.192	22.3
Left tilted	20	QPSK 50_28	372000/1860	100%	0.063	0.037	-0.02	19.08	20.30	1.324	0.083	22.3
Right cheek	20	QPSK 50_28	372000/1860	100%	0.487	0.264	0.08	19.08	20.30	1.324	0.645	22.3
Right tilted	20	QPSK 50_28	372000/1860	100%	0.155	0.080	0.19	19.08	20.30	1.324	0.205	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	20	QPSK 1_1	372000/1860	100%	0.085	0.046	0.07	22.19	23.30	1.291	0.110	22.1
Back side	20	QPSK 1_1	372000/1860	100%	0.169	0.091	0.07	22.19	23.30	1.291	0.218	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	20	QPSK 50_28	372000/1860	100%	0.075	0.043	0.13	22.08	23.30	1.324	0.099	22.1
Back side	20	QPSK 50_28	372000/1860	100%	0.169	0.090	-0.10	22.08	23.30	1.324	0.224	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_1	372000/1860	100%	0.145	0.077	0.00	21.16	22.30	1.300	0.189	22.1
Back side	20	QPSK 1_1	372000/1860	100%	0.306	0.158	-0.11	21.16	22.30	1.300	0.398	22.1
Left side	20	QPSK 1_1	372000/1860	100%	0.460	0.221	0.13	21.16	22.30	1.300	**0.598**	22.1
Top side	20	QPSK 1_1	372000/1860	100%	0.001	/	0.04	21.16	22.30	1.300	0.001	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	372000/1860	100%	0.108	0.052	-0.10	21.05	22.30	1.334	0.144	22.1
Back side	20	QPSK 50_28	372000/1860	100%	0.179	0.093	0.07	21.05	22.30	1.334	0.239	22.1
Left side	20	QPSK 50_28	372000/1860	100%	0.291	0.138	-0.02	21.05	22.30	1.334	0.388	22.1
Top side	20	QPSK 50_28	372000/1860	100%	0.001	/	0.06	21.05	22.30	1.334	0.001	22.1
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_104	376000/1880	100%	0.210	0.139	-0.16	16.21	17.60	1.377	0.289	22.3
Left tilted	20	QPSK 1_104	376000/1880	100%	0.217	0.131	0.15	16.21	17.60	1.377	0.299	22.3
Right cheek	20	QPSK 1_104	376000/1880	100%	0.394	0.222	-0.17	16.21	17.60	1.377	0.543	22.3
Right tilted	20	QPSK 1_104	376000/1880	100%	0.297	0.150	0.18	16.21	17.60	1.377	0.409	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	376000/1880	100%	0.195	0.129	0.17	16.19	17.60	1.384	0.270	22.3

Left tilted	20	QPSK 50_28	376000/1880	100%	0.203	0.123	-0.15	16.19	17.60	1.384	0.281	22.3
Right cheek	20	QPSK 50_28	376000/1880	100%	0.366	0.204	0.00	16.19	17.60	1.384	0.506	22.3
Right tilted	20	QPSK 50_28	376000/1880	100%	0.286	0.145	0.08	16.19	17.60	1.384	0.396	22.3
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	20	QPSK 1_104	376000/1880	100%	0.080	0.051	0.08	21.31	22.60	1.346	0.108	22.1
Back side	20	QPSK 1_104	376000/1880	100%	0.108	0.065	0.00	21.31	22.60	1.346	0.145	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	20	QPSK 50_28	376000/1880	100%	0.079	0.048	0.11	21.22	22.60	1.374	0.109	22.1
Back side	20	QPSK 50_28	376000/1880	100%	0.138	0.077	-0.07	21.22	22.60	1.374	0.190	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_104	376000/1880	100%	0.116	0.071	0.11	20.25	21.60	1.365	0.158	22.1
Back side	20	QPSK 1_104	376000/1880	100%	0.151	0.085	-0.08	20.25	21.60	1.365	0.206	22.1
Left side	20	QPSK 1_104	376000/1880	100%	0.058	0.033	-0.02	20.25	21.60	1.365	0.079	22.1
Top side	20	QPSK 1_104	376000/1880	100%	0.187	0.100	-0.10	20.25	21.60	1.365	0.255	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	376000/1880	100%	0.110	0.066	0.07	20.12	20.60	1.117	0.123	22.1
Back side	20	QPSK 50_28	376000/1880	100%	0.221	0.118	-0.13	20.12	20.60	1.117	0.247	22.1
Left side	20	QPSK 50_28	376000/1880	100%	0.095	0.048	-0.17	20.12	20.60	1.117	0.106	22.1
Top side	20	QPSK 50_28	376000/1880	100%	0.199	0.110	-0.17	20.12	20.60	1.117	0.222	22.1
Ant41 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_1	380000/1900	100%	0.112	0.070	-0.13	23.00	24.00	1.259	0.141	22.3
Left tilted	20	QPSK 1_1	380000/1900	100%	/	/	-0.16	23.00	24.00	1.259	/	22.3
Right cheek	20	QPSK 1_1	380000/1900	100%	0.070	0.046	0.05	23.00	24.00	1.259	0.088	22.3
Right tilted	20	QPSK 1_1	380000/1900	100%	0.057	0.035	0.17	23.00	24.00	1.259	0.072	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	380000/1900	100%	0.116	0.073	-0.16	22.91	24.00	1.285	0.149	22.3
Left tilted	20	QPSK 50_28	380000/1900	100%	0.044	0.027	-0.16	22.91	24.00	1.285	0.057	22.3
Right cheek	20	QPSK 50_28	380000/1900	100%	0.075	0.050	-0.10	22.91	24.00	1.285	0.096	22.3
Right tilted	20	QPSK 50_28	380000/1900	100%	0.059	0.035	0.09	22.91	24.00	1.285	0.076	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	20	QPSK 1_53	380000/1900	100%	0.162	0.108	0.10	20.97	22.00	1.268	0.205	22.1
Back side	20	QPSK 1_53	380000/1900	100%	0.179	0.105	0.08	20.97	22.00	1.268	**0.227**	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	20	QPSK 50_28	380000/1900	100%	0.162	0.105	-0.11	20.90	22.00	1.288	0.209	22.1
Back side	20	QPSK 50_28	380000/1900	100%	0.172	0.111	0.06	20.90	22.00	1.288	0.222	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_1	376000/1880	100%	0.252	0.138	-0.13	20.41	21.50	1.285	0.324	22.1
Back side	20	QPSK 1_1	376000/1880	100%	0.327	0.176	-0.15	20.41	21.50	1.285	0.420	22.1
Left side	20	QPSK 1_1	376000/1880	100%	0.098	0.056	-0.18	20.41	21.50	1.285	0.126	22.1

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Right side	20	QPSK 1_1	376000/1880	100%	0.002	0.001	-0.14	20.41	21.50	1.285	0.003	22.1
Bottom side	20	QPSK 1_1	376000/1880	100%	0.314	0.166	-0.08	20.41	21.50	1.285	0.404	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	372000/1860	100%	0.205	0.115	0.03	20.37	21.50	1.297	0.266	22.1
Back side	20	QPSK 50_28	372000/1860	100%	0.250	0.138	0.19	20.37	21.50	1.297	0.324	22.1
Left side	20	QPSK 50_28	372000/1860	100%	0.086	0.048	0.00	20.37	21.50	1.297	0.112	22.1
Right side	20	QPSK 50_28	372000/1860	100%	0.002	0.001	-0.17	20.37	21.50	1.297	0.003	22.1
Bottom side	20	QPSK 50_28	372000/1860	100%	0.264	0.142	-0.08	20.37	21.50	1.297	0.342	22.1

Table 26：SAR of NR Band n2 for Head, Body and Hotspot.

8.2.17 SAR Result of NR Band n5

SA N5 SAR Test Record												
Ant11 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_1	166800/834	100%	0.432	0.245	0.01	21.13	22.50	1.371	0.592	22.3
Left tilted	20	QPSK 1_1	166800/834	100%	0.132	0.090	0.06	21.13	22.50	1.371	0.181	22.3
Right cheek	20	QPSK 1_1	166800/834	100%	0.465	0.265	0.04	21.13	22.50	1.371	0.637	22.3
Right tilted	20	QPSK 1_1	166800/834	100%	0.154	0.097	0.14	21.13	22.50	1.371	0.211	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	166800/834	100%	0.435	0.248	0.11	21.10	22.50	1.380	0.600	22.3
Left tilted	20	QPSK 50_28	166800/834	100%	0.153	0.105	-0.07	21.10	22.50	1.380	0.211	22.3
Right cheek	20	QPSK 50_28	166800/834	100%	0.471	0.260	0.03	21.10	22.50	1.380	**0.650**	22.3
Right tilted	20	QPSK 50_28	166800/834	100%	0.169	0.107	0.13	21.10	22.50	1.380	0.233	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	20	QPSK 1_1	167300/836.5	100%	0.206	0.121	-0.03	22.68	24.00	1.355	0.279	22.1
Back side	20	QPSK 1_1	167300/836.5	100%	0.341	0.212	-0.09	22.68	24.00	1.355	0.462	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	20	QPSK 50_28	166800/834	100%	0.248	0.147	-0.01	22.61	24.00	1.377	0.342	22.1
Back side	20	QPSK 50_28	166800/834	100%	0.349	0.220	-0.06	22.61	24.00	1.377	**0.481**	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_1	166800/834	100%	0.255	0.142	0.05	21.13	22.50	1.371	0.350	22.1
Back side	20	QPSK 1_1	166800/834	100%	0.433	0.216	0.07	21.13	22.50	1.371	0.594	22.1
Left side	20	QPSK 1_1	166800/834	100%	0.521	0.294	-0.02	21.13	22.50	1.371	**0.714**	22.1
Top side	20	QPSK 1_1	166800/834	100%	0.002	0.001	0.01	21.13	22.50	1.371	0.003	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	166800/834	100%	0.280	0.159	0.09	21.10	22.50	1.380	0.387	22.1
Back side	20	QPSK 50_28	166800/834	100%	0.424	0.233	0.10	21.10	22.50	1.380	0.585	22.1
Left side	20	QPSK 50_28	166800/834	100%	0.512	0.262	0.09	21.10	22.50	1.380	0.707	22.1
Top side	20	QPSK 50_28	166800/834	100%	0.002	0.001	0.16	21.10	22.50	1.380	0.003	22.1
Ant31 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_1	167300/836.5	100%	0.084	0.060	0.04	23.80	25.00	1.318	0.111	22.3
Left tilted	20	QPSK 1_1	167300/836.5	100%	0.057	0.043	-0.13	23.80	25.00	1.318	0.075	22.3
Right cheek	20	QPSK 1_1	167300/836.5	100%	0.095	0.070	0.08	23.80	25.00	1.318	0.125	22.3
Right tilted	20	QPSK 1_1	167300/836.5	100%	0.094	0.070	0.18	23.80	25.00	1.318	0.124	22.3
Head Test Data (50%RB) DSI 2												

Left cheek	20	QPSK 50_28	167300/836.5	100%	0.105	0.074	0.11	23.72	25.00	1.343	0.141	22.3
Left tilted	20	QPSK 50_28	167300/836.5	100%	0.060	0.045	0.07	23.72	25.00	1.343	0.081	22.3
Right cheek	20	QPSK 50_28	167300/836.5	100%	0.091	0.067	0.08	23.72	25.00	1.343	0.122	22.3
Right tilted	20	QPSK 50_28	167300/836.5	100%	0.092	0.069	0.04	23.72	25.00	1.343	0.124	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	20	QPSK 1_1	167300/836.5	100%	0.103	0.065	-0.10	23.80	25.00	1.318	0.136	22.2
Back side	20	QPSK 1_1	167300/836.5	100%	0.119	0.075	0.09	23.80	25.00	1.318	0.157	22.2
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	20	QPSK 50_28	167300/836.5	100%	0.102	0.064	-0.03	23.72	25.00	1.343	0.137	22.2
Back side	20	QPSK 50_28	167300/836.5	100%	0.117	0.074	0.01	23.72	25.00	1.343	0.157	22.2
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_1	167300/836.5	100%	0.167	0.107	0.13	23.29	24.50	1.321	0.221	22.2
Back side	20	QPSK 1_1	167300/836.5	100%	0.192	0.123	-0.09	23.29	24.50	1.321	0.254	22.2
Right side	20	QPSK 1_1	167300/836.5	100%	0.143	0.095	0.07	23.29	24.50	1.321	0.189	22.2
Bottom side	20	QPSK 1_1	167300/836.5	100%	0.123	0.075	0.04	23.29	24.50	1.321	0.163	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	167300/836.5	100%	0.174	0.106	0.00	23.19	24.50	1.352	0.235	22.2
Back side	20	QPSK 50_28	167300/836.5	100%	0.199	0.124	-0.12	23.19	24.50	1.352	0.269	22.2
Right side	20	QPSK 50_28	167300/836.5	100%	0.131	0.087	0.18	23.19	24.50	1.352	0.177	22.2
Bottom side	20	QPSK 50_28	167300/836.5	100%	0.124	0.074	0.08	23.19	24.50	1.352	0.168	22.2

Table 27：SAR of NR Band n5 for Head, Body and Hotspot.

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8.2.18 SAR Result of NR Band n7

SA N7 SAR Test Record												
Ant12 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_108	510000/2550	100%	0.154	0.085	0.00	17.63	19.30	1.469	0.226	22.3
Left tilted	40	QPSK 1_108	510000/2550	100%	0.083	0.045	-0.18	17.63	19.30	1.469	0.122	22.3
Right cheek	40	QPSK 1_108	510000/2550	100%	0.516	0.253	-0.17	17.63	19.30	1.469	0.758	22.3
Right tilted	40	QPSK 1_108	510000/2550	100%	0.186	0.092	-0.03	17.63	19.30	1.469	0.273	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	507000/2535	100%	0.115	0.062	0.13	17.47	19.30	1.524	0.175	22.3
Left tilted	40	QPSK 108_54	507000/2535	100%	0.057	0.031	-0.07	17.47	19.30	1.524	0.087	22.3
Right cheek	40	QPSK 108_54	507000/2535	100%	0.407	0.196	0.04	17.47	19.30	1.524	0.620	22.3
Right tilted	40	QPSK 108_54	507000/2535	100%	0.154	0.073	0.01	17.47	19.30	1.524	0.235	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_214	504000/2520	100%	0.085	0.044	0.17	20.21	21.80	1.442	0.123	22.1
Back side	40	QPSK 1_214	504000/2520	100%	0.151	0.076	0.14	20.21	21.80	1.442	0.218	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 108_54	507000/2535	100%	0.086	0.044	0.04	20.04	21.80	1.500	0.129	22.1
Back side	40	QPSK 108_54	507000/2535	100%	0.149	0.077	0.02	20.40	21.80	1.380	0.206	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_214	504000/2520	100%	0.135	0.067	-0.14	19.20	20.80	1.445	0.195	22.1
Back side	40	QPSK 1_214	504000/2520	100%	0.280	0.136	0.19	19.20	20.80	1.445	0.405	22.1
Left side	40	QPSK 1_214	504000/2520	100%	0.191	0.091	0.12	19.20	20.80	1.445	0.276	22.1
Top side	40	QPSK 1_214	504000/2520	100%	0.055	0.029	-0.04	19.20	20.80	1.445	0.079	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	504000/2520	100%	0.121	0.060	-0.19	18.96	20.80	1.528	0.185	22.1
Back side	40	QPSK 108_54	504000/2520	100%	0.243	0.115	-0.09	18.96	20.80	1.528	0.371	22.1
Left side	40	QPSK 108_54	504000/2520	100%	0.178	0.086	0.07	18.96	20.80	1.528	0.272	22.1
Top side	40	QPSK 108_54	504000/2520	100%	0.041	0.021	-0.07	18.96	20.80	1.528	0.063	22.1
Ant14 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_108	507000/2535	100%	0.252	0.133	-0.02	13.83	15.50	1.469	0.370	22.3
Left tilted	40	QPSK 1_108	507000/2535	100%	0.263	0.128	-0.05	15.04	16.60	1.432	0.377	22.3
Right cheek	40	QPSK 1_108	507000/2535	100%	0.558	0.277	-0.10	15.04	16.60	1.432	0.799	22.3
Right tilted	40	QPSK 1_108	507000/2535	100%	0.498	0.223	-0.04	15.04	16.60	1.432	0.713	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	504000/2520	100%	0.250	0.133	-0.10	14.88	16.60	1.486	0.371	22.3
Left tilted	40	QPSK 108_54	504000/2520	100%	0.255	0.127	0.06	14.88	16.60	1.486	0.379	22.3
Right cheek	40	QPSK 108_54	504000/2520	100%	0.545	0.262	-0.03	14.88	16.60	1.486	0.810	22.3
Right tilted	40	QPSK 108_54	504000/2520	100%	0.463	0.212	0.05	14.88	16.60	1.486	0.688	22.3
Right cheek	40	QPSK 108_54	507000/2535	100%	0.534	0.245	0.15	14.81	16.60	1.510	0.806	22.3
Right cheek	40	QPSK 108_54	510000/2550	100%	0.545	0.252	0.05	14.75	16.60	1.531	**0.834**	22.3
Head Test Data (100%RB) DSI 2												
Right cheek	40	QPSK 216_0	504000/2520	100%	0.448	0.223	0.04	13.84	15.60	1.500	0.672	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	40	QPSK 1_108	507000/2535	100%	0.232	0.123	-0.13	22.07	23.60	1.422	0.330	22
Back side	40	QPSK 1_108	507000/2535	100%	0.317	0.159	-0.08	22.07	23.60	1.422	0.451	22
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	40	QPSK 108_54	504000/2520	100%	0.163	0.082	0.11	21.89	23.60	1.483	0.242	22
Back side	40	QPSK 108_54	504000/2520	100%	0.359	0.182	-0.03	21.89	23.60	1.483	**0.532**	22
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_108	507000/2535	100%	0.157	0.078	0.11	19.03	20.60	1.435	0.225	22
Back side	40	QPSK 1_108	507000/2535	100%	0.308	0.149	0.17	19.03	20.60	1.435	0.442	22
Left side	40	QPSK 1_108	507000/2535	100%	0.305	0.136	-0.16	19.03	20.60	1.435	0.438	22
Top side	40	QPSK 1_108	507000/2535	100%	0.117	0.056	-0.04	19.03	20.60	1.435	0.168	22
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	504000/2520	100%	0.154	0.075	-0.12	18.85	20.60	1.496	0.230	22
Back side	40	QPSK 108_54	504000/2520	100%	0.287	0.140	0.14	18.85	20.60	1.496	0.429	22
Left side	40	QPSK 108_54	504000/2520	100%	0.263	0.118	-0.01	18.85	20.60	1.496	0.394	22
Top side	40	QPSK 108_54	504000/2520	100%	0.111	0.053	0.12	18.85	20.60	1.496	0.166	22
Ant41 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**	**Liquid Temp.(℃)**

											(W/kg)	
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_108	510000/2550	100%	0.224	0.121	0.08	23.96	24.50	1.132	0.254	22.3
Left tilted	40	QPSK 1_108	510000/2550	100%	0.119	0.076	0.18	23.96	24.50	1.132	0.135	22.3
Right cheek	40	QPSK 1_108	510000/2550	100%	0.060	0.038	-0.02	23.96	24.50	1.132	0.068	22.3
Right tilted	40	QPSK 1_108	510000/2550	100%	0.083	0.056	-0.16	23.96	24.50	1.132	0.094	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	510000/2550	100%	0.236	0.126	-0.10	23.85	24.50	1.161	0.274	22.3
Left tilted	40	QPSK 108_54	510000/2550	100%	0.053	0.028	-0.16	23.85	24.50	1.161	0.062	22.3
Right cheek	40	QPSK 108_54	510000/2550	100%	0.134	0.078	0.11	23.85	24.50	1.161	0.156	22.3
Right tilted	40	QPSK 108_54	510000/2550	100%	0.099	0.052	-0.09	23.85	24.50	1.161	0.115	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_1	504000/2520	100%	0.108	0.057	0.05	20.37	21.00	1.156	0.125	22.4
Back side	40	QPSK 1_1	504000/2520	100%	0.117	0.062	0.04	20.37	21.00	1.156	0.135	22.4
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 108_54	510000/2550	100%	0.074	0.038	0.06	20.28	21.00	1.180	0.087	22.4
Back side	40	QPSK 108_54	510000/2550	100%	0.147	0.077	0.01	20.28	21.00	1.180	0.174	22.4
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_108	510000/2550	100%	0.116	0.059	0.09	19.87	20.50	1.156	0.134	22.4
Back side	40	QPSK 1_108	510000/2550	100%	0.241	0.118	0.10	19.87	20.50	1.156	0.279	22.4
Left side	40	QPSK 1_108	510000/2550	100%	0.136	0.068	0.07	19.87	20.50	1.156	0.157	22.4
Right side	40	QPSK 1_108	510000/2550	100%	0.002	0.001	0.11	19.87	20.50	1.156	0.002	22.4
Bottom side	40	QPSK 1_108	510000/2550	100%	0.200	0.097	-0.02	19.87	20.50	1.156	0.231	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	510000/2550	100%	0.222	0.113	0.15	19.79	20.50	1.178	0.261	22.4
Back side	40	QPSK 108_54	510000/2550	100%	0.253	0.126	-0.02	19.79	20.50	1.178	0.298	22.4
Left side	40	QPSK 108_54	510000/2550	100%	0.076	0.041	-0.06	19.79	20.50	1.178	0.089	22.4
Right side	40	QPSK 108_54	510000/2550	100%	0.002	0.001	0.12	19.79	20.50	1.178	0.002	22.4
Bottom side	40	QPSK 108_54	510000/2550	100%	0.302	0.132	0.13	19.79	20.50	1.178	0.356	22.4
Ant 24 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	40	QPSK 1_1	510000/2550	1:1	0.479	0.199	-0.17	16.56	17.80	1.330	0.637	22.3
Left tilted	40	QPSK 1_1	510000/2550	1:1	0.175	0.082	0.01	16.56	17.80	1.330	0.233	22.3
Right cheek	40	QPSK 1_1	510000/2550	1:1	0.090	0.047	0.16	16.56	17.80	1.330	0.120	22.3
Right tilted	40	QPSK 1_1	510000/2550	1:1	0.065	0.032	0.04	16.56	17.80	1.330	0.086	22.3
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK 108_54	510000/2550	1:1	0.594	0.241	0.05	16.55	17.80	1.334	0.792	22.3
Left tilted	40	QPSK 108_54	510000/2550	1:1	0.234	0.106	-0.16	16.55	17.80	1.334	0.312	22.3
Right cheek	40	QPSK 108_54	510000/2550	1:1	0.131	0.067	0.03	16.55	17.80	1.334	0.175	22.3
Right tilted	40	QPSK 108_54	510000/2550	1:1	0.089	0.044	0.10	16.55	17.80	1.334	0.119	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QPSK 1_1	510000/2550	1:1	0.089	0.046	-0.10	20.56	21.80	1.330	0.118	22.3
Back side	40	QPSK 1_1	510000/2550	1:1	0.178	0.087	0.18	20.56	21.80	1.330	0.237	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QPSK 108_54	510000/2550	1:1	0.114	0.058	0.00	20.48	21.80	1.355	0.154	22.3
Back side	40	QPSK 108_54	510000/2550	1:1	0.226	0.110	-0.15	20.48	21.80	1.355	0.306	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_1	510000/2550	1:1	0.131	0.063	-0.07	19.07	20.30	1.327	0.174	22.3
Back side	40	QPSK 1_1	510000/2550	1:1	0.262	0.120	0.01	19.07	20.30	1.327	0.348	22.3
Right side	40	QPSK 1_1	510000/2550	1:1	0.250	0.112	0.12	19.07	20.30	1.327	0.332	22.3
Top side	40	QPSK 1_1	510000/2550	1:1	0.064	0.032	-0.17	19.07	20.30	1.327	0.085	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 108_54	510000/2550	1:1	0.165	0.080	-0.12	18.95	20.30	1.365	0.225	22.3
Back side	40	QPSK 108_54	510000/2550	1:1	0.323	0.135	-0.10	18.95	20.30	1.365	0.441	22.3
Right side	40	QPSK 108_54	510000/2550	1:1	0.354	0.157	-0.01	18.95	20.30	1.365	**0.483**	22.3
Top side	40	QPSK 108_54	510000/2550	1:1	0.085	0.044	-0.12	18.95	20.30	1.365	0.116	22.3

Table 28：SAR of NR Band n7 for Head, Body and Hotspot.

8.2.19 SAR Result of NR Band n26

SA N26 SAR Test Record												
Ant 11 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_104	164800/824	100%	0.312	0.175	0.04	22.93	24.70	1.503	0.469	22.3
Left tilted	20	QPSK 1_104	164800/824	100%	0.098	0.067	-0.11	22.93	24.70	1.503	0.147	22.3
Right cheek	20	QPSK 1_104	164800/824	100%	0.332	0.183	0.10	22.93	24.70	1.503	**0.499**	22.3
Right tilted	20	QPSK 1_104	164800/824	100%	0.114	0.072	0.04	22.93	24.70	1.503	0.171	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	164800/824	100%	0.282	0.163	-0.05	22.97	24.70	1.489	0.420	22.3
Left tilted	20	QPSK 50_28	164800/824	100%	0.082	0.055	-0.12	22.97	24.70	1.489	0.122	22.3
Right cheek	20	QPSK 50_28	164800/824	100%	0.321	0.185	0.01	22.97	24.70	1.489	0.478	22.3
Right tilted	20	QPSK 50_28	164800/824	100%	0.092	0.058	0.16	22.97	24.70	1.489	0.137	22.3
Body worn Test data (Separate 15mm 1RB) DSI												
Front side	20	QPSK 1_104	164800/824	100%	0.109	0.065	0.07	22.93	24.70	1.503	0.164	22.3
Back side	20	QPSK 1_104	164800/824	100%	0.166	0.105	0.07	22.93	24.70	1.503	**0.250**	22.3
Body worn Test data (Separate 15mm 50%RB) DSI												
Front side	20	QPSK 50_28	164800/824	100%	0.090	0.053	-0.10	22.97	24.70	1.489	0.134	22.3
Back side	20	QPSK 50_28	164800/824	100%	0.148	0.086	0.01	22.97	24.70	1.489	0.220	22.3
Hotspot Test data (Separate 10mm 1RB) DSI												
Front side	20	QPSK 1_104	164800/824	100%	0.175	0.091	-0.15	22.93	24.70	1.503	0.263	22.3
Back side	20	QPSK 1_104	164800/824	100%	0.318	0.177	-0.03	22.93	24.70	1.503	0.478	22.3
Left side	20	QPSK 1_104	164800/824	100%	0.518	0.289	0.08	22.93	24.70	1.503	**0.779**	22.3
Right side	20	QPSK 1_104	164800/824	100%	0.006	0.002	0.18	22.93	24.70	1.503	0.009	22.3
Top side	20	QPSK 1_104	164800/824	100%	0.004	0.001	0.16	22.93	24.70	1.503	0.006	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI												
Front side	20	QPSK 50_28	164800/824	100%	0.161	0.089	-0.15	22.97	24.70	1.489	0.240	22.3
Back side	20	QPSK 50_28	164800/824	100%	0.278	0.152	-0.05	22.97	24.70	1.489	0.414	22.3
Left side	20	QPSK 50_28	164800/824	100%	0.438	0.233	-0.07	22.97	24.70	1.489	0.652	22.3
Right side	20	QPSK 50_28	164800/824	100%	0.008	0.002	0.06	22.97	24.70	1.489	0.012	22.3
Top side	20	QPSK 50_28	164800/824	100%	0.005	0.001	0.16	22.97	24.70	1.489	0.007	22.3
Ant 31 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	20	QPSK 1_53	164800/824	100%	0.074	0.052	-0.03	13.83	15.50	1.469	0.109	22.3
Left tilted	20	QPSK 1_53	164800/824	100%	0.055	0.042	-0.13	23.24	24.50	1.337	0.074	22.3
Right cheek	20	QPSK 1_53	164800/824	100%	0.105	0.077	0.09	23.24	24.50	1.337	0.140	22.3

Right tilted	20	QPSK 1_53	164800/824	100%	0.084	0.063	-0.19	23.24	24.50	1.337	0.112	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	20	QPSK 50_28	164800/824	100%	0.070	0.049	-0.13	23.22	24.50	1.343	0.094	22.3
Left tilted	20	QPSK 50_28	164800/824	100%	0.049	0.037	0.05	23.22	24.50	1.343	0.066	22.3
Right cheek	20	QPSK 50_28	164800/824	100%	0.091	0.067	0.17	23.22	24.50	1.343	0.122	22.3
Right tilted	20	QPSK 50_28	164800/824	100%	0.092	0.068	0.04	23.22	24.50	1.343	0.124	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	20	QPSK 1_53	164800/824	100%	0.083	0.051	-0.17	23.24	24.50	1.337	0.111	22.1
Back side	20	QPSK 1_53	164800/824	100%	0.101	0.064	0.06	23.24	24.50	1.337	0.135	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	20	QPSK 50_28	164800/824	100%	0.081	0.051	-0.15	23.22	24.50	1.343	0.109	22.1
Back side	20	QPSK 50_28	164800/824	100%	0.100	0.064	0.07	23.22	24.50	1.343	0.134	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	20	QPSK 1_53	164800/824	100%	0.145	0.094	0.07	23.24	24.50	1.337	0.194	22.1
Back side	20	QPSK 1_53	164800/824	100%	0.176	0.112	-0.16	23.24	24.50	1.337	0.235	22.1
Left side	20	QPSK 1_53	164800/824	100%	0.001	/	0.06	23.24	24.50	1.337	0.001	22.1
Right side	20	QPSK 1_53	164800/824	100%	0.124	0.082	-0.08	23.24	24.50	1.337	0.166	22.1
Bottom side	20	QPSK 1_53	164800/824	100%	0.103	0.062	-0.18	23.24	24.50	1.337	0.138	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	20	QPSK 50_28	164800/824	100%	0.147	0.091	-0.19	23.22	24.50	1.343	0.197	22.1
Back side	20	QPSK 50_28	164800/824	100%	0.168	0.105	0.01	23.22	24.50	1.343	0.226	22.1
Left side	20	QPSK 50_28	164800/824	100%	0.002	0.001	-0.04	23.22	24.50	1.343	0.003	22.1
Right side	20	QPSK 50_28	164800/824	100%	0.134	0.088	0.14	23.22	24.50	1.343	0.180	22.1
Bottom side	20	QPSK 50_28	164800/824	100%	0.107	0.066	0.19	23.22	24.50	1.343	0.144	22.1

Table 29：SAR of NR Band n26 for Head, Body and Hotspot.

8.2.20 SAR Result of NR Band n38

SA N38 SAR Test Record												
Ant12 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_104	518000/2590	100%	0.160	0.089	-0.12	16.70	18.00	1.349	0.216	22.1
Left tilted	40	QPSK 1_104	518000/2590	100%	0.082	0.045	0.01	16.70	18.00	1.349	0.111	22.1
Right cheek	40	QPSK 1_104	518000/2590	100%	0.548	0.272	-0.02	16.70	18.00	1.349	0.739	22.1
Right tilted	40	QPSK 1_104	518000/2590	100%	0.196	0.098	-0.11	16.70	18.00	1.349	0.264	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 50_28	518000/2590	100%	0.159	0.090	-0.12	16.63	18.00	1.371	0.218	22.1
Left tilted	40	QPSK 50_28	518000/2590	100%	0.081	0.044	0.15	16.63	18.00	1.371	0.111	22.1
Right cheek	40	QPSK 50_28	518000/2590	100%	0.491	0.242	-0.04	16.63	18.00	1.371	0.673	22.1
Right tilted	40	QPSK 50_28	518000/2590	100%	0.190	0.094	0.08	16.63	18.00	1.371	0.260	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_1	519000/2595	100%	0.128	0.068	-0.14	20.72	22.00	1.343	0.172	22.1
Back side	40	QPSK 1_1	519000/2595	100%	0.230	0.115	0.05	20.72	22.00	1.343	0.309	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 50_28	519000/2595	100%	0.119	0.060	-0.01	20.73	22.00	1.340	0.159	22.1
Back side	40	QPSK 50_28	519000/2595	100%	0.164	0.083	-0.12	20.73	22.00	1.340	0.220	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_1	519000/2595	100%	0.164	0.084	0.15	19.21	20.50	1.346	0.221	22.1
Back side	40	QPSK 1_1	519000/2595	100%	0.354	0.168	0.14	19.21	20.50	1.346	0.476	22.1
Left side	40	QPSK 1_1	519000/2595	100%	0.228	0.111	-0.18	19.21	20.50	1.346	0.307	22.1
Top side	40	QPSK 1_1	519000/2595	100%	0.066	0.034	0.02	19.21	20.50	1.346	0.089	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 50_28	519000/2595	100%	0.188	0.093	-0.06	19.19	20.50	1.352	0.254	22.1
Back side	40	QPSK 50_28	519000/2595	100%	0.316	0.157	0.03	19.19	20.50	1.352	0.427	22.1
Left side	40	QPSK 50_28	519000/2595	100%	0.214	0.106	-0.11	19.19	20.50	1.352	0.289	22.1
Top side	40	QPSK 50_28	519000/2595	100%	0.075	0.038	0.00	19.19	20.50	1.352	0.101	22.1
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_1	520000/2600	100%	0.393	0.177	0.12	13.83	15.50	1.469	0.577	22.1
Left tilted	40	QPSK 1_1	520000/2600	100%	0.196	0.089	-0.19	13.83	15.50	1.469	0.288	22.1
Right cheek	40	QPSK 1_1	520000/2600	100%	0.114	0.060	-0.06	13.83	15.50	1.469	0.167	22.1
Right tilted	40	QPSK 1_1	520000/2600	100%	0.070	0.036	0.11	13.83	15.50	1.469	0.103	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 50_28	519000/2595	100%	0.400	0.192	-0.13	13.79	15.50	1.483	0.593	22.1

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Left tilted	40	QPSK 50_28	519000/2595	100%	0.205	0.098	-0.04	13.79	15.50	1.483	0.304	22.1
Right cheek	40	QPSK 50_28	519000/2595	100%	0.114	0.060	0.19	13.79	15.50	1.483	0.169	22.1
Right tilted	40	QPSK 50_28	519000/2595	100%	0.081	0.041	-0.14	13.79	15.50	1.483	0.120	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	40	QPSK 1_1	520000/2600	100%	0.238	0.127	-0.03	21.33	23.00	1.469	0.350	21.8
Back side	40	QPSK 1_1	520000/2600	100%	0.301	0.150	0.04	21.33	23.00	1.469	**0.442**	21.8
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	40	QPSK 50_28	519000/2595	100%	0.245	0.129	-0.07	21.29	23.00	1.483	0.363	21.8
Back side	40	QPSK 50_28	519000/2595	100%	0.294	0.115	0.14	21.29	23.00	1.483	0.436	21.8
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_1	519000/2595	100%	0.316	0.158	0.03	19.30	21.00	1.479	0.467	21.8
Back side	40	QPSK 1_1	519000/2595	100%	0.399	0.194	0.00	19.30	21.00	1.479	0.590	21.8
Left side	40	QPSK 1_1	519000/2595	100%	0.146	0.074	0.05	19.30	21.00	1.479	0.216	21.8
Top side	40	QPSK 1_1	519000/2595	100%	0.445	0.212	-0.16	19.30	21.00	1.479	**0.658**	21.8
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 50_28	519000/2595	100%	0.299	0.153	-0.14	19.24	21.00	1.500	0.448	21.8
Back side	40	QPSK 50_28	519000/2595	100%	0.401	0.198	-0.12	19.24	21.00	1.500	0.601	21.8
Left side	40	QPSK 50_28	519000/2595	100%	0.143	0.073	0.04	19.24	21.00	1.500	0.214	21.8
Top side	40	QPSK 50_28	519000/2595	100%	0.410	0.185	-0.01	19.24	21.00	1.500	0.615	21.8
Ant24 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_104	519000/2595	100%	0.515	0.241	0.17	14.30	16.00	1.479	0.762	22.1
Left tilted	40	QPSK 1_104	519000/2595	100%	0.119	0.076	0.06	14.30	16.00	1.479	0.176	22.1
Right cheek	40	QPSK 1_104	519000/2595	100%	0.060	0.038	-0.17	14.30	16.00	1.479	0.089	22.1
Right tilted	40	QPSK 1_104	519000/2595	100%	0.083	0.056	0.12	14.30	16.00	1.479	0.123	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 50_28	518000/2590	100%	0.563	0.232	0.02	14.20	16.00	1.514	**0.852**	22.1
Left tilted	40	QPSK 50_28	518000/2590	100%	0.246	0.115	0.06	14.20	16.00	1.514	0.372	22.1
Right cheek	40	QPSK 50_28	518000/2590	100%	0.149	0.077	0.05	14.20	16.00	1.514	0.226	22.1
Right tilted	40	QPSK 50_28	518000/2590	100%	0.098	0.048	0.12	14.20	16.00	1.514	0.148	22.1
Left cheek	40	QPSK 50_28	519000/2595	100%	0.531	0.237	0.06	14.11	16.00	1.545	0.821	22.1
Left cheek	40	QPSK 50_28	520000/2600	100%	0.535	0.239	0.09	14.13	16.00	1.538	0.823	22.1
Head Test Data (100%RB) DSI 2												
Left cheek	40	QPSK 100_0	518000/2590	100%	0.406	0.182	0.19	13.16	15.00	1.528	0.620	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_104	519000/2595	100%	0.104	0.054	-0.18	18.30	20.00	1.479	0.154	21.9
Back side	40	QPSK 1_104	519000/2595	100%	0.197	0.102	0.08	18.30	20.00	1.479	0.291	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 50_28	519000/2595	100%	0.109	0.056	-0.02	18.20	20.00	1.514	0.165	21.9
Back side	40	QPSK 50_28	519000/2595	100%	0.207	0.106	0.10	18.20	20.00	1.514	0.313	21.9

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Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_104	519000/2595	100%	0.145	0.071	-0.04	16.80	18.50	1.479	0.214	21.9
Back side	40	QPSK 1_104	519000/2595	100%	0.314	0.148	-0.15	16.80	18.50	1.479	0.464	21.9
Right side	40	QPSK 1_104	519000/2595	100%	0.348	0.154	0.15	16.80	18.50	1.479	0.515	21.9
Top side	40	QPSK 1_104	519000/2595	100%	0.098	0.048	0.04	16.80	18.50	1.479	0.145	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 50_28	518000/2590	100%	0.154	0.076	0.12	16.66	18.50	1.528	0.235	21.9
Back side	40	QPSK 50_28	518000/2590	100%	0.325	0.153	-0.07	16.66	18.50	1.528	0.496	21.9
Right side	40	QPSK 50_28	518000/2590	100%	0.339	0.158	0.17	16.66	18.50	1.528	0.518	21.9
Top side	40	QPSK 50_28	518000/2590	100%	0.098	0.048	0.02	16.66	18.50	1.528	0.150	21.9
Ant41 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_53	519000/2595	100%	0.261	0.139	-0.02	24.28	25.00	1.180	0.308	22.1
Left tilted	40	QPSK 1_53	519000/2595	100%	0.055	0.029	0.18	24.28	25.00	1.180	0.065	22.1
Right cheek	40	QPSK 1_53	519000/2595	100%	0.143	0.083	-0.01	24.28	25.00	1.180	0.169	22.1
Right tilted	40	QPSK 1_53	519000/2595	100%	0.094	0.050	0.00	24.28	25.00	1.180	0.111	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 50_28	519000/2595	100%	0.240	0.127	0.01	24.25	25.00	1.189	0.285	22.1
Left tilted	40	QPSK 50_28	519000/2595	100%	0.054	0.026	0.08	24.25	25.00	1.189	0.064	22.1
Right cheek	40	QPSK 50_28	519000/2595	100%	0.151	0.087	-0.14	24.25	25.00	1.189	0.179	22.1
Right tilted	40	QPSK 50_28	519000/2595	100%	0.097	0.051	-0.02	24.25	25.00	1.189	0.115	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_53	519000/2595	100%	0.113	0.060	0.02	20.26	21.00	1.186	0.134	21.9
Back side	40	QPSK 1_53	519000/2595	100%	0.128	0.069	0.06	20.26	21.00	1.186	0.152	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 50_28	519000/2595	100%	0.115	0.060	0.18	20.18	21.00	1.208	0.139	21.9
Back side	40	QPSK 50_28	519000/2595	100%	0.134	0.071	-0.06	20.18	21.00	1.208	0.162	21.9
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_104	520000/2600	100%	0.153	0.080	-0.08	19.25	20.00	1.189	0.182	21.9
Back side	40	QPSK 1_104	520000/2600	100%	0.207	0.105	0.00	19.25	20.00	1.189	0.246	21.9
Left side	40	QPSK 1_104	520000/2600	100%	0.053	0.027	-0.15	19.25	20.00	1.189	0.063	21.9
Right side	40	QPSK 1_104	520000/2600	100%	0.002	0.001	-0.07	19.25	20.00	1.189	0.002	21.9
Bottom side	40	QPSK 1_104	520000/2600	100%	0.410	0.203	0.03	19.25	20.00	1.189	0.487	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 50_28	519000/2595	100%	0.166	0.086	-0.10	19.19	20.00	1.205	0.200	21.9
Back side	40	QPSK 50_28	519000/2595	100%	0.295	0.140	-0.01	19.19	20.00	1.205	0.355	21.9
Left side	40	QPSK 50_28	519000/2595	100%	0.060	0.032	-0.01	19.19	20.00	1.205	0.072	21.9
Right side	40	QPSK 50_28	519000/2595	100%	0.002	0.001	0.19	19.19	20.00	1.205	0.002	21.9
Bottom side	40	QPSK 50_28	519000/2595	100%	0.421	0.204	0.01	19.19	20.00	1.205	0.507	21.9

Table 30：SAR of NR Band n38 for Head, Body and Hotspot.

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8.2.21 SAR Result of NR Band n41

SA N41 SAR Test Record												
Ant12 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_1	513900/2569.5	100%	0.089	0.048	0.10	16.33	17.50	1.309	0.117	22.1
Left tilted	100	QPSK 1_1	513900/2569.5	100%	0.045	0.025	0.02	16.33	17.50	1.309	0.059	22.1
Right cheek	100	QPSK 1_1	513900/2569.5	100%	0.285	0.139	0.03	16.33	17.50	1.309	0.373	22.1
Right tilted	100	QPSK 1_1	513900/2569.5	100%	0.112	0.054	-0.18	16.33	17.50	1.309	0.147	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	509202/2546.01	100%	0.109	0.060	0.08	16.17	17.50	1.358	0.148	22.1
Left tilted	100	QPSK 135_69	509202/2546.01	100%	0.056	0.031	-0.18	16.17	17.50	1.358	0.076	22.1
Right cheek	100	QPSK 135_69	509202/2546.01	100%	0.356	0.176	-0.12	16.17	17.50	1.358	0.484	22.1
Right tilted	100	QPSK 135_69	509202/2546.01	100%	0.138	0.067	-0.11	16.17	17.50	1.358	0.187	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_1	513900/2569.5	100%	0.084	0.042	-0.17	20.83	22.00	1.309	0.110	22.3
Back side	100	QPSK 1_1	513900/2569.5	100%	0.172	0.084	0.08	20.83	22.00	1.309	0.225	22.3
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	509202/2546.01	100%	0.110	0.057	-0.06	20.76	22.00	1.330	0.146	22.3
Back side	100	QPSK 135_69	509202/2546.01	100%	0.207	0.103	-0.05	20.76	22.00	1.330	0.275	22.3
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	513900/2569.5	100%	0.139	0.067	-0.02	19.30	20.50	1.318	0.183	22.3
Back side	100	QPSK 1_1	513900/2569.5	100%	0.256	0.121	0.18	19.30	20.50	1.318	0.337	22.3
Left side	100	QPSK 1_1	513900/2569.5	100%	0.218	0.103	0.05	19.30	20.50	1.318	0.287	22.3
Top side	100	QPSK 1_1	513900/2569.5	100%	0.050	0.026	-0.10	19.30	20.50	1.318	0.066	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	509202/2546.01	100%	0.162	0.078	0.09	19.24	20.50	1.337	0.217	22.3
Back side	100	QPSK 135_69	509202/2546.01	100%	0.329	0.153	-0.16	19.24	20.50	1.337	0.440	22.3
Left side	100	QPSK 135_69	509202/2546.01	100%	0.220	0.102	-0.08	19.24	20.50	1.337	0.294	22.3
Top side	100	QPSK 135_69	509202/2546.01	100%	0.066	0.035	-0.08	19.24	20.50	1.337	0.088	22.3
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_1	513900/2569.5	100%	0.224	0.120	-0.10	14.45	15.50	1.274	0.285	22.1
Left tilted	100	QPSK 1_1	513900/2569.5	100%	0.226	0.111	-0.02	14.45	15.50	1.274	0.288	22.1
Right cheek	100	QPSK 1_1	513900/2569.5	100%	0.493	0.245	-0.01	14.45	15.50	1.274	0.628	22.1
Right tilted	100	QPSK 1_1	513900/2569.5	100%	0.438	0.196	0.00	14.45	15.50	1.274	0.558	22.1
Right cheek	100	QPSK 1_271	509202/2546.01	100%	0.497	0.248	-0.19	14.25	15.50	1.334	0.663	22.1
Right cheek	100	QPSK 1_1	518598/2592.99	100%	0.495	0.246	0.11	14.42	15.50	1.282	0.635	22.1

Right cheek	100	QPSK 1_1	523302/2616.51	100%	0.509	0.253	0.00	14.24	15.50	1.337	0.680	22.1
Right cheek	100	QPSK 1_1	528000/2640	100%	0.550	0.255	-0.19	14.21	15.50	1.346	**0.740**	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	513900/2569.5	100%	0.238	0.127	-0.14	14.28	15.50	1.324	0.315	22.1
Left tilted	100	QPSK 135_69	513900/2569.5	100%	0.251	0.124	-0.18	14.28	15.50	1.324	0.332	22.1
Right cheek	100	QPSK 135_69	513900/2569.5	100%	0.491	0.244	-0.09	14.28	15.50	1.324	0.650	22.1
Right tilted	100	QPSK 135_69	513900/2569.5	100%	0.450	0.206	-0.09	14.28	15.50	1.324	0.596	22.1
Right cheek	100	QPSK 135_69	509202/2546.01	100%	0.452	0.226	0.09	14.18	15.50	1.355	0.613	22.1
Right cheek	100	QPSK 135_69	518598/2592.99	100%	0.456	0.227	0.14	14.17	15.50	1.358	0.619	22.1
Right cheek	100	QPSK 135_69	523302/2616.51	100%	0.428	0.213	0.06	14.12	15.50	1.374	0.588	22.1
Right cheek	100	QPSK 135_69	528000/2640	100%	0.426	0.212	0.10	14.11	15.50	1.377	0.587	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	100	QPSK 1_1	513900/2569.5	100%	0.251	0.132	-0.07	21.45	22.50	1.274	0.320	21.9
Back side	100	QPSK 1_1	513900/2569.5	100%	0.290	0.142	0.03	21.45	22.50	1.274	0.369	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	100	QPSK 135_69	513900/2569.5	100%	0.276	0.144	-0.17	21.31	22.50	1.315	0.363	21.9
Back side	100	QPSK 135_69	513900/2569.5	100%	0.292	0.148	-0.16	21.31	22.50	1.315	**0.384**	21.9
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	513900/2569.5	100%	0.359	0.180	0.17	20.45	21.50	1.274	0.457	21.9
Back side	100	QPSK 1_1	513900/2569.5	100%	0.498	0.233	-0.04	20.45	21.50	1.274	0.634	21.9
Left side	100	QPSK 1_1	513900/2569.5	100%	0.205	0.108	0.11	20.45	21.50	1.274	0.261	21.9
Top side	100	QPSK 1_1	513900/2569.5	100%	0.450	0.210	-0.16	20.45	21.50	1.274	0.573	21.9
Back side	100	QPSK 1_271	509202/2546.01	100%	0.525	0.212	-0.18	20.27	21.50	1.327	0.697	21.9
Back side	100	QPSK 1_1	518598/2592.99	100%	0.514	0.248	-0.03	20.42	21.50	1.282	0.659	21.9
Back side	100	QPSK 1_1	523302/2616.51	100%	0.404	0.199	-0.11	20.28	21.50	1.324	0.535	21.9
Back side	100	QPSK 1_1	528000/2640	100%	0.419	0.208	0.08	20.22	21.50	1.343	0.563	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	513900/2569.5	100%	0.389	0.196	0.17	20.29	21.50	1.321	0.514	21.9
Back side	100	QPSK 135_69	513900/2569.5	100%	0.537	0.259	-0.06	20.29	21.50	1.321	0.710	21.9
Left side	100	QPSK 135_69	513900/2569.5	100%	0.185	0.095	0.05	20.29	21.50	1.321	0.244	21.9
Top side	100	QPSK 135_69	513900/2569.5	100%	0.535	0.258	0.19	20.29	21.50	1.321	0.707	21.9
Back side	100	QPSK 135_69	509202/2546.01	100%	0.524	0.252	-0.15	20.27	21.50	1.327	0.696	21.9
Back side	100	QPSK 135_69	518598/2592.99	100%	0.538	0.261	0.05	20.25	21.50	1.334	**0.717**	21.9
Back side	100	QPSK 135_69	523302/2616.51	100%	0.407	0.203	0.07	20.09	21.50	1.384	0.563	21.9
Back side	100	QPSK 135_69	528000/2640	100%	0.404	0.202	-0.05	20.11	21.50	1.377	0.556	21.9
Top side	100	QPSK 135_69	509202/2546.01	100%	0.515	0.237	0.01	20.27	21.50	1.327	0.684	21.9
Top side	100	QPSK 135_69	518598/2592.99	100%	0.526	0.253	0.12	20.25	21.50	1.334	0.701	21.9
Top side	100	QPSK 135_69	523302/2616.51	100%	0.512	0.242	-0.03	20.09	21.50	1.384	0.708	21.9
Top side	100	QPSK 135_69	528000/2640	100%	0.445	0.223	-0.07	20.11	21.50	1.377	0.613	21.9
Ant24 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)**	**Liquid Temp.(℃)**

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Head Test Data (1RB) DSI2												
Left cheek	100	QPSK 1_1	513900/2569.5	100%	0.260	0.107	0.09	14.31	16.00	1.476	0.384	22.3
Left tilted	100	QPSK 1_1	513900/2569.5	100%	0.084	0.040	0.09	14.31	16.00	1.476	0.124	22.3
Right cheek	100	QPSK 1_1	513900/2569.5	100%	0.060	0.031	0.12	14.31	16.00	1.476	0.089	22.3
Right tilted	100	QPSK 1_1	513900/2569.5	100%	0.006	0.004	-0.14	14.31	16.00	1.476	0.009	22.3
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK 135_69	513900/2569.5	100%	0.449	0.182	0.17	14.26	16.00	1.493	0.670	22.3
Left tilted	100	QPSK 135_69	513900/2569.5	100%	0.170	0.080	-0.08	14.26	16.00	1.493	0.254	22.3
Right cheek	100	QPSK 135_69	513900/2569.5	100%	0.108	0.055	0.04	14.26	16.00	1.493	0.161	22.3
Right tilted	100	QPSK 135_69	513900/2569.5	100%	0.062	0.032	0.01	14.26	16.00	1.493	0.093	22.3
Left cheek	100	QPSK 135_69	509202/2546.01	100%	0.316	0.138	0.06	14.20	16.00	1.514	0.478	22.3
Left cheek	100	QPSK 135_69	518598/2592.99	100%	0.431	0.189	-0.14	14.07	16.00	1.560	0.672	22.3
Left cheek	100	QPSK 135_69	523302/2616.51	100%	0.434	0.192	0.18	14.08	16.00	1.556	0.675	22.3
Left cheek	100	QPSK 135_69	528000/2640	100%	0.388	0.172	-0.12	14.20	16.00	1.514	0.587	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_137	513900/2569.5	100%	0.086	0.044	0.11	18.41	20.00	1.442	0.124	22.2
Back side	100	QPSK 1_137	513900/2569.5	100%	0.184	0.091	-0.19	18.41	20.00	1.442	0.265	22.2
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	513900/2569.5	100%	0.087	0.044	-0.13	18.27	20.00	1.489	0.130	22.2
Back side	100	QPSK 135_69	513900/2569.5	100%	0.179	0.089	-0.07	18.27	20.00	1.489	0.267	22.2
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	513900/2569.5	100%	0.134	0.063	-0.07	16.91	18.50	1.442	0.193	22.2
Back side	100	QPSK 1_137	513900/2569.5	100%	0.293	0.135	0.00	16.91	18.50	1.442	0.423	22.2
Right side	100	QPSK 1_137	513900/2569.5	100%	0.309	0.136	0.15	16.91	18.50	1.442	0.446	22.2
Top side	100	QPSK 1_137	513900/2569.5	100%	0.080	0.040	-0.11	16.91	18.50	1.442	0.115	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	513900/2569.5	100%	0.113	0.057	-0.17	16.74	18.50	1.500	0.169	22.2
Back side	100	QPSK 135_69	513900/2569.5	100%	0.286	0.131	0.00	16.74	18.50	1.500	0.429	22.2
Right side	100	QPSK 135_69	513900/2569.5	100%	0.261	0.121	-0.16	16.74	18.50	1.500	0.391	22.2
Top side	100	QPSK 135_69	513900/2569.5	100%	0.075	0.037	-0.02	16.74	18.50	1.500	0.112	22.2
Ant41 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI												
Left cheek	100	QPSK 1_1	513900/2569.5	100%	0.352	0.190	-0.16	25.38	26.50	1.294	0.456	22.1
Left tilted	100	QPSK 1_1	513900/2569.5	100%	0.123	0.065	-0.14	25.38	26.50	1.294	0.159	22.1
Right cheek	100	QPSK 1_1	513900/2569.5	100%	0.183	0.107	0.17	25.38	26.50	1.294	0.237	22.1
Right tilted	100	QPSK 1_1	513900/2569.5	100%	0.124	0.067	-0.19	25.38	26.50	1.294	0.160	22.1
Head Test Data (50%RB) DSI												
Left cheek	100	QPSK 135_69	528000/2640	100%	0.201	0.105	0.02	25.31	26.50	1.315	0.264	22.1
Left tilted	100	QPSK 135_69	528000/2640	100%	0.055	0.029	0.04	25.31	26.50	1.315	0.072	22.1
Right cheek	100	QPSK 135_69	528000/2640	100%	0.133	0.077	0.10	25.31	26.50	1.315	0.175	22.1

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Right tilted	100	QPSK 135_69	528000/2640	100%	0.093	0.049	0.19	25.31	26.50	1.315	0.122	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_271	528000/2640	100%	0.098	0.054	-0.02	20.36	21.50	1.300	0.127	21.9
Back side	100	QPSK 1_271	528000/2640	100%	0.179	0.096	-0.16	20.36	21.50	1.300	0.233	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	523302/2616.51	100%	0.124	0.066	0.09	20.25	21.50	1.334	0.165	21.9
Back side	100	QPSK 135_69	523302/2616.51	100%	0.172	0.094	-0.06	20.25	21.50	1.334	0.229	21.9
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	523302/2616.51	100%	0.196	0.099	-0.15	19.34	20.50	1.306	0.256	21.9
Back side	100	QPSK 1_137	523302/2616.51	100%	0.260	0.129	-0.16	19.34	20.50	1.306	0.340	21.9
Left side	100	QPSK 1_137	523302/2616.51	100%	0.066	0.035	-0.04	19.34	20.50	1.306	0.086	21.9
Right side	100	QPSK 1_137	523302/2616.51	100%	0.045	0.026	0.00	19.34	20.50	1.306	0.059	21.9
Bottom side	100	QPSK 1_137	523302/2616.51	100%	0.509	0.247	-0.10	19.34	20.50	1.306	0.665	21.9
Bottom side	100	QPSK 1_271	509202/2546.01	100%	0.494	0.246	-0.13	19.17	20.50	1.358	0.671	21.9
Bottom side	100	QPSK 1_1	513900/2569.5	100%	0.499	0.245	0.18	19.32	20.50	1.312	0.655	21.9
Bottom side	100	QPSK 1_271	518598/2592.99	100%	0.509	0.249	0.16	19.32	20.50	1.312	0.668	21.9
Bottom side	100	QPSK 1_271	528000/2640	100%	0.483	0.238	0.01	19.29	20.50	1.321	0.638	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	528000/2640	100%	0.224	0.117	0.07	19.29	20.50	1.321	0.296	21.9
Back side	100	QPSK 135_69	528000/2640	100%	0.342	0.175	0.10	19.29	20.50	1.321	0.452	21.9
Left side	100	QPSK 135_69	528000/2640	100%	0.058	0.030	-0.04	19.29	20.50	1.321	0.077	21.9
Right side	100	QPSK 135_69	528000/2640	100%	0.072	0.041	0.12	19.29	20.50	1.321	0.095	21.9
Bottom side	100	QPSK 135_69	528000/2640	100%	0.519	0.251	0.10	19.29	20.50	1.321	0.686	21.9
Bottom side	100	QPSK 135_69	509202/2546.01	100%	0.491	0.241	0.07	19.21	20.50	1.346	0.661	21.9
Bottom side	100	QPSK 135_69	513900/2569.5	100%	0.503	0.245	0.01	19.14	20.50	1.368	0.688	21.9
Bottom side	100	QPSK 135_69	518598/2592.99	100%	0.488	0.238	-0.16	19.15	20.50	1.365	0.666	21.9
Bottom side	100	QPSK 135_69	523302/2616.51	100%	0.519	0.252	-0.02	19.27	20.50	1.327	0.689	21.9

Table 31：SAR of NR Band n41 for Head, Body and Hotspot.

8.2.22 SAR Result of NR Band n66

SA N66 SAR Test Record												
Ant12 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_1	346000/1730	100%	0.073	0.042	0.14	19.65	20.80	1.303	0.095	22.1
Left tilted	40	QPSK 1_1	346000/1730	100%	/	/	0.00	19.65	20.80	1.303	/	22.1
Right cheek	40	QPSK 1_1	346000/1730	100%	0.230	0.122	-0.03	19.65	20.80	1.303	0.300	22.1
Right tilted	40	QPSK 1_1	346000/1730	100%	0.075	0.039	-0.15	19.65	20.80	1.303	0.098	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	352000/1760	100%	0.123	0.071	-0.17	19.57	20.80	1.327	0.163	22.1
Left tilted	40	QPSK 108_54	352000/1760	100%	0.057	0.034	0.17	19.57	20.80	1.327	0.076	22.1
Right cheek	40	QPSK 108_54	352000/1760	100%	0.430	0.223	0.10	19.57	20.80	1.327	0.571	22.1
Right tilted	40	QPSK 108_54	352000/1760	100%	0.134	0.070	0.09	19.57	20.80	1.327	0.178	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_1	346000/1730	100%	0.041	0.022	0.09	21.73	22.80	1.279	0.052	21.9
Back side	40	QPSK 1_1	346000/1730	100%	0.083	0.044	0.01	21.73	22.80	1.279	0.106	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 108_54	352000/1760	100%	0.068	0.037	0.09	21.63	22.80	1.309	0.089	21.9
Back side	40	QPSK 108_54	352000/1760	100%	0.135	0.072	-0.19	21.63	22.80	1.309	0.177	21.9
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_1	346000/1730	100%	0.064	0.032	0.15	20.23	21.30	1.279	0.082	21.9
Back side	40	QPSK 1_1	346000/1730	100%	0.134	0.068	0.06	20.23	21.30	1.279	0.171	21.9
Left side	40	QPSK 1_1	346000/1730	100%	0.172	0.083	0.04	20.23	21.30	1.279	0.220	21.9
Top side	40	QPSK 1_1	346000/1730	100%	0.001	/	-0.12	20.23	21.30	1.279	0.001	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	349000/1745	100%	0.085	0.044	-0.17	20.08	21.30	1.324	0.113	21.9
Back side	40	QPSK 108_54	349000/1745	100%	0.207	0.105	0.14	20.08	21.30	1.324	0.274	21.9
Left side	40	QPSK 108_54	349000/1745	100%	0.195	0.094	-0.17	20.08	21.30	1.324	0.258	21.9
Top side	40	QPSK 108_54	349000/1745	100%	0.001	/	0.07	20.08	21.30	1.324	0.001	21.9
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_214	349000/1745	100%	0.298	0.201	-0.15	13.83	15.50	1.469	0.438	22.1
Left tilted	40	QPSK 1_214	349000/1745	100%	0.311	0.191	0.04	15.62	17.10	1.406	0.437	22.1
Right cheek	40	QPSK 1_214	349000/1745	100%	0.558	0.297	0.14	15.62	17.10	1.406	**0.785**	22.1
Right tilted	40	QPSK 1_214	349000/1745	100%	0.395	0.206	-0.14	15.62	17.10	1.406	0.555	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	352000/1760	100%	0.304	0.203	-0.09	15.46	17.10	1.459	0.443	22.1

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Left tilted	40	QPSK 108_54	352000/1760	100%	0.312	0.192	0.11	15.46	17.10	1.459	0.455	22.1
Right cheek	40	QPSK 108_54	352000/1760	100%	0.414	0.236	-0.05	15.46	17.10	1.459	0.604	22.1
Right tilted	40	QPSK 108_54	352000/1760	100%	0.339	0.175	-0.02	15.46	17.10	1.459	0.495	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	40	QPSK 1_214	349000/1745	100%	0.286	0.185	0.13	22.65	24.10	1.396	0.399	21.9
Back side	40	QPSK 1_214	349000/1745	100%	0.330	0.206	-0.02	22.65	24.10	1.396	0.461	21.9
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	40	QPSK 108_54	352000/1760	100%	0.326	0.204	0.16	22.52	24.10	1.439	0.469	21.9
Back side	40	QPSK 108_54	352000/1760	100%	0.360	0.226	-0.01	22.52	24.10	1.439	**0.518**	21.9
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_214	349000/1745	100%	0.266	0.167	0.06	20.08	21.60	1.419	0.377	21.9
Back side	40	QPSK 1_214	349000/1745	100%	0.345	0.210	-0.12	20.08	21.60	1.419	0.490	21.9
Left side	40	QPSK 1_214	349000/1745	100%	0.057	0.035	-0.10	20.08	21.60	1.419	0.081	21.9
Top side	40	QPSK 1_214	349000/1745	100%	0.410	0.233	0.16	20.08	21.60	1.419	**0.582**	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	349000/1745	100%	0.240	0.153	0.09	19.93	21.60	1.469	0.353	21.9
Back side	40	QPSK 108_54	349000/1745	100%	0.327	0.201	-0.03	19.93	21.60	1.469	0.480	21.9
Left side	40	QPSK 108_54	349000/1745	100%	0.054	0.033	-0.12	19.93	21.60	1.469	0.079	21.9
Top side	40	QPSK 108_54	349000/1745	100%	0.349	0.194	-0.11	19.93	21.60	1.469	0.513	21.9
Ant41 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	40	QPSK 1_108	352000/1760	100%	0.144	0.091	-0.04	23.38	24.50	1.294	0.186	22.1
Left tilted	40	QPSK 1_108	352000/1760	100%	0.078	0.049	0.12	23.38	24.50	1.294	0.101	22.1
Right cheek	40	QPSK 1_108	352000/1760	100%	0.091	0.061	0.19	23.38	24.50	1.294	0.118	22.1
Right tilted	40	QPSK 1_108	352000/1760	100%	0.067	0.042	-0.02	23.38	24.50	1.294	0.087	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	40	QPSK 108_54	346000/1730	100%	0.119	0.076	0.05	23.32	24.50	1.312	0.156	22.1
Left tilted	40	QPSK 108_54	346000/1730	100%	0.060	0.038	0.17	23.32	24.50	1.312	0.079	22.1
Right cheek	40	QPSK 108_54	346000/1730	100%	0.083	0.056	0.07	23.32	24.50	1.312	0.109	22.1
Right tilted	40	QPSK 108_54	346000/1730	100%	0.057	0.035	0.00	23.32	24.50	1.312	0.075	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	40	QPSK 1_1	352000/1760	100%	0.222	0.128	0.07	21.36	22.50	1.300	0.289	22.3
Back side	40	QPSK 1_1	352000/1760	100%	0.227	0.132	0.03	21.36	22.50	1.300	0.295	22.3
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	40	QPSK 108_54	346000/1730	100%	0.214	0.125	0.15	21.29	22.50	1.321	0.283	22.3
Back side	40	QPSK 108_54	346000/1730	100%	0.211	0.123	0.02	21.29	22.50	1.321	0.279	22.3
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	40	QPSK 1_1	352000/1760	100%	0.271	0.158	0.16	20.32	21.50	1.312	0.356	22.3
Back side	40	QPSK 1_1	352000/1760	100%	0.354	0.195	0.03	20.32	21.50	1.312	0.465	22.3
Left side	40	QPSK 1_1	352000/1760	100%	0.089	0.049	0.12	20.32	21.50	1.312	0.117	22.3

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Right side	40	QPSK 1_1	352000/1760	100%	0.073	0.043	0.01	20.32	21.50	1.312	0.096	22.3
Bottom side	40	QPSK 1_1	352000/1760	100%	0.428	0.228	-0.18	20.32	21.50	1.312	0.562	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	40	QPSK 108_54	346000/1730	100%	0.334	0.185	0.04	20.27	21.50	1.327	0.443	22.3
Back side	40	QPSK 108_54	346000/1730	100%	0.350	0.197	0.07	20.27	21.50	1.327	0.465	22.3
Left side	40	QPSK 108_54	346000/1730	100%	0.097	0.055	0.02	20.27	21.50	1.327	0.129	22.3
Right side	40	QPSK 108_54	346000/1730	100%	0.085	0.050	0.11	20.27	21.50	1.327	0.113	22.3
Bottom side	40	QPSK 108_54	346000/1730	100%	0.391	0.213	-0.05	20.27	21.50	1.327	0.519	22.3
Ant 24 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI2												
Left cheek	40	QPSK 1_1	346000/1730	1:1	0.042	0.017	0.15	20.16	21.80	1.459	0.061	22.3
Left tilted	40	QPSK 1_1	346000/1730	1:1	0.015	0.007	0.07	20.16	21.80	1.459	0.022	22.3
Right cheek	40	QPSK 1_1	346000/1730	1:1	0.008	0.004	-0.09	20.16	21.80	1.459	0.012	22.3
Right tilted	40	QPSK 1_1	346000/1730	1:1	0.006	0.003	-0.13	20.16	21.80	1.459	0.009	22.3
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK 108_54	346000/1730	1:1	0.052	0.021	0.00	20.10	21.80	1.479	0.077	22.3
Left tilted	40	QPSK 108_54	346000/1730	1:1	0.020	0.009	-0.08	20.10	21.80	1.479	0.030	22.3
Right cheek	40	QPSK 108_54	346000/1730	1:1	0.011	0.006	0.15	20.10	21.80	1.479	0.016	22.3
Right tilted	40	QPSK 108_54	346000/1730	1:1	0.008	0.004	0.11	20.10	21.80	1.479	0.012	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QPSK 1_1	346000/1730	1:1	0.008	0.004	0.02	23.21	24.80	1.442	0.012	22.3
Back side	40	QPSK 1_1	346000/1730	1:1	0.015	0.008	-0.03	23.21	24.80	1.442	0.022	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QPSK 108_54	346000/1730	1:1	0.010	0.005	0.12	23.13	24.80	1.469	0.015	22.3
Back side	40	QPSK 108_54	346000/1730	1:1	0.020	0.010	-0.08	23.13	24.80	1.469	0.029	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_1	346000/1730	1:1	0.011	0.005	-0.13	21.74	23.30	1.432	0.016	22.3
Back side	40	QPSK 1_1	346000/1730	1:1	0.023	0.010	-0.08	21.74	23.30	1.432	0.033	22.3
Right side	40	QPSK 1_1	346000/1730	1:1	0.022	0.010	0.18	21.74	23.30	1.432	0.032	22.3
Top side	40	QPSK 1_1	346000/1730	1:1	0.006	0.003	-0.19	21.74	23.30	1.432	0.009	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 108_54	346000/1730	1:1	0.014	0.007	0.00	21.61	23.30	1.476	0.021	22.3
Back side	40	QPSK 108_54	346000/1730	1:1	0.028	0.012	0.12	21.61	23.30	1.476	0.041	22.3
Right side	40	QPSK 108_54	346000/1730	1:1	0.027	0.012	-0.17	21.61	23.30	1.476	0.040	22.3
Top side	40	QPSK 108_54	346000/1730	1:1	0.007	0.004	0.15	21.61	23.30	1.476	0.010	22.3

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

8.2.23 SAR Result of NR Band n77(3450-3550)

SA N77 SAR Test Record												
Ant13 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 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.177	0.084	-0.09	16.79	18.50	1.483	0.262	22.1
Left tilted	100	QPSK 1_271	633334/3500	100%	0.131	0.063	-0.02	16.79	18.50	1.483	0.194	22.1
Right cheek	100	QPSK 1_271	633334/3500	100%	0.507	0.172	-0.11	16.79	18.50	1.483	0.752	22.1
Right tilted	100	QPSK 1_271	633334/3500	100%	0.321	0.144	0.10	16.79	18.50	1.483	0.476	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.190	0.089	0.13	16.71	18.50	1.510	0.287	22.1
Left tilted	100	QPSK 135_69	633334/3500	100%	0.135	0.064	-0.01	16.71	18.50	1.510	0.204	22.1
Right cheek	100	QPSK 135_69	633334/3500	100%	0.507	0.170	0.02	16.71	18.50	1.510	0.766	22.1
Right tilted	100	QPSK 135_69	633334/3500	100%	0.328	0.149	-0.16	16.71	18.50	1.510	0.495	22.1
Head Test Data (100%RB) DSI 2												
Right cheek	100	QPSK 270_0	633334/3500	100%	0.445	0.164	0.06	15.70	17.50	1.514	0.674	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_271	633334/3500	100%	0.094	0.045	-0.09	18.82	20.50	1.472	0.138	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.270	0.129	0.17	18.82	20.50	1.472	0.398	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.093	0.043	-0.08	18.76	20.50	1.493	0.139	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.272	0.130	0.07	18.76	20.50	1.493	0.406	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_271	633334/3500	100%	0.123	0.056	0.13	17.32	19.00	1.472	0.181	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.388	0.167	-0.08	17.32	19.00	1.472	0.571	22.1
Left side	100	QPSK 1_271	633334/3500	100%	0.316	0.138	-0.11	17.32	19.00	1.472	0.465	22.1
Top side	100	QPSK 1_271	633334/3500	100%	0.153	0.068	0.10	17.32	19.00	1.472	0.225	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.126	0.056	0.16	17.17	19.00	1.524	0.192	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.386	0.177	-0.03	17.17	19.00	1.524	0.588	22.1
Left side	100	QPSK 135_69	633334/3500	100%	0.380	0.155	-0.10	17.17	19.00	1.524	0.579	22.1
Top side	100	QPSK 135_69	633334/3500	100%	0.146	0.067	0.06	17.17	19.00	1.524	0.223	22.1
Ant14 Test Record												

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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 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.170	0.070	-0.12	12.45	14.00	1.429	0.243	22.1
Left tilted	100	QPSK 1_271	633334/3500	100%	0.226	0.125	-0.03	12.45	14.00	1.429	0.323	22.1
Right cheek	100	QPSK 1_271	633334/3500	100%	0.438	0.146	-0.19	12.45	14.00	1.429	0.626	22.1
Right tilted	100	QPSK 1_271	633334/3500	100%	0.480	0.160	0.09	12.45	14.00	1.429	0.686	22.5
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.164	0.066	0.14	12.39	14.00	1.449	0.238	22.1
Left tilted	100	QPSK 135_69	633334/3500	100%	0.225	0.090	-0.04	12.39	14.00	1.449	0.326	22.1
Right cheek	100	QPSK 135_69	633334/3500	100%	0.440	0.144	0.05	12.39	14.00	1.449	0.637	22.1
Right tilted	100	QPSK 135_69	633334/3500	100%	0.577	0.187	0.19	12.39	14.00	1.449	0.836	22.1
Head Test Data (100%RB) DSI 2												
Right tilted	100	QPSK 270_0	633334/3500	100%	0.432	0.141	0.06	11.39	13.00	1.449	0.626	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	100	QPSK 1_271	633334/3500	100%	0.154	0.068	-0.13	19.48	21.00	1.419	0.219	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.384	0.166	-0.09	19.48	21.00	1.419	**0.545**	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	100	QPSK 135_69	633334/3500	100%	0.156	0.069	0.18	19.44	21.00	1.432	0.223	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.323	0.139	0.10	19.44	21.00	1.432	0.463	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_271	633334/3500	100%	0.119	0.049	0.19	14.98	16.50	1.419	0.169	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.293	0.117	-0.06	14.98	16.50	1.419	0.416	22.1
Left side	100	QPSK 1_271	633334/3500	100%	0.024	0.007	-0.07	14.98	16.50	1.419	0.034	22.1
Top side	100	QPSK 1_271	633334/3500	100%	0.350	0.143	-0.06	14.98	16.50	1.419	0.497	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.111	0.046	-0.16	14.93	16.50	1.435	0.159	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.278	0.112	0.04	14.93	16.50	1.435	0.399	22.1
Left side	100	QPSK 135_69	633334/3500	100%	0.030	0.008	-0.17	14.93	16.50	1.435	0.043	22.1
Top side	100	QPSK 135_69	633334/3500	100%	0.351	0.142	0.03	14.93	16.50	1.435	0.504	22.1
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 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data (Separate 0mm 1RB) Sensor on DSI4												
Top side	100	QPSK 1_271	633334/3500	1:1	5.080	1.390	0.07	16.43	18.00	1.435	**1.995**	22.1
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on DSI4												
Top side	100	QPSK 135_69	633334/3500	1:1	3.810	1.100	-0.04	16.38	18.00	1.452	1.597	22.1

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Product specific 10g SAR Test data (1RB) Sensor off DSI7												
Top side 12mm	100	QPSK 1_271	633334/3500	1:1	0.688	0.282	-0.16	19.48	21.00	1.419	0.400	22.1
Product specific 10g SAR Test data (50%RB) Sensor off DSI7												
Top side 12mm	100	QPSK 135_69	633334/3500	1:1	0.636	0.266	-0.08	19.44	21.00	1.432	0.381	22.1
Ant21 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 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_1	633334/3500	100%	0.519	0.247	0.11	16.40	18.00	1.445	0.750	22.1
Left tilted	100	QPSK 1_1	633334/3500	100%	0.625	0.265	-0.02	16.40	18.00	1.445	**0.903**	22.5
Right cheek	100	QPSK 1_1	633334/3500	100%	0.373	0.131	0.18	16.40	18.00	1.445	0.539	22.1
Right tilted	100	QPSK 1_1	633334/3500	100%	0.509	0.165	-0.17	16.40	18.00	1.445	0.736	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.475	0.226	-0.16	16.27	18.00	1.489	0.707	22.1
Left tilted	100	QPSK 135_69	633334/3500	100%	0.507	0.230	0.00	16.27	18.00	1.489	0.755	22.1
Right cheek	100	QPSK 135_69	633334/3500	100%	0.321	0.116	0.09	16.27	18.00	1.489	0.478	22.1
Right tilted	100	QPSK 135_69	633334/3500	100%	0.447	0.154	0.02	16.27	18.00	1.489	0.666	22.1
Head Test Data (50%RB) DSI 2												
Left tilted	100	QPSK 270_0	633334/3500	100%	0.409	0.185	0.09	15.20	17.00	1.514	0.619	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_1	633334/3500	100%	0.124	0.060	-0.15	18.95	20.50	1.429	0.177	22.1
Back side	100	QPSK 1_1	633334/3500	100%	0.221	0.108	0.14	18.95	20.50	1.429	0.316	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.124	0.059	0.00	18.80	20.50	1.479	0.183	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.213	0.104	-0.05	18.80	20.50	1.479	0.315	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	633334/3500	100%	0.178	0.083	0.11	17.41	19.00	1.442	0.257	22.1
Back side	100	QPSK 1_1	633334/3500	100%	0.307	0.147	0.02	17.41	19.00	1.442	0.443	22.1
Left side	100	QPSK 1_1	633334/3500	100%	0.040	0.010	-0.16	17.41	19.00	1.442	0.058	22.1
Right side	100	QPSK 1_1	633334/3500	100%	0.075	0.018	0.09	17.41	19.00	1.442	0.108	22.1
Top side	100	QPSK 1_1	633334/3500	100%	0.251	0.116	0.00	17.41	19.00	1.442	0.362	22.1
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.157	0.074	0.04	17.23	19.00	1.503	0.236	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.288	0.135	0.15	17.23	19.00	1.503	0.433	22.1
Left side	100	QPSK 135_69	633334/3500	100%	0.059	0.030	0.02	17.23	19.00	1.503	0.089	22.1
Right side	100	QPSK 135_69	633334/3500	100%	0.064	0.033	0.07	17.23	19.00	1.503	0.096	22.1

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Top side	100	QPSK 135_69	633334/3500	100%	0.229	0.107	-0.07	17.23	19.00	1.503	0.344	22.1
Ant23 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 10-g (W/kg)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.442	0.188	0.16	13.31	15.00	1.476	0.652	22.1
Left tilted	100	QPSK 1_271	633334/3500	100%	0.385	0.156	0.11	13.31	15.00	1.476	0.568	22.1
Right cheek	100	QPSK 1_271	633334/3500	100%	0.145	0.062	0.02	13.31	15.00	1.476	0.214	22.1
Right tilted	100	QPSK 1_271	633334/3500	100%	0.161	0.065	0.04	13.31	15.00	1.476	0.238	22.1
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.474	0.188	0.03	13.17	15.00	1.524	0.722	22.1
Left tilted	100	QPSK 135_69	633334/3500	100%	0.378	0.155	-0.06	13.17	15.00	1.524	0.576	22.1
Right cheek	100	QPSK 135_69	633334/3500	100%	0.136	0.057	0.15	13.17	15.00	1.524	0.207	22.1
Right tilted	100	QPSK 135_69	633334/3500	100%	0.151	0.061	-0.06	13.17	15.00	1.524	0.230	22.1
Body worn Test data(Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_271	633334/3500	100%	0.255	0.121	0.00	20.30	22.00	1.479	0.377	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.288	0.133	0.06	20.30	22.00	1.479	0.426	22.1
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.223	0.106	0.12	20.21	22.00	1.510	0.337	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.275	0.128	-0.15	20.21	22.00	1.510	0.415	22.1
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_271	633334/3500	100%	0.317	0.145	0.13	18.74	20.50	1.500	0.475	22.1
Back side	100	QPSK 1_271	633334/3500	100%	0.402	0.196	-0.17	18.74	20.50	1.500	0.603	22.1
Right side	100	QPSK 1_271	633334/3500	100%	0.395	0.170	-0.13	18.74	20.50	1.500	0.592	22.1
Top side	100	QPSK 1_271	633334/3500	100%	0.425	0.166	-0.04	18.74	20.50	1.500	**0.637**	22.1
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.285	0.131	-0.12	18.65	20.50	1.531	0.436	22.1
Back side	100	QPSK 135_69	633334/3500	100%	0.403	0.199	0.18	18.65	20.50	1.531	0.617	22.1
Right side	100	QPSK 135_69	633334/3500	100%	0.342	0.149	-0.11	18.65	20.50	1.531	0.524	22.1
Top side	100	QPSK 135_69	633334/3500	100%	0.416	0.160	0.08	18.65	20.50	1.531	**0.637**	22.1

Table 33：SAR of NR Band n77(3450-3550) for Head, Body, Hotspot, Limbs.

8.2.24 SAR Result of NR Band n77(3700-3980)

SA N77 SAR Test Record												
Ant13 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_137	650000/3750	100%	0.106	0.048	-0.01	16.89	18.50	1.449	0.154	22.1
Left tilted	100	QPSK 1_137	650000/3750	100%	0.074	0.033	-0.11	16.89	18.50	1.449	0.107	22.1
Right cheek	100	QPSK 1_137	650000/3750	100%	0.334	0.142	-0.07	16.89	18.50	1.449	0.484	22.1
Right tilted	100	QPSK 1_137	650000/3750	100%	0.194	0.081	-0.02	16.89	18.50	1.449	0.281	22.1
Right cheek	100	QPSK 1_271	652400/3786	100%	0.269	0.118	-0.08	16.84	18.50	1.466	0.394	22.1
Right cheek	100	QPSK 1_137	654800/3822	100%	0.282	0.122	0.07	16.85	18.50	1.462	0.412	22.1
Right cheek	100	QPSK 1_1	657200/3858	100%	0.279	0.120	0.09	16.72	18.50	1.507	0.420	22.1
Right cheek	100	QPSK 1_1	659600/3894	100%	0.265	0.115	0.07	16.66	18.50	1.528	0.405	22.1
Right cheek	100	QPSK 1_271	662000/3930	100%	0.242	0.106	0.09	16.60	18.50	1.549	0.375	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	652400/3786	100%	0.097	0.043	0.10	16.85	18.50	1.462	0.142	22.1
Left tilted	100	QPSK 135_69	652400/3786	100%	0.072	0.033	-0.06	16.85	18.50	1.462	0.105	22.1
Right cheek	100	QPSK 135_69	652400/3786	100%	0.287	0.122	0.02	16.85	18.50	1.462	0.420	22.1
Right tilted	100	QPSK 135_69	652400/3786	100%	0.171	0.073	-0.02	16.85	18.50	1.462	0.250	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.333	0.140	0.08	16.75	18.50	1.496	0.498	22.1
Right cheek	100	QPSK 135_69	654800/3822	100%	0.279	0.121	-0.10	16.73	18.50	1.503	0.419	22.1
Right cheek	100	QPSK 135_69	657200/3858	100%	0.262	0.115	-0.08	16.71	18.50	1.510	0.396	22.1
Right cheek	100	QPSK 135_69	659600/3894	100%	0.248	0.108	0.12	16.70	18.50	1.514	0.375	22.1
Right cheek	100	QPSK 135_69	662000/3930	100%	0.244	0.107	-0.06	16.62	18.50	1.542	0.376	22.1
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_137	650000/3750	100%	0.042	0.019	-0.13	18.93	20.50	1.435	0.060	22.1
Back side	100	QPSK 1_137	650000/3750	100%	0.127	0.058	-0.04	18.93	20.50	1.435	0.182	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	654800/3822	100%	0.040	0.018	-0.08	18.85	20.50	1.462	0.058	22.1
Back side	100	QPSK 135_69	654800/3822	100%	0.117	0.054	0.04	18.85	20.50	1.462	0.171	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	650000/3750	100%	0.060	0.026	0.18	17.41	19.00	1.442	0.087	22.1
Back side	100	QPSK 1_137	650000/3750	100%	0.204	0.088	-0.06	17.41	19.00	1.442	0.294	22.1
Left side	100	QPSK 1_137	650000/3750	100%	0.176	0.074	-0.03	17.41	19.00	1.442	0.254	22.1
Top side	100	QPSK 1_137	650000/3750	100%	0.095	0.042	-0.06	17.41	19.00	1.442	0.137	22.1

Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	652400/3786	100%	0.058	0.026	0.14	17.33	19.00	1.469	0.085	22.1
Back side	100	QPSK 135_69	652400/3786	100%	0.190	0.085	-0.19	17.33	19.00	1.469	0.279	22.1
Left side	100	QPSK 135_69	652400/3786	100%	0.172	0.077	0.05	17.33	19.00	1.469	0.253	22.1
Top side	100	QPSK 135_69	652400/3786	100%	0.077	0.035	0.11	17.33	19.00	1.469	0.113	22.1
Ant14 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)**	**Liquid Temp.(℃)**
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_137	652400/3786	100%	0.197	0.081	-0.09	12.40	14.00	1.445	0.285	22.1
Left tilted	100	QPSK 1_137	652400/3786	100%	0.263	0.104	0.00	12.40	14.00	1.445	0.380	22.1
Right cheek	100	QPSK 1_137	652400/3786	100%	0.334	0.125	0.00	12.40	14.00	1.445	0.483	22.1
Right tilted	100	QPSK 1_137	652400/3786	100%	0.420	0.153	0.01	12.40	14.00	1.445	0.607	22.1
Right cheek	100	QPSK 1_137	650000/3750	100%	0.321	0.117	-0.05	12.38	14.00	1.452	0.466	22.1
Right cheek	100	QPSK 1_137	652400/3786	100%	0.327	0.118	-0.05	12.32	14.00	1.472	0.481	22.1
Right cheek	100	QPSK 1_137	657200/3858	100%	0.327	0.117	0.08	12.13	14.00	1.538	0.503	22.1
Right cheek	100	QPSK 1_1	659600/3894	100%	0.350	0.125	0.17	12.21	14.00	1.510	0.529	22.1
Right cheek	100	QPSK 1_137	662000/3930	100%	0.264	0.095	0.11	12.21	14.00	1.510	0.399	22.1
Right tilted	100	QPSK 1_137	650000/3750	100%	0.416	0.157	-0.16	12.38	14.00	1.452	0.604	22.1
Right tilted	100	QPSK 1_137	652400/3786	100%	0.610	0.194	0.05	12.32	14.00	1.472	**0.898**	22.1
Right tilted	100	QPSK 1_137	657200/3858	100%	0.455	0.156	-0.04	12.13	14.00	1.538	0.700	22.1
Right tilted	100	QPSK 1_1	659600/3894	100%	0.444	0.152	0.09	12.21	14.00	1.510	0.670	22.1
Right tilted	100	QPSK 1_137	662000/3930	100%	0.331	0.118	-0.03	12.21	14.00	1.510	0.500	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	662000/3930	100%	0.142	0.058	0.15	12.29	14.00	1.483	0.211	22.1
Left tilted	100	QPSK 135_69	662000/3930	100%	0.184	0.073	-0.19	12.29	14.00	1.483	0.273	22.1
Right cheek	100	QPSK 135_69	662000/3930	100%	0.264	0.097	-0.14	12.29	14.00	1.483	0.391	22.1
Right tilted	100	QPSK 135_69	662000/3930	100%	0.327	0.119	-0.05	12.29	14.00	1.483	0.485	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.466	0.153	-0.02	12.19	14.00	1.517	0.707	22.1
Right tilted	100	QPSK 135_69	652400/3786	100%	0.419	0.149	0.15	12.27	14.00	1.489	0.624	22.1
Right tilted	100	QPSK 135_69	654800/3822	100%	0.418	0.149	-0.04	12.29	14.00	1.483	0.620	22.1
Right tilted	100	QPSK 135_69	657200/3858	100%	0.416	0.149	-0.09	12.22	14.00	1.507	0.627	22.1
Right tilted	100	QPSK 135_69	659600/3894	100%	0.368	0.132	-0.01	12.25	14.00	1.496	0.551	22.1
Head Test Data(100%RB) DSI 2												
Right tilted	100	QPSK 270_0	652400/3786	100%	0.354	0.121	0.10	11.30	13.00	1.479	0.524	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												

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Front side	100	QPSK 1_137	652400/3786	100%	0.204	0.092	-0.16	19.31	21.00	1.476	0.301	22.1
Back side	100	QPSK 1_137	652400/3786	100%	0.388	0.175	0.16	19.31	21.00	1.476	0.573	22.1
Back side	100	QPSK 1_137	650000/3750	100%	0.385	0.168	-0.06	19.30	21.00	1.479	0.569	22.1
Back side	100	QPSK 1_137	654800/3822	100%	0.386	0.165	-0.11	19.28	21.00	1.486	0.574	22.1
Back side	100	QPSK 1_137	657200/3858	100%	0.380	0.163	-0.05	19.13	21.00	1.538	0.584	22.1
Back side	100	QPSK 1_1	659600/3894	100%	0.385	0.178	0.15	19.18	21.00	1.521	0.585	22.1
Back side	100	QPSK 1_271	662000/3930	100%	0.212	0.091	0.10	19.19	21.00	1.517	0.322	22.1
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	100	QPSK 135_69	652400/3786	100%	0.212	0.093	-0.09	19.24	21.00	1.500	0.318	22.1
Back side	100	QPSK 135_69	652400/3786	100%	0.382	0.152	0.06	19.24	21.00	1.500	0.573	22.1
Back side	100	QPSK 135_69	650000/3750	100%	0.392	0.174	0.06	19.12	21.00	1.542	**0.604**	22.1
Back side	100	QPSK 135_69	654800/3822	100%	0.386	0.185	-0.11	19.20	21.00	1.514	0.584	22.1
Back side	100	QPSK 135_69	657200/3858	100%	0.380	0.163	0.15	19.16	21.00	1.528	0.580	22.1
Back side	100	QPSK 135_69	659600/3894	100%	0.326	0.140	0.04	19.15	21.00	1.531	0.499	22.1
Back side	100	QPSK 135_69	662000/3930	100%	0.270	0.116	0.15	19.20	21.00	1.514	0.409	22.1
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	650000/3750	100%	0.152	0.062	0.05	14.80	16.50	1.479	0.225	22.1
Back side	100	QPSK 1_137	650000/3750	100%	0.380	0.143	0.17	14.80	16.50	1.479	0.562	22.1
Left side	100	QPSK 1_137	650000/3750	100%	0.039	0.018	0.07	14.80	16.50	1.479	0.058	22.1
Top side	100	QPSK 1_137	650000/3750	100%	0.382	0.146	0.05	14.80	16.50	1.479	0.565	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	652400/3786	100%	0.141	0.060	0.01	14.70	16.50	1.514	0.213	22.1
Back side	100	QPSK 135_69	652400/3786	100%	0.351	0.140	0.03	14.70	16.50	1.514	0.531	22.1
Left side	100	QPSK 135_69	652400/3786	100%	0.037	0.018	0.13	14.70	16.50	1.514	0.056	22.1
Top side	100	QPSK 135_69	652400/3786	100%	0.557	0.222	0.06	14.70	16.50	1.514	**0.843**	22.1
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 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data (Separate 0mm 1RB) Sensor on DSI4												
Back side	100	QPSK 1_137	652400/3786	1:1	2.150	0.675	-0.13	16.28	18.00	1.486	1.003	22.1
Top side	100	QPSK 1_137	652400/3786	1:1	4.750	1.330	0.08	16.28	18.00	1.486	1.976	22.1
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on DSI4												
Back side	100	QPSK 135_69	652400/3786	1:1	2.250	0.696	0.10	16.20	18.00	1.514	1.053	22.1
Top side	100	QPSK 135_69	652400/3786	1:1	5.790	1.510	0.05	16.20	18.00	1.514	**2.285**	22.1
Top side	100	QPSK 135_69	650000/3750	1:1	5.130	1.350	-0.18	16.11	18.00	1.545	2.086	22.1
Top side	100	QPSK 135_69	654800/3822	1:1	5.092	1.340	-0.12	16.10	18.00	1.549	2.075	22.1

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Top side	100	QPSK 135_69	657200/3858	1:1	5.380	1.420	0.01	16.14	18.00	1.535	2.179	22.1
Top side	100	QPSK 135_69	659600/3894	1:1	5.240	1.380	0.17	16.14	18.00	1.535	2.118	22.1
Top side	100	QPSK 135_69	662000/3930	1:1	5.460	1.440	-0.04	16.13	18.00	1.538	2.215	22.1
Product specific 10g SAR Test data (Separate 0mm 100%RB) Sensor on DSI4												
Top side	100	QPSK 270_0	654800/3822	1:1	3.780	1.180	-0.03	15.16	17.00	1.528	1.803	22.1
Product specific 10g SAR Test data (1RB) Sensor off DSI7												
Back side12mm	100	QPSK 1_271	652400/3786	1:1	0.629	0.262	-0.05	19.31	21.00	1.476	0.387	22.1
Top side 12mm	100	QPSK 1_271	652400/3786	1:1	0.815	0.333	-0.07	19.31	21.00	1.476	0.491	22.1
Product specific 10g SAR Test data (50%RB) Sensor off DSI7												
Back side12mm	100	QPSK 135_69	652400/3786	1:1	0.741	0.300	0.12	19.24	21.00	1.500	0.450	22.1
Top side 12mm	100	QPSK 135_69	652400/3786	1:1	0.819	0.337	0.02	19.24	21.00	1.500	0.505	22.1
Ant21 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)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_1	654800/3822	100%	0.365	0.162	-0.16	16.64	18.00	1.368	0.499	22.1
Left tilted	100	QPSK 1_1	654800/3822	100%	0.369	0.157	0.16	16.64	18.00	1.368	0.505	22.1
Right cheek	100	QPSK 1_1	654800/3822	100%	0.336	0.143	-0.09	16.64	18.00	1.368	0.460	22.1
Right tilted	100	QPSK 1_1	654800/3822	100%	0.337	0.138	-0.19	16.64	18.00	1.368	0.461	22.1
Left cheek	100	QPSK 1_137	650000/3750	100%	0.329	0.147	-0.04	16.53	18.00	1.403	0.462	22.1
Left cheek	100	QPSK 1_137	652400/3786	100%	0.327	0.144	-0.17	16.50	18.00	1.413	0.462	22.1
Left cheek	100	QPSK 1_1	657200/3858	100%	0.370	0.161	-0.02	16.44	18.00	1.432	0.530	22.1
Left cheek	100	QPSK 1_1	659600/3894	100%	0.396	0.172	-0.10	16.34	18.00	1.466	0.580	22.1
Left cheek	100	QPSK 1_1	662000/3930	100%	0.420	0.181	-0.06	16.45	18.00	1.429	0.600	22.1
Left tilted	100	QPSK 135_69	650000/3750	100%	0.339	0.144	0.00	16.53	18.00	1.403	0.476	22.1
Left tilted	100	QPSK 135_69	652400/3786	100%	0.309	0.132	-0.09	16.50	18.00	1.413	0.436	22.1
Left tilted	100	QPSK 135_69	657200/3858	100%	0.310	0.127	-0.11	16.44	18.00	1.432	0.444	22.1
Left tilted	100	QPSK 135_69	659600/3894	100%	0.303	0.135	-0.10	16.34	18.00	1.466	0.444	22.1
Left tilted	100	QPSK 135_69	662000/3930	100%	0.301	0.132	0.16	16.45	18.00	1.429	0.430	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.322	0.115	-0.18	16.53	18.00	1.403	0.452	22.1
Right cheek	100	QPSK 135_69	652400/3786	100%	0.285	0.111	0.06	16.50	18.00	1.413	0.403	22.1
Right cheek	100	QPSK 135_69	657200/3858	100%	0.291	0.118	0.12	16.44	18.00	1.432	0.417	22.1
Right cheek	100	QPSK 135_69	659600/3894	100%	0.285	0.116	-0.09	16.34	18.00	1.466	0.418	22.1
Right cheek	100	QPSK 135_69	662000/3930	100%	0.283	0.129	-0.12	16.45	18.00	1.429	0.404	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.337	0.144	0.06	16.53	18.00	1.403	0.473	22.1

Right tilted	100	QPSK 135_69	652400/3786	100%	0.298	0.129	-0.09	16.50	18.00	1.413	0.421	22.1
Right tilted	100	QPSK 135_69	657200/3858	100%	0.305	0.125	-0.13	16.44	18.00	1.432	0.437	22.1
Right tilted	100	QPSK 135_69	659600/3894	100%	0.298	0.133	0.19	16.34	18.00	1.466	0.437	22.1
Right tilted	100	QPSK 135_69	662000/3930	100%	0.296	0.130	-0.09	16.45	18.00	1.429	0.423	22.1
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	654800/3822	100%	0.391	0.174	0.04	16.46	18.00	1.426	0.557	22.1
Left tilted	100	QPSK 135_69	654800/3822	100%	0.401	0.171	-0.04	16.46	18.00	1.426	0.572	22.1
Right cheek	100	QPSK 135_69	654800/3822	100%	0.355	0.154	0.01	16.46	18.00	1.426	0.506	22.1
Right tilted	100	QPSK 135_69	654800/3822	100%	0.363	0.149	-0.13	16.46	18.00	1.426	0.517	22.1
Left cheek	100	QPSK 135_69	650000/3750	100%	0.355	0.158	0.09	16.41	18.00	1.442	0.512	22.1
Left cheek	100	QPSK 135_69	652400/3786	100%	0.352	0.155	0.12	16.46	18.00	1.426	0.502	22.1
Left cheek	100	QPSK 135_69	657200/3858	100%	0.399	0.174	-0.19	16.36	18.00	1.459	0.582	22.1
Left cheek	100	QPSK 135_69	659600/3894	100%	0.427	0.185	0.03	16.37	18.00	1.455	0.621	22.1
Left cheek	100	QPSK 135_69	662000/3930	100%	0.452	0.195	0.15	16.24	18.00	1.500	0.678	22.1
Left tilted	100	QPSK 135_69	650000/3750	100%	0.364	0.162	-0.08	16.41	18.00	1.442	0.525	22.1
Left tilted	100	QPSK 135_69	652400/3786	100%	0.361	0.159	-0.06	16.46	18.00	1.426	0.515	22.1
Left tilted	100	QPSK 135_69	657200/3858	100%	0.409	0.178	0.18	16.36	18.00	1.459	0.597	22.1
Left tilted	100	QPSK 135_69	659600/3894	100%	0.438	0.190	-0.13	16.37	18.00	1.455	0.637	22.1
Left tilted	100	QPSK 135_69	662000/3930	100%	0.464	0.200	0.19	16.24	18.00	1.500	0.696	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.322	0.143	-0.02	16.41	18.00	1.442	0.464	22.1
Right cheek	100	QPSK 135_69	652400/3786	100%	0.319	0.141	0.01	16.46	18.00	1.426	0.455	22.1
Right cheek	100	QPSK 135_69	657200/3858	100%	0.362	0.158	-0.08	16.36	18.00	1.459	0.528	22.1
Right cheek	100	QPSK 135_69	659600/3894	100%	0.388	0.168	-0.14	16.37	18.00	1.455	0.565	22.1
Right cheek	100	QPSK 135_69	662000/3930	100%	0.411	0.177	-0.15	16.24	18.00	1.500	0.616	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.329	0.147	0.11	16.41	18.00	1.442	0.474	22.1
Right tilted	100	QPSK 135_69	652400/3786	100%	0.327	0.144	0.19	16.46	18.00	1.426	0.466	22.1
Right tilted	100	QPSK 135_69	657200/3858	100%	0.370	0.161	-0.07	16.36	18.00	1.459	0.540	22.1
Right tilted	100	QPSK 135_69	659600/3894	100%	0.396	0.172	-0.13	16.37	18.00	1.455	0.576	22.1
Right tilted	100	QPSK 135_69	662000/3930	100%	0.420	0.181	-0.08	16.24	18.00	1.500	0.630	22.1
Body worn Test data(Separate 15mm 1RB) DSI 4												

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Front side	100	QPSK 1_1	654800/3822	100%	0.079	0.037	0.12	19.18	20.50	1.355	0.107	22.1
Back side	100	QPSK 1_1	654800/3822	100%	0.101	0.048	0.01	19.18	20.50	1.355	0.137	22.1
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	654800/3822	100%	0.092	0.042	0.03	19.03	20.50	1.403	0.129	22.1
Back side	100	QPSK 135_69	654800/3822	100%	0.108	0.051	0.09	19.03	20.50	1.403	0.152	22.1
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	654800/3822	100%	0.112	0.052	0.11	17.61	19.00	1.377	0.154	22.1
Back side	100	QPSK 1_137	654800/3822	100%	0.156	0.069	-0.16	17.61	19.00	1.377	0.215	22.1
Left side	100	QPSK 1_137	654800/3822	100%	0.036	0.009	0.17	17.61	19.00	1.377	0.050	22.1
Right side	100	QPSK 1_1	633334/3500	100%	0.075	0.018	-0.11	17.41	19.00	1.442	0.108	22.1
Top side	100	QPSK 1_137	654800/3822	100%	0.147	0.062	0.12	17.61	19.00	1.377	0.202	22.1
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	654800/3822	100%	0.111	0.052	0.18	17.53	19.00	1.403	0.156	22.1
Back side	100	QPSK 135_69	654800/3822	100%	0.144	0.067	0.19	17.53	19.00	1.403	0.202	22.1
Left side	100	QPSK 135_69	654800/3822	100%	0.025	0.005	0.10	17.53	19.00	1.403	0.035	22.1
Right side	100	QPSK 135_69	633334/3500	100%	0.064	0.033	-0.02	17.23	19.00	1.503	0.096	22.1
Top side	100	QPSK 135_69	654800/3822	100%	0.141	0.061	0.12	17.53	19.00	1.403	0.198	22.1
Ant23 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)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_1	652400/3786	100%	0.410	0.172	-0.01	13.96	15.00	1.271	0.521	22.1
Left tilted	100	QPSK 1_1	652400/3786	100%	0.406	0.158	0.03	13.96	15.00	1.271	0.516	22.1
Right cheek	100	QPSK 1_1	652400/3786	100%	0.123	0.053	0.02	13.96	15.00	1.271	0.156	22.1
Right tilted	100	QPSK 1_1	652400/3786	100%	0.107	0.042	0.11	13.96	15.00	1.271	0.136	22.1
Left cheek	100	QPSK 1_1	650000/3750	100%	0.498	0.210	0.01	13.83	15.00	1.309	0.652	22.1
Left cheek	100	QPSK 1_1	654800/3822	100%	0.362	0.152	0.08	13.87	15.00	1.297	0.470	22.1
Left cheek	100	QPSK 1_1	657200/3858	100%	0.306	0.126	-0.14	13.62	15.00	1.374	0.420	22.1
Left cheek	100	QPSK 1_1	659600/3894	100%	0.277	0.114	0.00	13.70	15.00	1.349	0.374	22.1
Left cheek	100	QPSK 1_1	662000/3930	100%	0.233	0.096	-0.16	13.64	15.00	1.368	0.319	22.1
Left tilted	100	QPSK 1_1	650000/3750	100%	0.479	0.186	-0.18	13.83	15.00	1.309	0.627	22.1
Left tilted	100	QPSK 1_1	654800/3822	100%	0.322	0.128	-0.11	13.87	15.00	1.297	0.418	22.1
Left tilted	100	QPSK 1_1	657200/3858	100%	0.260	0.104	0.19	13.62	15.00	1.374	0.357	22.1
Left tilted	100	QPSK 1_1	659600/3894	100%	0.228	0.091	0.19	13.70	15.00	1.349	0.308	22.1
Left tilted	100	QPSK 1_1	662000/3930	100%	0.186	0.075	0.05	13.64	15.00	1.368	0.254	22.1
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	652400/3786	100%	0.317	0.136	-0.06	13.69	15.00	1.352	0.429	22.1
Left tilted	100	QPSK	652400/3786	100%	0.295	0.116	-0.18	13.69	15.00	1.352	0.399	22.1

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		135_69										
Right cheek	100	QPSK 135_69	652400/3786	100%	0.094	0.041	-0.01	13.69	15.00	1.352	0.127	22.1
Right tilted	100	QPSK 135_69	652400/3786	100%	0.100	0.041	-0.03	13.69	15.00	1.352	0.135	22.1
Left cheek	100	QPSK 135_69	650000/3750	100%	0.419	0.175	-0.11	13.57	15.00	1.390	0.582	22.1
Left cheek	100	QPSK 135_69	654800/3822	100%	0.322	0.133	0.18	13.57	15.00	1.390	0.448	22.1
Left cheek	100	QPSK 135_69	657200/3858	100%	0.281	0.115	0.16	13.42	15.00	1.439	0.404	22.1
Left cheek	100	QPSK 135_69	659600/3894	100%	0.237	0.098	0.14	13.44	15.00	1.432	0.339	22.1
Left cheek	100	QPSK 135_69	662000/3930	100%	0.228	0.093	0.09	13.35	15.00	1.462	0.333	22.1
Head Test Data(100%RB) DSI 2												
Left cheek	100	QPSK 270_0	662000/3930	100%	0.182	0.074	-0.12	12.78	14.00	1.324	0.241	22.1
Body worn Test data(Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_137	650000/3750	100%	0.182	0.088	-0.01	20.91	22.00	1.285	0.234	22.1
Back side	100	QPSK 1_137	650000/3750	100%	0.195	0.088	-0.14	20.91	22.00	1.285	0.251	22.1
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	650000/3750	100%	0.160	0.077	0.18	20.72	22.00	1.343	0.215	22.1
Back side	100	QPSK 135_69	650000/3750	100%	0.185	0.084	-0.01	20.72	22.00	1.343	0.248	22.1
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	652400/3786	100%	0.241	0.112	0.10	19.38	20.50	1.294	0.312	22.1
Back side	100	QPSK 1_1	652400/3786	100%	0.275	0.123	-0.05	19.38	20.50	1.294	0.356	22.1
Right side	100	QPSK 1_271	633334/3500	100%	0.395	0.170	-0.05	18.74	20.50	1.500	0.592	22.1
Top side	100	QPSK 1_1	652400/3786	100%	0.301	0.119	0.14	19.38	20.50	1.294	0.390	22.1
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	652400/3786	100%	0.186	0.089	0.17	19.16	20.50	1.361	0.253	22.1
Back side	100	QPSK 135_69	652400/3786	100%	0.212	0.086	-0.10	19.16	20.50	1.361	0.289	22.1
Right side	100	QPSK 135_69	633334/3500	100%	0.342	0.149	0.04	18.65	20.50	1.531	0.524	22.1
Top side	100	QPSK 135_69	652400/3786	100%	0.211	0.085	-0.14	19.16	20.50	1.361	0.287	22.1

Table 34：SAR of NR Band n77(3700-3980) for Head, Body, Hotspot, Limbs.

8.2.25 SAR Result of NR Band n78(3450-3500)

SA N78 SAR Test Record												
Ant13 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_1	633334/3500	100%	0.142	0.068	-0.11	16.69	18.00	1.352	0.192	22.3
Left tilted	100	QPSK 1_1	633334/3500	100%	0.109	0.050	0.06	16.69	18.00	1.352	0.147	22.3
Right cheek	100	QPSK 1_1	633334/3500	100%	0.589	0.241	-0.09	16.69	18.00	1.352	0.796	22.3
Right tilted	100	QPSK 1_1	633334/3500	100%	0.229	0.110	0.09	16.69	18.00	1.352	0.310	22.3
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.167	0.081	-0.09	16.37	18.00	1.455	0.243	22.3
Left tilted	100	QPSK 135_69	633334/3500	100%	0.128	0.061	0.11	16.37	18.00	1.455	0.186	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.616	0.235	-0.15	16.37	18.00	1.455	0.897	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.303	0.140	-0.02	16.37	18.00	1.455	0.441	22.3
Head Test Data (100%RB) DSI 2												
Right cheek	100	QPSK 270_0	633334/3500	100%	0.532	0.219	0.03	15.41	17.00	1.442	0.767	22.3
Body worn Test data (Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_1	633334/3500	100%	0.078	0.034	0.10	18.28	19.50	1.324	0.103	22.3
Back side	100	QPSK 1_1	633334/3500	100%	0.189	0.088	0.18	18.28	19.50	1.324	0.250	22.3
Body worn Test data (Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.075	0.037	-0.16	17.93	19.50	1.435	0.108	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.226	0.106	-0.18	17.93	19.50	1.435	0.324	22.3
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	633334/3500	100%	0.091	0.043	-0.07	16.69	19.50	1.349	0.123	22.3
Back side	100	QPSK 1_1	633334/3500	100%	0.261	0.116	-0.01	16.69	19.50	1.349	0.352	22.3
Left side	100	QPSK 1_1	633334/3500	100%	0.306	0.123	-0.13	16.69	19.50	1.349	0.413	22.3
Top side	100	QPSK 1_1	633334/3500	100%	0.096	0.045	-0.15	16.69	19.50	1.349	0.130	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.111	0.141	0.09	16.37	18.00	1.455	0.162	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.331	0.050	-0.15	16.37	18.00	1.455	0.482	22.3
Left side	100	QPSK 135_69	633334/3500	100%	0.033	0.009	0.01	16.37	18.00	1.455	0.048	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.114	0.055	0.07	16.37	18.00	1.455	0.166	22.3
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												

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Left cheek	100	QPSK 1_137	633334/3500	100%	0.168	0.069	0.08	12.33	14.00	1.469	0.247	22.3
Left tilted	100	QPSK 1_137	633334/3500	100%	0.244	0.099	0.00	12.33	14.00	1.469	0.358	22.3
Right cheek	100	QPSK 1_137	633334/3500	100%	0.432	0.141	0.04	12.33	14.00	1.469	0.635	22.3
Right tilted	100	QPSK 1_137	633334/3500	100%	0.446	0.153	0.06	12.33	14.00	1.469	0.655	22.5
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.165	0.067	-0.16	12.42	14.00	1.439	0.237	22.3
Left tilted	100	QPSK 135_69	633334/3500	100%	0.228	0.092	0.15	12.42	14.00	1.439	0.328	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.440	0.142	0.18	12.42	14.00	1.439	0.633	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.448	0.152	-0.02	12.42	14.00	1.439	0.645	22.3
Head Test Data (100%RB) DSI 2												
Right tilted	100	QPSK 270_0	633334/3500	100%	0.430	0.141	0.06	11.39	13.00	1.449	0.623	22.3
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	100	QPSK 1_137	633334/3500	100%	0.153	0.069	0.11	19.41	21.00	1.442	0.221	22.3
Back side	100	QPSK 1_137	633334/3500	100%	0.308	0.133	0.00	19.41	21.00	1.442	0.444	22.3
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	100	QPSK 135_69	633334/3500	100%	0.152	0.068	0.19	19.42	21.00	1.439	0.219	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.311	0.134	0.07	19.42	21.00	1.439	**0.447**	22.3
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_271	633334/3500	100%	0.110	0.047	0.16	14.86	16.50	1.459	0.160	22.3
Back side	100	QPSK 1_271	633334/3500	100%	0.302	0.122	0.03	14.86	16.50	1.459	0.441	22.3
Left side	100	QPSK 1_271	633334/3500	100%	0.039	0.011	-0.03	14.86	16.50	1.459	0.057	22.3
Top side	100	QPSK 1_271	633334/3500	100%	0.313	0.125	-0.15	14.86	16.50	1.459	0.457	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.119	0.050	-0.06	14.85	16.50	1.462	0.174	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.307	0.123	0.01	14.85	16.50	1.462	0.449	22.3
Left side	100	QPSK 135_69	633334/3500	100%	0.050	0.011	0.00	14.85	16.50	1.462	0.073	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.362	0.125	0.06	14.85	16.50	1.462	0.529	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 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data (Separate 0mm 1RB) Sensor on DSI4												
Back side	100	QPSK 1_137	633334/3500	1:1	1.410	0.446	0.01	16.35	18.00	1.462	0.652	22.1
Top side	100	QPSK 1_137	633334/3500	1:1	3.660	1.050	0.19	16.35	18.00	1.462	1.535	22.1
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on DSI4												
Back side	100	QPSK 135_69	633334/3500	1:1	1.520	0.484	-0.11	16.32	18.00	1.472	0.713	22.1
Top side	100	QPSK 135_69	633334/3500	1:1	4.930	1.350	-0.03	16.32	18.00	1.472	**1.988**	22.1
Product specific 10g SAR Test data (1RB) Sensor off DSI7												

Back side12mm	100	QPSK 1_137	633334/3500	1:1	0.509	0.209	0.04	19.41	21.00	1.442	0.301	22.1
Top side 12mm	100	QPSK 1_137	633334/3500	1:1	0.783	0.300	-0.09	19.41	21.00	1.442	0.433	22.1
Product specific 10g SAR Test data (50%RB) Sensor off DSI7												
Back side12mm	100	QPSK 135_69	633334/3500	1:1	0.520	0.214	-0.19	19.42	21.00	1.439	0.308	22.1
Top side 12mm	100	QPSK 135_69	633334/3500	1:1	0.805	0.309	-0.03	19.42	21.00	1.439	0.445	22.1
Ant21 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)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_1	633334/3500	100%	0.541	0.257	0.01	16.92	18.50	1.439	0.778	22.3
Left tilted	100	QPSK 1_1	633334/3500	100%	0.635	0.272	0.00	16.92	18.50	1.439	**0.914**	22.5
Right cheek	100	QPSK 1_1	633334/3500	100%	0.452	0.194	-0.08	16.92	18.50	1.439	0.650	22.3
Right tilted	100	QPSK 1_1	633334/3500	100%	0.427	0.191	0.04	16.92	18.50	1.439	0.614	22.3
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.507	0.240	0.07	16.71	18.50	1.510	0.766	22.3
Left tilted	100	QPSK 135_69	633334/3500	100%	0.557	0.251	0.18	16.71	18.50	1.510	0.841	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.434	0.190	0.00	16.71	18.50	1.510	0.655	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.463	0.197	-0.03	16.71	18.50	1.510	0.699	22.3
Head Test Data(100%RB) DSI 2												
Left tilted	100	QPSK 270_0	633334/3500	100%	0.449	0.202	-0.06	15.74	17.50	1.500	0.673	22.3
Body worn Test data(Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_1	633334/3500	100%	0.136	0.065	0.02	19.50	21.00	1.413	0.192	22.3
Back side	100	QPSK 1_1	633334/3500	100%	0.236	0.115	-0.10	19.50	21.00	1.413	0.333	22.3
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.130	0.063	-0.06	19.28	21.00	1.486	0.193	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.239	0.117	0.13	19.28	21.00	1.486	0.355	22.3
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	633334/3500	100%	0.175	0.082	0.04	17.93	19.50	1.435	0.251	22.3
Back side	100	QPSK 1_1	633334/3500	100%	0.321	0.151	-0.01	17.93	19.50	1.435	0.461	22.3
Left side	100	QPSK 1_1	633334/3500	100%	0.037	0.009	0.16	17.93	19.50	1.435	0.053	22.3
Right side	100	QPSK 1_1	633334/3500	100%	0.069	0.035	-0.05	17.93	19.50	1.435	0.099	22.3
Top side	100	QPSK 1_1	633334/3500	100%	0.289	0.133	-0.15	17.93	19.50	1.435	0.415	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.174	0.080	-0.16	17.77	19.50	1.489	0.259	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.308	0.149	0.04	17.77	19.50	1.489	0.459	22.3
Left side	100	QPSK 135_69	633334/3500	100%	0.039	0.010	0.08	17.77	19.50	1.489	0.058	22.3

Right side	100	QPSK 135_69	633334/3500	100%	0.089	0.021	0.01	17.77	19.50	1.489	0.133	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.275	0.127	0.02	17.77	19.50	1.489	0.410	22.3
Ant23 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)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.517	0.216	0.00	13.91	15.50	1.442	0.746	22.3
Left tilted	100	QPSK 1_271	633334/3500	100%	0.541	0.205	-0.02	13.91	15.50	1.442	0.780	22.3
Right cheek	100	QPSK 1_271	633334/3500	100%	0.155	0.065	0.18	13.91	15.50	1.442	0.224	22.3
Right tilted	100	QPSK 1_271	633334/3500	100%	0.161	0.065	-0.10	13.91	15.50	1.442	0.232	22.3
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.517	0.212	0.02	13.68	15.50	1.521	0.786	22.3
Left cheek	100	QPSK 135_69	633334/3500	100%	0.517	0.212	-0.01	13.68	15.50	1.521	0.786	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.147	0.062	0.12	13.68	15.50	1.521	0.224	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.169	0.068	-0.18	13.68	15.50	1.521	0.257	22.3
Body worn Test data(Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_271	633334/3500	100%	0.172	0.083	-0.02	18.93	20.50	1.435	0.247	22.3
Back side	100	QPSK 1_271	633334/3500	100%	0.202	0.095	-0.01	18.93	20.50	1.435	0.290	22.3
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	633334/3500	100%	0.156	0.075	0.00	18.78	20.50	1.486	0.232	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.196	0.092	0.15	18.78	20.50	1.486	0.291	22.3
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	633334/3500	100%	0.233	0.104	0.13	18.40	20.00	1.445	0.337	22.3
Back side	100	QPSK 1_1	633334/3500	100%	0.352	0.155	-0.16	18.40	20.00	1.445	0.509	22.3
Right side	100	QPSK 1_1	633334/3500	100%	0.281	0.125	0.19	18.40	20.00	1.445	0.406	22.3
Top side	100	QPSK 1_1	633334/3500	100%	0.361	0.143	0.14	18.40	20.00	1.445	0.522	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	633334/3500	100%	0.261	0.118	-0.03	18.27	20.00	1.489	0.389	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.358	0.170	-0.13	18.27	20.00	1.489	0.533	22.3
Right side	100	QPSK 135_69	633334/3500	100%	0.301	0.132	-0.14	18.27	20.00	1.489	0.448	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.366	0.141	0.06	18.27	20.00	1.489	**0.545**	22.3

Table 35：SAR of NR Band n78(3450-3500) for Head, Body, Hotspot, Limbs.

8.2.26 SAR Result of NR Band n78(3700-3980)

SA N78 SAR Test Record												
Ant13 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI												
Left cheek	100	QPSK 1_271	650000/3750	100%	0.112	0.051	0.18	17.89	18.00	1.026	0.115	22.1
Left tilted	100	QPSK 1_271	650000/3750	100%	0.080	0.037	0.04	17.89	18.00	1.026	0.082	22.1
Right cheek	100	QPSK 1_271	650000/3750	100%	0.321	0.138	-0.11	17.89	18.00	1.026	0.329	22.1
Right tilted	100	QPSK 1_271	650000/3750	100%	0.214	0.088	0.13	17.89	18.00	1.026	0.219	22.1
Head Test Data (50%RB) DSI												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.118	0.053	0.08	17.80	18.00	1.047	0.124	22.1
Left tilted	100	QPSK 135_69	650000/3750	100%	0.078	0.035	0.02	17.80	18.00	1.047	0.082	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.348	0.146	-0.07	17.80	18.00	1.047	0.364	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.216	0.087	-0.05	17.80	18.00	1.047	0.226	22.1
Body worn Test data (Separate 15mm 1RB) DSI												
Front side	100	QPSK 1_1	650000/3750	100%	0.060	0.026	-0.01	19.44	19.50	1.014	0.061	22.3
Back side	100	QPSK 1_1	650000/3750	100%	0.156	0.072	-0.08	19.44	19.50	1.014	0.158	22.3
Body worn Test data (Separate 15mm 50%RB) DSI												
Front side	100	QPSK 135_0	650000/3750	100%	0.054	0.023	0.18	19.33	19.50	1.040	0.056	22.3
Back side	100	QPSK 135_0	650000/3750	100%	0.137	0.064	0.19	19.33	19.50	1.040	0.142	22.3
Hotspot Test data (Separate 10mm 1RB) DSI												
Front side	100	QPSK 1_271	650000/3750	100%	0.069	0.030	-0.18	17.89	18.00	1.026	0.071	22.3
Back side	100	QPSK 1_271	650000/3750	100%	0.184	0.082	0.16	17.89	18.00	1.026	0.189	22.3
Left side	100	QPSK 1_271	650000/3750	100%	0.251	0.101	0.08	17.89	18.00	1.026	0.257	22.3
Top side	100	QPSK 1_271	650000/3750	100%	0.088	0.038	-0.01	17.89	18.00	1.026	0.090	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI												
Front side	100	QPSK 135_69	650000/3750	100%	0.072	0.030	0.03	17.80	18.00	1.047	0.075	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.191	0.087	0.18	17.80	18.00	1.047	0.200	22.3
Left side	100	QPSK 135_69	650000/3750	100%	0.221	0.089	0.16	17.80	18.00	1.047	0.231	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.080	0.035	-0.11	17.80	18.00	1.047	0.084	22.3
Ant14 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)	Liquid Temp.(℃)
Head Test Data (1RB) DSI 2												
Left cheek	100	QPSK 1_271	650000/3750	100%	0.204	0.083	-0.15	12.54	14.00	1.400	0.286	22.1
Left tilted	100	QPSK 1_271	650000/3750	100%	0.264	0.107	0.17	12.54	14.00	1.400	0.369	22.1
Right cheek	100	QPSK 1_271	650000/3750	100%	0.399	0.134	0.15	12.54	14.00	1.400	0.558	22.1

Right tilted	100	QPSK 1_271	650000/3750	100%	0.558	0.178	0.04	12.54	14.00	1.400	**0.781**	22.1
Head Test Data (50%RB) DSI 2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.183	0.075	-0.19	12.42	14.00	1.439	0.263	22.1
Left tilted	100	QPSK 135_69	650000/3750	100%	0.244	0.098	0.12	12.42	14.00	1.439	0.351	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.370	0.124	-0.13	12.42	14.00	1.439	0.532	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.530	0.170	-0.02	12.42	14.00	1.439	0.763	22.1
Body worn Test data (Separate 15mm 1RB) DSI 7												
Front side	100	QPSK 1_1	650000/3750	100%	0.220	0.094	-0.17	19.61	21.00	1.377	0.303	22.3
Back side	100	QPSK 1_1	650000/3750	100%	0.538	0.236	-0.14	19.61	21.00	1.377	**0.741**	22.3
Body worn Test data (Separate 15mm 50%RB) DSI 7												
Front side	100	QPSK 135_69	650000/3750	100%	0.214	0.093	-0.18	19.43	21.00	1.435	0.307	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.499	0.216	-0.13	19.43	21.00	1.435	0.716	22.3
Hotspot Test data (Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_1	650000/3750	100%	0.126	0.051	0.12	15.11	16.50	1.377	0.174	22.3
Back side	100	QPSK 1_1	650000/3750	100%	0.342	0.131	0.15	15.11	16.50	1.377	0.471	22.3
Left side	100	QPSK 1_1	650000/3750	100%	0.033	0.008	0.02	15.11	16.50	1.377	0.045	22.3
Top side	100	QPSK 1_1	650000/3750	100%	0.343	0.134	-0.19	15.11	16.50	1.377	0.472	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	650000/3750	100%	0.130	0.054	0.10	14.88	16.50	1.452	0.189	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.361	0.144	-0.09	14.88	16.50	1.452	**0.524**	22.3
Left side	100	QPSK 135_69	650000/3750	100%	0.043	0.018	0.07	14.88	16.50	1.452	0.062	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.346	0.138	-0.06	14.88	16.50	1.452	0.502	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 10-g SAR(W/kg)**	**Liquid Temp.**
Product specific 10g SAR Test data (Separate 0mm 1RB) Sensor on DSI4												
Back side	100	QPSK 1_137	650000/3750	1:1	2.350	0.717	0.03	16.52	18.00	1.406	1.008	22.1
Top side	100	QPSK 1_137	650000/3750	1:1	5.880	1.490	0.12	16.52	18.00	1.406	2.095	22.1
Product specific 10g SAR Test data (Separate 0mm 50%RB) Sensor on DSI4												
Back side	100	QPSK 135_69	650000/3750	1:1	2.290	0.698	-0.14	16.36	18.00	1.459	1.018	22.1
Top side	100	QPSK 135_69	650000/3750	1:1	6.210	1.630	-0.13	16.36	18.00	1.459	**2.378**	22.1
Product specific 10g SAR Test data (Separate 0mm 100%RB) Sensor on DSI4												
Top side	100	QPSK 135_69	650000/3750	1:1	5.220	1.390	-0.16	15.46	17.00	1.426	1.982	22.1
Product specific 10g SAR Test data (1RB) Sensor off DSI7												
Back side12mm	100	QPSK 1_1	650000/3750	100%	0.832	0.340	-0.16	19.61	21.00	1.377	0.468	22.1
Top side 12mm	100	QPSK 1_1	650000/3750	100%	0.923	0.385	0.13	19.61	21.00	1.377	0.530	22.1

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Product specific 10g SAR Test data (50%RB) Sensor off DSI7												
Back side12mm	100	QPSK 135_69	650000/3750	100%	0.771	0.318	-0.17	19.43	21.00	1.435	0.456	22.1
Top side 12mm	100	QPSK 135_69	650000/3750	1:1	0.867	0.362	-0.02	19.43	21.00	1.435	0.520	22.1
Ant21 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)**	**Liquid Temp.(℃)**
Head Test Data(1RB) DSI												
Left cheek	100	QPSK 1_271	650000/3750	100.0 %	0.418	0.189	-0.07	17.21	18.50	1.346	0.563	22.1
Left tilted	100	QPSK 1_271	650000/3750	100.0 %	0.444	0.194	0.06	17.21	18.50	1.346	0.598	22.1
Right cheek	100	QPSK 1_271	650000/3750	100.0 %	0.347	0.153	0.00	17.21	18.50	1.346	0.467	22.1
Right tilted	100	QPSK 1_271	650000/3750	100.0 %	0.358	0.156	0.03	17.21	18.50	1.346	0.482	22.1
Head Test Data(50%RB) DSI												
Left cheek	100	QPSK 135_69	650000/3750	100.0 %	0.375	0.170	-0.12	17.12	18.50	1.374	0.515	22.1
Left tilted	100	QPSK 135_69	650000/3750	100.0 %	0.403	0.177	-0.17	17.12	18.50	1.374	0.554	22.1
Right cheek	100	QPSK 135_69	650000/3750	100.0 %	0.307	0.135	0.01	17.12	18.50	1.374	0.422	22.1
Right tilted	100	QPSK 135_69	650000/3750	100.0 %	0.318	0.138	-0.03	17.12	18.50	1.374	0.437	22.1
Body worn Test data(Separate 15mm 1RB) DSI												
Front side	100	QPSK 1_271	650000/3750	100%	0.094	0.044	0.09	19.78	21.00	1.324	0.124	22.3
Back side	100	QPSK 1_271	650000/3750	100%	0.120	0.056	0.11	19.78	21.00	1.324	0.159	22.3
Body worn Test data(Separate 15mm 50%RB) DSI												
Front side	100	QPSK 135_69	650000/3750	100%	0.090	0.043	0.13	19.67	21.00	1.358	0.122	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.128	0.062	-0.02	19.67	21.00	1.358	0.174	22.3
Hotspot Test data(Separate 10mm 1RB) DSI												
Front side	100	QPSK 1_271	650000/3750	100%	0.125	0.059	0.12	18.20	19.50	1.349	0.169	22.3
Back side	100	QPSK 1_271	650000/3750	100%	0.184	0.085	-0.07	18.20	19.50	1.349	0.248	22.3
Left side	100	QPSK 1_271	650000/3750	100%	0.039	0.011	-0.04	18.20	19.50	1.349	0.053	22.3
Right side	100	QPSK 1_271	650000/3750	100%	0.033	0.010	-0.16	18.20	19.50	1.349	0.045	22.3
Top side	100	QPSK 1_271	650000/3750	100%	0.140	0.060	0.14	18.20	19.50	1.349	0.189	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI												
Front side	100	QPSK 135_69	650000/3750	100%	0.109	0.053	0.03	18.09	19.50	1.384	0.151	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.155	0.071	0.02	18.09	19.50	1.384	0.214	22.3
Left side	100	QPSK 135_69	650000/3750	100%	0.043	0.011	0.19	18.09	19.50	1.384	0.059	22.3
Right side	100	QPSK 135_69	650000/3750	100%	0.038	0.016	0.03	18.09	19.50	1.384	0.053	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.141	0.060	0.08	18.09	19.50	1.384	0.195	22.3

Ant23 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)	Liquid Temp.(℃)
Head Test Data(1RB) DSI 2												
Left cheek	100	QPSK 1_271	650000/3750	100%	0.283	0.119	-0.05	14.19	15.50	1.352	0.383	22.1
Left tilted	100	QPSK 1_271	650000/3750	100%	0.270	0.102	0.05	14.19	15.50	1.352	0.365	22.1
Right cheek	100	QPSK 1_271	650000/3750	100%	0.082	0.035	0.10	14.19	15.50	1.352	0.111	22.1
Right tilted	100	QPSK 1_271	650000/3750	100%	0.086	0.034	-0.05	14.19	15.50	1.352	0.116	22.1
Head Test Data(50%RB) DSI 2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.339	0.142	-0.09	14.18	15.50	1.355	0.459	22.1
Left tilted	100	QPSK 135_69	650000/3750	100%	0.340	0.129	-0.07	14.18	15.50	1.355	0.461	22.1
Right cheek	100	QPSK 135_69	650000/3750	100%	0.108	0.045	-0.13	14.18	15.50	1.355	0.146	22.1
Right tilted	100	QPSK 135_69	650000/3750	100%	0.116	0.046	-0.17	14.18	15.50	1.355	0.157	22.1
Body worn Test data(Separate 15mm 1RB) DSI 4												
Front side	100	QPSK 1_271	650000/3750	100%	0.087	0.041	0.08	19.23	20.50	1.340	0.117	22.3
Back side	100	QPSK 1_271	650000/3750	100%	0.074	0.033	0.00	19.23	20.50	1.340	0.099	22.3
Body worn Test data(Separate 15mm 50%RB) DSI 4												
Front side	100	QPSK 135_69	650000/3750	100%	0.110	0.052	-0.06	19.18	20.50	1.355	0.149	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.100	0.046	-0.16	19.18	20.50	1.355	0.136	22.3
Hotspot Test data(Separate 10mm 1RB) DSI 6												
Front side	100	QPSK 1_137	650000/3750	100%	0.173	0.082	0.18	18.67	20.00	1.358	0.235	22.3
Back side	100	QPSK 1_137	650000/3750	100%	0.201	0.089	-0.01	18.67	20.00	1.358	0.273	22.3
Right side	100	QPSK 1_137	650000/3750	100%	0.327	0.135	0.00	18.67	20.00	1.358	0.444	22.3
Top side	100	QPSK 1_137	650000/3750	100%	0.228	0.085	-0.16	18.67	20.00	1.358	0.310	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI 6												
Front side	100	QPSK 135_69	650000/3750	100%	0.178	0.082	-0.04	18.59	20.00	1.384	0.246	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.203	0.085	-0.14	18.59	20.00	1.384	0.281	22.3
Right side	100	QPSK 135_69	650000/3750	100%	0.322	0.132	0.08	18.59	20.00	1.384	0.446	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.227	0.086	-0.19	18.59	20.00	1.384	0.314	22.3

Table 36：SAR of NR Band n78(3700-3980) for Head, Body, Hotspot, Limbs.

8.2.27 SAR Result of WIFI 2.4G

Wi-Fi 2.4G SAR Test Record												
Ant25 Test Record chain1												
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)**	**Liquid Temp.(℃)**
Head Test Data Standalone												
Left cheek	802.11b	1/2412	99.90%	1.001	0.158	0.060	0.02	12.23	14.00	1.503	0.238	22.1
Left tilted	802.11b	1/2412	99.90%	1.001	0.036	0.019	-0.07	12.23	14.00	1.503	0.055	22.1
Right cheek	802.11b	1/2412	99.90%	1.001	0.100	0.040	-0.01	12.23	14.00	1.503	0.150	22.1
Right tilted	802.11b	1/2412	99.90%	1.001	0.021	0.007	0.02	12.23	14.00	1.503	0.032	22.1
Body worn Test data (Separate 15mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.041	0.021	0.03	16.15	18.00	1.531	0.063	22.1
Back side	802.11b	6/2437	99.90%	1.001	0.160	0.084	0.08	16.15	18.00	1.531	0.245	22.1
Hotspot Test data (Separate 10mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.079	0.040	-0.05	16.15	18.00	1.531	0.121	22.1
Back side	802.11b	6/2437	99.90%	1.001	0.225	0.105	-0.05	16.15	18.00	1.531	0.345	22.1
Right side	802.11b	6/2437	99.90%	1.001	0.197	0.094	0.05	16.15	18.00	1.531	0.302	22.1
Top side	802.11b	6/2437	99.90%	1.001	0.043	0.024	0.02	16.15	18.00	1.531	0.066	22.1
Ant22 Test Record chain2												
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)**	**Liquid Temp.(℃)**
Head Test Data Standalone												
Left cheek	802.11b	6/2437	99.90%	1.001	0.340	0.165	0.18	12.54	14.00	1.400	0.476	22.3
Left tilted	802.11b	6/2437	99.90%	1.001	0.339	0.155	0.19	12.54	14.00	1.400	0.475	22.3
Right cheek	802.11b	6/2437	99.90%	1.001	0.206	0.112	0.05	12.54	14.00	1.400	0.289	22.3
Right tilted	802.11b	6/2437	99.90%	1.001	0.261	0.128	-0.12	12.54	14.00	1.400	0.366	22.3
Head Test Data Simultaneous transmission with WWAN												
Left cheek	802.11b	6/2437	99.90%	1.001	0.340	0.165	0.18	12.54	12.00	0.883	0.301	22.3
Left tilted	802.11b	6/2437	99.90%	1.001	0.339	0.155	0.19	12.54	12.00	0.883	0.300	22.3
Right cheek	802.11b	6/2437	99.90%	1.001	0.206	0.112	0.05	12.54	12.00	0.883	0.182	22.3
Right tilted	802.11b	6/2437	99.90%	1.001	0.261	0.128	-0.12	12.54	12.00	0.883	0.231	22.3
Body worn Test data (Separate 15mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.081	0.046	0.02	16.45	18.00	1.429	0.116	22.3
Back side	802.11b	6/2437	99.90%	1.001	0.115	0.061	-0.03	16.45	18.00	1.429	0.164	22.3
Hotspot Test data (Separate 10mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.152	0.080	0.02	16.45	18.00	1.429	0.217	22.3
Back side	802.11b	6/2437	99.90%	1.001	0.290	0.147	0.11	16.45	18.00	1.429	0.415	22.3
Right side	802.11b	6/2437	99.90%	1.001	0.134	0.066	0.01	16.45	18.00	1.429	0.192	22.3
Top side	802.11b	6/2437	99.90%	1.001	0.234	0.119	0.04	16.45	18.00	1.429	0.335	22.3
MIMO 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)**	**Liquid Temp.(℃)**
Head Test Data Standalone												
Left cheek	802.11b	6/2437	99.90%	1.001	0.516	0.237	0.02	15.30	17.00	1.479	**0.764**	22.3
Left tilted	802.11b	6/2437	99.90%	1.001	0.465	0.229	-0.14	15.30	17.00	1.479	0.688	22.3
Right cheek	802.11b	6/2437	99.90%	1.001	0.152	0.073	0.07	15.30	17.00	1.479	0.225	22.3
Right tilted	802.11b	6/2437	99.90%	1.001	0.145	0.069	0.08	15.30	17.00	1.479	0.215	22.3
Head Test Data Simultaneous transmission with WWAN												
Left cheek	802.11b	6/2437	99.90%	1.001	0.516	0.237	0.02	15.30	15.00	0.933	0.482	22.3
Left tilted	802.11b	6/2437	99.90%	1.001	0.465	0.229	-0.14	15.30	15.00	0.933	0.434	22.3
Right cheek	802.11b	6/2437	99.90%	1.001	0.152	0.073	0.07	15.30	15.00	0.933	0.142	22.3
Right tilted	802.11b	6/2437	99.90%	1.001	0.145	0.069	0.08	15.30	15.00	0.933	0.135	22.3
Body worn Test data (Separate 15mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.089	0.047	0.09	19.33	21.00	1.470	0.130	22.3
Back side	802.11b	6/2437	99.90%	1.001	0.171	0.091	0.00	19.33	21.00	1.470	**0.252**	22.3
Hotspot Test data (Separate 10mm) Standalone												
Front side	802.11b	6/2437	99.90%	1.001	0.193	0.097	0.01	19.33	21.00	1.470	0.284	22.3
Back side	802.11b	6/2437	99.90%	1.001	0.312	0.163	0.09	19.33	21.00	1.470	**0.459**	22.3
Right side	802.11b	6/2437	99.90%	1.001	0.311	0.157	0.01	19.33	21.00	1.470	0.458	22.3
Top side	802.11b	6/2437	99.90%	1.001	0.083	0.045	0.01	19.33	21.00	1.470	0.122	22.3

Table 37：SAR of WIFI 2.4G for Head, Body and Hotspot.

8.2.28 SAR Result of WIFI 5G

Wi-Fi 5G SAR Test Record												
Ant23 Test Record chain1												
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)	Liquid Temp.(℃)
Head Test Data of U-NII-2A Standalone												
Left cheek	802.11ac 160M	50/5250	99.71%	1.003	0.111	0.041	0.15	10.52	11.00	1.117	0.124	22.3
Left tilted	802.11ac 160M	50/5250	99.71%	1.003	0.114	0.042	-0.07	10.52	11.00	1.117	0.128	22.3
Right cheek	802.11ac 160M	50/5250	99.71%	1.003	0.075	0.027	0.13	10.52	11.00	1.117	0.084	22.3
Right tilted	802.11ac 160M	50/5250	99.71%	1.003	0.095	0.031	-0.05	10.52	11.00	1.117	0.106	22.3
Head Test Data of U-NII-2C Standalone												
Left cheek	802.11ac 160M	114/5570	99.71%	1.003	0.161	0.057	-0.13	9.54	10.50	1.247	0.201	22.3
Left tilted	802.11ac 160M	114/5570	99.71%	1.003	0.177	0.058	0.07	9.54	10.50	1.247	0.221	22.3
Right cheek	802.11ac 160M	114/5570	99.71%	1.003	0.108	0.035	0.19	9.54	10.50	1.247	0.135	22.3
Right tilted	802.11ac 160M	114/5570	99.71%	1.003	0.126	0.040	-0.10	9.54	10.50	1.247	0.158	22.3
Head Test Data of U-NII-3 Standalone												
Left cheek	802.11ac 80M	155/5775	99.71%	1.003	0.323	0.111	-0.10	12.42	12.50	1.019	0.330	22.3
Left tilted	802.11ac 80M	155/5775	99.71%	1.003	0.330	0.112	0.15	12.42	12.50	1.019	0.337	22.3
Right cheek	802.11ac 80M	155/5775	99.71%	1.003	0.267	0.088	0.19	12.42	12.50	1.019	0.273	22.3
Right tilted	802.11ac 80M	155/5775	99.71%	1.003	0.265	0.088	0.05	12.42	12.50	1.019	0.271	22.3
Body worn Test data of U-NII-2A (Separate 15mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	0.078	0.021	-0.04	15.01	15.50	1.119	0.088	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	0.226	0.093	0.00	15.01	15.50	1.119	0.254	22.3
Body worn Test data of U-NII-2C (Separate 15mm) Standalone												
Front side	802.11n-HT40	118/5590	99.67%	1.003	0.099	0.038	0.14	14.46	15.50	1.271	0.126	22.3
Back side	802.11n-HT40	118/5590	99.67%	1.000	0.398	0.158	0.09	14.46	15.50	1.271	**0.506**	22.3
Body worn Test data of U-NII-3 (Separate 15mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.121	0.042	-0.05	15.16	15.50	1.081	0.131	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.213	0.085	-0.02	15.16	15.50	1.081	0.231	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Standalone												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.090	0.036	0.13	15.03	15.50	1.114	0.101	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.377	0.144	0.04	15.03	15.50	1.114	0.421	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.243	0.097	-0.13	15.03	15.50	1.114	0.272	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.162	0.064	0.16	15.03	15.50	1.114	0.181	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.185	0.064	-0.05	15.16	15.50	1.081	0.201	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.544	0.216	0.12	15.16	15.50	1.081	0.590	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.003	0.494	0.187	0.14	15.16	15.50	1.081	0.536	22.3
Top side	802.11ac 80M	155/5775	99.71%	1.003	0.417	0.141	0.09	15.16	15.50	1.081	0.452	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.090	0.036	0.13	15.03	13.50	0.703	0.063	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.377	0.144	0.04	15.03	13.50	0.703	0.266	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.243	0.097	-0.13	15.03	13.50	0.703	0.171	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.162	0.064	0.16	15.03	13.50	0.703	0.114	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.185	0.064	-0.05	15.16	13.50	0.682	0.127	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.544	0.216	0.12	15.16	13.50	0.682	0.372	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.003	0.494	0.187	0.14	15.16	13.50	0.682	0.338	22.3
Top side	802.11ac 80M	155/5775	99.71%	1.003	0.417	0.141	0.09	15.16	13.50	0.682	0.285	22.3
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 10-g (W/kg)	Liquid Temp.(℃)
Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	0.810	0.273	0.16	15.01	15.50	1.119	0.307	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	1.390	0.452	0.14	15.01	15.50	1.119	0.508	22.3
Right side	802.11n-HT40	54/5270	99.67%	1.003	1.400	0.407	0.14	15.01	15.50	1.119	0.457	22.3
Top side	802.11n-HT40	54/5270	99.67%	1.003	1.030	0.338	-0.18	15.01	15.50	1.119	0.380	22.3
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm) Standalone												
Front side	802.11n-HT40	118/5590	99.67%	1.003	1.020	0.374	0.15	14.46	15.50	1.271	0.477	22.3
Back side	802.11n-HT40	118/5590	99.67%	1.003	0.926	0.346	0.01	14.46	15.50	1.271	0.441	22.3
Right side	802.11n-HT40	118/5590	99.67%	1.003	2.780	0.804	-0.02	14.46	15.50	1.271	1.025	22.3
Top side	802.11n-HT40	118/5590	99.67%	1.003	1.600	0.514	0.07	14.46	15.50	1.271	0.655	22.3
Ant21 Test Record chain2												
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)	Liquid Temp.(℃)
Head Test Data of U-NII-2A Standalone												
Left cheek	802.11ac 160M	50/5250	99.71%	1.003	0.205	0.065	-0.08	9.94	11.00	1.276	0.262	22.3

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Left tilted	802.11ac 160M	50/5250	99.71%	1.003	0.280	0.096	0.09	9.94	11.00	1.276	0.358	22.3
Right cheek	802.11ac 160M	50/5250	99.71%	1.003	0.252	0.076	0.09	9.94	11.00	1.276	0.323	22.3
Right tilted	802.11ac 160M	50/5250	99.71%	1.003	0.334	0.103	0.12	9.94	11.00	1.276	0.428	22.3
Head Test Data of U-NII-2C Standalone												
Left cheek	802.11ac 160M	114/5570	99.71%	1.003	0.190	0.055	-0.06	8.56	10.50	1.563	0.298	22.3
Left tilted	802.11ac 160M	114/5570	99.71%	1.003	0.224	0.071	-0.09	8.56	10.50	1.563	0.351	22.3
Right cheek	802.11ac 160M	114/5570	99.71%	1.003	0.230	0.067	0.16	8.56	10.50	1.563	0.361	22.3
Right tilted	802.11ac 160M	114/5570	99.71%	1.003	0.268	0.078	0.13	8.56	10.50	1.563	0.420	22.3
Head Test Data of U-NII-3 Standalone												
Left cheek	802.11ac 80M	155/5775	99.71%	1.003	0.171	0.036	-0.02	10.76	12.50	1.493	0.256	22.3
Left tilted	802.11ac 80M	155/5775	99.71%	1.003	0.136	0.046	-0.01	10.76	12.50	1.493	0.204	22.3
Right cheek	802.11ac 80M	155/5775	99.71%	1.003	0.150	0.047	0.05	10.76	12.50	1.493	0.225	22.3
Right tilted	802.11ac 80M	155/5775	99.71%	1.003	0.159	0.050	0.10	10.76	12.50	1.493	0.238	22.3
Head Test Data of U-NII-2A Simultaneous transmission with WWAN												
Left cheek	802.11ac 160M	50/5250	99.71%	1.003	0.205	0.065	-0.08	9.94	9.00	0.805	0.166	22.3
Left tilted	802.11ac 160M	50/5250	99.71%	1.003	0.280	0.096	0.09	9.94	9.00	0.805	0.226	22.3
Right cheek	802.11ac 160M	50/5250	99.71%	1.003	0.252	0.076	0.09	9.94	9.00	0.805	0.204	22.3
Right tilted	802.11ac 160M	50/5250	99.71%	1.003	0.334	0.103	0.12	9.94	9.00	0.805	0.270	22.3
Head Test Data of U-NII-2C Simultaneous transmission with WWAN												
Left cheek	802.11ac 160M	114/5570	99.71%	1.003	0.190	0.055	-0.06	8.56	8.50	0.986	0.188	22.3
Left tilted	802.11ac 160M	114/5570	99.71%	1.003	0.224	0.071	-0.09	8.56	8.50	0.986	0.222	22.3
Right cheek	802.11ac 160M	114/5570	99.71%	1.003	0.230	0.067	0.16	8.56	8.50	0.986	0.228	22.3
Right tilted	802.11ac 160M	114/5570	99.71%	1.003	0.268	0.078	0.13	8.56	8.50	0.986	0.265	22.3
Head Test Data of U-NII-3 Simultaneous transmission with WWAN												
Left cheek	802.11ac 80M	155/5775	99.71%	1.003	0.171	0.036	-0.02	10.76	10.50	0.942	0.162	22.3
Left tilted	802.11ac 80M	155/5775	99.71%	1.003	0.136	0.046	-0.01	10.76	10.50	0.942	0.128	22.3
Right cheek	802.11ac 80M	155/5775	99.71%	1.003	0.150	0.047	0.05	10.76	10.50	0.942	0.142	22.3
Right tilted	802.11ac 80M	155/5775	99.71%	1.003	0.159	0.050	0.10	10.76	10.50	0.942	0.150	22.3
Body worn Test data of U-NII-2A (Separate 15mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	0.096	0.037	0.10	14.64	15.50	1.219	0.117	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	0.139	0.055	0.00	14.64	15.50	1.219	0.170	22.3
Body worn Test data of U-NII-2C (Separate 15mm) Standalone												
Front side	802.11n-HT40	110/5550	99.67%	1.003	0.105	0.042	-0.17	14.21	15.50	1.346	0.142	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	0.160	0.063	0.07	14.21	15.50	1.346	0.216	22.3
Body worn Test data of U-NII-3 (Separate 15mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.070	0.017	-0.16	13.62	15.50	1.542	0.108	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.071	0.018	-0.19	13.62	15.50	1.542	0.110	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Standalone												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.159	0.055	0.04	14.44	15.50	1.276	0.204	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.220	0.077	-0.03	14.44	15.50	1.276	0.282	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.058	0.014	0.12	14.44	15.50	1.276	0.074	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.520	0.171	0.06	14.44	15.50	1.276	0.666	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.091	0.033	0.14	13.62	15.50	1.542	0.141	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.113	0.044	0.09	13.62	15.50	1.542	0.175	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.003	0.081	0.019	0.08	13.62	15.50	1.542	0.125	22.3
Top side	802.11ac 80M	155/5775	99.71%	1.003	0.192	0.071	-0.11	13.62	15.50	1.542	0.297	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.159	0.055	0.04	14.44	13.50	0.805	0.128	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.220	0.077	-0.03	14.44	13.50	0.805	0.178	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.058	0.014	0.12	14.44	13.50	0.805	0.047	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.520	0.171	0.06	14.44	13.50	0.805	0.420	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.091	0.033	0.14	13.62	13.50	0.973	0.089	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.113	0.044	0.09	13.62	13.50	0.973	0.110	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.003	0.081	0.019	0.08	13.62	13.50	0.973	0.079	22.3
Top side	802.11ac 80M	155/5775	99.71%	1.003	0.192	0.071	-0.11	13.62	13.50	0.973	0.187	22.3
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 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	1.460	0.436	0.10	14.64	15.50	1.219	0.533	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	1.060	0.343	-0.04	14.64	15.50	1.219	0.419	22.3
Right side	802.11n-HT40	54/5270	99.67%	1.003	0.073	0.026	-0.18	14.64	15.50	1.219	0.032	22.3
Top side	802.11n-HT40	54/5270	99.67%	1.000	8.020	1.430	0.05	14.64	15.50	1.219	**1.743**	22.3
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm) Standalone												
Front side	802.11n-HT40	110/5550	99.67%	1.003	1.450	0.390	0.15	14.21	15.50	1.346	0.527	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	0.797	0.236	0.17	14.21	15.50	1.346	0.319	22.3
Right side	802.11n-HT40	110/5550	99.67%	1.003	0.062	0.019	-0.06	14.21	15.50	1.346	0.026	22.3
Top side	802.11n-HT40	110/5550	99.67%	1.003	2.330	0.687	-0.13	14.21	15.50	1.346	0.928	22.3
Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) Simultaneous transmission with WWAN												

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Front side	802.11n-HT40	54/5270	99.67%	1.003	1.460	0.436	0.10	14.64	13.50	0.769	0.336	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	1.060	0.343	-0.04	14.64	13.50	0.769	0.265	22.3
Right side	802.11n-HT40	54/5270	99.67%	1.003	0.073	0.026	-0.18	14.64	13.50	0.769	0.020	22.3
Top side	802.11n-HT40	54/5270	99.67%	1.000	8.020	1.430	0.05	14.64	13.50	0.769	1.100	22.3
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	110/5550	99.67%	1.003	1.450	0.390	0.15	14.21	13.50	0.849	0.332	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	0.797	0.236	0.17	14.21	13.50	0.849	0.201	22.3
Right side	802.11n-HT40	110/5550	99.67%	1.003	0.062	0.019	-0.06	14.21	13.50	0.849	0.016	22.3
Top side	802.11n-HT40	110/5550	99.67%	1.003	2.330	0.687	-0.13	14.21	13.50	0.849	0.585	22.3
MIMO 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)**	**Liquid Temp.(℃)**
Head Test Data of U-NII-2A Standalone												
Left cheek	802.11ac 160M	50/5250	99.71%	1.003	0.216	0.074	-0.03	13.19	14.00	1.204	0.261	22.3
Left tilted	802.11ac 160M	50/5250	99.71%	1.003	0.299	0.098	0.10	13.19	14.00	1.204	0.361	22.3
Right cheek	802.11ac 160M	50/5250	99.71%	1.003	0.259	0.084	0.03	13.19	14.00	1.204	0.313	22.3
Right tilted	802.11ac 160M	50/5250	99.71%	1.003	0.335	0.107	-0.07	13.19	14.00	1.204	0.404	22.3
Head Test Data of U-NII-2C Standalone												
Left cheek	802.11ac 160M	114/5570	99.71%	1.003	0.194	0.067	-0.18	12.11	13.50	1.379	0.268	22.3
Left tilted	802.11ac 160M	114/5570	99.71%	1.003	0.239	0.081	0.06	12.11	13.50	1.379	0.330	22.3
Right cheek	802.11ac 160M	114/5570	99.71%	1.003	0.223	0.072	-0.17	12.11	13.50	1.379	0.308	22.3
Right tilted	802.11ac 160M	114/5570	99.71%	1.003	0.276	0.089	-0.14	12.11	13.50	1.379	0.382	22.3
Head Test Data of U-NII-3 Standalone												
Left cheek	802.11ac 80M	155/5775	99.71%	1.003	0.447	0.145	0.10	14.68	15.50	1.208	0.541	22.3
Left tilted	802.11ac 80M	155/5775	99.71%	1.003	0.483	0.188	0.02	14.68	15.50	1.208	0.585	22.3
Right cheek	802.11ac 80M	155/5775	99.71%	1.003	0.501	0.161	0.09	14.68	15.50	1.208	0.607	22.3
Right tilted	802.11ac 80M	155/5775	99.71%	1.003	0.506	0.153	0.04	14.68	15.50	1.208	**0.613**	22.3
Head Test Data of U-NII-2A Simultaneous transmission with WWAN												
Left cheek	802.11ac 160M	50/5250	99.71%	1.003	0.216	0.074	-0.03	13.19	12.00	0.760	0.165	22.3
Left tilted	802.11ac 160M	50/5250	99.71%	1.003	0.299	0.098	0.10	13.19	12.00	0.760	0.228	22.3
Right cheek	802.11ac 160M	50/5250	99.71%	1.003	0.259	0.084	0.03	13.19	12.00	0.760	0.197	22.3
Right tilted	802.11ac 160M	50/5250	99.71%	1.003	0.335	0.107	-0.07	13.19	12.00	0.760	0.255	22.3
Head Test Data of U-NII-2C Simultaneous transmission with WWAN												
Left cheek	802.11ac 160M	114/5570	99.71%	1.003	0.194	0.067	-0.18	12.11	11.50	0.870	0.169	22.3
Left tilted	802.11ac 160M	114/5570	99.71%	1.003	0.239	0.081	0.06	12.11	11.50	0.870	0.208	22.3
Right cheek	802.11ac 160M	114/5570	99.71%	1.003	0.223	0.072	-0.17	12.11	11.50	0.870	0.195	22.3
Right tilted	802.11ac 160M	114/5570	99.71%	1.003	0.276	0.089	-0.14	12.11	11.50	0.870	0.241	22.3
Head Test Data of U-NII-3 Simultaneous transmission with WWAN												
Left cheek	802.11ac 80M	155/5775	99.71%	1.003	0.447	0.145	0.10	14.68	13.50	0.762	0.342	22.3
Left tilted	802.11ac 80M	155/5775	99.71%	1.003	0.483	0.188	0.02	14.68	13.50	0.762	0.369	22.3
Right cheek	802.11ac 80M	155/5775	99.71%	1.003	0.501	0.161	0.09	14.68	13.50	0.762	0.383	22.3
Right tilted	802.11ac 80M	155/5775	99.71%	1.003	0.506	0.153	0.04	14.68	13.50	0.762	0.387	22.3
Body worn Test data of U-NII-2A (Separate 15mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	0.118	0.048	0.07	17.84	18.50	1.163	0.138	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	0.234	0.098	0.04	17.84	18.50	1.163	0.273	22.3
Body worn Test data of U-NII-2C (Separate 15mm) Standalone												
Front side	802.11n-HT40	110/5550	99.67%	1.003	0.120	0.048	-0.06	17.35	18.50	1.304	0.157	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	0.314	0.126	0.05	17.35	18.50	1.304	0.411	22.3
Body worn Test data of U-NII-3 (Separate 15mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.107	0.043	0.04	17.47	18.50	1.266	0.136	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.324	0.133	-0.18	17.47	18.50	1.266	0.411	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Standalone												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.187	0.069	0.11	17.73	18.50	1.193	0.224	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.364	0.146	0.03	17.73	18.50	1.193	0.436	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.240	0.097	-0.13	17.73	18.50	1.193	0.287	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.541	0.175	-0.06	17.73	18.50	1.193	0.647	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Standalone												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.225	0.077	0.08	17.47	18.50	1.266	0.286	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.546	0.208	-0.01	17.47	18.50	1.266	0.693	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.000	0.581	0.214	0.05	17.47	18.50	1.266	**0.736**	22.3
Top side	802.11ac 80M	155/5775	99.71%	1.003	0.500	0.161	0.09	17.47	18.50	1.266	0.635	22.3
Hotspot Test data of U-NII-1 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	46/5230	99.67%	1.003	0.187	0.069	0.11	17.73	16.50	0.753	0.141	22.3
Back side	802.11n-HT40	46/5230	99.67%	1.003	0.364	0.146	0.03	17.73	16.50	0.753	0.275	22.3
Right side	802.11n-HT40	46/5230	99.67%	1.003	0.240	0.097	-0.13	17.73	16.50	0.753	0.181	22.3
Top side	802.11n-HT40	46/5230	99.67%	1.003	0.541	0.175	-0.06	17.73	16.50	0.753	0.409	22.3
Hotspot Test data of U-NII-3 (Separate 10mm) Simultaneous transmission with WWAN												
Front side	802.11ac 80M	155/5775	99.71%	1.003	0.225	0.077	0.08	17.47	16.50	0.799	0.180	22.3
Back side	802.11ac 80M	155/5775	99.71%	1.003	0.546	0.208	-0.01	17.47	16.50	0.799	0.438	22.3
Right side	802.11ac 80M	155/5775	99.71%	1.000	0.581	0.214	0.05	17.47	16.50	0.799	0.464	22.3

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Top side	802.11ac 80M	155/5775	99.71%	1.003	0.500	0.161	0.09	17.47	16.50	0.799	0.401	22.3
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 10-g (W/kg)**	**Liquid Temp.(℃)**
Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) Standalone												
Front side	802.11n-HT40	54/5270	99.67%	1.003	1.680	0.484	-0.06	17.84	18.50	1.165	0.566	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	1.230	0.439	-0.11	17.84	18.50	1.165	0.513	22.3
Right side	802.11n-HT40	54/5270	99.67%	1.003	1.660	0.438	0.06	17.84	18.50	1.165	0.512	22.3
Top side	802.11n-HT40	54/5270	99.67%	1.003	4.400	1.060	0.15	17.84	18.50	1.165	1.239	22.3
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm) Standalone												
Front side	802.11n-HT40	110/5550	99.67%	1.003	2.020	0.475	-0.15	17.35	18.50	1.304	0.622	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	1.120	0.389	0.15	17.35	18.50	1.304	0.509	22.3
Right side	802.11n-HT40	110/5550	99.67%	1.003	1.950	0.637	-0.05	17.35	18.50	1.304	0.834	22.3
Top side	802.11n-HT40	110/5550	99.67%	1.003	4.950	1.230	-0.08	17.35	18.50	1.304	1.610	22.3
Product specific 10gSAR Test data of U-NII-2A (Separate 0mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	54/5270	99.67%	1.003	1.680	0.484	-0.06	17.84	16.50	0.735	0.357	22.3
Back side	802.11n-HT40	54/5270	99.67%	1.003	1.230	0.439	-0.11	17.84	16.50	0.735	0.324	22.3
Right side	802.11n-HT40	54/5270	99.67%	1.003	1.660	0.438	0.06	17.84	16.50	0.735	0.323	22.3
Top side	802.11n-HT40	54/5270	99.67%	1.003	4.400	1.060	0.15	17.84	16.50	0.735	0.782	22.3
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm) Simultaneous transmission with WWAN												
Front side	802.11n-HT40	110/5550	99.67%	1.003	2.020	0.475	-0.15	17.35	16.50	0.823	0.392	22.3
Back side	802.11n-HT40	110/5550	99.67%	1.003	1.120	0.389	0.15	17.35	16.50	0.823	0.321	22.3
Right side	802.11n-HT40	110/5550	99.67%	1.003	1.950	0.637	-0.05	17.35	16.50	0.823	0.526	22.3
Top side	802.11n-HT40	110/5550	99.67%	1.003	4.950	1.230	-0.08	17.35	16.50	0.823	1.016	22.3

Table 38：SAR of WIFI 5G for Head, Body, Hotspot and Limbs.

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8.2.29 SAR Result of BT

Bluetooth SAR Test Record												
Ant22 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)	Liquid Temp.(℃)
Head Test Data												
Left cheek	DH5	39/2441	77.02%	1.298	0.058	0.029	0.03	10.70	12.50	1.514	0.114	22.2
Left tilted	DH5	39/2441	77.02%	1.298	0.054	0.025	0.08	10.70	12.50	1.514	0.106	22.2
Right cheek	DH5	39/2441	77.02%	1.298	0.026	0.013	0.03	10.70	12.50	1.514	0.052	22.2
Right tilted	DH5	39/2441	77.02%	1.298	0.036	0.018	0.02	10.70	12.50	1.514	0.071	22.2
Body worn Test data (Separate 15mm)												
Front side	DH5	39/2441	77.02%	1.298	0.003	0.001	0.02	10.70	12.50	1.514	0.006	22.2
Back side	DH5	39/2441	77.02%	1.298	0.005	0.002	0.01	10.70	12.50	1.514	0.010	22.2
Hotspot Test data (Separate 10mm)												
Front side	DH5	39/2441	77.02%	1.298	0.010	0.004	0.02	10.70	12.50	1.514	0.020	22.2
Back side	DH5	39/2441	77.02%	1.298	0.018	0.008	0.01	10.70	12.50	1.514	0.035	22.2
Right side	DH5	39/2441	77.02%	1.298	0.018	0.009	0.01	10.70	12.50	1.514	0.036	22.2
Top side	DH5	39/2441	77.02%	1.298	0.037	0.020	0.03	10.70	12.50	1.514	0.072	22.2
Ant25 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)	Liquid Temp.(℃)
Head Test Data												
Left cheek	DH5	39/2441	77.02%	1.298	0.104	0.045	0.04	11.46	13.00	1.426	**0.192**	22.2
Left tilted	DH5	39/2441	77.02%	1.298	0.035	0.017	0.09	11.46	13.00	1.426	0.064	22.2
Right cheek	DH5	39/2441	77.02%	1.298	0.061	0.030	0.01	11.46	13.00	1.426	0.113	22.2
Right tilted	DH5	39/2441	77.02%	1.298	0.019	0.009	0.09	11.46	13.00	1.426	0.035	22.2
Body worn Test data (Separate 15mm)												
Front side	DH5	39/2441	77.02%	1.298	0.016	0.008	0.03	11.46	13.00	1.426	0.030	22.2
Back side	DH5	39/2441	77.02%	1.298	0.022	0.012	0.08	11.46	13.00	1.426	**0.041**	22.2
Hotspot Test data (Separate 10mm)												
Front side	DH5	39/2441	77.02%	1.298	0.033	0.015	0.06	11.46	13.00	1.426	0.060	22.2
Back side	DH5	39/2441	77.02%	1.298	0.057	0.027	0.07	11.46	13.00	1.426	0.106	22.2
Right side	DH5	39/2441	77.02%	1.298	0.062	0.029	0.02	11.46	13.00	1.426	**0.114**	22.2
Top side	DH5	39/2441	77.02%	1.298	0.009	0.004	0.07	11.46	13.00	1.426	0.016	22.2

Table 39：SAR of BT for Head, Body and Hotspot.

8.2.30 SAR Result of NFC

NFC SAR Test Record									
Test position	Test mode	Test ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg) 10-g	Power drift (dB)	Scaled factor	Scaled SAR 1-g (W/kg)	Liquid Temp.(℃)
NFC Test data (Separate 0mm)									
Front side	NFC	13.56MHz	100.00%	1.000	0.001	0.00	1.000	0.001	22.7
Back side	NFC	13.56MHz	100.00%	1.000	0.009	0.01	1.000	0.009	22.7
Left side	NFC	13.56MHz	100.00%	1.000	0.001	0.00	1.000	0.001	22.7
Right side	NFC	13.56MHz	100.00%	1.000	0.001	0.00	1.000	0.001	22.7
Top side	NFC	13.56MHz	100.00%	1.000	0.002	0.00	1.000	0.002	22.7
Bottom side	NFC	13.56MHz	100.00%	1.000	0.001	0.00	1.000	0.001	22.7

Table 40：SAR of BT for Limbs.

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8.3 Multiple Transmitter Evaluation

8.3.1 Simultaneous SAR test evaluation

No.	Simultaneous Tx Combination	Head	Body	Hotspot	Limbs
1	WWAN + WLAN 2.4GHz ANT22	Yes	Yes	Yes	Yes
2	WWAN + WLAN 2.4GHz ANT25	Yes	Yes	Yes	Yes
3	WWAN + WLAN 2.4GHz MIMO	Yes	Yes	Yes	Yes
4	WWAN + WLAN 5GHz ANT21	Yes	Yes	Yes	Yes
5	WWAN + WLAN 5GHz ANT23	Yes	Yes	Yes	Yes
6	WWAN + WLAN 5GHz MIMO	Yes	Yes	Yes	Yes
7	WWAN + BT ANT22	Yes	Yes	Yes	Yes
8	WWAN + BT ANT25	Yes	Yes	Yes	Yes
9	WWAN + WLAN 5GHz ANT21+ BT ANT22	Yes	Yes	Yes	Yes
10	WWAN + WLAN 5GHz ANT23+ BT ANT22	Yes	Yes	Yes	Yes
11	WWAN + WLAN 5GHz MIMO+ BT ANT22	Yes	Yes	Yes	Yes
12	WWAN + WLAN 5GHz ANT21+ BT ANT25	Yes	Yes	Yes	Yes
13	WWAN + WLAN 5GHz ANT23+ BT ANT25	Yes	Yes	Yes	Yes
14	WWAN + WLAN 5GHz MIMO+ BT ANT25	Yes	Yes	Yes	Yes
15	WLAN 5GHz ANT21 + BT ANT22	Yes	Yes	Yes	Yes
16	WLAN 5GHz ANT23 + BT ANT22	Yes	Yes	Yes	Yes
17	WLAN 5GHz MIMO + BT ANT22	Yes	Yes	Yes	Yes
18	WLAN 5GHz ANT21 + BT ANT25	Yes	Yes	Yes	Yes
19	WLAN 5GHz ANT23 + BT ANT25	Yes	Yes	Yes	Yes
20	WLAN 5GHz MIMO + BT ANT25	Yes	Yes	Yes	Yes
21	WWAN + NFC	No	No	No	Yes
22	WWAN + WLAN 5GHz ANT21 + NFC	No	No	No	Yes
23	WWAN + WLAN 5GHz ANT23 + NFC	No	No	No	Yes
24	WWAN + WLAN 5GHz MIMO+ NFC	No	No	No	Yes
25	WLAN 5GHz ANT21 + NFC	No	No	No	Yes
26	WLAN 5GHz ANT23 + NFC	No	No	No	Yes
27	WLAN 5GHz MIMO+ NFC	No	No	No	Yes

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

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8.3.2 Simultaneous Transmission SAR Summation Scenario

Head:

Test position		SARmax (W/kg)									Summed SAR																		
		WWAN max SAR	WiFi 2.4G ANT22	WiFi 2.4G ANT25	WiFi 2.4G MIMO	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25																			
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	SPLSR Case Nom.	SPLSR	1+8	1+9	1+5+8	1+6+8	1+7+8	SPLSR Case Nom.	SPLSR	1+5+9	1+6+9	1+7+9	SPLSR Case Nom.	SPLSR
GSM850	Left cheek	0.400	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.701	0.638	0.882	0.588	0.730	0.742	/	/	0.514	0.592	0.702	0.844	0.856	/	/	0.780	0.922	0.934	/	/
	Left tilted	0.112	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.412	0.167	0.546	0.338	0.449	0.481	/	/	0.218	0.176	0.444	0.555	0.587	/	/	0.402	0.513	0.545	/	/
	Right cheek	0.442	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.624	0.592	0.584	0.670	0.715	0.825	/	/	0.494	0.555	0.722	0.767	0.877	/	/	0.783	0.828	0.938	/	/
	Right tilted	0.143	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.374	0.175	0.278	0.413	0.414	0.530	/	/	0.214	0.178	0.484	0.485	0.601	/	/	0.448	0.449	0.565	/	/
GSM1900	Left cheek	0.342	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.643	0.580	0.824	0.530	0.672	0.684	/	/	0.456	0.534	0.644	0.786	0.798	/	/	0.722	0.864	0.876	/	/
	Left tilted	0.348	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.648	0.403	0.782	0.574	0.685	0.717	/	/	0.454	0.412	0.680	0.791	0.823	/	/	0.638	0.749	0.781	/	/
	Right cheek	0.597	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.779	0.747	0.739	0.825	0.870	0.980	/	/	0.649	0.710	0.877	0.922	1.032	/	/	0.938	0.983	1.093	/	/
	Right tilted	0.508	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.739	0.540	0.643	0.778	0.779	0.895	/	/	0.579	0.543	0.849	0.850	0.966	/	/	0.813	0.814	0.930	/	/
WCDMA Band2	Left cheek	0.371	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.672	0.609	0.853	0.559	0.701	0.713	/	/	0.485	0.563	0.673	0.815	0.827	/	/	0.751	0.893	0.905	/	/
	Left tilted	0.362	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.662	0.417	0.796	0.588	0.699	0.731	/	/	0.468	0.426	0.694	0.805	0.837	/	/	0.652	0.763	0.795	/	/
	Right cheek	0.695	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.877	0.845	0.837	0.923	0.968	1.078	/	/	0.747	0.808	0.975	1.020	1.130	/	/	1.036	1.081	1.191	/	/
	Right tilted	0.779	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	1.010	0.811	0.914	1.049	1.050	1.166	/	/	0.850	0.814	1.120	1.121	1.237	/	/	1.084	1.085	1.201	/	/
WCDMA Band4	Left cheek	0.456	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.757	0.694	0.938	0.644	0.786	0.798	/	/	0.570	0.648	0.758	0.900	0.912	/	/	0.836	0.978	0.990	/	/
	Left tilted	0.464	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.764	0.519	0.898	0.690	0.801	0.833	/	/	0.570	0.528	0.796	0.907	0.939	/	/	0.754	0.865	0.897	/	/
	Right cheek	0.792	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.974	0.942	0.934	1.020	1.065	1.175	/	/	0.844	0.905	1.072	1.117	1.227	/	/	1.133	1.178	1.288	/	/
	Right tilted	0.806	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	1.037	0.838	0.941	1.076	1.077	1.193	/	/	0.877	0.841	1.147	1.148	1.264	/	/	1.111	1.112	1.228	/	/
WCDMA Band5	Left cheek	0.431	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.732	0.669	0.913	0.619	0.761	0.773	/	/	0.545	0.623	0.733	0.875	0.887	/	/	0.811	0.953	0.965	/	/
	Left tilted	0.115	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.415	0.170	0.549	0.341	0.452	0.484	/	/	0.221	0.179	0.447	0.558	0.590	/	/	0.405	0.516	0.548	/	/
	Right cheek	0.595	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.777	0.745	0.737	0.823	0.868	0.978	/	/	0.647	0.708	0.875	0.920	1.030	/	/	0.936	0.981	1.091	/	/
	Right tilted	0.166	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.397	0.198	0.301	0.436	0.437	0.553	/	/	0.237	0.201	0.507	0.508	0.624	/	/	0.471	0.472	0.588	/	/
LTE Band2	Left cheek	0.333	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.634	0.571	0.815	0.521	0.663	0.675	/	/	0.447	0.525	0.635	0.777	0.789	/	/	0.713	0.855	0.867	/	/
	Left tilted	0.360	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.660	0.415	0.794	0.586	0.697	0.729	/	/	0.466	0.424	0.692	0.803	0.835	/	/	0.650	0.761	0.793	/	/
	Right cheek	0.796	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.978	0.946	0.938	1.024	1.069	1.179	/	/	0.848	0.909	1.076	1.121	1.231	/	/	1.137	1.182	1.292	/	/
	Right tilted	0.517	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.748	0.549	0.652	0.787	0.788	0.904	/	/	0.588	0.552	0.858	0.859	0.975	/	/	0.822	0.823	0.939	/	/
LTE Band4	Left cheek	0.421	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.722	0.659	0.903	0.609	0.751	0.763	/	/	0.535	0.613	0.723	0.865	0.877	/	/	0.801	0.943	0.955	/	/
	Left tilted	0.450	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.750	0.505	0.884	0.676	0.787	0.819	/	/	0.556	0.514	0.782	0.893	0.925	/	/	0.740	0.851	0.883	/	/
	Right cheek	0.795	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.977	0.945	0.937	1.023	1.068	1.178	/	/	0.847	0.908	1.075	1.120	1.230	/	/	1.136	1.181	1.291	/	/
	Right tilted	0.600	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.831	0.632	0.735	0.870	0.871	0.987	/	/	0.671	0.635	0.941	0.942	1.058	/	/	0.905	0.906	1.022	/	/
LTE Band7	Left cheek	0.427	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.728	0.665	0.909	0.615	0.757	0.769	/	/	0.541	0.619	0.729	0.871	0.883	/	/	0.807	0.949	0.961	/	/
	Left tilted	0.344	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.644	0.399	0.778	0.570	0.681	0.713	/	/	0.450	0.408	0.676	0.787	0.819	/	/	0.634	0.745	0.777	/	/
	Right cheek	0.955	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	1.137	1.105	1.097	1.183	1.228	1.338	/	/	1.007	1.068	1.235	1.280	1.390	/	/	1.296	1.341	1.451	1#	0.033
	Right tilted	0.646	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.877	0.678	0.781	0.916	0.917	1.033	/	/	0.717	0.681	0.987	0.988	1.104	/	/	0.951	0.952	1.068	/	/
LTE Band12	Left cheek	0.517	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.818	0.755	0.999	0.705	0.847	0.859	/	/	0.631	0.709	0.819	0.961	0.973	/	/	0.897	1.039	1.051	/	/
	Left tilted	0.139	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.439	0.194	0.573	0.365	0.476	0.508	/	/	0.245	0.203	0.471	0.582	0.614	/	/	0.429	0.540	0.572	/	/
	Right cheek	0.572	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.754	0.722	0.714	0.800	0.845	0.955	/	/	0.624	0.685	0.852	0.897	1.007	/	/	0.913	0.958	1.068	/	/
	Right tilted	0.160	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.391	0.192	0.295	0.430	0.431	0.547	/	/	0.231	0.195	0.501	0.502	0.618	/	/	0.465	0.466	0.582	/	/
LTE Band13	Left cheek	0.705	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	1.006	0.943	1.187	0.893	1.035	1.047	/	/	0.819	0.897	1.007	1.149	1.161	/	/	1.085	1.227	1.239	/	/
	Left tilted	0.182	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.482	0.237	0.616	0.408	0.519	0.551	/	/	0.288	0.246	0.514	0.625	0.657	/	/	0.472	0.583	0.615	/	/
	Right cheek	0.734	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.916	0.884	0.876	0.962	1.007	1.117	/	/	0.786	0.847	1.014	1.059	1.169	/	/	1.075	1.120	1.230	/	/
	Right tilted	0.205	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.436	0.237	0.340	0.475	0.476	0.592	/	/	0.276	0.240	0.546	0.547	0.663	/	/	0.510	0.511	0.627	/	/
LTE Band26	Left cheek	0.393	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.694	0.631	0.875	0.581	0.723	0.735	/	/	0.507	0.585	0.695	0.837	0.849	/	/	0.773	0.915	0.927	/	/
	Left tilted	0.106	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.406	0.161	0.540	0.332	0.443	0.475	/	/	0.212	0.170	0.438	0.549	0.581	/	/	0.396	0.507	0.539	/	/
	Right cheek	0.399	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.581	0.549	0.541	0.627	0.672	0.782	/	/	0.451	0.512	0.679	0.724	0.834	/	/	0.740	0.785	0.895	/	/
	Right tilted	0.127	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.358	0.159	0.262	0.397	0.398	0.514	/	/	0.198	0.162	0.468	0.469	0.585	/	/	0.432	0.433	0.549	/	/
LTE Band41	Left cheek	0.580	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.881	0.818	1.062	0.768	0.910	0.922	/	/	0.694	0.772	0.882	1.024	1.036	/	/	0.960	1.102	1.114	/	/
	Left tilted	0.388	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.688	0.443	0.822	0.614	0.725	0.757	/	/	0.494	0.452	0.720	0.831	0.863	/	/	0.678	0.789	0.821	/	/
	Right cheek	0.994	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	1.176	1.144	1.136	1.222	1.267	1.377	/	/	1.046	1.107	1.274	1.319	1.429	2#	0.035	1.335	1.380	1.490	3#	0.035
	Right tilted	0.687	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.918	0.719	0.822	0.957	0.958	1.074	/	/	0.758	0.722	1.028	1.029	1.145	/	/	0.992	0.993	1.109	/	/
LTE Band66	Left cheek	0.398	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.699	0.636	0.880	0.586	0.728	0.740	/	/	0.512	0.590	0.700	0.842	0.854	/	/	0.778	0.920	0.932	/	/
	Left tilted	0.429	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.729	0.484	0.863	0.655	0.766	0.798	/	/	0.535	0.493	0.761	0.872	0.904	/	/	0.719	0.830	0.862	/	/
	Right cheek	0.778	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.960	0.928	0.920	1.006	1.051	1.161	/	/	0.830	0.891	1.058	1.103	1.213	/	/	1.119	1.164	1.274	/	/
	Right tilted	0.562	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.793	0.594	0.697	0.832	0.833	0.949	/	/	0.633	0.597	0.903	0.904	1.020	/	/	0.867	0.868	0.984	/	/
NR N2	Left cheek	0.289	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.590	0.527	0.771	0.477	0.619	0.631	/	/	0.403	0.481	0.591	0.733	0.745	/	/	0.669	0.811	0.823	/	/
	Left tilted	0.299	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.599	0.354	0.733	0.525	0.636	0.668	/	/	0.405	0.363	0.631	0.742	0.774	/	/	0.589	0.700	0.732	/	/
	Right cheek	0.663	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.845	0.813	0.805	0.891	0.936	1.046	/	/	0.715	0.776	0.943	0.988	1.098	/	/	1.004	1.049	1.159	/	/
	Right tilted	0.409	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.640	0.441	0.544	0.679	0.680	0.796	/	/	0.480	0.444	0.750	0.751	0.867	/	/	0.714	0.715	0.831	/	/
NR N5	Left cheek	0.600	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.901	0.838	1.082	0.788	0.930	0.942	/	/	0.714	0.792	0.902	1.044	1.056	/	/	0.980	1.122	1.134	/	/
	Left tilted	0.211	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.511	0.266	0.645	0.437	0.548	0.580	/	/	0.317	0.275	0.543	0.654	0.686	/	/	0.501	0.612	0.644	/	/
	Right cheek	0.650	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.832	0.800	0.792	0.878	0.923	1.033	/	/	0.702	0.763	0.930	0.975	1.085	/	/	0.991	1.036	1.146	/	/
	Right tilted	0.233	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.464	0.265	0.368	0.503	0.504	0.620	/	/	0.304	0.268	0.574	0.575	0.691	/	/	0.538	0.539	0.655	/	/
NR N7	Left cheek	0.792	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	1.093	1.030	1.274	0.980	1.122	1.134	/	/	0.906	0.984	1.094	1.236	1.248	/	/	1.172	1.314	1.326	/	/
	Left tilted	0.379	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.679	0.434	0.813	0.605	0.716	0.748	/	/	0.485	0.443	0.711	0.822	0.854	/	/	0.669	0.780	0.812	/	/
	Right cheek	0.834	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	1.016	0.984	0.976	1.062	1.107	1.217	/	/	0.886	0.947	1.114	1.159	1.269	/	/	1.175	1.220	1.330	/	/
	Right tilted	0.713	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.944	0.745	0.848	0.983	0.984	1.100	/	/	0.784	0.748	1.054	1.055	1.171	/	/	1.018	1.019	1.135	/	/
NR N26	Left cheek	0.469	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.770	0.707	0.951	0.657	0.799	0.811	/	/	0.583	0.661	0.771	0.913	0.925	/	/	0.849	0.991	1.003	/	/
	Left tilted	0.147	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.447	0.202	0.581	0.373	0.484	0.516	/	/	0.253	0.211	0.479	0.590	0.622	/	/	0.437	0.548	0.580	/	/
	Right cheek	0.499	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.681	0.649	0.641	0.727	0.772	0.882	/	/	0.551	0.612	0.779	0.824	0.934	/	/	0.840	0.885	0.995	/	/
	Right tilted	0.171	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.402	0.203	0.306	0.441	0.442	0.558	/	/	0.242	0.206	0.512	0.513	0.629	/	/	0.478	0.477	0.593	/	/
NR N38	Left cheek	0.852	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	1.153	1.090	1.334	1.040	1.182	1.194	/	/	0.966	1.044	1.154	1.296	1.308	/	/	1.232	1.374	1.386	/	/
	Left tilted	0.372	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.672	0.427	0.806	0.598	0.709	0.741	/	/	0.478	0.436	0.704	0.815	0.847	/	/	0.662	0.773	0.805	/	/
	Right cheek	0.739	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.921	0.889	0.881	0.967	1.012	1.122	/	/	0.791	0.852	1.019	1.064	1.174	/	/	1.080	1.125	1.235	/	/
	Right tilted	0.264	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.495	0.296	0.399	0.534	0.535	0.651	/	/	0.335	0.299	0.605	0.606	0.722	/	/	0.569	0.570	0.686	/	/
NR N41	Left cheek	0.675	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.976	0.913	1.157	0.863	1.005	1.017	/	/	0.789	0.867	0.977	1.119	1.131	/	/	1.055	1.197	1.209	/	/
	Left tilted	0.332	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.632	0.387	0.766	0.558	0.669	0.701	/	/	0.438	0.396	0.664	0.775	0.807	/	/	0.622	0.733	0.765	/	/
	Right cheek	0.740	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.922	0.890	0.882	0.968	1.013	1.123	/	/	0.792	0.853	1.020	1.065	1.175	/	/	1.081	1.126	1.236	/	/
	Right tilted	0.596	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.827	0.628	0.731	0.866	0.867	0.983	/	/	0.667	0.631	0.937	0.938	1.054	/	/	0.901	0.902	1.018	/	/
NR N66	Left cheek	0.443	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	0.744	0.681	0.925	0.631	0.773	0.785	/	/	0.557	0.635	0.745	0.887	0.899	/	/	0.823	0.965	0.977	/	/
	Left tilted	0.455	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	0.755	0.510	0.889	0.681	0.792	0.824	/	/	0.561	0.519	0.787	0.898	0.930	/	/	0.745	0.856	0.888	/	/
	Right cheek	0.785	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.967	0.935	0.927	1.013	1.058	1.168	/	/	0.837	0.898	1.065	1.110	1.220	/	/	1.126	1.171	1.281	/	/
	Right tilted	0.555	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	0.786	0.587	0.690	0.825	0.826	0.942	/	/	0.626	0.590	0.896	0.897	1.013	/	/	0.860	0.861	0.977	/	/
NR N77	Left cheek	0.750	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	1.051	0.988	1.232	0.938	1.080	1.092	/	/	0.864	0.942	1.052	1.194	1.206	/	/	1.130	1.272	1.284	/	/
	Left tilted	0.903	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	1.203	0.958	1.337	1.129	1.240	1.272	/	/	1.009	0.967	1.235	1.346	1.378	/	/	1.193	1.304	1.336	/	/
	Right cheek	0.766	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	0.948	0.916	0.908	0.994	1.039	1.149	/	/	0.818	0.879	1.046	1.091	1.201	/	/	1.107	1.152	1.262	/	/
	Right tilted	0.898	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	1.129	0.930	1.033	1.168	1.169	1.285	/	/	0.969	0.933	1.239	1.240	1.356	/	/	1.203	1.204	1.320	/	/
NR N78	Left cheek	0.786	0.301	0.238	0.482	0.188	0.330	0.342	0.114	0.192	1.087	1.024	1.268	0.974	1.116	1.128	/	/	0.900	0.978	1.088	1.230	1.242	/	/	1.166	1.308	1.320	/	/
	Left tilted	0.914	0.300	0.055	0.434	0.226	0.337	0.369	0.106	0.064	1.214	0.969	1.348	1.140	1.251	1.283	/	/	1.020	0.978	1.246	1.357	1.389	/	/	1.204	1.315	1.347	/	/
	Right cheek	0.897	0.182	0.150	0.142	0.228	0.273	0.383	0.052	0.113	1.079	1.047	1.039	1.125	1.170	1.280	/	/	0.949	1.010	1.177	1.222	1.332	/	/	1.238	1.283	1.393	/	/
	Right tilted	0.781	0.231	0.032	0.135	0.270	0.271	0.387	0.071	0.035	1.012	0.813	0.916	1.051	1.052	1.168	/	/	0.852	0.816	1.122	1.123	1.239	/	/	1.086	1.087	1.203	/	/

Test position	SARmax (W/kg)					Summed SAR					
	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25						
	1	2	3	4	5	1+4	2+4	3+4	1+5	2+5	3+5
Left cheek	0.298	0.330	0.541	0.114	0.192	0.412	0.444	0.655	0.490	0.522	0.733
Left tilted	0.358	0.337	0.585	0.106	0.064	0.464	0.443	0.691	0.422	0.401	0.649
Right cheek	0.361	0.273	0.607	0.052	0.113	0.413	0.325	0.659	0.474	0.386	0.720
Right tilted	0.428	0.271	0.613	0.071	0.035	0.499	0.342	0.684	0.463	0.306	0.648

Body:

Test position		SARmax (W/kg)									Summed SAR												
		WWAN max SAR	WiFi 2.4G ANT22	WiFi 2.4G ANT25	WiFi 2.4G MIMO	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25													
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+5+8	1+6+8	1+7+8	1+5+9	1+6+9	1+7+9
GSM850	Front side	0.174	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.237	0.237	0.304	0.316	0.305	0.331	0.180	0.204	0.322	0.311	0.337	0.346	0.335	0.361
	Back side	0.309	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.554	0.554	0.561	0.525	0.815	0.720	0.319	0.350	0.535	0.825	0.730	0.566	0.856	0.761
GSM1900	Front side	0.150	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.213	0.213	0.280	0.292	0.281	0.307	0.156	0.180	0.298	0.287	0.313	0.322	0.311	0.337
	Back side	0.212	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.457	0.457	0.464	0.428	0.718	0.623	0.222	0.253	0.438	0.728	0.633	0.469	0.759	0.664
WCDMA Band2	Front side	0.208	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.271	0.271	0.338	0.350	0.339	0.365	0.214	0.238	0.356	0.345	0.371	0.380	0.369	0.395
	Back side	0.267	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.512	0.512	0.519	0.483	0.773	0.678	0.277	0.308	0.493	0.783	0.688	0.524	0.814	0.719
WCDMA Band4	Front side	0.404	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.467	0.467	0.534	0.546	0.535	0.561	0.410	0.434	0.552	0.541	0.567	0.576	0.565	0.591
	Back side	0.474	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.719	0.719	0.726	0.690	0.980	0.885	0.484	0.515	0.700	0.990	0.895	0.731	1.021	0.926
WCDMA Band5	Front side	0.282	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.345	0.345	0.412	0.424	0.413	0.439	0.288	0.312	0.430	0.419	0.445	0.454	0.443	0.469
	Back side	0.493	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.738	0.738	0.745	0.709	0.999	0.904	0.503	0.534	0.719	1.009	0.914	0.750	1.040	0.945
LTE Band2	Front side	0.230	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.293	0.293	0.360	0.372	0.361	0.387	0.236	0.260	0.378	0.367	0.393	0.402	0.391	0.417
	Back side	0.294	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.539	0.539	0.546	0.510	0.800	0.705	0.304	0.335	0.520	0.810	0.715	0.551	0.841	0.746
LTE Band4	Front side	0.234	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.297	0.297	0.364	0.376	0.365	0.391	0.240	0.264	0.382	0.371	0.397	0.406	0.395	0.421
	Back side	0.388	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.633	0.633	0.640	0.604	0.894	0.799	0.398	0.429	0.614	0.904	0.809	0.645	0.935	0.840
LTE Band7	Front side	0.341	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.404	0.404	0.471	0.483	0.472	0.498	0.347	0.371	0.489	0.478	0.504	0.513	0.502	0.528
	Back side	0.483	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.728	0.728	0.735	0.699	0.989	0.894	0.493	0.524	0.709	0.999	0.904	0.740	1.030	0.935
LTE Band12	Front side	0.181	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.244	0.244	0.311	0.323	0.312	0.338	0.187	0.211	0.329	0.318	0.344	0.353	0.342	0.368
	Back side	0.320	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.565	0.565	0.572	0.536	0.826	0.731	0.330	0.361	0.546	0.836	0.741	0.577	0.867	0.772
LTE Band13	Front side	0.231	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.294	0.294	0.361	0.373	0.362	0.388	0.237	0.261	0.379	0.368	0.394	0.403	0.392	0.418
	Back side	0.421	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.666	0.666	0.673	0.637	0.927	0.832	0.431	0.462	0.647	0.937	0.842	0.678	0.968	0.873
LTE Band26	Front side	0.133	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.196	0.196	0.263	0.275	0.264	0.290	0.139	0.163	0.281	0.270	0.296	0.305	0.294	0.320
	Back side	0.196	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.441	0.441	0.448	0.412	0.702	0.607	0.206	0.237	0.422	0.712	0.617	0.453	0.743	0.648
LTE Band41	Front side	0.350	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.413	0.413	0.480	0.492	0.481	0.507	0.356	0.380	0.498	0.487	0.513	0.522	0.511	0.537
	Back side	0.422	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.667	0.667	0.674	0.638	0.928	0.833	0.432	0.463	0.648	0.938	0.843	0.679	0.969	0.874
LTE Band66	Front side	0.325	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.388	0.388	0.455	0.467	0.456	0.482	0.331	0.355	0.473	0.462	0.488	0.497	0.486	0.512
	Back side	0.393	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.638	0.638	0.645	0.609	0.899	0.804	0.403	0.434	0.619	0.909	0.814	0.650	0.940	0.845
NR N2	Front side	0.209	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.272	0.272	0.339	0.351	0.340	0.366	0.215	0.239	0.357	0.346	0.372	0.381	0.370	0.396
	Back side	0.227	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.472	0.472	0.479	0.443	0.733	0.638	0.237	0.268	0.453	0.743	0.648	0.484	0.774	0.679
NR N5	Front side	0.342	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.405	0.405	0.472	0.484	0.473	0.499	0.348	0.372	0.490	0.479	0.505	0.514	0.503	0.529
	Back side	0.481	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.726	0.726	0.733	0.697	0.987	0.892	0.491	0.522	0.707	0.997	0.902	0.738	1.028	0.933
NR N7	Front side	0.330	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.393	0.393	0.460	0.472	0.461	0.487	0.336	0.360	0.478	0.467	0.493	0.502	0.491	0.517
	Back side	0.532	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.777	0.777	0.784	0.748	1.038	0.943	0.542	0.573	0.758	1.048	0.953	0.789	1.079	0.984
NR N26	Front side	0.164	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.227	0.227	0.294	0.306	0.295	0.321	0.170	0.194	0.312	0.301	0.327	0.336	0.325	0.351
	Back side	0.250	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.495	0.495	0.502	0.466	0.756	0.661	0.260	0.291	0.476	0.766	0.671	0.507	0.797	0.702
NR N38	Front side	0.363	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.426	0.426	0.493	0.505	0.494	0.520	0.369	0.393	0.511	0.500	0.526	0.535	0.524	0.550
	Back side	0.442	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.687	0.687	0.694	0.658	0.948	0.853	0.452	0.483	0.668	0.958	0.863	0.699	0.989	0.894
NR N41	Front side	0.363	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.426	0.426	0.493	0.505	0.494	0.520	0.369	0.393	0.511	0.500	0.526	0.535	0.524	0.550
	Back side	0.384	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.629	0.629	0.636	0.600	0.890	0.795	0.394	0.425	0.610	0.900	0.805	0.641	0.931	0.836
NR N66	Front side	0.469	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.532	0.532	0.599	0.611	0.600	0.626	0.475	0.499	0.617	0.606	0.632	0.641	0.630	0.656
	Back side	0.518	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.763	0.763	0.770	0.734	1.024	0.929	0.528	0.559	0.744	1.034	0.939	0.775	1.065	0.970
NR N77	Front side	0.377	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.440	0.440	0.507	0.519	0.508	0.534	0.383	0.407	0.525	0.514	0.540	0.549	0.538	0.564
	Back side	0.604	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.849	0.849	0.856	0.820	1.110	1.015	0.614	0.645	0.830	1.120	1.025	0.861	1.151	1.056
NR N78	Front side	0.307	0.063	0.063	0.130	0.142	0.131	0.157	0.006	0.030	0.370	0.370	0.437	0.449	0.438	0.464	0.313	0.337	0.455	0.444	0.470	0.479	0.468	0.494
	Back side	0.741	0.245	0.245	0.252	0.216	0.506	0.411	0.010	0.041	0.986	0.986	0.993	0.957	1.247	1.152	0.751	0.782	0.967	1.257	1.162	0.998	1.288	1.193

Test position	SARmax (W/kg)					Summed SAR					
	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25						
	1	2	3	4	5	1+4	2+4	3+4	1+5	2+5	3+5
Front side	0.142	0.131	0.157	0.006	0.030	0.148	0.137	0.163	0.172	0.161	0.187
Back side	0.216	0.506	0.411	0.010	0.041	0.226	0.516	0.421	0.257	0.547	0.452

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Hotspot:

Test position		SARmax (W/kg)									Summed SAR												
		WWAN max SAR	WiFi 2.4G ANT22	WiFi 2.4G ANT25	WiFi 2.4G MIMO	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25													
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+5+8	1+6+8	1+7+8	1+5+9	1+6+9	1+7+9
GSM850	Front side	0.244	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.461	0.365	0.528	0.372	0.371	0.424	0.264	0.304	0.392	0.391	0.444	0.432	0.431	0.484
	Back side	0.467	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.882	0.812	0.926	0.645	0.839	0.905	0.502	0.573	0.680	0.874	0.940	0.751	0.945	1.011
	Left side	0.679	/	/	/	/	/	/	/	/	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679	0.679
	Right side	0.252	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.444	0.554	0.710	0.331	0.590	0.716	0.288	0.366	0.367	0.626	0.752	0.445	0.704	0.830
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.153	/	/	/	/	/	/	/	/	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153
GSM1900	Front side	0.286	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.503	0.407	0.570	0.414	0.413	0.466	0.306	0.346	0.434	0.433	0.486	0.474	0.473	0.526
	Back side	0.417	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.832	0.762	0.876	0.595	0.789	0.855	0.452	0.523	0.630	0.824	0.890	0.701	0.895	0.961
	Left side	0.228	/	/	/	/	/	/	/	/	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.228
	Right side	0.068	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.260	0.370	0.526	0.147	0.406	0.532	0.104	0.182	0.183	0.442	0.568	0.261	0.520	0.646
	Top side	0.458	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.793	0.524	0.580	0.878	0.743	0.867	0.530	0.474	0.950	0.815	0.939	0.894	0.759	0.883
	Bottom side	0.385	/	/	/	/	/	/	/	/	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385	0.385
WCDMA Band2	Front side	0.287	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.504	0.408	0.571	0.415	0.414	0.467	0.307	0.347	0.435	0.434	0.487	0.475	0.474	0.527
	Back side	0.462	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.877	0.807	0.921	0.640	0.834	0.900	0.497	0.568	0.675	0.869	0.935	0.746	0.940	1.006
	Left side	0.270	/	/	/	/	/	/	/	/	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270	0.270
	Right side	0.086	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.278	0.388	0.544	0.165	0.424	0.550	0.122	0.200	0.201	0.460	0.586	0.279	0.538	0.664
	Top side	0.445	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.780	0.511	0.567	0.865	0.730	0.854	0.517	0.461	0.937	0.802	0.926	0.881	0.746	0.870
	Bottom side	0.455	/	/	/	/	/	/	/	/	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
WCDMA Band4	Front side	0.331	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.548	0.452	0.615	0.459	0.458	0.511	0.351	0.391	0.479	0.478	0.531	0.519	0.518	0.571
	Back side	0.450	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.865	0.795	0.909	0.628	0.822	0.888	0.485	0.556	0.663	0.857	0.923	0.734	0.928	0.994
	Left side	0.148	/	/	/	/	/	/	/	/	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148	0.148
	Right side	0.098	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.290	0.400	0.556	0.177	0.436	0.562	0.134	0.212	0.213	0.472	0.598	0.291	0.550	0.676
	Top side	0.588	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.923	0.654	0.710	1.008	0.873	0.997	0.660	0.604	1.080	0.945	1.069	1.024	0.889	1.013
	Bottom side	0.422	/	/	/	/	/	/	/	/	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422	0.422
WCDMA Band5	Front side	0.285	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.502	0.406	0.569	0.413	0.412	0.465	0.305	0.345	0.433	0.432	0.485	0.473	0.472	0.525
	Back side	0.507	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.922	0.852	0.966	0.685	0.879	0.945	0.542	0.613	0.720	0.914	0.980	0.791	0.985	1.051
	Left side	0.725	/	/	/	/	/	/	/	/	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725	0.725
	Right side	0.150	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.342	0.452	0.608	0.229	0.488	0.614	0.186	0.264	0.265	0.524	0.650	0.343	0.602	0.728
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.151	/	/	/	/	/	/	/	/	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151	0.151
LTE Band2	Front side	0.385	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.602	0.506	0.669	0.513	0.512	0.565	0.405	0.445	0.533	0.532	0.585	0.573	0.572	0.625
	Back side	0.490	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.905	0.835	0.949	0.668	0.862	0.928	0.525	0.596	0.703	0.897	0.963	0.774	0.968	1.034
	Left side	0.407	/	/	/	/	/	/	/	/	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407	0.407
	Right side	0.111	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.303	0.413	0.569	0.190	0.449	0.575	0.147	0.225	0.226	0.485	0.611	0.304	0.563	0.689
	Top side	0.473	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.808	0.539	0.595	0.893	0.758	0.882	0.545	0.489	0.965	0.830	0.954	0.909	0.774	0.898
	Bottom side	0.645	/	/	/	/	/	/	/	/	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645	0.645
LTE Band4	Front side	0.268	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.485	0.389	0.552	0.396	0.395	0.448	0.288	0.328	0.416	0.415	0.468	0.456	0.455	0.508
	Back side	0.341	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.756	0.686	0.800	0.519	0.713	0.779	0.376	0.447	0.554	0.748	0.814	0.625	0.819	0.885
	Left side	0.267	/	/	/	/	/	/	/	/	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267
	Right side	/	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.115	0.374	0.500	0.193	0.452	0.578
	Top side	0.334	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.669	0.400	0.456	0.754	0.619	0.743	0.406	0.350	0.826	0.691	0.815	0.770	0.635	0.759
	Bottom side	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
LTE Band5	Front side	0.187	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.404	0.308	0.471	0.315	0.314	0.367	0.207	0.247	0.335	0.334	0.387	0.375	0.374	0.427
	Back side	0.228	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.643	0.573	0.687	0.406	0.600	0.666	0.263	0.334	0.441	0.635	0.701	0.512	0.706	0.772
	Left side	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right side	0.145	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.337	0.447	0.603	0.224	0.483	0.609	0.181	0.259	0.260	0.519	0.645	0.338	0.597	0.723
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.144	/	/	/	/	/	/	/	/	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144
LTE Band7	Front side	0.394	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.611	0.515	0.678	0.522	0.521	0.574	0.414	0.454	0.542	0.541	0.594	0.582	0.581	0.634
	Back side	0.589	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.004	0.934	1.048	0.767	0.961	1.027	0.624	0.695	0.802	0.996	1.062	0.873	1.067	1.133
	Left side	0.225	/	/	/	/	/	/	/	/	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225	0.225
	Right side	0.364	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.556	0.666	0.822	0.443	0.702	0.828	0.400	0.478	0.479	0.738	0.864	0.557	0.816	0.942
	Top side	0.511	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.846	0.577	0.633	0.931	0.796	0.920	0.583	0.527	1.003	0.868	0.992	0.947	0.812	0.936
	Bottom side	0.587	/	/	/	/	/	/	/	/	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587
LTE Band12	Front side	0.241	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.458	0.362	0.525	0.369	0.368	0.421	0.261	0.301	0.389	0.388	0.441	0.429	0.428	0.481
	Back side	0.429	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.844	0.774	0.888	0.607	0.801	0.867	0.464	0.535	0.642	0.836	0.902	0.713	0.907	0.973
	Left side	0.630	/	/	/	/	/	/	/	/	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630	0.630
	Right side	0.155	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.347	0.457	0.613	0.234	0.493	0.619	0.191	0.269	0.270	0.529	0.655	0.348	0.607	0.733
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.065	/	/	/	/	/	/	/	/	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.065
LTE Band13	Front side	0.345	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.562	0.466	0.629	0.473	0.472	0.525	0.365	0.405	0.493	0.492	0.545	0.533	0.532	0.585
	Back side	0.562	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.977	0.907	1.021	0.740	0.934	1.000	0.597	0.668	0.775	0.969	1.035	0.846	1.040	1.106
	Left side	0.766	/	/	/	/	/	/	/	/	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766	0.766
	Right side	0.154	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.346	0.456	0.612	0.233	0.492	0.618	0.190	0.268	0.269	0.528	0.654	0.347	0.606	0.732
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.120	/	/	/	/	/	/	/	/	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
LTE Band26	Front side	0.166	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.383	0.287	0.450	0.294	0.293	0.346	0.186	0.226	0.314	0.313	0.366	0.354	0.353	0.406
	Back side	0.235	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.650	0.580	0.694	0.413	0.607	0.673	0.270	0.341	0.448	0.642	0.708	0.519	0.713	0.779
	Left side	0.355	/	/	/	/	/	/	/	/	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355
	Right side	0.128	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.320	0.430	0.586	0.207	0.466	0.592	0.164	0.242	0.243	0.502	0.628	0.321	0.580	0.706
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.126	/	/	/	/	/	/	/	/	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
LTE Band38	Front side	0.234	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.451	0.355	0.518	0.362	0.361	0.414	0.254	0.294	0.382	0.381	0.434	0.422	0.421	0.474
	Back side	0.315	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.730	0.660	0.774	0.493	0.687	0.753	0.350	0.421	0.528	0.722	0.788	0.599	0.793	0.859
	Left side	0.072	/	/	/	/	/	/	/	/	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.072

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	Right side	0.083	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.275	0.385	0.541	0.162	0.421	0.547	0.119	0.197	0.198	0.457	0.583	0.276	0.535	0.661
	Top side	/	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.492	0.357	0.481	0.436	0.301	0.425
	Bottom side	0.568	/	/	/	/	/	/	/	/	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568
LTE Band41	Front side	0.474	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.691	0.595	0.758	0.602	0.601	0.654	0.494	0.534	0.622	0.621	0.674	0.662	0.661	0.714
	Back side	0.599	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.014	0.944	1.058	0.777	0.971	1.037	0.634	0.705	0.812	1.006	1.072	0.883	1.077	1.143
	Left side	0.401	/	/	/	/	/	/	/	/	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401	0.401
	Right side	0.258	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.450	0.560	0.716	0.337	0.596	0.722	0.294	0.372	0.373	0.632	0.758	0.451	0.710	0.836
	Top side	0.594	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.929	0.660	0.716	1.014	0.879	1.003	0.666	0.610	1.086	0.951	1.075	1.030	0.895	1.019
	Bottom side	0.518	/	/	/	/	/	/	/	/	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518	0.518
LTE Band66	Front side	0.343	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.560	0.464	0.627	0.471	0.470	0.523	0.363	0.403	0.491	0.490	0.543	0.531	0.530	0.583
	Back side	0.424	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.839	0.769	0.883	0.602	0.796	0.862	0.459	0.530	0.637	0.831	0.897	0.708	0.902	0.968
	Left side	0.252	/	/	/	/	/	/	/	/	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252	0.252
	Right side	0.097	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.289	0.399	0.555	0.176	0.435	0.561	0.133	0.211	0.212	0.471	0.597	0.290	0.549	0.675
	Top side	0.396	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.731	0.462	0.518	0.816	0.681	0.805	0.468	0.412	0.888	0.753	0.877	0.832	0.697	0.821
	Bottom side	0.522	/	/	/	/	/	/	/	/	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522	0.522
NR N2	Front side	0.324	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.541	0.445	0.608	0.452	0.451	0.504	0.344	0.384	0.472	0.471	0.524	0.512	0.511	0.564
	Back side	0.420	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.835	0.765	0.879	0.598	0.792	0.858	0.455	0.526	0.633	0.827	0.893	0.704	0.898	0.964
	Left side	0.598	/	/	/	/	/	/	/	/	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598	0.598
	Right side	0.003	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.195	0.305	0.461	0.082	0.341	0.467	0.039	0.117	0.118	0.377	0.503	0.196	0.455	0.581
	Top side	0.255	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.590	0.321	0.377	0.675	0.540	0.664	0.327	0.271	0.747	0.612	0.736	0.691	0.556	0.680
	Bottom side	0.404	/	/	/	/	/	/	/	/	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404
NR N5	Front side	0.387	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.604	0.508	0.671	0.515	0.514	0.567	0.407	0.447	0.535	0.534	0.587	0.575	0.574	0.627
	Back side	0.594	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.009	0.939	1.053	0.772	0.966	1.032	0.629	0.700	0.807	1.001	1.067	0.878	1.072	1.138
	Left side	0.714	/	/	/	/	/	/	/	/	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714	0.714
	Right side	0.189	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.381	0.491	0.647	0.268	0.527	0.653	0.225	0.303	0.304	0.563	0.689	0.382	0.641	0.767
	Top side	0.003	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.338	0.069	0.125	0.423	0.288	0.412	0.075	0.019	0.495	0.360	0.484	0.439	0.304	0.428
	Bottom side	0.168	/	/	/	/	/	/	/	/	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168	0.168
NR N7	Front side	0.261	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.478	0.382	0.545	0.389	0.388	0.441	0.281	0.321	0.409	0.408	0.461	0.449	0.448	0.501
	Back side	0.442	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.857	0.787	0.901	0.620	0.814	0.880	0.477	0.548	0.655	0.849	0.915	0.726	0.920	0.986
	Left side	0.438	/	/	/	/	/	/	/	/	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438	0.438
	Right side	0.483	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.675	0.785	0.941	0.562	0.821	0.947	0.519	0.597	0.598	0.857	0.983	0.676	0.935	1.061
	Top side	0.168	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.503	0.234	0.290	0.588	0.453	0.577	0.240	0.184	0.660	0.525	0.649	0.604	0.469	0.593
	Bottom side	0.356	/	/	/	/	/	/	/	/	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356	0.356
NR N26	Front side	0.263	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.480	0.384	0.547	0.391	0.390	0.443	0.283	0.323	0.411	0.410	0.463	0.451	0.450	0.503
	Back side	0.478	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.893	0.823	0.937	0.656	0.850	0.916	0.513	0.584	0.691	0.885	0.951	0.762	0.956	1.022
	Left side	0.779	/	/	/	/	/	/	/	/	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779	0.779
	Right side	0.180	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.372	0.482	0.638	0.259	0.518	0.644	0.216	0.294	0.295	0.554	0.680	0.373	0.632	0.758
	Top side	0.007	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.342	0.073	0.129	0.427	0.292	0.416	0.079	0.023	0.499	0.364	0.488	0.443	0.308	0.432
	Bottom side	0.144	/	/	/	/	/	/	/	/	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144	0.144
NR N38	Front side	0.467	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.684	0.588	0.751	0.595	0.594	0.647	0.487	0.527	0.615	0.614	0.667	0.655	0.654	0.707
	Back side	0.601	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.016	0.946	1.060	0.779	0.973	1.039	0.636	0.707	0.814	1.008	1.074	0.885	1.079	1.145
	Left side	0.307	/	/	/	/	/	/	/	/	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307
	Right side	0.518	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.710	0.820	0.976	0.597	0.856	0.982	0.554	0.632	0.633	0.892	1.018	0.711	0.970	1.096
	Top side	0.658	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.993	0.724	0.780	1.078	0.943	1.067	0.730	0.674	1.150	1.015	1.139	1.094	0.959	1.083
	Bottom side	0.507	/	/	/	/	/	/	/	/	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507	0.507
NR N41	Front side	0.514	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.731	0.635	0.798	0.642	0.641	0.694	0.534	0.574	0.662	0.661	0.714	0.702	0.701	0.754
	Back side	0.717	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.132	1.062	1.176	0.895	1.089	1.155	0.752	0.823	0.930	1.124	1.190	1.001	1.195	1.261
	Left side	0.294	/	/	/	/	/	/	/	/	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294	0.294
	Right side	0.446	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.638	0.748	0.904	0.525	0.784	0.910	0.482	0.560	0.561	0.820	0.946	0.639	0.898	1.024
	Top side	0.708	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	1.043	0.774	0.830	1.128	0.993	1.117	0.780	0.724	1.200	1.065	1.189	1.144	1.009	1.133
	Bottom side	0.689	/	/	/	/	/	/	/	/	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689	0.689
NR N66	Front side	0.443	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.660	0.564	0.727	0.571	0.570	0.623	0.463	0.503	0.591	0.590	0.643	0.631	0.630	0.683
	Back side	0.490	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.905	0.835	0.949	0.668	0.862	0.928	0.525	0.596	0.703	0.897	0.963	0.774	0.968	1.034
	Left side	0.258	/	/	/	/	/	/	/	/	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258	0.258
	Right side	0.113	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.305	0.415	0.571	0.192	0.451	0.577	0.149	0.227	0.228	0.487	0.613	0.306	0.565	0.691
	Top side	0.582	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.917	0.648	0.704	1.002	0.867	0.991	0.654	0.598	1.074	0.939	1.063	1.018	0.883	1.007
	Bottom side	0.562	/	/	/	/	/	/	/	/	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562
NR N77	Front side	0.312	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.529	0.433	0.596	0.440	0.439	0.492	0.332	0.372	0.460	0.459	0.512	0.500	0.499	0.552
	Back side	0.588	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	1.003	0.933	1.047	0.766	0.960	1.026	0.623	0.694	0.801	0.995	1.061	0.872	1.066	1.132
	Left side	0.579	/	/	/	/	/	/	/	/	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579	0.579
	Right side	0.592	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.784	0.894	1.050	0.671	0.930	1.056	0.628	0.706	0.707	0.966	1.092	0.785	1.044	1.170
	Top side	0.843	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	1.178	0.909	0.965	1.263	1.128	1.252	0.915	0.859	1.335	1.200	1.324	1.279	1.144	1.268
	Bottom side	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
NR N78	Front side	0.389	0.217	0.121	0.284	0.128	0.127	0.180	0.020	0.060	0.606	0.510	0.673	0.517	0.516	0.569	0.409	0.449	0.537	0.536	0.589	0.577	0.576	0.629
	Back side	0.533	0.415	0.345	0.459	0.178	0.372	0.438	0.035	0.106	0.948	0.878	0.992	0.711	0.905	0.971	0.568	0.639	0.746	0.940	1.006	0.817	1.011	1.077
	Left side	0.413	/	/	/	/	/	/	/	/	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413	0.413
	Right side	0.448	0.192	0.302	0.458	0.079	0.338	0.464	0.036	0.114	0.640	0.750	0.906	0.527	0.786	0.912	0.484	0.562	0.563	0.822	0.948	0.641	0.900	1.026
	Top side	0.545	0.335	0.066	0.122	0.420	0.285	0.409	0.072	0.016	0.880	0.611	0.667	0.965	0.830	0.954	0.617	0.561	1.037	0.902	1.026	0.981	0.846	0.970
	Bottom side	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

Test position	SARmax (W/kg)					Summed SAR					
	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	BT ANT22	BT ANT25						
	1	2	3	4	5	1+4	2+4	3+4	1+5	2+5	3+5
Front side	0.204	0.201	0.286	0.020	0.060	0.224	0.221	0.306	0.264	0.261	0.346
Back side	0.282	0.590	0.693	0.035	0.106	0.317	0.625	0.728	0.388	0.696	0.799

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Left side	/	/	/	/	/	/	/	/	/	/	/
Right side	0.125	0.536	0.736	0.036	0.114	0.161	0.572	0.772	0.239	0.650	0.850
Top side	0.666	0.452	0.647	0.072	0.016	0.738	0.524	0.719	0.682	0.468	0.663
Bottom side	/	/	/	/	/	/	/	/	/	/	/

Limbs:

Test position		SARmax (W/kg)					Summed SAR									
		WWAN max SAR	WiFi 5G ANT21	WiFi 5G ANT23	WiFi 5G MIMO	NFC										
		1	2	3	4	5	1+2	1+3	1+4	1+5	1+2+5	1+3+5	1+4+5	2+5	3+5	4+5
N77 (3450-3550)	Front side	0.000	0.336	0.477	0.392	0.001	0.336	0.477	0.392	0.001	0.337	0.478	0.393	0.337	0.478	0.393
	Back side	0.000	0.265	0.508	0.324	0.009	0.265	0.508	0.324	0.009	0.274	0.517	0.333	0.274	0.517	0.333
	Left side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Right side	0.000	0.020	1.025	0.526	0.001	0.020	1.025	0.526	0.001	0.021	1.026	0.527	0.021	1.026	0.527
	Top side	1.995	1.100	0.655	1.016	0.002	3.095	2.650	3.011	1.997	3.097	2.652	3.013	1.102	0.657	1.018
	Bottom side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
N77 (3700-3980)	Front side	0.000	0.336	0.477	0.392	0.001	0.336	0.477	0.392	0.001	0.337	0.478	0.393	0.337	0.478	0.393
	Back side	1.053	0.265	0.508	0.324	0.009	1.318	1.561	1.377	1.062	1.327	1.570	1.386	0.274	0.517	0.333
	Left side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Right side	0.000	0.020	1.025	0.526	0.001	0.020	1.025	0.526	0.001	0.021	1.026	0.527	0.021	1.026	0.527
	Top side	2.285	1.100	0.655	1.016	0.002	3.385	2.940	3.301	2.287	3.387	2.942	3.303	1.102	0.657	1.018
	Bottom side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
N78 (3450-3550)	Front side	0.000	0.336	0.477	0.392	0.001	0.336	0.477	0.392	0.001	0.337	0.478	0.393	0.337	0.478	0.393
	Back side	0.713	0.265	0.508	0.324	0.009	0.978	1.221	1.037	0.722	0.987	1.230	1.046	0.274	0.517	0.333
	Left side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Right side	0.000	0.020	1.025	0.526	0.001	0.020	1.025	0.526	0.001	0.021	1.026	0.527	0.021	1.026	0.527
	Top side	1.988	1.100	0.655	1.016	0.002	3.088	2.643	3.004	1.990	3.090	2.645	3.006	1.102	0.657	1.018
	Bottom side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
N78 (3700-3800)	Front side	0.000	0.336	0.477	0.392	0.001	0.336	0.477	0.392	0.001	0.337	0.478	0.393	0.337	0.478	0.393
	Back side	1.018	0.265	0.508	0.324	0.009	1.283	1.526	1.342	1.027	1.292	1.535	1.351	0.274	0.517	0.333
	Left side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Right side	0.000	0.020	1.025	0.526	0.001	0.020	1.025	0.526	0.001	0.021	1.026	0.527	0.021	1.026	0.527
	Top side	2.378	1.100	0.655	1.016	0.002	3.478	3.033	3.394	2.380	3.480	3.035	3.396	1.102	0.657	1.018
	Bottom side	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001

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8.3.3 SPLSR Evaluation Analysis

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

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

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

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

Case No.	Position	Band		SAR (W/kg)	SAR peak location (mm)			Type	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z					
1#	Right cheek	LTE Band 7 Ant14	A	0.955	15.35	-17.01	-4.18	A+B	47.206	1.338	0.033	Not Required
		WiFi 5G MIMO	B	0.383	-17.11	16.32	3.81	A+C	77.342	1.068	0.014	Not Required
		BT ANT25	C	0.113	24.12	59.72	-0.02	B+C	59.985	0.496	0.006	Not Required

Case No.	Position	Band		SAR (W/kg)	SAR peak location (mm)			Type	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z					
2#	Right cheek	LTE Band 41 Ant14	A	0.994	14.35	-16.89	-4.14	A+B	46.431	1.377	0.035	Not Required
		WiFi 5G MIMO	B	0.383	-17.11	16.32	3.81	A+C	34.798	1.046	0.031	Not Required
		BT ANT22	C	0.052	-5.98	11.25	-1.74	B+C	13.431	0.435	0.021	Not Required

Case No.	Position	Band		SAR (W/kg)	SAR peak location (mm)			Type	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z					
3#	Right cheek	LTE Band 41 Ant14	A	0.994	14.35	-16.89	-4.14	A+B	46.431	1.377	0.035	Not Required
		WiFi 5G MIMO	B	0.383	-17.11	16.32	3.81	A+C	77.340	1.107	0.015	Not Required
		BT ANT25	C	0.113	24.12	59.72	-0.02	B+C	59.985	0.496	0.006	Not Required

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9 Equipment list

Test Platform	SPEAG DASY Professional
Description	SAR Test System (Frequency range 300MHz-6GHz)
Software Reference	DASY52 52.10.4(1527); SEMCAD X 14.6.14(7483)

Hardware Reference

	Equipment	Manufacturer	Model	Inventory No.	Calibration Date	Due date of calibration
☒	DAE	SPEAG	DAE4	SZ-WSR-M-030	2023/11/17	2024/11/16
☒	DAE	SPEAG	DAE4	SZ-WSR-M-031	2024/03/18	2025/03/17
☒	DAE	SPEAG	DAE4	SZ-WSR-M-029	2024/01/03	2025/01/02
☒	DAE	SPEAG	DAE4	SZ-WSR-M-028	2024/04/16	2025/04/15
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-082	2023/08/07	2024/08/06
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-068	2023/11/23	2024/11/22
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-069	2023/12/13	2024/12/12
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-079	2023/09/11	2024/09/10
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-088	2023/12/19	2024/12/18
☒	Validation Kits	SPEAG	D750V3	SZ-WSR-M-032	2022/06/06	2025/06/05
☒	Validation Kits	SPEAG	D835V2	SZ-WSR-M-033	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D1750V2	SZ-WSR-M-035	2022/06/17	2025/06/16
☒	Validation Kits	SPEAG	D1900V2	SZ-WSR-M-036	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D2450V2	SZ-WSR-M-039	2022/11/02	2025/11/01
☒	Validation Kits	SPEAG	D2600V2	SZ-WSR-M-040	2022/06/14	2025/06/13
☒	Validation Kits	SPEAG	D3500V2	SZ-WSR-M-041	2022/09/19	2025/09/18
☒	Validation Kits	SPEAG	D3700V2	SZ-WSR-M-042	2022/09/15	2025/09/14
☒	Validation Kits	SPEAG	D3900V2	SZ-WSR-M-043	2022/09/16	2025/09/15
☒	Validation Kits	SPEAG	D5GHzV2	SZ-WSR-M-046	2022/11/01	2025/10/31
☒	Validation Kits	SPEAG	CLA-13	SZ-WSR-M-089	2023/02/09	2026/02/28
☒	Dielectric parameter probes	SPEAG	DAKS-3.5	SZ-WSR-M-053	2023/06/15	2024/06/14
☒	Vector Network Analyzer and Vector Reflectometer	SPEAG	DAKS_VNA R140	SZ-WSR-M-054	2023/06/07	2024/06/06
☒	Dielectric parameter probes	SPEAG	DAKS-12	SZ-WSR-M-090	2023/07/31	2024/07/30
☒	Vector Network Analyzer and Vector Reflectometer	SPEAG	DAKS_VNA R60	SZ-WSR-M-091	2023/07/31	2024/07/30
☒	Radio Communication Analyzer	Anritsu	MT8820C	SZ-WSR-M-005	2024/01/30	2025/01/29
☒	Radio Communication	Anritsu	MT8820C	SZ-WSR-M-018	2023/05/25	2024/05/24

	Analyzer					
☒	Radio Communication Analyzer	Anritsu	MT8820C	SZ-WSR-M-020	2023/09/14	2024/09/13
☒	RF Bi-Directional Coupler	Agilent	86205-60001	SZ-WSR-A-004	NCR	NCR
☒	Signal Generator	Agilent	N5171B	SZ-WSR-M-006	2024/01/30	2025/01/29
☒	Preamplifier	Mini-Circuits	ZHL-42W	SZ-WSR-A-001	NCR	NCR
☒	Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	SZ-WSR-A-002	NCR	NCR
☒	Power Meter	Agilent	E4416A	SZ-WSR-M-007	2024/01/30	2025/01/29
☒	Power Sensor	Agilent	8481H	SZ-WSR-M-008	2024/01/30	2025/01/29
☒	Power Sensor	R&S	NRP-Z92	SZ-WSR-M-009	2024/01/30	2025/01/29
☒	Attenuator	SHX	TS2-3dB	SZ-WSR-A-012	NCR	NCR
☒	Speed reading thermometer	MingGao	T809	SZ-WSR-M-087	2023/05/26	2024/05/25
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	SZ-WSR-M-013	2023/05/26	2024/05/25
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	SZ-WSR-M-012	2023/05/26	2024/05/25
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	SZ-WSR-M-011	2023/05/26	2024/05/25

Note: All the equipment 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

Appendix F: Antenna Locations

--- End of report ---

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