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

FCC SAR TEST REPORT

Application No.:	SZCR2404001160WM
Applicant:	vivo Mobile Communication Co., Ltd.
Manufacturer:	vivo Mobile Communication Co., Ltd.
EUT Description:	Mobile phone
Model No.:	V2341
Trade Mark:	vivo
FCC ID:	2AUCY-V2341
Standards:	FCC 47CFR §2.1093
Date of Receipt:	2024/04/03
Date of Test:	2024/04/03 to 2024/05/06
Date of Issue:	2024/05/08
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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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Revision History			
Report Number	***Revision***	***Description***	***Issue Date***
SZCR240400116008	01	Original	2024/05/08

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	0.41	0.35	0.63	/
GSM1900	0.54	0.23	0.62	/
WCDMA Band II	0.59	0.43	0.48	/
WCDMA Band IV	0.70	0.57	0.53	/
WCDMA Band V	0.52	0.32	0.75	/
CDMA BC0	0.56	0.38	0.58	/
LTE Band 2	0.70	0.32	0.59	/
LTE Band 4	0.75	0.56	0.66	/
LTE Band 5	0.48	0.45	0.59	/
LTE Band 7	0.80	0.45	0.64	/
LTE Band 12(17)	0.20	0.24	0.29	/
LTE Band 13	0.76	0.35	**0.86**	/
LTE Band 26	0.48	0.37	0.59	/
LTE Band 41(38)	0.76	0.44	0.58	/
LTE Band 66	0.75	0.56	0.66	/
NR Band n2	0.67	0.42	0.58	/
NR Band n5	0.52	0.42	0.84	/
NR Band n7	0.59	0.41	0.56	/
NR Band n26	0.58	0.38	0.71	/
NR Band n38	**1.00**	0.37	0.74	/
NR Band n41	**1.00**	0.37	0.65	/
NR Band n66	0.76	**0.58**	0.51	/
NR Band n77	0.84	0.47	0.37	/
NR Band n78	0.84	0.48	0.66	/
WI-FI (2.4GHz)	0.44	0.12	0.23	/
WI-FI (5GHz)	0.59	0.24	0.44	**1.24**
BT	0.47	<0.10	<0.10	/
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.40	0.85	1.20	/
SPLSR	/	/	/	/
SPLSR Limited	0.04			0.1

Note:
1) The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.
2) According to TCB workshop (Overlapping LTE Bands): SAR in LTE band 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). The SAR in NR band 38 (frequency range: 2570-2620 MHz) is covered by NR band 41 (frequency range: 2496-2690 MHz). The SAR in NR band 78 (frequency range: 3450-3550, 3700-3800 MHz) is covered by NR band 77 (frequency range: 3450-3550, 3700-3980 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.

Contents

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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.:	V2341		
Trade Mark:	vivo		
Product Phase:	Identical Prototype		
Device Type:	portable device		
Exposure Category:	uncontrolled environment / general population		
IMEI:	863223079996975，863223079997197，863223079996959		
Hardware Version:	MP_0.1		
Software Version:	PD2343KF_EX_A_14.0.8.8.W30		
Antenna Type:	PIFA Antenna		
Device Operating Configurations:			
Modulation Mode:	**GSM**:GMSK,8PSK; **WCDMA**:QPSK,16QAM **LTE**:QPSK,16QAM,64QAM **5G NR**:DET-s-OFDM(PI/2 BPSK,QPSK,16QAM,64QAM,256QAM) CP-OFDM(QPSK,16QAM,64QAM,256QAM) **WIFI**:DSSS,OFDM,OFDMA; **BT**:GFSK, π/4DQPSK,8DPSK		
Device Class:	B		
GPRS Multi-slots Class:	33	EGPRS Multi-slots Class:	33
HSDPA UE Category:	24	HSUPA UE Category:	6
DC-HSDPA UE Category:	24		
Power Class:	4, tested with power level 5(GSM850)		
	1, tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band)		
	3, tested with power control “max power”(LTE Band)		
Frequency Bands:	Band	Tx(MHz)	Rx(MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	WCDMA Band II	1850~1910	1930~1990
	WCDMA Band IV	1710~1755	2110~2155
	WCDMA Band V	824~849	869~894
	CDMA/EVDO BC0	824~849	869~894

	LTE Band 2	1850 ~1910	1930 ~1990
	LTE Band 4	1710~1755	2110~2155
	LTE Band 5	824~849	869-894
	LTE Band 7	2500~2570	2620~2690
	LTE Band 12	699~716	729~746
	LTE Band 13	777~787	746~756
	LTE Band 17	704-716	734-746
	LTE Band 26	814~849	859~894
	LTE Band 38	2570~2620	2570~2620
	LTE Band 41(Class 2/3)	2496~2690	2496~2690
	LTE Band 66	1710~1780	2110~2120
	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	2110~2120
	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
RF Cable:	☒Provided by applicant ☐Provided by the laboratory		
Battery Information:	Model:	BA40	
	Normal Voltage:	3.91V	

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	Rated capacity:	5390mAh
	Manufacturer:	Sunwoda Electronic CO.,LTD.

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

Remark:

As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

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
Ant21	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant22	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant23	≤25mm	≤25mm	>25mm	≤25mm	≤25mm	>25mm
Ant31	≤25mm	≤25mm	>25mm	≤25mm	>25mm	≤25mm
Ant41	≤25mm	≤25mm	≤25mm	>25mm	>25mm	≤25mm
Ant101	≤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 Force Peak 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 Force Peak 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 India 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 worn	WWAN	1.6	0.6
Hotsopt	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	Mode	Antenna	P_{max}	P_{limit} (average)				
				Head	Body Worn		Hotspot	Limbs
				DSI 2	DSI 4 （Ant11/12/21/23/31/41）	DSI 7 （Ant13/101）	DSI 6	DSI 4
GSM 850	GPRS 2TS	11#	24.5	21.5	24.5	/	23.0	24.5
	GPRS 4TS		24.0	21.5	24.0	/	23.0	24.0
	GPRS 2TS	31#	24.5	24.5	24.5	/	23.5	24.5
	GPRS 4TS		24.0	24.0	24.0	/	23.5	24.0
GSM 1900	GPRS 2TS	13#	21.5	17.5	/	21.5	20.0	21.5
	GPRS 4TS		21.0	17.5	/	21.0	20.0	21.0
	GPRS 2TS	41#	21.5	21.5	21.5	/	20.0	21.5
	GPRS 4TS		21.0	21.0	21.0	/	20.0	21.0
WCDMA_B2	RMC	13#	22.5	16.0	/	23.0	19.5	21.0
	RMC	41#	22.0	22.0	21.0	/	20.5	21.0
WCDMA_B4	RMC	13#	23.5	16.0	/	22.5	21.0	20.0
	RMC	41#	23.5	23.5	20.0	/	18.5	20.0
WCDMA_B5	RMC	11#	23.5	20.0	23.0	/	21.5	23.0
	RMC	31#	23.5	23.5	22.0	/	21.5	22.0
CDMA_BC0	RMC	11#	23.0	20.0	22.0	/	20.5	22.0
	RMC	31#	23.5	23.5	23.5	/	23.5	23.5
LTE_B2	QPSK	13#	23.5	17.5	/	23.5	20.0	21.5
	QPSK	41#	23.7	23.7	21.2	/	20.7	21.2
	QPSK	12#	23.5	19.5	21.5	/	20.0	21.5
LTE_B4	QPSK	13#	23.5	16.5	/	23.0	19.5	20.5
	QPSK	41#	23.5	23.5	21.0	/	20.0	21.0
	QPSK	12#	23.5	20.0	21.5	/	20.0	21.5
LTE_B5	QPSK	11#	23.9	20.4	23.4	/	21.9	23.4
	QPSK	31#	23.5	23.5	22.5	/	22.5	22.5
LTE_B7	QPSK	13#	23.0	15.0	/	22.0	18.5	20.0
	QPSK	41#	23.3	23.3	20.8	/	19.3	20.8
	QPSK	12#	23.3	17.3	21.3	/	19.3	21.3
LTE_B12	QPSK	11#	23.4	23.4	23.4	/	23.4	23.4
	QPSK	31#	23.0	23.0	23.0	/	23.0	23.0
LTE_B13	QPSK	11#	23.4	23.4	23.4	/	23.4	23.4

	QPSK	31#	23.0	23.0	23.0	/	23.0	23.0
LTE_B17	QPSK	11#	23.0	23.0	23.0	/	23.0	23.0
	QPSK	31#	23.0	23.0	23.0	/	23.0	23.0
LTE_B26	QPSK	11#	23.0	20.5	23.0	/	22.0	23.0
	QPSK	31#	23.0	23.0	23.0	/	23.0	23.0
LTE_B38	QPSK	13#	24.0	17.0	/	24.0	20.0	21.5
	QPSK	41#	24.0	24.0	22.5	/	21.5	22.5
LTE_B41	QPSK	13#	24.0	17.0	/	24.0	20.0	21.5
	QPSK	41#	24.0	24.0	22.5	/	21.5	22.5
LTE_B66	QPSK	13#	23.5	16.5	/	23.0	20.0	20.5
	QPSK	41#	23.5	23.5	21.0	/	20.0	21.0
NR5G_N2	QPSK	13#	23.5	17.0	/	23.5	20.5	22.0
	QPSK	41#	23.5	23.5	21.0	/	20.5	21.0
	QPSK	12#	23.5	20.5	21.0	/	19.5	21.0
NR5G_N5	QPSK	11#	23.9	20.4	23.4	/	22.9	23.4
	QPSK	31#	23.5	23.5	22.5	/	22.5	22.5
NR5G_N7	QPSK	13#	23.0	13.5	/	21.0	18.0	19.5
	QPSK	41#	23.3	23.3	19.8	/	18.3	19.8
	QPSK	12#	23.3	16.8	20.8	/	19.8	20.8
NR5G_N26	QPSK	11#	23.5	21.5	23.5	/	22.5	23.5
	QPSK	31#	23.5	23.5	23.5	/	23.5	23.5
NR5G_N38	QPSK	13#	23.5	14.7	/	23.5	18.2	19.7
	QPSK	41#	23.5	23.5	20.2	/	19.2	20.2
	QPSK	12#	23.8	17.5	21.5	/	20.5	21.5
NR5G_N41 PC2	QPSK	13#	25.2	14.7	/	18.2	18.2	19.7
	QPSK	41#	25.0	25.2	19.7	/	18.7	19.7
	QPSK	12#	25.5	17.5	21.5	/	20.5	21.5
NR5G_N41 PC3	QPSK	13#	22.2	14.7	/	21.5	18.2	19.7
	QPSK	41#	22.0	22.0	19.5	/	18.5	19.5
	QPSK	12#	22.5	17.5	21.5	/	20.5	21.5
NR5G_N66	QPSK	13#	23.0	15.0	/	22.0	18.5	19.5
	QPSK	41#	23.0	23.0	21.0	/	20.5	21.0
	QPSK	12#	23.0	20.0	21.5	/	20.0	21.5
NR5G_N77 PC3	QPSK	13#	23.5	17.0	s	23.5	20.5	21.0
	QPSK	21#	23.5	17.5	19.5	/	18.5	19.5
	QPSK	23#	23.5	16.5	17.0	/	15.5	17.0
	QPSK	101#	23.5	20.5	/	23.5	19.5	20.5
NR5G_N78 PC2	QPSK	101#	25.5	21.5	/	24.5	19.0	21.5
	QPSK	23#	24.5	18.0	18.5	/	17.0	18.5
	QPSK	13#	23.2	17.2	/	24.7	22.2	23.2
	QPSK	21#	25.0	17.5	20.5	/	19.5	20.5
NR5G_N78 PC3	QPSK	101#	22.5	21.5	/	23.5	19.0	21.5
	QPSK	23#	21.5	18.0	18.5	/	17.0	18.5
	QPSK	13#	20.2	17.2	/	21.7	21.7	21.7
	QPSK	21#	22.0	17.5	20.5	/	19.5	20.5

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.

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) 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.

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

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

Table 2： The Ambient Conditions

3 SAR Measurements System Configuraion

3.1 The SAR Measurement System

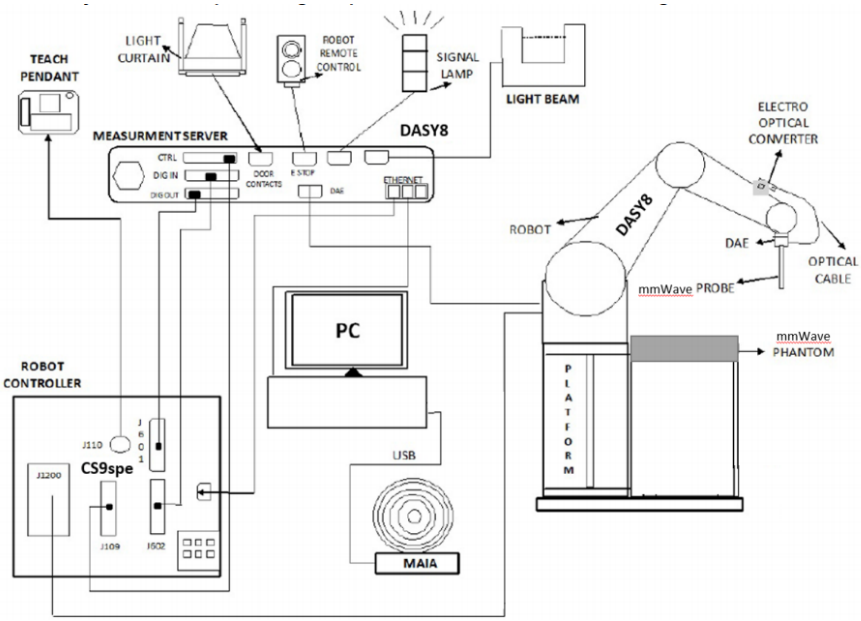
This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY professional system). A E-field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ (|Ei|2)/ ρ where σ and ρ are the conductivity and mass density of the tissue-Simulate.

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.

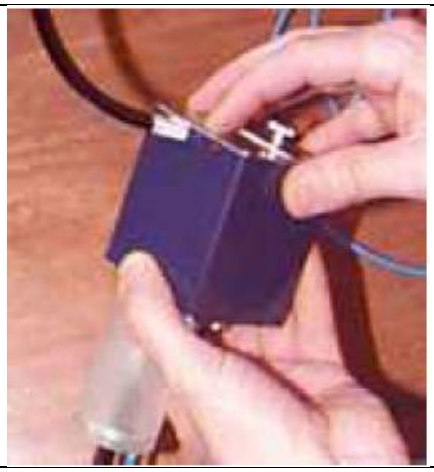
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows system.
- DASY software.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand, 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.

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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.

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3.6 Device Holder for Transmitters

F-2. Device Holder for Transmitters

- The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation centres for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

- The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

3.7 Measurement Procedure

3.7.1 Scanning procedure

Step 1: Power reference measurement

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

Step 2: Area scan

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

Step 3: Zoom scan

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

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

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

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

Step 4: Power reference measurement (drift)

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

3.7.2 Data storage

The DASY software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension “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

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4 SAR measurement variability and uncertainty

4.1 SAR measurement variability

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

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

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

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

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

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

4.2 SAR measurement uncertainty

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

5 Desciption of Test Position

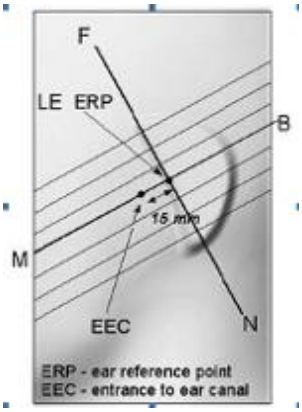
5.1 The Head Test Position

5.1.1 SAM Phantom Shape

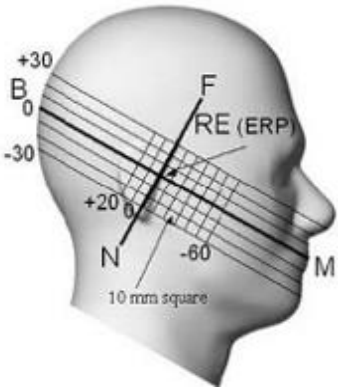
F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

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)

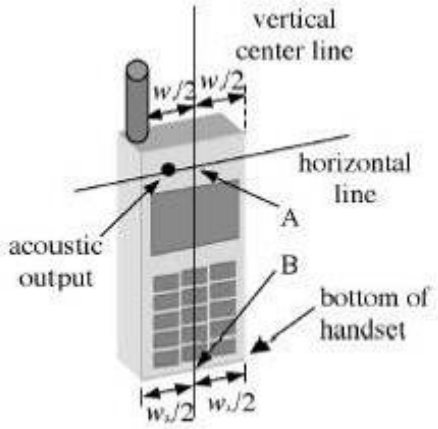


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

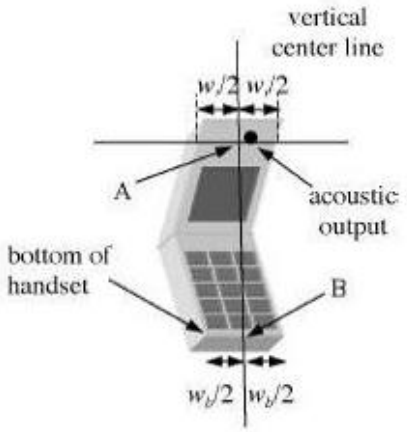


F-6.Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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

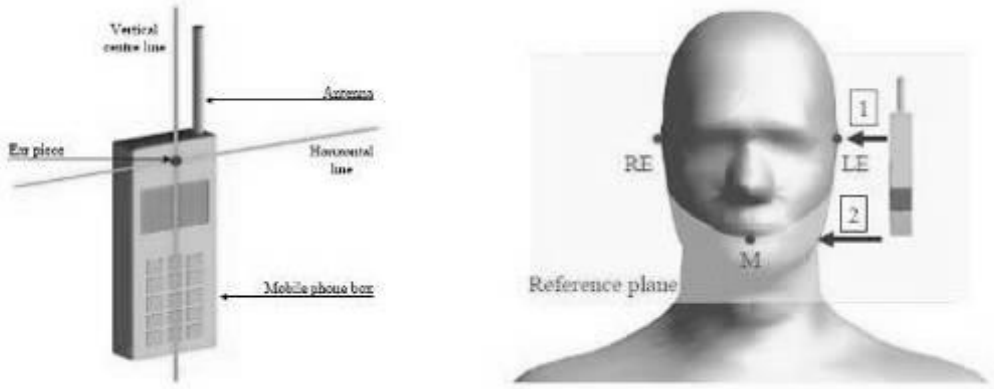
a) Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom (“initial position”). While maintaining the device in this plane, align the vertical centre line with the 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.

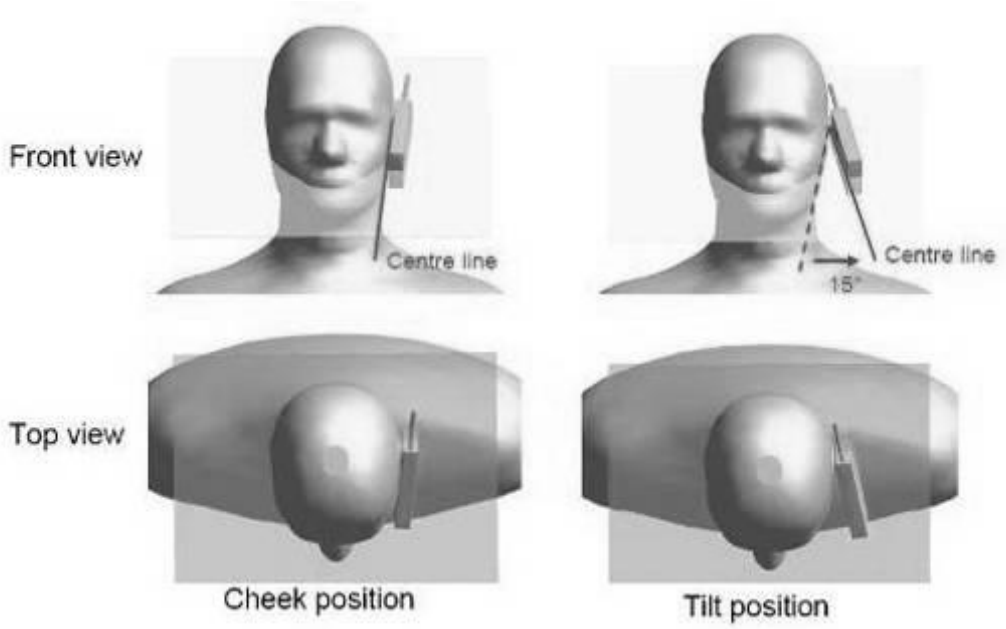
5.1.4 Definition of the “tilted” position

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

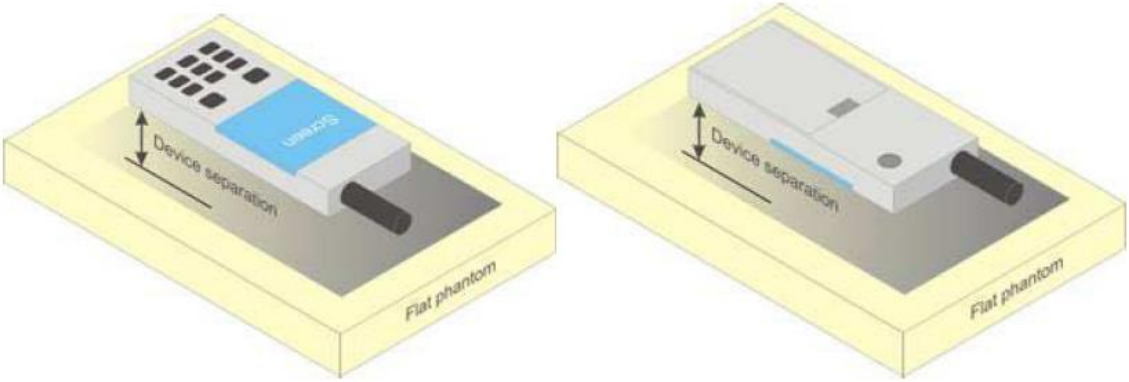
5.2 The Body Test Position

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

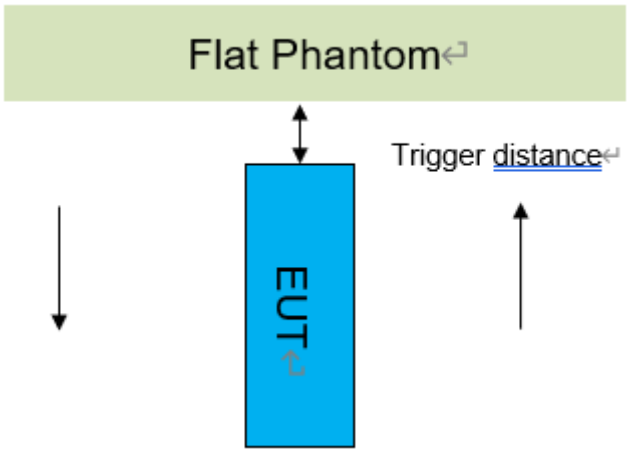
5.2.2 Wireless Router exposure conditions

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 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.

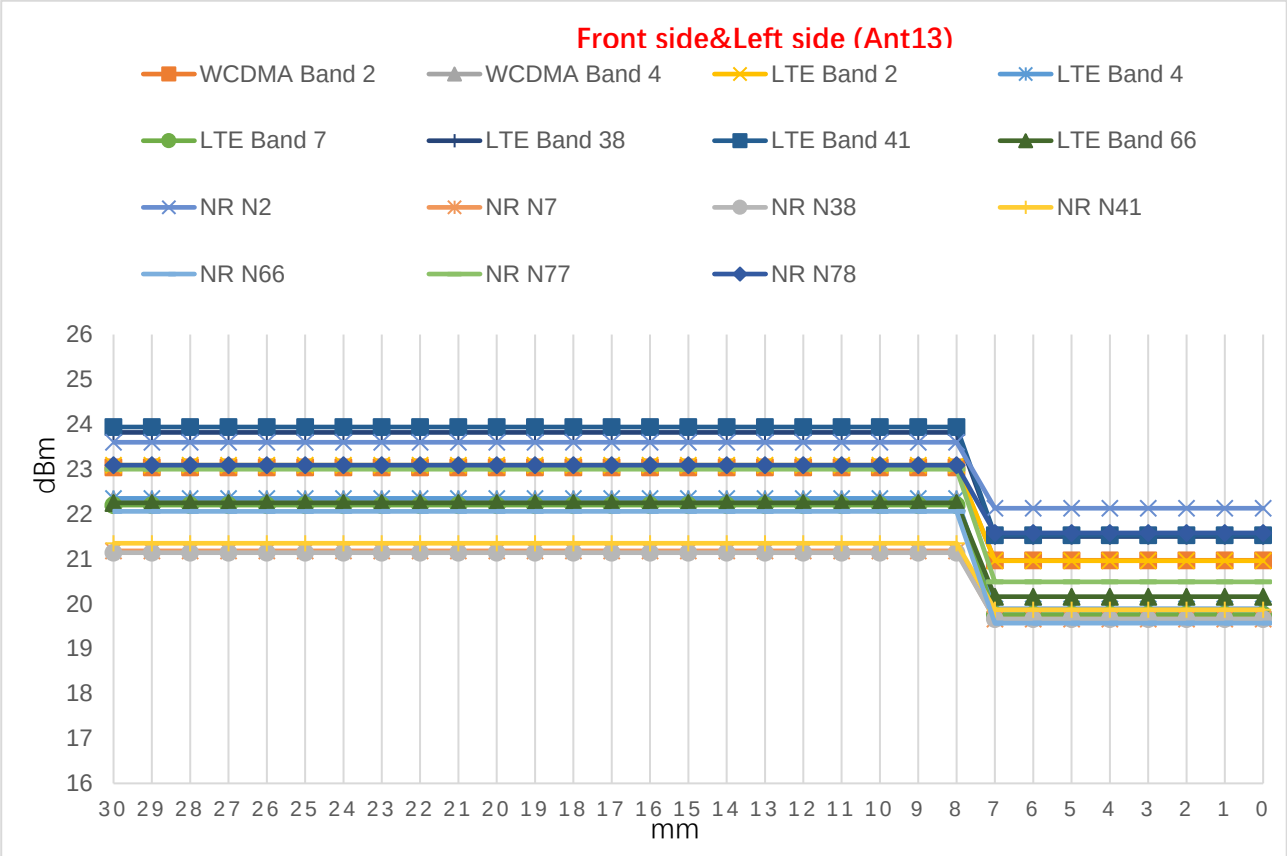


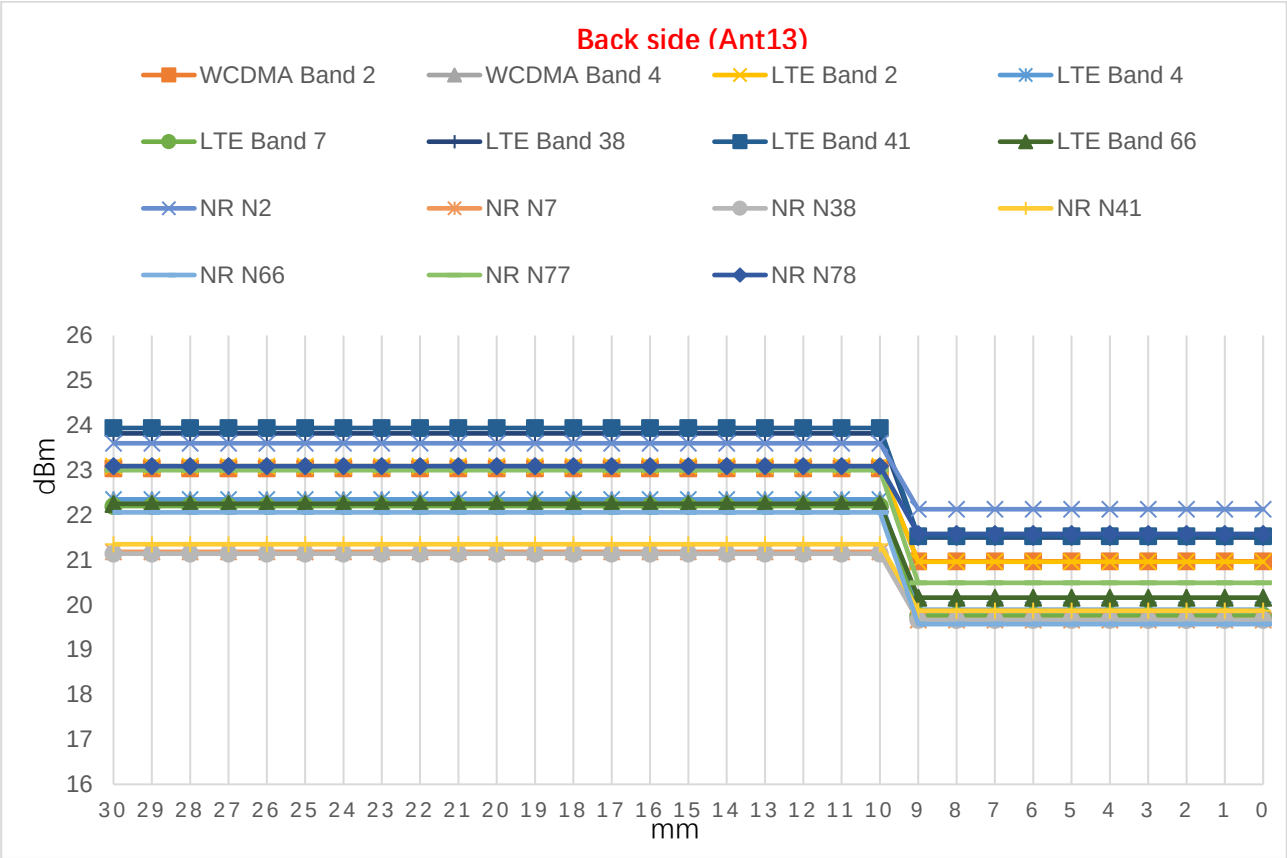
Proximity Sensor Triggering Distance(mm)		
Ant	Ant13	Ant101
Band	WCDMA: B2/4 LTE: B2/4/7/38/41/66 NR: n2/7/38/41/66/77/78	NR n77/78
Position	Front Side 7mm Back Side 9mm Top Side11mm Left Side 7mm	Front Side 7mm Back Side 9mm Top Side11mm Left Side 7mm

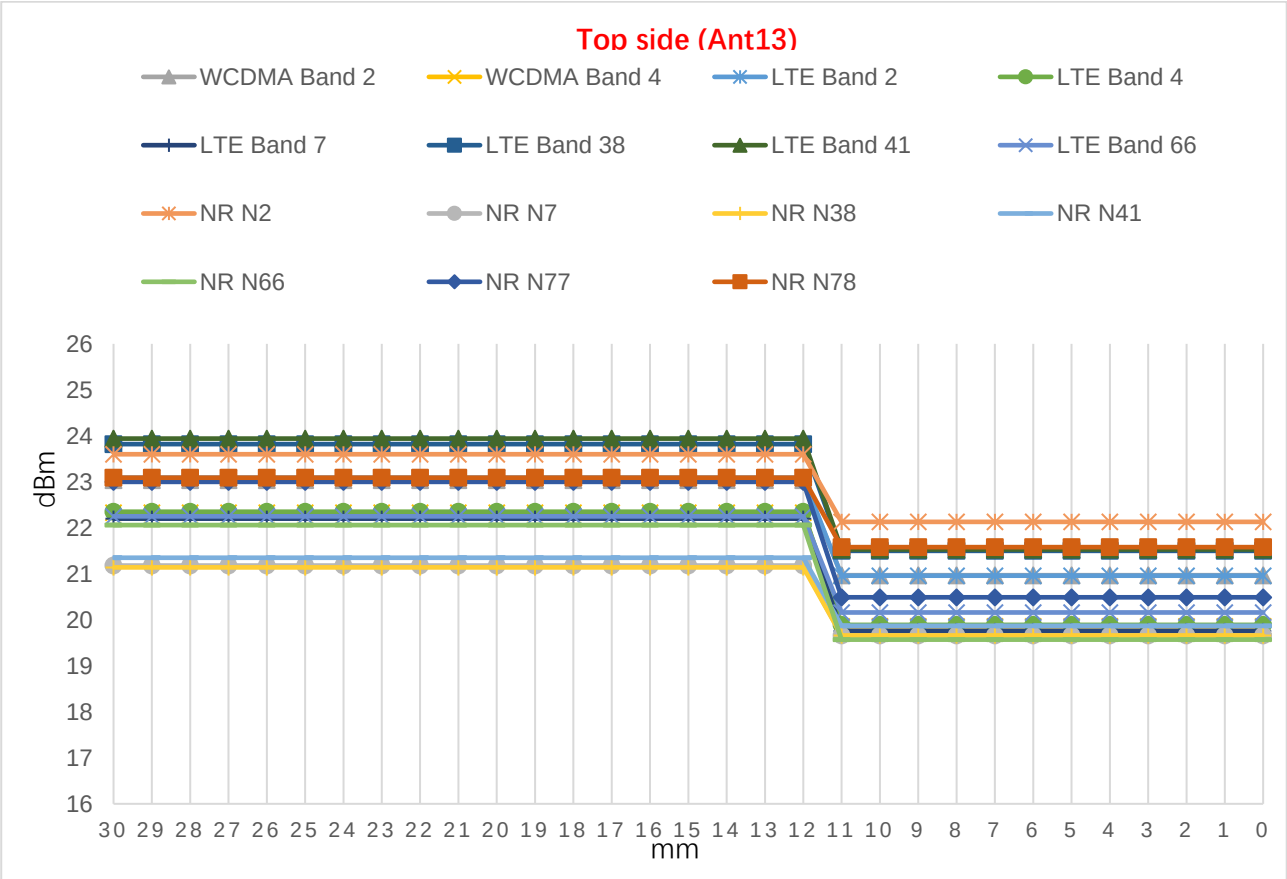
Note:

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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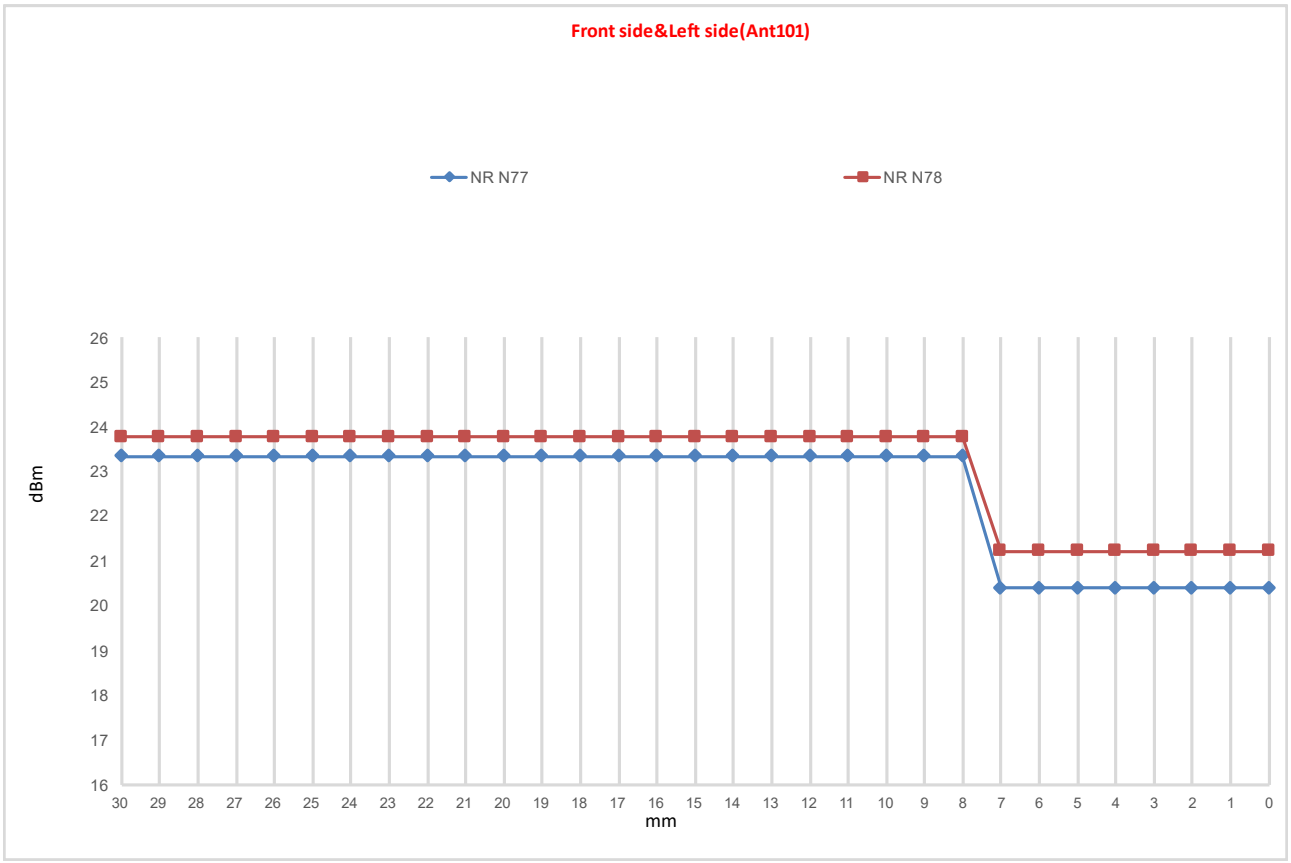

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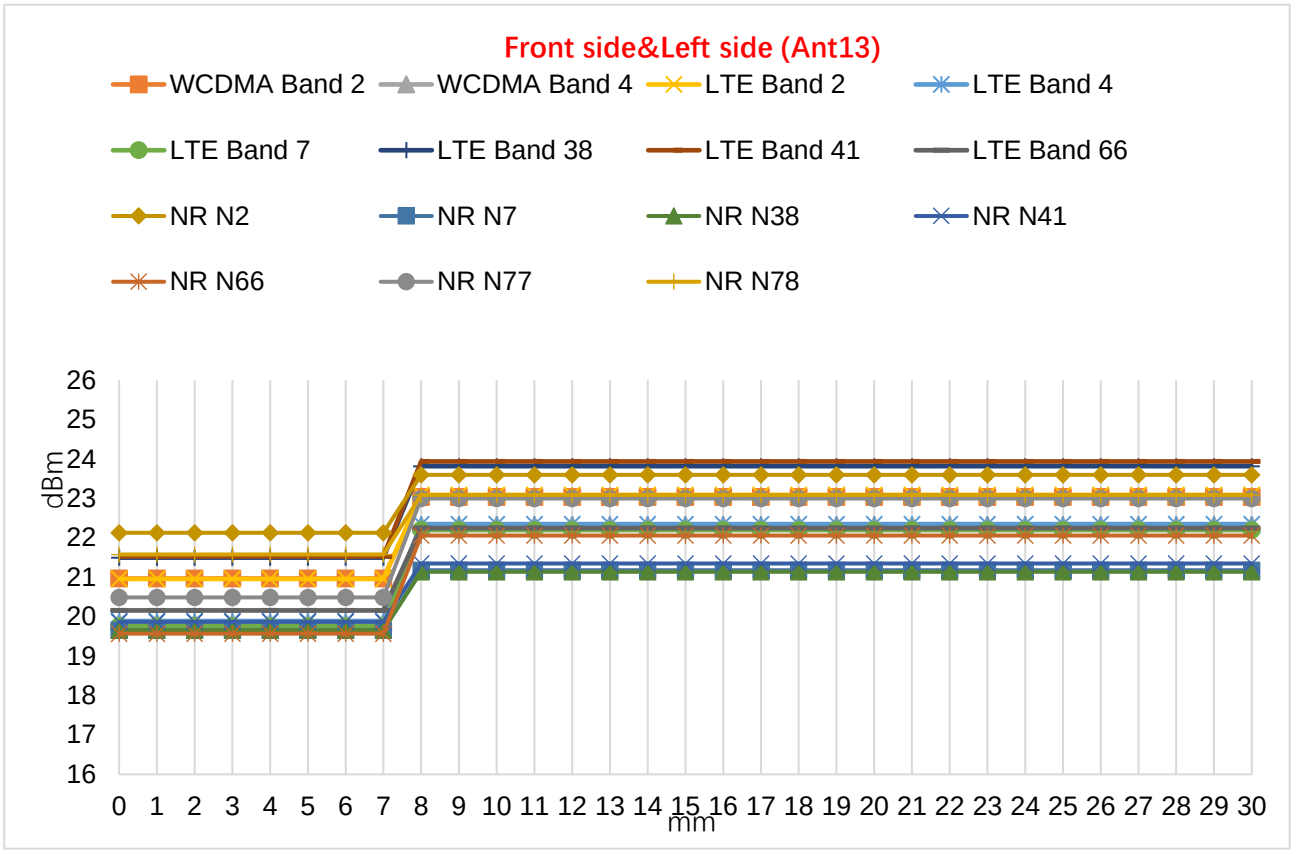
- DUT Moving Away(Release) from the Phantom



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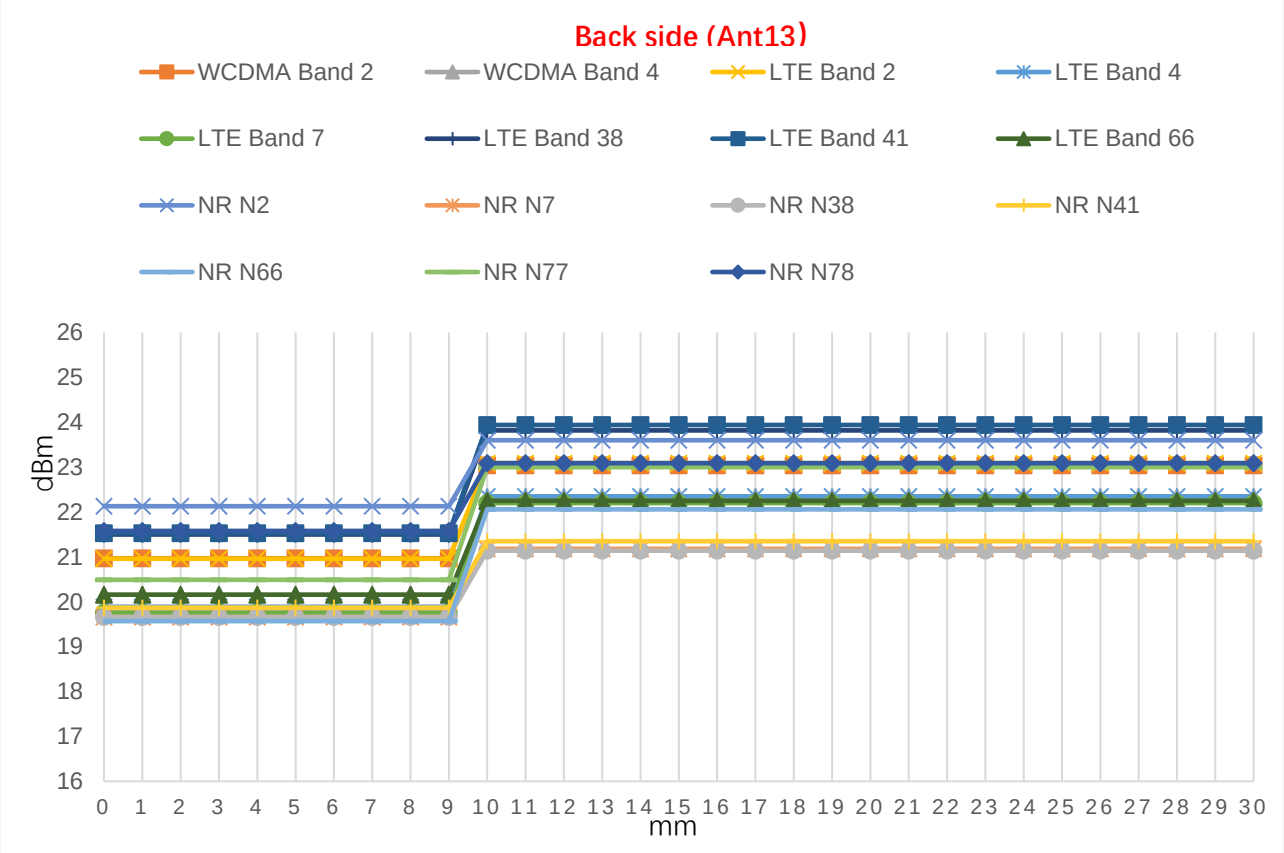

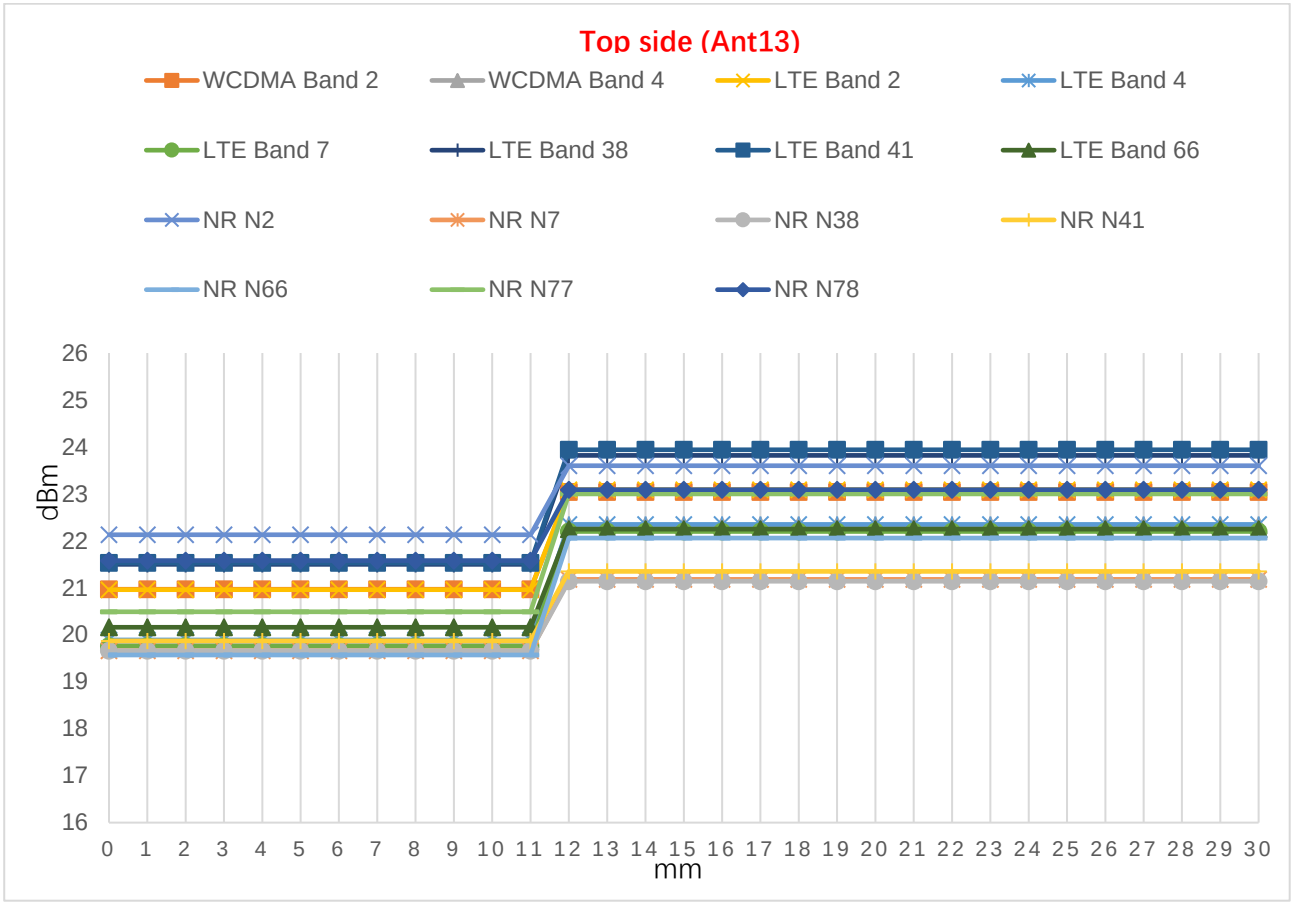

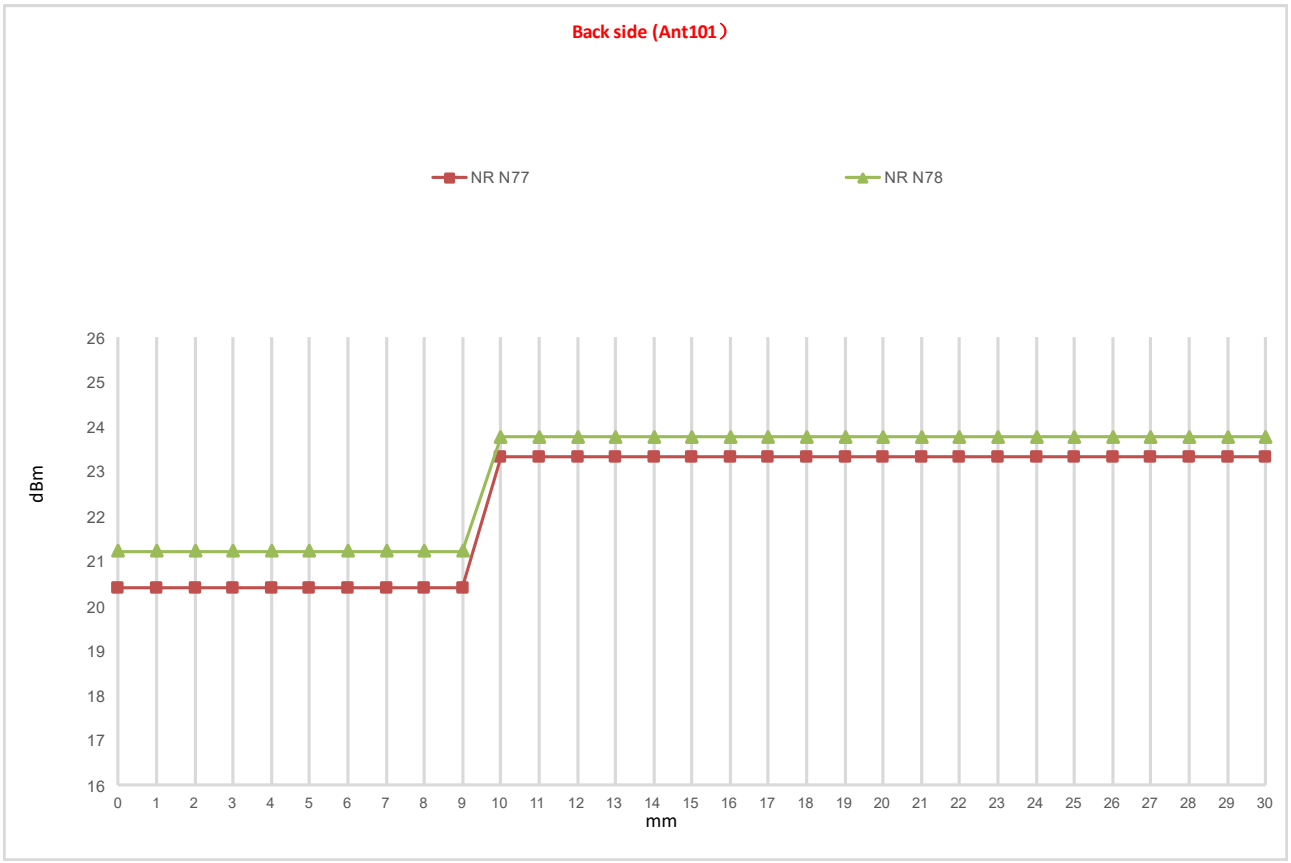

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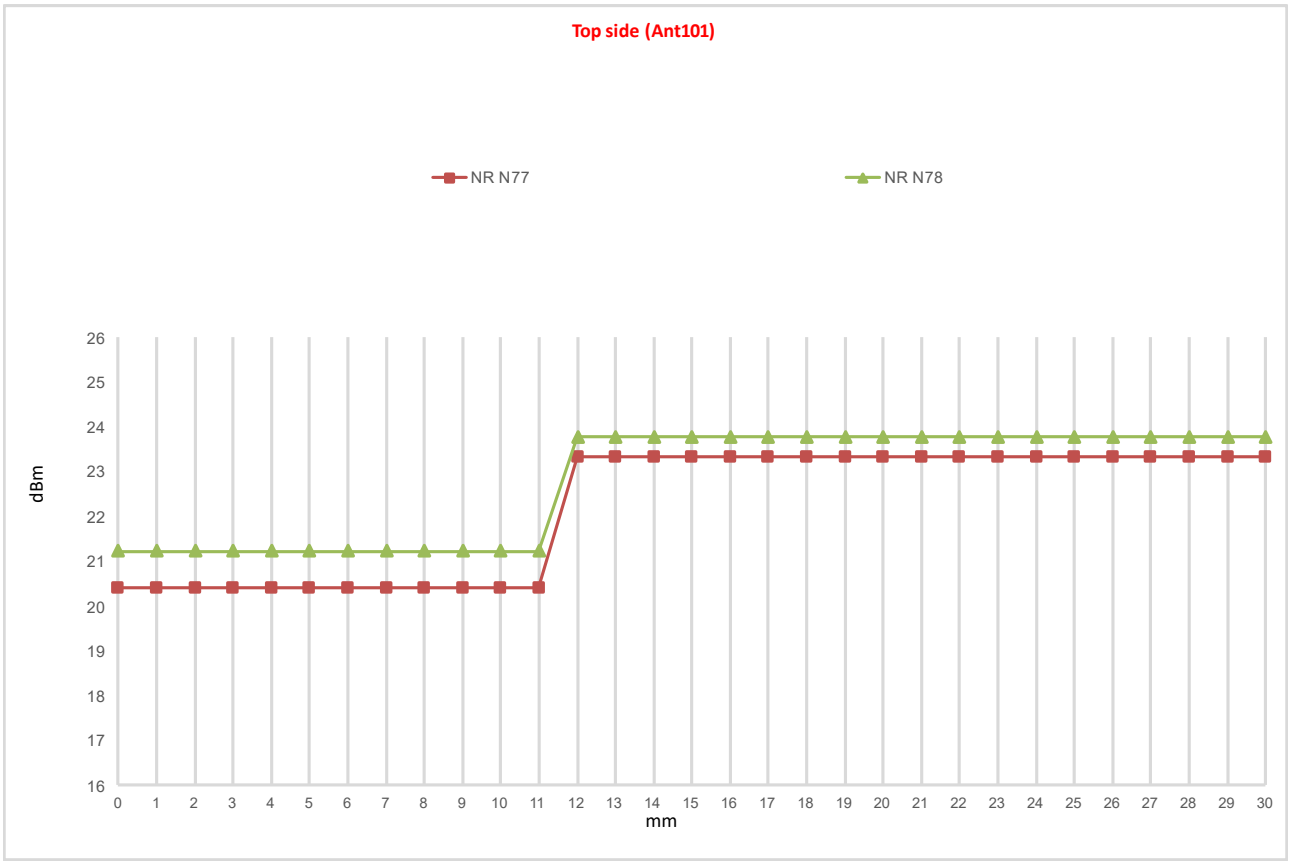


Proximity sensor coverage

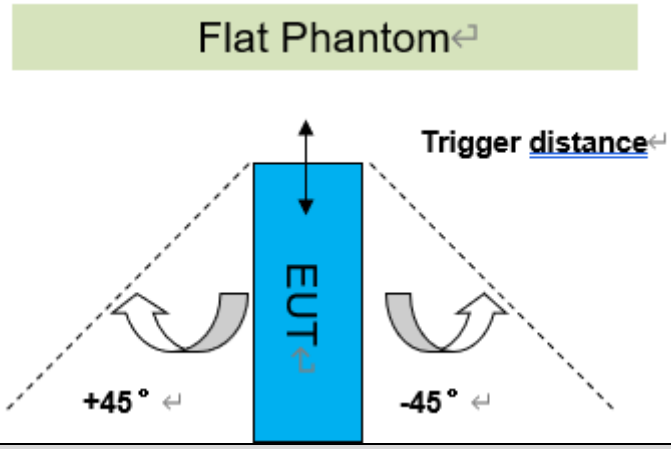
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user, but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage 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 13: WCDMA: B2/4 LTE: B2/4/7/38/41/66 NR: n2/7/38/41/66/77/78	Top Side11mm Left Side 7mm	Top Side11mm Left Side 7mm	on	on	on	on	on	on	on	on	on	on	on
Ant 101:NR n77/78	Top Side11mm Left Side 7mm	Top Side11mm Left Side 7mm	on	on	on	on	on	on	on	on	on	on	on

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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%					

Table 3： 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)		
750 Head	750	41.600	0.901	41.90	0.89	-0.72%	1.24%	22.3	2024/4/5
835 Head	835	41.300	0.940	41.50	0.90	-0.48%	4.44%	22.2	2024/4/8
835 Head	835	41.930	0.907	41.50	0.90	1.04%	0.78%	22.2	2024/4/8
835 Head	835	40.668	0.909	41.50	0.90	-2.00%	1.00%	22.2	2024/4/15
835 Head	835	42.647	0.908	41.50	0.90	2.76%	0.89%	22.1	2024/4/23
1750 Head	1750	40.559	1.330	40.10	1.37	1.14%	-2.92%	22.3	2024/4/6
1750 Head	1750	40.500	1.350	40.10	1.37	1.00%	-1.46%	22.2	2024/4/9
1750 Head	1750	39.159	1.371	40.10	1.37	-2.35%	0.07%	22.4	2024/4/26
1900 Head	1900	40.400	1.370	40.00	1.40	1.00%	-2.14%	22.3	2024/4/3
1900 Head	1900	40.259	1.388	40.00	1.40	0.65%	-0.86%	22.2	2024/4/3
1900 Head	1900	39.932	1.431	40.00	1.40	-0.17%	2.21%	22.5	2024/4/24
2450 Head	2450	38.130	1.865	39.20	1.80	-2.73%	3.63%	22.1	2024/4/27
2600 Head	2600	39.600	1.960	39.00	1.96	1.54%	0.00%	22.3	2024/4/4
2600 Head	2600	38.300	1.880	39.00	1.96	-1.79%	-4.08%	22.1	2024/4/7
2600 Head	2600	38.869	1.973	39.00	1.96	-0.34%	0.66%	22.1	2024/4/25
2600 Head	2600	38.194	2.028	39.00	1.96	-2.07%	3.46%	22.3	2024/4/29
3400 Head	3400	38.860	2.880	38.00	2.81	2.26%	2.49%	22.2	2024/4/26
3400 Head	3400	38.859	2.884	38.00	2.81	2.26%	2.63%	22.1	2024/4/27
3500 Head	3500	38.515	2.998	37.90	2.91	1.62%	3.02%	22.2	2024/4/26
3500 Head	3500	38.514	3.002	37.90	2.91	1.62%	3.16%	22.1	2024/4/27
3700 Head	3700	37.590	3.227	37.70	3.12	-0.29%	3.43%	21.8	2024/4/28
3700 Head	3700	37.885	3.235	37.70	3.12	0.49%	3.69%	22.1	2024/4/29
3900 Head	3900	36.972	3.454	37.50	3.32	-1.41%	4.04%	21.8	2024/4/28
3900 Head	3900	37.243	3.465	37.50	3.32	-0.69%	4.37%	22.1	2024/4/29
5250 Head	5250	36.730	4.675	35.90	4.66	2.31%	0.32%	22.2	2024/5/6
5600 Head	5600	35.778	5.059	35.50	5.07	0.78%	-0.22%	22.8	2024/5/4
5750 Head	5750	35.414	5.229	35.40	5.22	0.04%	0.17%	22.7	2024/5/5

Table 4： Measurement result of Tissue electric parameters

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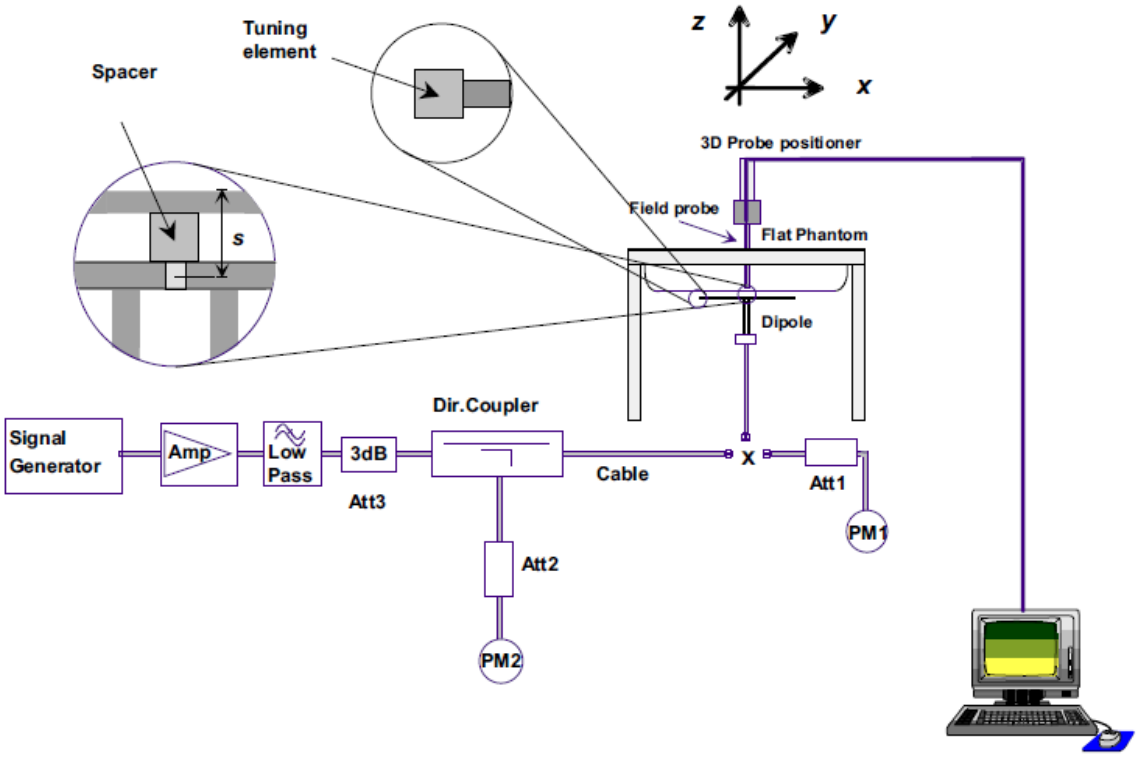
6.2 SAR System Check

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 Summary System Check Result(s)

Validation Kit		Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (℃)	Test Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10-g(W/kg)		
D750V3	Head	2.12	1.41	8.48	5.64	8.37	5.53	1.31%	1.99%	22.3	2024/4/5
D835V2	Head	2.39	1.58	9.56	6.32	9.53	6.29	0.31%	0.48%	22.2	2024/4/8
D835V2	Head	2.50	1.62	10.00	6.48	9.53	6.29	4.93%	3.02%	22.2	2024/4/8
D835V2	Head	2.48	1.61	9.92	6.44	9.53	6.29	4.09%	2.38%	22.2	2024/4/15
D835V2	Head	2.23	1.49	8.92	5.96	9.53	6.29	-6.40%	-5.25%	22.1	2024/4/23
D1750V2	Head	8.79	4.72	35.16	18.88	36.60	19.30	-3.93%	-2.18%	22.3	2024/4/6
D1750V2	Head	9.16	4.83	36.64	19.32	36.60	19.30	0.11%	0.10%	22.2	2024/4/9
D1750V2	Head	9.27	4.95	37.08	19.80	36.60	19.30	1.31%	2.59%	22.4	2024/4/26
D1900V2	Head	9.98	5.16	39.92	20.64	39.50	20.60	1.06%	0.19%	22.3	2024/4/3
D1900V2	Head	10.3	5.51	41.20	22.04	39.50	20.60	4.30%	6.99%	22.2	2024/4/3
D1900V2	Head	10.6	5.51	42.40	22.04	39.50	20.60	7.34%	6.99%	22.5	2024/4/24
D2450V2	Head	13.70	6.47	54.80	25.88	52.20	24.30	4.98%	6.50%	22.1	2024/4/27
D2600V2	Head	14.42	6.44	57.68	25.76	57.70	25.80	-0.03%	-0.16%	22.3	2024/4/4
D2600V2	Head	14.55	6.50	58.20	26.00	57.70	25.80	0.87%	0.78%	22.1	2024/4/7
D2600V2	Head	13.30	5.92	53.20	23.68	57.70	25.80	-7.80%	-8.22%	22.1	2024/4/25
D2600V2	Head	14.80	6.67	59.20	26.68	57.70	25.80	2.60%	3.41%	22.3	2024/4/29
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)	6.28	2.39	62.80	23.90	66.50	26.10	-5.56%	-8.43%	22.2	2024/4/26
	Head(3.4GHz)	6.68	2.58	66.80	25.80	66.50	26.10	0.45%	-1.15%	22.1	2024/4/27
	Head(3.5GHz)	6.29	2.39	62.90	23.90	65.80	25.70	-4.41%	-7.00%	22.2	2024/4/26
	Head(3.5GHz)	7.02	2.68	70.20	26.80	65.80	25.70	6.69%	4.28%	21.8	2024/4/29
D3700V2	Head(3.7GHz)	7.18	2.45	71.80	24.50	66.10	24.70	8.62%	-0.81%	21.8	2024/4/28
		6.36	2.32	63.60	23.20	66.10	24.70	-3.78%	-6.07%	22.1	2024/4/29
D3900V2	Head(3.9GHz)	7.18	2.45	71.80	24.50	66.70	23.80	7.65%	2.94%	21.8	2024/4/28
		7.25	2.59	72.50	25.90	66.70	23.80	8.70%	8.82%	22.1	2024/4/29
D5GHzV2	Head(5.25GHz)	7.89	2.27	78.90	22.70	77.30	22.10	2.07%	2.71%	22.2	2024/5/6
	Head(5.6GHz)	8.40	2.40	84.00	24.00	81.30	23.10	3.32%	3.90%	22.8	2024/5/4
	Head(5.75GHz)	7.69	2.19	76.90	21.90	77.10	21.30	-0.26%	2.82%	22.7	2024/5/5

Table 5： SAR System Check Result

6.2.3 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 6： 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 7： HSDPA UE category

b) HSUPA

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_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 8： Subtests for UMTS Release 6 HSUPA

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

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

Table 9： HSUPA UE category

c) DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is

measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a Second serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

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

A summary of these settings are illustrated below:

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

Table E.5.0: Levels for HSDPA connection setup

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

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

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

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

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

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

Note:

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

d) 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 $\beta_{hs} = 30/15 * \beta_c$.

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

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

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

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

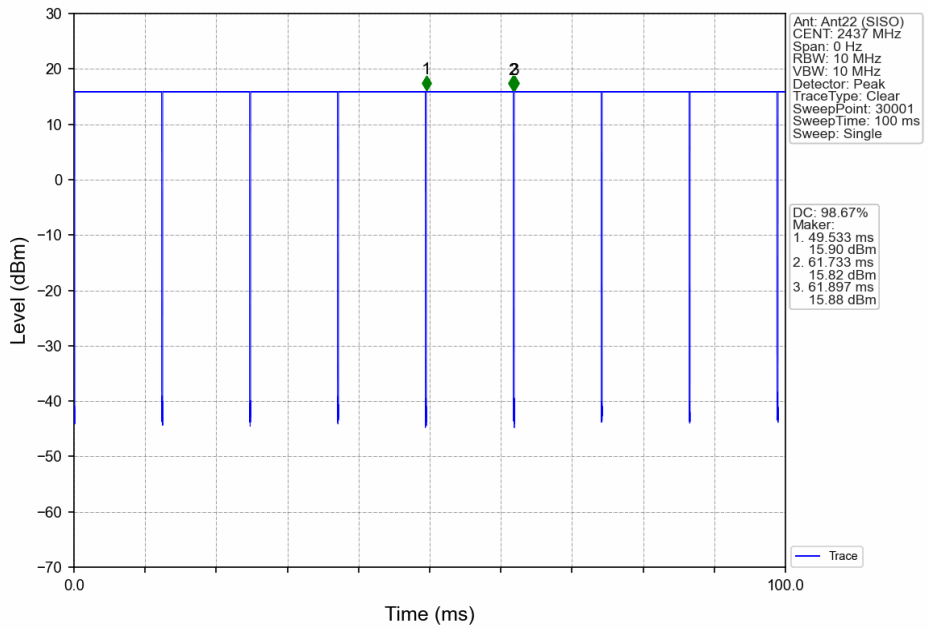
7.2.3 WIFI Test Configuration

A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement.For WIFI 5G,only U-NII-1& U-NII-3 band support Hotspot Mode.

7.2.3.1 Duty cycle

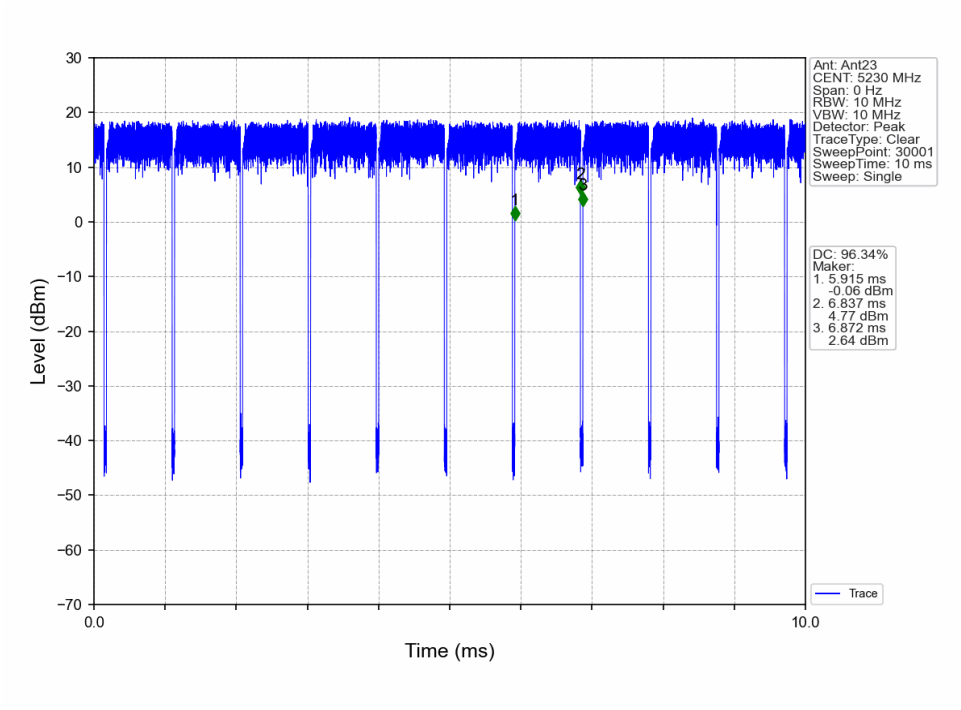
1) Wi-Fi 2.4GHz 802.11b:

Duty cycle=(61.733-49.533) / (61.897-49.533)=98.67%



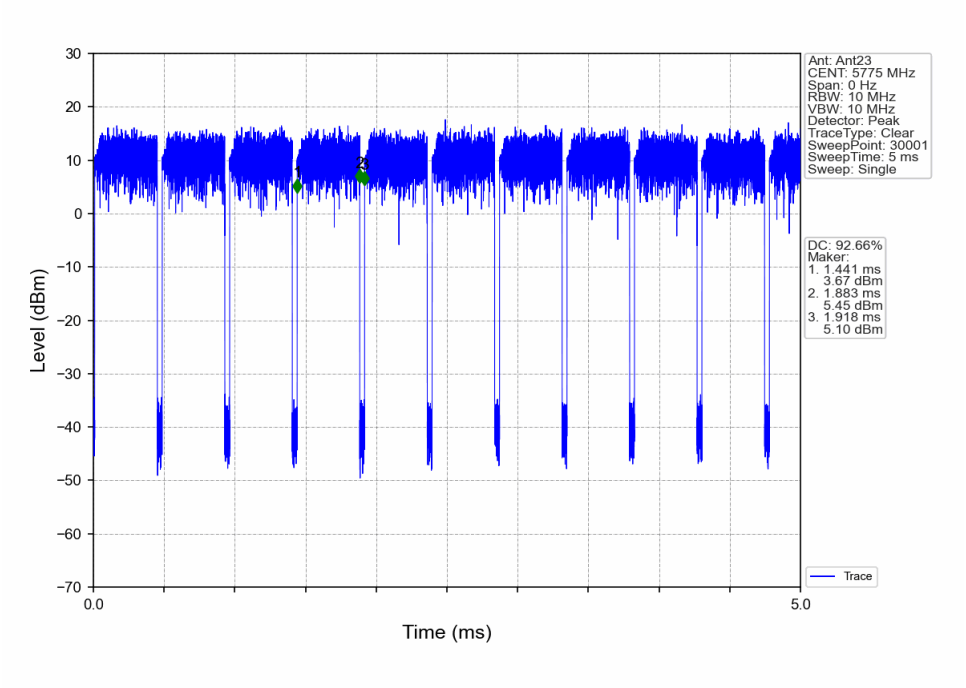
2) Wi-Fi 5GHz 802.11n40:

Duty cycle=(6.837-5.915) / (6.872-5.915)=96.34%



3) Wi-Fi 5GHz 802.11ac80:

Duty cycle=(1.883-1.441) / (1.918-1.441)=92.66 %



7.2.3.2 Initial Test Position SAR Test Reduction Procedure

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

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

7.2.3.3 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.

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OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements

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

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

- **SAR Test Requirements for OFDM configurations**

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

7.2.4 LTE Test Configuration

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:

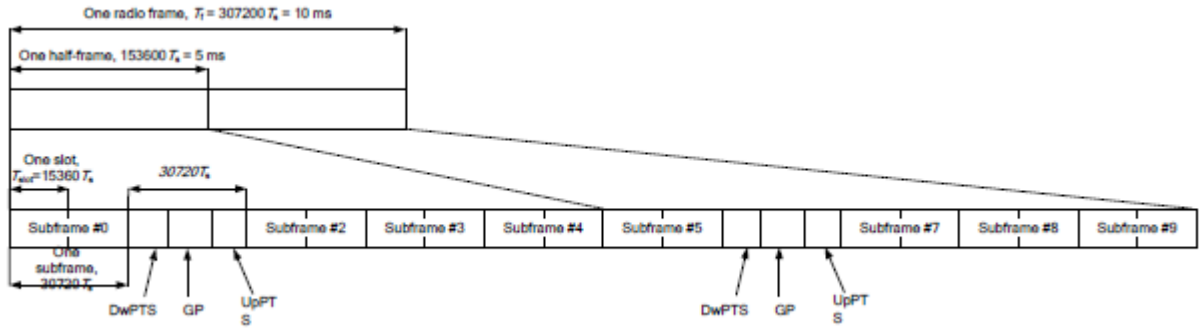

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

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

	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

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
CA_7C
CA_38C
CA_41C
CA_66B
CA_66C
CA_7B
CA_2A-2A
CA_4A-4A
CA_5A-5A
CA_7A-7A
CA_41A-41A
CA_66A-66A
CA_2A-4A
CA_2A-5A
CA_2A-7A
CA_2A-26A
CA_2A-38A
CA_2A-66A
CA_4A-5A
CA_4A-7A
CA_5A-7A
CA_5A-38A
CA_5A-41A

CA_5A-66A
CA_7A-26A
CA_7A-66A
CA_26A-41A
CA_38A-66A
CA_2A-4A-5A
CA_2A-4A-7A
CA_2A-5A-7A
CA_2A-5A-66A
CA_2A-7A-7A
CA_4A-4A-5A
CA_4A-4A-7A
CA_5A-7A-66A
CA_5A-66A-66A
CA_7A-66A-66A
CA_41A-41A-41A
CA_2A-7C
CA_4A-7C
CA_5A-7C
CA_5A-66C
CA_41A-41C
CA_5A-7C-66A
CA_5A-7A-66A-66A
CA_7C-66A-66A
CA_41A-41A-41C
CA_41C-41C
CA_41C-41D
CA_41F
Uplink LTE CA
CA_3C
CA_7C
CA_38C
CA_40C
CA_41C

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

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

– UL PCC configuration is determined by the required test channel

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

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

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

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

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

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

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

c) Inter-band carrier aggregation requirements for uplink.

1. For Inter-band uplink CA mode, 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		B4			B5		B7			B66	
		13#	*12#*	*41#*	*31#*	*11#*	*13#*	*12#*	*41#*	*13#*	*41#*
B2	*13#*			√	√	√					
	12#			√							
	41#	√	√		√	√	√	√			
B4	*13#*				√	√					
	41#				√	√	√	√			
B5	*31#*									√	√
	11#									√	√

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

Band/Antenna		LTE Band 2		LTE Band 4		LTE Band 5		LTE Band 7		LTE Band 38		LTE Band 41		LTE Band 66	
		Ant13#	Ant41#	Ant13#	Ant41#	Ant13#	Ant41#	Ant13#	Ant41#	Ant13#	Ant41#	Ant13#	Ant41#	Ant13#	Ant41#
n2	Ant13#				√	√	√		√						
	Ant41#					√	√								
	Ant12#				√				√						
n5	Ant31#							√	√						
	Ant11#							√	√						
n7	Ant13#		√		√										√
	Ant12#		√		√										√
n38	Ant13#				√										√
	Ant12#				√										√
n41	Ant13#				√										√
	Ant12#				√										√
n66	Ant13#		√			√	√		√						
	Ant41#					√	√								
	Ant12#		√						√						
n77	Ant101#							√	√						
	Ant23#							√	√						
	Ant13#							√	√						
	Ant21#							√	√						
n78	Ant101#	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Ant23#	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Ant13#	√	√	√	√	√	√	√	√	√	√	√	√	√	√
	Ant21#	√	√	√	√	√	√	√	√	√	√	√	√	√	√

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	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
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	N/A	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

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 FCC limit.

7.2.6 Force Peak technology is applied to NR TDD and LTE TDD frequency band

Qualcomm Force peak technology is applied to NR TDD and LTE TDD frequency band, and the conducted power under specific Duty Cycle is compensated according to the case of different Duty Cycle stages.
In this report for LTE TDD band config1 to 6 mode average power is not more than Config 0 mode average power of 0.25dB and above, and the 1-g reported SAR is ≤ 1.2 W/kg or 10-g reported SAR is ≤ 3.0 W/kg, only the SAR of Config 0 mode will be tested.

LTE TDD Force peak								
Band	Ant.	Power Level	Max UL duty cycle	Power Boost(dB)	P_{max} (dBm)	P_{limt}(dBm)	P_{cmax} 100% Duty cycle (dBm)	SAR test
LTE B38	Ant 41	DSI 2/3	11.67%	9.3	24.0	22.0	14.7	No
			21.67%	6.6	24.0	22.0	17.4	No
			23.33%	6.3	24.0	22.0	17.7	No
			31.67%	5.0	24.0	22.0	19.0	No
			43.33%	3.6	24.0	22.0	20.4	No
			53.33%	2.7	24.0	22.0	21.3	No
			63.33%	2.0	24.0	22.0	**22.0**	Yes
LTE B38	Ant 41	DSI 4/7	11.67%	9.3	24.0	20.5	14.7	No
			21.67%	6.6	24.0	20.5	17.4	No
			23.33%	6.3	24.0	20.5	17.7	No
			31.67%	5.0	24.0	20.5	19.0	No
			43.33%	3.6	24.0	20.5	20.4	No
			53.33%	2.7	23.2	20.5	20.5	No
			63.33%	2.0	22.5	20.5	20.5	Yes
LTE B38	Ant 41	DSI 5/6	11.67%	9.3	24.0	19.5	14.7	No
			21.67%	6.6	24.0	19.5	17.4	No
			23.33%	6.3	24.0	19.5	17.7	No
			31.67%	5.0	24.0	19.5	19.0	No
			43.33%	3.6	23.1	19.5	19.5	No
			53.33%	2.7	22.2	19.5	19.5	No
			63.33%	2.0	21.5	19.5	19.5	Yes
LTE B41	Ant 41	DSI 2/3	11.67%	9.3	24.0	22.0	14.7	No
			21.67%	6.6	24.0	22.0	17.4	No
			23.33%	6.3	24.0	22.0	17.7	No
			31.67%	5.0	24.0	22.0	19.0	No
			43.33%	3.6	24.0	22.0	20.4	No
			53.33%	2.7	24.0	22.0	21.3	No
			63.33%	2.0	24.0	22.0	**22.0**	Yes
LTE B41	Ant 41	DSI 4/7	11.67%	9.3	24.0	20.5	14.7	No

			21.67%	6.6	24.0	20.5	17.4	No
			23.33%	6.3	24.0	20.5	17.7	No
			31.67%	5.0	24.0	20.5	19.0	No
			43.33%	3.6	24.0	20.5	20.4	No
			53.33%	2.7	23.2	20.5	20.5	No
			63.33%	2.0	22.5	20.5	20.5	Yes
LTE B41	Ant 41	DSI 5/6	11.67%	9.3	24.0	19.5	14.7	No
			21.67%	6.6	24.0	19.5	17.4	No
			23.33%	6.3	24.0	19.5	17.7	No
			31.67%	5.0	24.0	19.5	19.0	No
			43.33%	3.6	23.1	19.5	19.5	No
			53.33%	2.7	22.2	19.5	19.5	No
			63.33%	2.0	21.5	19.5	19.5	Yes
LTE B38	Ant 13	DSI 2/3	11.67%	9.3	24.0	15.0	14.7	No
			21.67%	6.6	21.6	15.0	15.0	No
			23.33%	6.3	21.3	15.0	15.0	No
			31.67%	5.0	20.0	15.0	15.0	No
			43.33%	3.6	18.6	15.0	15.0	No
			53.33%	2.7	17.7	15.0	15.0	No
			63.33%	2.0	17.0	15.0	15.0	Yes
LTE B38	Ant 13	DSI 4	11.67%	9.3	24.0	19.5	14.7	No
			21.67%	6.6	24.0	19.5	17.4	No
			23.33%	6.3	24.0	19.5	17.7	No
			31.67%	5.0	24.0	19.5	19.0	No
			43.33%	3.6	23.1	19.5	19.5	No
			53.33%	2.7	22.2	19.5	19.5	No
			63.33%	2.0	21.5	19.5	19.5	Yes
LTE B38	Ant 13	DSI 5/6	11.67%	9.3	24.0	18.0	14.7	No
			21.67%	6.6	24.0	18.0	17.4	No
			23.33%	6.3	24.0	18.0	17.7	No
			31.67%	5.0	23.0	18.0	18.0	No
			43.33%	3.6	21.6	18.0	18.0	No
			53.33%	2.7	20.7	18.0	18.0	No
			63.33%	2.0	20.0	18.0	18.0	Yes
LTE B38	Ant 13	DSI 7	11.67%	9.3	24.0	22.0	14.7	No
			21.67%	6.6	24.0	22.0	17.4	No
			23.33%	6.3	24.0	22.0	17.7	No
			31.67%	5.0	24.0	22.0	19.0	No

			43.33%	3.6	24.0	22.0	20.4	No
			53.33%	2.7	24.0	22.0	21.3	No
			63.33%	2.0	24.0	22.0	**22.0**	Yes
LTE B41	Ant 13	DSI 2/3	11.67%	9.3	24.0	15.0	14.7	No
			21.67%	6.6	21.6	15.0	15.0	No
			23.33%	6.3	21.3	15.0	15.0	No
			31.67%	5.0	20.0	15.0	15.0	No
			43.33%	3.6	18.6	15.0	15.0	No
			53.33%	2.7	17.7	15.0	15.0	No
			63.33%	2.0	17.0	15.0	15.0	Yes
LTE B41	Ant 13	DSI 4	11.67%	9.3	24.0	19.5	14.7	No
			21.67%	6.6	24.0	19.5	17.4	No
			23.33%	6.3	24.0	19.5	17.7	No
			31.67%	5.0	24.0	19.5	19.0	No
			43.33%	3.6	23.1	19.5	19.5	No
			53.33%	2.7	22.2	19.5	19.5	No
			63.33%	2.0	21.5	19.5	19.5	Yes
LTE B41	Ant 13	DSI 5/6	11.67%	9.3	24.0	18.0	14.7	No
			21.67%	6.6	24.0	18.0	17.4	No
			23.33%	6.3	24.0	18.0	17.7	No
			31.67%	5.0	23.0	18.0	18.0	No
			43.33%	3.6	21.6	18.0	18.0	No
			53.33%	2.7	20.7	18.0	18.0	No
			63.33%	2.0	20.0	18.0	18.0	Yes
LTE B41	Ant 13	DSI 7	11.67%	9.3	24.0	22.0	14.7	No
			21.67%	6.6	24.0	22.0	17.4	No
			23.33%	6.3	24.0	22.0	17.7	No
			31.67%	5.0	24.0	22.0	19.0	No
			43.33%	3.6	24.0	22.0	20.4	No
			53.33%	2.7	24.0	22.0	21.3	No
			63.33%	2.0	24.0	22.0	**22.0**	Yes

In this report for NR TDD band the max tune-up power under each duty cycle is uniformly converted into the signaling average power under 100% duty cycle. The signaling average power is not more than 100% Duty Cycle FTM mode power of 0.25dB and above, and the 1-g reported SAR is ≤ 1.2 W/kg or 10-g reported SAR is ≤ 3.0 W/kg, only the SAR of 100% Duty Cycle FTM mode will be tested.

SA NR TDD Force peak								
Band	Ant.	Power Level	Max UL duty cycle	Power Boost(dB)	P_{max} (dBm)	P_{limt}(dBm)	P_{cmax} 100% Duty cycle (dBm)	SAR test
N38	Ant 41	DSI 2/3	21.40%	6.7	23.5	23.5	16.8	No
			41.40%	3.8	23.5	23.5	19.7	No
			61.40%	2.1	23.5	23.5	21.4	No
			100.00%	0.0	23.5	23.5	**23.5**	Yes
N38	Ant 41	DSI 4/7	21.40%	6.7	23.5	20.2	16.8	No
			41.40%	3.8	23.5	20.2	19.7	No
			61.40%	2.1	22.3	20.2	20.2	No
			100.00%	0.0	20.2	20.2	**20.2**	Yes
N38	Ant 41	DSI 5/6	21.40%	6.7	23.5	19.2	16.8	No
			41.40%	3.8	23.0	19.2	19.2	No
			61.40%	2.1	21.3	19.2	19.2	No
			100.00%	0.0	19.2	19.2	**19.2**	Yes
N41 PC2	Ant 41	DSI 2/3	21.40%	6.7	25.0	25.0	18.3	No
			41.40%	3.8	25.0	25.0	21.2	No
			61.40%	2.1	25.0	25.0	22.9	No
			100.00%	0.0	25.0	25.0	**25.0**	Yes
N41 PC2	Ant 41	DSI 4/7	21.40%	6.7	25.0	19.5	18.3	No
			41.40%	3.8	23.3	19.5	19.5	No
			61.40%	2.1	21.6	19.5	19.5	No
			100.00%	0.0	19.5	19.5	**19.5**	Yes
N41 PC2	Ant 41	DSI 5/6	21.40%	6.7	25.0	18.5	18.3	No
			41.40%	3.8	22.3	18.5	18.5	No
			61.40%	2.1	20.6	18.5	18.5	No
			100.00%	0.0	18.5	18.5	**18.5**	Yes
N41 PC3	Ant 41	DSI 2/3	21.40%	6.7	22.0	22.0	15.3	No
			41.40%	3.8	22.0	22.0	18.2	No
			61.40%	2.1	22.0	22.0	19.9	No
			100.00%	0.0	22.0	22.0	**22.0**	Yes
N41 PC3	Ant 41	DSI 4/7	21.40%	6.7	22.0	19.5	15.3	No
			41.40%	3.8	22.0	19.5	18.2	No
			61.40%	2.1	21.6	19.5	19.5	No

			100.00%	0.0	19.5	19.5	**19.5**	Yes
N41 PC3	Ant 41	DSI 5/6	21.40%	6.7	22.0	18.5	15.3	No
			41.40%	3.8	22.0	18.5	18.2	No
			61.40%	2.1	20.6	18.5	18.5	No
			100.00%	0.0	18.5	18.5	**18.5**	Yes
N38	Ant 13	DSI 2/3	21.40%	6.7	21.4	14.7	14.7	No
			41.40%	3.8	18.5	14.7	14.7	No
			61.40%	2.1	16.8	14.7	14.7	No
			100.00%	0.0	14.7	14.7	**14.7**	Yes
N38	Ant 13	DSI 4	21.40%	6.7	23.5	19.7	16.8	No
			41.40%	3.8	23.5	19.7	19.7	No
			61.40%	2.1	21.8	19.7	19.7	No
			100.00%	0.0	19.7	19.7	**19.7**	Yes
N38	Ant 13	DSI 5/6	21.40%	6.7	23.5	18.2	16.8	No
			41.40%	3.8	22.0	18.2	18.2	No
			61.40%	2.1	20.3	18.2	18.2	No
			100.00%	0.0	18.2	18.2	**18.2**	Yes
N38	Ant 13	DSI 7	21.40%	6.7	23.5	21.2	16.8	No
			41.40%	3.8	23.5	21.2	19.7	No
			61.40%	2.1	23.3	21.2	21.2	No
			100.00%	0.0	21.2	21.2	**21.2**	Yes
N41 PC2	Ant 13	DSI 2/3	21.40%	6.7	21.4	14.7	14.7	No
			41.40%	3.8	18.5	14.7	14.7	No
			61.40%	2.1	16.8	14.7	14.7	No
			100.00%	0.0	14.7	14.7	**14.7**	Yes
N41 PC2	Ant 13	DSI 4	21.40%	6.7	25.2	19.7	18.5	No
			41.40%	3.8	23.5	19.7	19.7	No
			61.40%	2.1	21.8	19.7	19.7	No
			100.00%	0.0	19.7	19.7	**19.7**	Yes
N41 PC2	Ant 13	DSI 5/6	21.40%	6.7	24.9	18.2	18.2	No
			41.40%	3.8	22.0	18.2	18.2	No
			61.40%	2.1	20.3	18.2	18.2	No
			100.00%	0.0	18.2	18.2	**18.2**	Yes
N41 PC2	Ant 13	DSI 7	21.40%	6.7	25.2	21.2	18.5	No
			41.40%	3.8	25.0	21.2	21.2	No
			61.40%	2.1	23.3	21.2	21.2	No
			100.00%	0.0	21.2	21.2	**21.2**	Yes
N41 PC3	Ant 13	DSI 2/3	21.40%	6.7	21.4	14.7	14.7	No

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			41.40%	3.8	18.5	14.7	14.7	No
			61.40%	2.1	16.8	14.7	14.7	No
			100.00%	0.0	14.7	14.7	**14.7**	Yes
N41 PC3	Ant 13	DSI 4	21.40%	6.7	22.2	19.7	15.5	No
			41.40%	3.8	22.2	19.7	18.4	No
			61.40%	2.1	21.8	19.7	19.7	No
			100.00%	0.0	19.7	19.7	**19.7**	Yes
N41 PC3	Ant 13	DSI 5/6	21.40%	6.7	22.2	18.2	15.5	No
			41.40%	3.8	22.0	18.2	18.2	No
			61.40%	2.1	20.3	18.2	18.2	No
			100.00%	0.0	18.2	18.2	**18.2**	Yes
N41 PC3	Ant 13	DSI 7	21.40%	6.7	22.2	21.2	15.5	No
			41.40%	3.8	22.2	21.2	18.4	No
			61.40%	2.1	22.2	21.2	20.1	No
			100.00%	0.0	21.2	21.2	**21.2**	Yes
N77	Ant 101	DSI 2	21.40%	6.7	23.5	20.5	16.8	No
			41.40%	3.8	23.5	20.5	19.7	No
			61.40%	2.1	22.6	20.5	20.5	No
			100.00%	0.0	20.5	20.5	**20.5**	Yes
N77	Ant 101	DSI 3	21.40%	6.7	23.5	20.0	16.8	No
			41.40%	3.8	23.5	20.0	19.7	No
			61.40%	2.1	22.1	20.0	20.0	No
			100.00%	0.0	20.0	20.0	**20.0**	Yes
N77	Ant 101	DSI 4	21.40%	6.7	23.5	20.5	16.8	No
			41.40%	3.8	23.5	20.5	19.7	No
			61.40%	2.1	22.6	20.5	20.5	No
			100.00%	0.0	20.5	20.5	**20.5**	Yes
N77	Ant 101	DSI 5/6	21.40%	6.7	23.5	19.5	16.8	No
			41.40%	3.8	23.3	19.5	19.5	No
			61.40%	2.1	21.6	19.5	19.5	No
			100.00%	0.0	19.5	19.5	**19.5**	Yes
N77	Ant 101	DSI 7	21.40%	6.7	23.5	23.5	16.8	No
			41.40%	3.8	23.5	23.5	19.7	No
			61.40%	2.1	23.5	23.5	21.4	No
			100.00%	0.0	23.5	23.5	**23.5**	Yes
N78 PC2	Ant 101	DSI 2/3/4	21.40%	6.7	25.5	20.5	18.8	No
			41.40%	3.8	24.3	20.5	20.5	No
			61.40%	2.1	22.6	20.5	20.5	No

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			100.00%	0.0	20.5	20.5	**20.5**	Yes
N78 PC2	Ant 101	DSI 5/6	21.40%	6.7	24.7	18.0	18.0	No
			41.40%	3.8	21.8	18.0	18.0	No
			61.40%	2.1	20.1	18.0	18.0	No
			100.00%	0.0	18.0	18.0	**18.0**	Yes
N78 PC2	Ant 101	DSI 7	21.40%	6.7	25.5	23.5	18.8	No
			41.40%	3.8	25.5	23.5	21.7	No
			61.40%	2.1	25.5	23.5	23.4	No
			100.00%	0.0	23.5	23.5	**23.5**	Yes
N78 PC3	Ant 101	DSI 2/3/4	21.40%	6.7	22.5	20.5	15.8	No
			41.40%	3.8	22.5	20.5	18.7	No
			61.40%	2.1	22.5	20.5	20.4	No
			100.00%	0.0	20.5	20.5	**20.5**	Yes
N78 PC3	Ant 101	DSI 5/6	21.40%	6.7	22.5	18.0	15.8	No
			41.40%	3.8	21.8	18.0	18.0	No
			61.40%	2.1	20.1	18.0	18.0	No
			100.00%	0.0	18.0	18.0	**18.0**	Yes
N78 PC3	Ant 101	DSI 7	21.40%	6.7	22.5	22.5	15.8	No
			41.40%	3.8	22.5	22.5	18.7	No
			61.40%	2.1	22.5	22.5	20.4	No
			100.00%	0.0	22.5	22.5	**22.5**	Yes
N77	Ant 23	DSI 2	21.40%	6.7	23.2	16.5	16.5	No
			41.40%	3.8	20.3	16.5	16.5	No
			61.40%	2.1	18.6	16.5	16.5	No
			100.00%	0.0	16.5	16.5	**16.5**	Yes
N77	Ant 23	DSI 3	21.40%	6.7	22.7	16.0	16.0	No
			41.40%	3.8	19.8	16.0	16.0	No
			61.40%	2.1	18.1	16.0	16.0	No
			100.00%	0.0	16.0	16.0	**16.0**	Yes
N77	Ant 23	DSI 4/7	21.40%	6.7	23.5	17.0	16.8	No
			41.40%	3.8	20.8	17.0	17.0	No
			61.40%	2.1	19.1	17.0	17.0	No
			100.00%	0.0	17.0	17.0	**17.0**	Yes
N77	Ant 23	DSI 5/6	21.40%	6.7	22.2	15.5	15.5	No
			41.40%	3.8	19.3	15.5	15.5	No
			61.40%	2.1	17.6	15.5	15.5	No
			100.00%	0.0	15.5	15.5	**15.5**	Yes
N78 PC2	Ant 23	DSI 2	21.40%	6.7	23.2	16.5	16.5	No

			41.40%	3.8	20.3	16.5	16.5	No
			61.40%	2.1	18.6	16.5	16.5	No
			100.00%	0.0	16.5	16.5	**16.5**	Yes
N78 PC2	Ant 23	DSI 3	21.40%	6.7	22.2	15.5	15.5	No
			41.40%	3.8	19.3	15.5	15.5	No
			61.40%	2.1	17.6	15.5	15.5	No
			100.00%	0.0	15.5	15.5	**15.5**	Yes
N78 PC2	Ant 23	DSI 4/7	21.40%	6.7	23.7	17.0	17.0	No
			41.40%	3.8	20.8	17.0	17.0	No
			61.40%	2.1	19.1	17.0	17.0	No
			100.00%	0.0	17.0	17.0	**17.0**	Yes
N78 PC2	Ant 23	DSI 5/6	21.40%	6.7	22.2	15.5	15.5	No
			41.40%	3.8	19.3	15.5	15.5	No
			61.40%	2.1	17.6	15.5	15.5	No
			100.00%	0.0	15.5	15.5	**15.5**	Yes
N78 PC3	Ant 23	DSI 2	21.40%	6.7	21.5	16.5	14.8	No
			41.40%	3.8	20.3	16.5	16.5	No
			61.40%	2.1	18.6	16.5	16.5	No
			100.00%	0.0	16.5	16.5	**16.5**	Yes
N78 PC3	Ant 23	DSI 3/5/6	21.40%	6.7	21.5	15.5	14.8	No
			41.40%	3.8	19.3	15.5	15.5	No
			61.40%	2.1	17.6	15.5	15.5	No
			100.00%	0.0	15.5	15.5	**15.5**	Yes
N78 PC3	Ant 23	DSI 4/7	21.40%	6.7	21.5	17.0	14.8	No
			41.40%	3.8	20.8	17.0	17.0	No
			61.40%	2.1	19.1	17.0	17.0	No
			100.00%	0.0	17.0	17.0	**17.0**	Yes
N77	Ant 13	DSI 2	21.40%	6.7	23.5	17.0	16.8	No
			41.40%	3.8	20.8	17.0	17.0	No
			61.40%	2.1	19.1	17.0	17.0	No
			100.00%	0.0	17.0	17.0	**17.0**	Yes
N77	Ant 13	DSI 3	21.40%	6.7	23.2	16.5	16.5	No
			41.40%	3.8	20.3	16.5	16.5	No
			61.40%	2.1	18.6	16.5	16.5	No
			100.00%	0.0	16.5	16.5	**16.5**	Yes
N77	Ant 13	DSI 4	21.40%	6.7	23.5	21.0	16.8	No
			41.40%	3.8	23.5	21.0	19.7	No
			61.40%	2.1	23.1	21.0	21.0	No

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			100.00%	0.0	21.0	21.0	**21.0**	Yes
N77	Ant 13	DSI 5/6	21.40%	6.7	23.5	20.5	16.8	No
			41.40%	3.8	23.5	20.5	19.7	No
			61.40%	2.1	22.6	20.5	20.5	No
			100.00%	0.0	20.5	20.5	**20.5**	Yes
N77	Ant 13	DSI 7	21.40%	6.7	23.5	23.5	16.8	No
			41.40%	3.8	23.5	23.5	19.7	No
			61.40%	2.1	23.5	23.5	21.4	No
			100.00%	0.0	23.5	23.5	**23.5**	Yes
N78 PC2	Ant 13	DSI 2/3	21.40%	6.7	22.4	15.7	15.7	No
			41.40%	3.8	19.5	15.7	15.7	No
			61.40%	2.1	17.8	15.7	15.7	No
			100.00%	0.0	15.7	15.7	**15.7**	Yes
N78 PC2	Ant 13	DSI 4	21.40%	6.7	23.2	21.7	16.5	No
			41.40%	3.8	23.2	21.7	19.4	No
			61.40%	2.1	23.2	21.7	21.1	No
			100.00%	0.0	21.7	21.7	**21.7**	Yes
N78 PC2	Ant 13	DSI 5/6	21.40%	6.7	23.2	20.7	16.5	No
			41.40%	3.8	23.2	20.7	19.4	No
			61.40%	2.1	22.8	20.7	20.7	No
			100.00%	0.0	20.7	20.7	**20.7**	Yes
N78 PC2	Ant 13	DSI 7	21.40%	6.7	23.2	23.2	16.5	No
			41.40%	3.8	23.2	23.2	19.4	No
			61.40%	2.1	23.2	23.2	21.1	No
			100.00%	0.0	23.2	23.2	**23.2**	Yes
N78 PC3	Ant 13	DSI 2/3	21.40%	6.7	20.2	15.7	13.5	No
			41.40%	3.8	19.5	15.7	15.7	No
			61.40%	2.1	17.8	15.7	15.7	No
			100.00%	0.0	15.7	15.7	**15.7**	Yes
N78 PC3	Ant 13	DSI 4/5/6/7	21.40%	6.7	20.2	20.2	13.5	No
			41.40%	3.8	20.2	20.2	16.4	No
			61.40%	2.1	20.2	20.2	18.1	No
			100.00%	0.0	20.2	20.2	**20.2**	Yes
N77	Ant 21	DSI 2	21.40%	6.7	23.5	17.5	16.8	No
			41.40%	3.8	21.3	17.5	17.5	No
			61.40%	2.1	19.6	17.5	17.5	No
			100.00%	0.0	17.5	17.5	**17.5**	Yes
N77	Ant 21	DSI 3	21.40%	6.7	23.2	16.5	16.5	No

			41.40%	3.8	20.3	16.5	16.5	No
			61.40%	2.1	18.6	16.5	16.5	No
			100.00%	0.0	16.5	16.5	**16.5**	Yes
N77	Ant 21	DSI 4/7	21.40%	6.7	23.5	19.5	16.8	No
			41.40%	3.8	23.3	19.5	19.5	No
			61.40%	2.1	21.6	19.5	19.5	No
			100.00%	0.0	19.5	19.5	**19.5**	Yes
N77	Ant 21	DSI 5/6	21.40%	6.7	23.5	18.5	16.8	No
			41.40%	3.8	22.3	18.5	18.5	No
			61.40%	2.1	20.6	18.5	18.5	No
			100.00%	0.0	18.5	18.5	**18.5**	Yes
N78 PC2	Ant 21	DSI 2	21.40%	6.7	22.7	16.0	16.0	No
			41.40%	3.8	19.8	16.0	16.0	No
			61.40%	2.1	18.1	16.0	16.0	No
			100.00%	0.0	16.0	16.0	**16.0**	Yes
N78 PC2	Ant 21	DSI 3	21.40%	6.7	21.7	15.0	15.0	No
			41.40%	3.8	18.8	15.0	15.0	No
			61.40%	2.1	17.1	15.0	15.0	No
			100.00%	0.0	15.0	15.0	**15.0**	Yes
N78 PC2	Ant 21	DSI 4/7	21.40%	6.7	25.0	19.0	18.3	No
			41.40%	3.8	22.8	19.0	19.0	No
			61.40%	2.1	21.1	19.0	19.0	No
			100.00%	0.0	19.0	19.0	**19.0**	Yes
N78 PC2	Ant 21	DSI 5/6	21.40%	6.7	24.7	18.0	18.0	No
			41.40%	3.8	21.8	18.0	18.0	No
			61.40%	2.1	20.1	18.0	18.0	No
			100.00%	0.0	18.0	18.0	**18.0**	Yes
N78 PC3	Ant 21	DSI 2	21.40%	6.7	22.0	16.0	15.3	No
			41.40%	3.8	19.8	16.0	16.0	No
			61.40%	2.1	18.1	16.0	16.0	No
			100.00%	0.0	16.0	16.0	**16.0**	Yes
N78 PC3	Ant 21	DSI 3	21.40%	6.7	21.7	15.0	15.0	No
			41.40%	3.8	18.8	15.0	15.0	No
			61.40%	2.1	17.1	15.0	15.0	No
			100.00%	0.0	15.0	15.0	**15.0**	Yes
N78 PC3	Ant 21	DSI 4/7	21.40%	6.7	22.0	19.0	15.3	No
			41.40%	3.8	22.0	19.0	18.2	No
			61.40%	2.1	21.1	19.0	19.0	No

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			100.00%	0.0	19.0	19.0	**19.0**	Yes
N78 PC3	Ant 21	DSI 5/6	21.40%	6.7	22.0	18.0	15.3	No
			41.40%	3.8	21.8	18.0	18.0	No
			61.40%	2.1	20.1	18.0	18.0	No
			100.00%	0.0	18.0	18.0	**18.0**	Yes

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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.

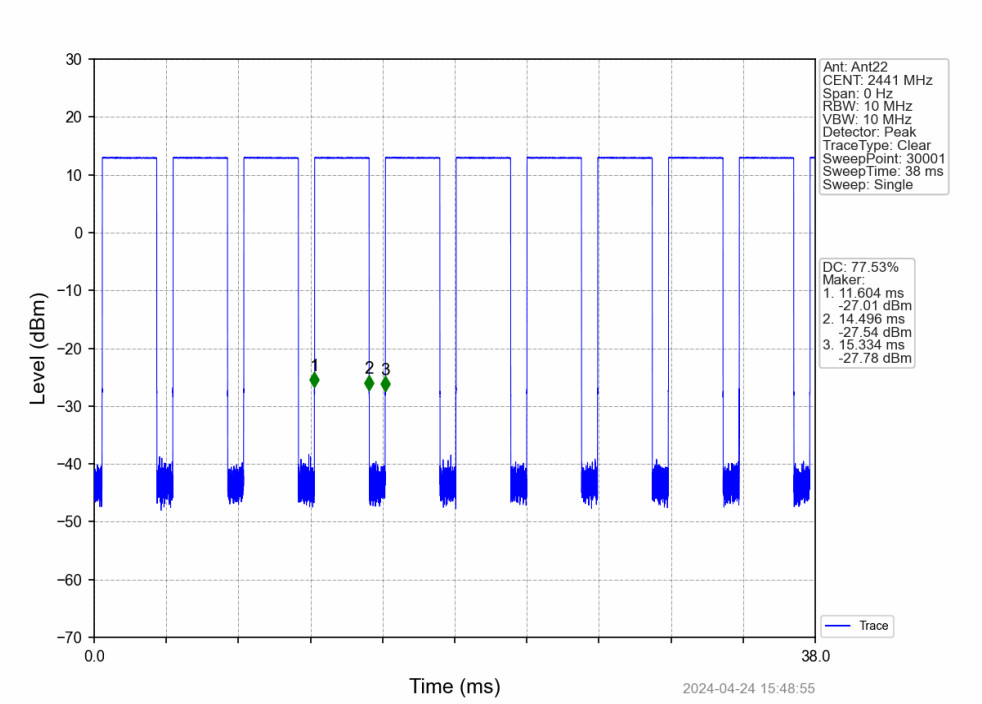
8）. For conducted power of WIFI must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band. For each

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=(14.496-11.604) / (15.334-11.604)=77.53%



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 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	0.162	0.093	0.06	24.83	26.00	1.309	0.212	22.2
Left tilted	GPRS 4TS	190/836.6	1:2.075	0.062	0.041	0.02	24.83	26.00	1.309	0.082	22.2
Right cheek	GPRS 4TS	190/836.6	1:2.075	0.310	0.170	0.05	24.83	26.00	1.309	**0.406**	22.2
Right tilted	GPRS 4TS	190/836.6	1:2.075	0.092	0.057	0.05	24.83	26.00	1.309	0.120	22.2
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 2TS	190/836.6	1:4.15	0.184	0.121	-0.10	30.81	32.00	1.315	0.242	22.2
Back side	GPRS 2TS	190/836.6	1:4.15	0.262	0.164	-0.04	30.81	32.00	1.315	**0.345**	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 4TS	190/836.6	1:2.075	0.273	0.170	-0.14	26.15	27.50	1.365	0.373	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.354	0.204	0.01	26.15	27.50	1.365	0.483	22.2
Left side	GPRS 4TS	190/836.6	1:2.075	0.462	0.260	0.03	26.15	27.50	1.365	**0.630**	22.2
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	0.096	0.066	0.07	29.68	31.50	1.521	0.146	22.2
Left tilted	GPRS 2TS	190/836.6	1:4.15	0.049	0.034	-0.11	29.68	31.50	1.521	0.075	22.2
Right cheek	GPRS 2TS	190/836.6	1:4.15	0.110	0.077	0.10	29.68	31.50	1.521	0.167	22.2
Right tilted	GPRS 2TS	190/836.6	1:4.15	0.055	0.038	0.03	29.68	31.50	1.521	0.083	22.2
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 2TS	190/836.6	1:4.15	0.096	0.067	0.12	29.68	31.50	1.521	0.146	22.2
Back side	GPRS 2TS	190/836.6	1:4.15	0.132	0.088	0.08	29.68	31.50	1.521	0.201	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 4TS	190/836.6	1:2.075	0.116	0.078	0.08	25.70	27.50	1.514	0.176	22.2
Back side	GPRS 4TS	190/836.6	1:2.075	0.237	0.154	0.05	25.70	27.50	1.514	0.359	22.2
Right side	GPRS 4TS	190/836.6	1:2.075	0.101	0.068	0.05	25.70	27.50	1.514	0.153	22.2
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.115	0.075	0.15	25.70	27.50	1.514	0.174	22.2

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

8.2.2 SAR Result of GSM1900

GSM1900 SAR Test Record											
Ant 13 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	661/1880	1:2.075	0.231	0.136	-0.05	20.15	21.50	1.365	0.315	22.0
Left tilted	GPRS 4TS	661/1880	1:2.075	0.241	0.133	-0.01	20.15	21.50	1.365	0.329	22.0
Right cheek	GPRS 4TS	661/1880	1:2.075	0.392	0.222	-0.06	20.15	21.50	1.365	**0.535**	22.0
Right tilted	GPRS 4TS	661/1880	1:2.075	0.354	0.190	0.06	20.15	21.50	1.365	0.483	22.0
Body worn Test data(Separate 15mm) DSI7											
Front side	GPRS 2TS	661/1880	1:4.15	0.095	0.056	0.18	27.17	28.50	1.358	0.129	22.2
Back side	GPRS 2TS	661/1880	1:4.15	0.106	0.069	0.04	27.17	28.50	1.358	0.144	22.2
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 2TS	661/1880	1:4.15	0.156	0.089	0.07	22.68	24.00	1.355	0.211	22.2
Back side	GPRS 2TS	661/1880	1:4.15	0.185	0.108	0.17	22.68	24.00	1.355	0.251	22.2
Left side	GPRS 2TS	661/1880	1:4.15	0.048	0.028	0.08	22.68	24.00	1.355	0.065	22.2
Top side	GPRS 2TS	661/1880	1:4.15	0.240	0.138	0.18	22.68	24.00	1.355	0.325	22.2
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	0.042	0.026	-0.07	27.27	29.00	1.489	0.062	22.8
Left tilted	GPRS 2TS	661/1880	1:4.15	0.032	0.017	0.10	27.27	29.00	1.489	0.047	22.8
Right cheek	GPRS 2TS	661/1880	1:4.15	0.043	0.025	0.08	27.27	29.00	1.489	0.064	22.8
Right tilted	GPRS 2TS	661/1880	1:4.15	0.019	0.009	0.05	27.27	29.00	1.489	0.028	22.8
Body worn Test data(Separate 15mm) DSI4											
Front side	GPRS 2TS	661/1880	1:4.15	0.097	0.058	-0.03	27.27	29.00	1.489	0.144	22.8
Back side	GPRS 2TS	661/1880	1:4.15	0.151	0.097	0.10	27.27	29.00	1.489	**0.225**	22.5
Hotspot Test data(Separate 10mm) DSI6											
Front side	GPRS 4TS	661/1880	1:2.075	0.154	0.088	0.08	22.85	24.50	1.462	0.225	22.8
Back side	GPRS 4TS	661/1880	1:2.075	0.252	0.148	0.03	22.85	24.50	1.462	0.368	22.8
Left side	GPRS 4TS	661/1880	1:2.075	0.058	0.032	0.01	22.85	24.50	1.462	0.085	22.8
Bottom side	GPRS 4TS	661/1880	1:2.075	0.422	0.232	0.03	22.85	24.50	1.462	**0.617**	22.8

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

8.2.3 SAR Result of WCDMA Band II

WB2 SAR Test Record											
Ant 13 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	0.276	0.162	0.03	17.08	18.00	1.236	0.341	22.3
Left tilted	RMC	9400/1880	1:1	0.309	0.175	0.08	17.08	18.00	1.236	0.382	22.3
Right cheek	RMC	9400/1880	1:1	0.480	0.269	0.04	17.08	18.00	1.236	**0.593**	22.3
Right tilted	RMC	9400/1880	1:1	0.399	0.209	0.02	17.08	18.00	1.236	0.493	22.3
Body worn Test data(Separate 15mm) DSI7											
Front side	RMC	9400/1880	1:1	0.185	0.109	0.12	23.04	24.00	1.247	0.231	22.3
Back side	RMC	9400/1880	1:1	0.208	0.133	0.14	23.04	24.00	1.247	0.259	22.3
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	9400/1880	1:1	0.155	0.091	-0.06	19.46	20.50	1.271	0.197	22.3
Back side	RMC	9400/1880	1:1	0.170	0.101	0.16	19.46	20.50	1.271	0.216	22.3
Left side	RMC	9400/1880	1:1	0.062	0.036	0.02	19.46	20.50	1.271	0.078	22.3
Top side	RMC	9400/1880	1:1	0.274	0.157	0.01	19.46	20.50	1.271	0.348	22.3
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	0.099	0.060	-0.06	23.63	25.00	1.371	0.136	22.1
Left tilted	RMC	9400/1880	1:1	0.072	0.039	0.01	23.63	25.00	1.371	0.099	22.1
Right cheek	RMC	9400/1880	1:1	0.098	0.052	0.06	23.63	25.00	1.371	0.134	22.1
Right tilted	RMC	9400/1880	1:1	0.044	0.021	0.03	23.63	25.00	1.371	0.061	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	9400/1880	1:1	0.285	0.179	0.06	21.12	22.50	1.374	0.392	22.1
Back side	RMC	9400/1880	1:1	0.311	0.193	0.07	21.12	22.50	1.374	**0.427**	22.1
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	9400/1880	1:1	0.163	0.093	0.17	20.71	22.00	1.346	0.219	22.8
Back side	RMC	9400/1880	1:1	0.264	0.156	0.18	20.71	22.00	1.346	0.355	22.8
Left side	RMC	9400/1880	1:1	0.059	0.034	-0.06	20.71	22.00	1.346	0.079	22.8
Bottom side	RMC	9400/1880	1:1	0.355	0.200	0.08	20.71	22.00	1.346	**0.478**	22.8

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 13 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	0.342	0.207	0.05	15.91	17.00	1.285	0.440	22.3
Left tilted	RMC	1412/1732.4	1:1	0.446	0.251	0.01	15.91	17.00	1.285	0.573	22.3
Right cheek	RMC	1412/1732.4	1:1	0.548	0.309	0.12	15.91	17.00	1.285	**0.704**	22.3
Right tilted	RMC	1412/1732.4	1:1	0.480	0.258	0.01	15.91	17.00	1.285	0.617	22.3
Body worn Test data(Separate 15mm) DSI7											
Front side	RMC	1412/1732.4	1:1	0.333	0.208	0.02	22.33	23.50	1.309	0.436	22.3
Back side	RMC	1412/1732.4	1:1	0.435	0.287	0.05	22.33	23.50	1.309	**0.569**	22.3
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	1412/1732.4	1:1	0.215	0.136	0.05	18.85	20.00	1.303	0.280	22.3
Back side	RMC	1412/1732.4	1:1	0.326	0.211	0.03	18.85	20.00	1.303	0.425	22.3
Left side	RMC	1412/1732.4	1:1	0.086	0.050	0.01	18.85	20.00	1.303	0.111	22.3
Top side	RMC	1412/1732.4	1:1	0.406	0.233	0.17	18.85	20.00	1.303	**0.529**	22.3
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	0.121	0.070	0.02	23.85	25.00	1.303	0.158	22.1
Left tilted	RMC	1412/1732.4	1:1	0.061	0.035	0.05	23.85	25.00	1.303	0.079	22.1
Right cheek	RMC	1412/1732.4	1:1	0.105	0.060	0.04	23.85	25.00	1.303	0.137	22.1
Right tilted	RMC	1412/1732.4	1:1	0.076	0.040	0.01	23.85	25.00	1.303	0.099	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	1412/1732.4	1:1	0.196	0.117	0.06	20.29	21.50	1.321	0.259	22.1
Back side	RMC	1412/1732.4	1:1	0.310	0.189	0.05	20.29	21.50	1.321	0.410	22.1
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	1412/1732.4	1:1	0.145	0.085	0.01	18.81	20.00	1.315	0.191	22.8
Back side	RMC	1412/1732.4	1:1	0.188	0.109	0.01	18.81	20.00	1.315	0.247	22.8
Left side	RMC	1412/1732.4	1:1	0.064	0.038	0.02	18.81	20.00	1.315	0.085	22.8
Bottom side	RMC	1412/1732.4	1:1	0.273	0.158	0.06	18.81	20.00	1.315	0.359	22.8

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 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	0.160	0.097	0.08	20.16	21.50	1.361	0.218	22.5
Left tilted	RMC	4182/836.4	1:1	0.070	0.045	-0.08	20.16	21.50	1.361	0.095	22.5
Right cheek	RMC	4182/836.4	1:1	0.378	0.201	0.19	20.16	21.50	1.361	**0.515**	22.5
Right tilted	RMC	4182/836.4	1:1	0.107	0.066	0.05	20.16	21.50	1.361	0.146	22.5
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	4182/836.4	1:1	0.151	0.097	-0.04	23.15	24.50	1.365	0.206	22.5
Back side	RMC	4182/836.4	1:1	0.234	0.148	0.15	23.15	24.50	1.365	**0.319**	22.5
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	4182/836.4	1:1	0.195	0.128	-0.07	21.62	23.00	1.374	0.268	22.5
Back side	RMC	4182/836.4	1:1	0.414	0.243	0.18	21.62	23.00	1.374	0.569	22.5
Left side	RMC	4182/836.4	1:1	0.543	0.307	0.01	21.62	23.00	1.374	**0.746**	22.5
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	0.098	0.067	0.06	23.35	24.50	1.303	0.128	22.1
Left tilted	RMC	4182/836.4	1:1	0.044	0.030	0.08	23.35	24.50	1.303	0.057	22.1
Right cheek	RMC	4182/836.4	1:1	0.101	0.070	0.08	23.35	24.50	1.303	0.132	22.1
Right tilted	RMC	4182/836.4	1:1	0.057	0.039	0.06	23.35	24.50	1.303	0.074	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	RMC	4182/836.4	1:1	0.091	0.064	0.09	22.00	23.00	1.259	0.114	22.1
Back side	RMC	4182/836.4	1:1	0.170	0.109	0.10	22.00	23.00	1.259	0.214	22.1
Hotspot Test data(Separate 10mm) DSI6											
Front side	RMC	4182/836.4	1:1	0.098	0.067	0.16	21.43	22.50	1.279	0.125	22.8
Back side	RMC	4182/836.4	1:1	0.185	0.122	0.18	21.43	22.50	1.279	0.237	22.8
Right side	RMC	4182/836.4	1:1	0.096	0.065	0.10	21.43	22.50	1.279	0.123	22.8
Bottom side	RMC	4182/836.4	1:1	0.085	0.056	0.02	21.43	22.50	1.279	0.109	22.8

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

8.2.6 SAR Result of CDMA BC0

BC0 SAR Test Record											
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	CDMA RC3+SO55	384/836.52	1:1	0.315	0.189	0.06	20.78	21.50	1.180	0.372	22.5
Left tilted	CDMA RC3+SO55	384/836.52	1:1	0.117	0.080	0.16	20.78	21.50	1.180	0.138	22.5
Right cheek	CDMA RC3+SO55	384/836.52	1:1	0.475	0.263	0.07	20.78	21.50	1.180	**0.561**	22.5
Right tilted	CDMA RC3+SO55	384/836.52	1:1	0.138	0.085	0.10	20.78	21.50	1.180	0.163	22.5
Body worn Test data(Separate 15mm) DSI4											
Front side	CDMA RC3+SO32	384/836.52	1:1	0.188	0.114	0.13	22.80	23.50	1.175	0.221	22.5
Back side	CDMA RC3+SO32	384/836.52	1:1	0.320	0.201	0.05	22.80	23.50	1.175	**0.376**	22.5
Hotspot Test data(Separate 10mm) DSI6											
Front side	CDMA RC3+SO32	384/836.52	1:1	0.234	0.132	-0.01	21.27	22.00	1.183	0.277	22.5
Back side	CDMA RC3+SO32	384/836.52	1:1	0.357	0.201	-0.16	21.27	22.00	1.183	0.422	22.5
Left side	CDMA RC3+SO32	384/836.52	1:1	0.494	0.282	0.00	21.27	22.00	1.183	**0.584**	22.5
Left side	EVDO RTAP 153.6Kbps	384/836.52	1:1	0.485	0.254	0.03	21.32	22.00	1.169	0.567	22.5
Left side	EVDO RETAP 4096Bits	384/836.52	1:1	0.486	0.250	0.09	21.36	22.00	1.159	0.563	22.5
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	CDMA RC3+SO55	384/836.52	1:1	0.127	0.085	-0.16	23.33	24.50	1.309	0.166	22.1
Left tilted	CDMA RC3+SO55	384/836.52	1:1	0.060	0.044	-0.15	23.33	24.50	1.309	0.079	22.1
Right cheek	CDMA RC3+SO55	384/836.52	1:1	0.115	0.085	0.05	23.33	24.50	1.309	0.151	22.1
Right tilted	CDMA RC3+SO55	384/836.52	1:1	0.071	0.053	0.09	23.33	24.50	1.309	0.093	22.1
Body worn Test data(Separate 15mm) DSI4											
Front side	CDMA RC3+SO32	384/836.52	1:1	0.096	0.069	0.01	23.26	24.50	1.330	0.128	22.1
Back side	CDMA RC3+SO32	384/836.52	1:1	0.136	0.086	0.15	23.26	24.50	1.330	0.181	22.1
Hotspot Test data(Separate 10mm) DSI6											
Front side	CDMA RC3+SO32	384/836.52	1:1	0.154	0.099	0.17	23.26	24.50	1.330	0.205	22.8
Back side	CDMA RC3+SO32	384/836.52	1:1	0.253	0.155	0.12	23.26	24.50	1.330	0.337	22.8
Right side	CDMA RC3+SO32	384/836.52	1:1	0.158	0.103	0.11	23.26	24.50	1.330	0.210	22.8
Bottom side	CDMA RC3+SO32	384/836.52	1:1	0.145	0.087	-0.18	23.26	24.50	1.330	0.193	22.8
Back side	EVDO RTAP 153.6Kbps	384/836.52	1:1	0.233	0.148	0.05	23.38	24.50	1.294	0.302	22.8
Back side	EVDO RETAP 4096Bits	384/836.52	1:1	0.242	0.151	0.14	23.40	24.50	1.288	0.312	22.8

Table 16：SAR of CDMA BC0 for Head, Body and Hotspot.

8.2.7 SAR Result of LTE Band 2

LTE Band 2 SAR Test Record												
Ant 13 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	0.266	0.159	0.01	17.46	18.50	1.271	0.338	21.8
Left tilted	20	QPSK 1_0	18900/1880	1:1	0.317	0.179	0.05	17.46	18.50	1.271	0.403	21.8
Right cheek	20	QPSK 1_0	18900/1880	1:1	0.492	0.263	0.07	17.46	18.50	1.271	0.625	21.8
Right tilted	20	QPSK 1_0	18900/1880	1:1	0.342	0.196	0.05	17.46	18.50	1.271	0.435	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	18900/1880	1:1	0.303	0.178	0.02	17.28	18.50	1.324	0.401	21.8
Left tilted	20	QPSK 50_0	18900/1880	1:1	0.330	0.187	0.04	17.28	18.50	1.324	0.437	21.8
Right cheek	20	QPSK 50_0	18900/1880	1:1	0.526	0.282	0.01	17.28	18.50	1.324	**0.697**	21.8
Right tilted	20	QPSK 50_0	18900/1880	1:1	0.374	0.214	0.08	17.28	18.50	1.324	0.495	22.2
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	18900/1880	1:1	0.180	0.112	0.02	23.09	24.50	1.384	0.249	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.228	0.138	0.05	23.09	24.50	1.384	**0.315**	22.2
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_0	18900/1880	1:1	0.159	0.098	0.05	22.19	23.50	1.352	0.215	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.193	0.119	0.04	22.19	23.50	1.352	0.261	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	18900/1880	1:1	0.162	0.096	0.06	19.65	21.00	1.365	0.221	22.2
Back side	20	QPSK 1_0	18900/1880	1:1	0.218	0.123	0.03	19.65	21.00	1.365	0.297	22.2
Left side	20	QPSK 1_0	18900/1880	1:1	0.058	0.032	0.03	19.65	21.00	1.365	0.079	21.9
Top side	20	QPSK 1_0	18900/1880	1:1	0.308	0.174	0.02	19.65	21.00	1.365	0.420	21.9
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	18900/1880	1:1	0.172	0.102	0.03	19.69	21.00	1.352	0.233	22.2
Back side	20	QPSK 50_0	18900/1880	1:1	0.226	0.128	0.01	19.69	21.00	1.352	0.306	22.2
Left side	20	QPSK 50_0	18900/1880	1:1	0.059	0.034	0.01	19.69	21.00	1.352	0.080	21.9
Top side	20	QPSK 50_0	18900/1880	1:1	0.316	0.178	0.04	19.69	21.00	1.352	0.427	21.9
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_99	18900/1880	1:1	0.087	0.056	0.05	23.49	21.70	0.662	0.058	22.3
Left tilted	20	QPSK 1_99	18900/1880	1:1	0.050	0.030	0.09	23.49	21.70	0.662	0.033	22.3
Right cheek	20	QPSK 1_99	18900/1880	1:1	0.070	0.044	-0.06	23.49	21.70	0.662	0.046	22.3
Right tilted	20	QPSK 1_99	18900/1880	1:1	0.039	0.022	-0.13	23.49	21.70	0.662	0.026	22.3
Head Test Data (50%RB) DSI2												

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Left cheek	20	QPSK 50_50	18700/1860	1:1	0.071	0.043	0.15	22.52	23.70	1.312	0.093	22.3
Left tilted	20	QPSK 50_50	18700/1860	1:1	0.048	0.028	0.08	22.52	23.70	1.312	0.063	22.3
Right cheek	20	QPSK 50_50	18700/1860	1:1	0.059	0.350	-0.04	22.52	23.70	1.312	0.077	22.3
Right tilted	20	QPSK 50_50	18700/1860	1:1	0.037	0.020	0.07	22.52	23.70	1.312	0.049	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	19100/1900	1:1	0.091	0.056	-0.11	21.15	22.20	1.274	0.116	22.5
Back side	20	QPSK 1_0	19100/1900	1:1	0.132	0.082	-0.14	21.15	22.20	1.274	0.168	22.5
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_50	18900/1880	1:1	0.096	0.060	0.16	20.97	22.20	1.327	0.127	22.5
Back side	20	QPSK 50_50	18900/1880	1:1	0.137	0.085	0.08	20.97	22.20	1.327	0.182	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	18900/1880	1:1	0.185	0.108	0.05	20.52	21.70	1.312	0.243	21.9
Back side	20	QPSK 1_99	18900/1880	1:1	0.260	0.146	0.01	20.52	21.70	1.312	0.341	21.9
Left side	20	QPSK 1_99	18900/1880	1:1	0.074	0.041	0.02	20.52	21.70	1.312	0.097	22
Bottom side	20	QPSK 1_99	18900/1880	1:1	0.415	0.231	0.05	20.52	21.70	1.312	0.545	22
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	18900/1880	1:1	0.203	0.118	0.01	20.47	21.70	1.327	0.269	21.9
Back side	20	QPSK 50_25	18900/1880	1:1	0.276	0.156	0.06	20.47	21.70	1.327	0.366	21.9
Left side	20	QPSK 50_25	18900/1880	1:1	0.069	0.039	0.05	20.47	21.70	1.327	0.092	22
Bottom side	20	QPSK 50_25	18900/1880	1:1	0.445	0.248	-0.07	20.47	21.70	1.327	**0.591**	22
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	0.077	0.043	0.03	19.75	20.50	1.189	0.092	22.2
Left tilted	20	QPSK 1_0	18700/1860	1:1	0.040	0.022	0.02	19.75	20.50	1.189	0.048	22.2
Right cheek	20	QPSK 1_0	18700/1860	1:1	0.341	0.161	0.17	19.75	20.50	1.189	0.405	22.2
Right tilted	20	QPSK 1_0	18700/1860	1:1	0.113	0.059	0.02	19.75	20.50	1.189	0.134	22.2
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	18700/1860	1:1	0.083	0.047	0.05	19.79	20.50	1.178	0.098	22.2
Left tilted	20	QPSK 50_0	18700/1860	1:1	0.048	0.026	0.01	19.79	20.50	1.178	0.057	22.2
Right cheek	20	QPSK 50_0	18700/1860	1:1	0.302	0.148	0.01	19.79	20.50	1.178	0.356	22.2
Right tilted	20	QPSK 50_0	18700/1860	1:1	0.127	0.067	0.02	19.79	20.50	1.178	0.150	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	18700/1860	1:1	0.035	0.022	0.05	21.68	22.50	1.208	0.042	22.4
Back side	20	QPSK 1_0	18700/1860	1:1	0.093	0.051	0.02	21.68	22.50	1.208	0.112	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	18700/1860	1:1	0.039	0.025	0.08	21.59	22.50	1.233	0.048	22.4
Back side	20	QPSK 50_25	18700/1860	1:1	0.093	0.051	0.04	21.59	22.50	1.233	0.115	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	19100/1900	1:1	0.082	0.045	0.06	20.25	21.00	1.189	0.097	22.4

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Back side	20	QPSK 1_0	19100/1900	1:1	0.195	0.102	0.07	20.25	21.00	1.189	0.232	22.4
Left side	20	QPSK 1_0	19100/1900	1:1	0.225	0.111	0.07	20.25	21.00	1.189	0.267	22.4
Top side	20	QPSK 1_0	19100/1900	1:1	0.035	0.020	-0.04	20.25	21.00	1.189	0.042	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	19100/1900	1:1	0.093	0.051	0.02	20.25	21.00	1.189	0.111	22.4
Back side	20	QPSK 50_25	19100/1900	1:1	0.217	0.114	0.02	20.25	21.00	1.189	0.258	22.4
Left side	20	QPSK 50_25	19100/1900	1:1	0.242	0.119	-0.08	20.25	21.00	1.189	0.288	22.4
Top side	20	QPSK 50_25	19100/1900	1:1	0.035	0.020	0.06	20.25	21.00	1.189	0.042	22.4

Table 17：SAR of LTE Band 2 for Head, Body and Hotspot.

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8.2.8 SAR Result of LTE Band 4

LTE Band 4 SAR Test Record												
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	20050/1720	1:1	0.079	0.042	0.01	19.85	21.00	1.303	0.103	22.5
Left tilted	20	QPSK 1_0	20050/1720	1:1	0.057	0.032	0.08	19.85	21.00	1.303	0.074	22.5
Right cheek	20	QPSK 1_0	20050/1720	1:1	0.347	0.185	0.01	19.85	21.00	1.303	0.452	22.5
Right tilted	20	QPSK 1_0	20050/1720	1:1	0.170	0.086	-0.12	19.85	21.00	1.303	0.222	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_50	20050/1720	1:1	0.080	0.045	0.02	19.88	21.00	1.294	0.104	22.5
Left tilted	20	QPSK 50_50	20050/1720	1:1	0.055	0.030	0.01	19.88	21.00	1.294	0.071	22.5
Right cheek	20	QPSK 50_50	20050/1720	1:1	0.359	0.169	0.02	19.88	21.00	1.294	**0.465**	22.5
Right tilted	20	QPSK 50_50	20050/1720	1:1	0.168	0.085	0.04	19.88	21.00	1.294	0.217	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	20050/1720	1:1	0.041	0.024	0.01	21.32	22.50	1.312	0.054	22.5
Back side	20	QPSK 1_99	20050/1720	1:1	0.099	0.054	0.02	21.32	22.50	1.312	0.130	22.5
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	20050/1720	1:1	0.045	0.026	0.01	21.40	22.50	1.288	0.058	22.5
Back side	20	QPSK 50_25	20050/1720	1:1	0.115	0.063	0.03	21.40	22.50	1.288	**0.148**	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	20050/1720	1:1	0.062	0.036	0.01	19.85	21.00	1.303	0.081	22.5
Back side	20	QPSK 1_0	20050/1720	1:1	0.179	0.092	0.02	19.85	21.00	1.303	0.233	22.5
Left side	20	QPSK 1_0	20050/1720	1:1	0.190	0.092	0.05	19.85	21.00	1.303	0.248	22.5
Top side	20	QPSK 1_0	20050/1720	1:1	0.031	0.017	0.02	19.85	21.00	1.303	0.040	22.5
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_50	20050/1720	1:1	0.064	0.038	0.02	19.88	21.00	1.294	0.083	22.5
Back side	20	QPSK 50_50	20050/1720	1:1	0.194	0.098	0.01	19.88	21.00	1.294	0.251	22.5
Left side	20	QPSK 50_50	20050/1720	1:1	0.206	0.100	0.02	19.88	21.00	1.294	**0.267**	22.5
Top side	20	QPSK 50_50	20050/1720	1:1	0.032	0.017	0.07	19.88	21.00	1.294	0.041	22.5

Table 18：SAR of LTE Band 4 for Head, Body and Hotspot.

8.2.9 SAR Result of LTE Band 5

LTE Band 5 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.(℃)
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_49	20525/836.5	1:1	0.205	0.135	0.07	23.10	24.40	1.349	0.277	22.3
Back side	10	QPSK 1_49	20525/836.5	1:1	0.333	0.212	-0.04	23.10	24.40	1.349	**0.449**	22.3
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_13	20450/829	1:1	0.170	0.111	-0.11	22.65	23.90	1.334	0.227	22.3
Back side	10	QPSK 25_13	20450/829	1:1	0.278	0.177	-0.03	22.65	23.90	1.334	0.371	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) DSI2												
Left cheek	10	QPSK 1_0	20525/836.5	1:1	0.120	0.092	0.06	23.08	24.50	1.387	**0.166**	22.3
Left tilted	10	QPSK 1_0	20525/836.5	1:1	0.048	0.033	-0.12	23.08	24.50	1.387	0.067	22.3
Right cheek	10	QPSK 1_0	20525/836.5	1:1	0.109	0.075	-0.06	23.08	24.50	1.387	0.151	22.3
Right tilted	10	QPSK 1_0	20525/836.5	1:1	0.058	0.039	-0.04	23.08	24.50	1.387	0.080	22.3
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_13	20525/836.5	1:1	0.101	0.068	0.08	22.24	23.50	1.337	0.135	22.3
Left tilted	10	QPSK 25_13	20525/836.5	1:1	0.039	0.027	0.09	22.24	23.50	1.337	0.052	22.3
Right cheek	10	QPSK 25_13	20525/836.5	1:1	0.089	0.061	-0.02	22.24	23.50	1.337	0.119	22.3
Right tilted	10	QPSK 25_13	20525/836.5	1:1	0.047	0.032	-0.03	22.24	23.50	1.337	0.063	22.3

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

8.2.10 SAR Result of LTE Band 7

LTE Band 7 SAR Test Record												
Ant 13 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	0.297	0.140	-0.04	15.08	16.00	1.236	0.367	21.8
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.336	0.154	-0.02	15.08	16.00	1.236	0.415	21.8
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.639	0.283	0.08	15.08	16.00	1.236	0.790	21.8
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.551	0.234	0.01	15.08	16.00	1.236	0.681	21.8
Right cheek	20	QPSK PCC 1_0	21100/2535	1:1	0.603	0.299	0.03	14.88	16.00	1.294	0.780	21.8
		QPSK SCC 0_0	21298/2554.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	21100/2535	1:1	0.297	0.140	-0.05	15.06	16.00	1.242	0.369	21.8
Left tilted	20	QPSK 50_0	21100/2535	1:1	0.342	0.156	-0.01	15.06	16.00	1.242	0.425	21.8
Right cheek	20	QPSK 50_0	21100/2535	1:1	0.640	0.282	0.07	15.06	16.00	1.242	**0.795**	21.8
Right tilted	20	QPSK 50_0	21100/2535	1:1	0.567	0.239	0.02	15.06	16.00	1.242	0.704	21.9
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	21100/2535	1:1	0.241	0.126	0.06	22.20	23.00	1.202	0.290	22.2
Back side	20	QPSK 1_0	21100/2535	1:1	0.357	0.183	0.01	22.20	23.00	1.202	0.429	22.2
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.288	0.144	0.12	21.57	23.00	1.390	0.400	21.8
		QPSK SCC 0_0	21298/2554.8									
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_0	21100/2535	1:1	0.250	0.130	0.04	22.08	23.00	1.236	0.309	22.2
Back side	20	QPSK 50_0	21100/2535	1:1	0.362	0.186	0.04	22.08	23.00	1.236	**0.447**	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	21100/2535	1:1	0.228	0.115	0.05	18.55	19.50	1.245	0.284	21.9
Back side	20	QPSK 1_0	21100/2535	1:1	0.354	0.168	0.02	18.55	19.50	1.245	0.441	22.2
Left side	20	QPSK 1_0	21100/2535	1:1	0.104	0.054	0.01	18.55	19.50	1.245	0.129	21.9
Top side	20	QPSK 1_0	21100/2535	1:1	0.407	0.190	0.05	18.55	19.50	1.245	0.507	21.9
Top side	20	QPSK PCC 1_0	21100/2535	1:1	0.404	0.188	0.04	18.07	19.50	1.390	0.562	21.8
		QPSK SCC 0_0	21298/2554.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	21100/2535	1:1	0.227	0.115	0.05	18.45	19.50	1.274	0.289	21.9
Back side	20	QPSK 50_0	21100/2535	1:1	0.370	0.176	0.07	18.45	19.50	1.274	0.471	22.2
Left side	20	QPSK 50_0	21100/2535	1:1	0.110	0.057	0.05	18.45	19.50	1.274	0.140	21.9
Top side	20	QPSK 50_0	21100/2535	1:1	0.408	0.190	0.05	18.45	19.50	1.274	0.520	21.9
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.(℃)

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Head Test Data (1RB) DSI2												
Left cheek	20	QPSK 1_0	21100/2535	1:1	0.156	0.082	-0.01	23.54	24.30	1.191	0.186	22.2
Left tilted	20	QPSK 1_0	21100/2535	1:1	0.052	0.026	-0.09	23.54	24.30	1.191	0.062	22.2
Right cheek	20	QPSK 1_0	21100/2535	1:1	0.106	0.058	-0.07	23.54	24.30	1.191	0.126	22.2
Right tilted	20	QPSK 1_0	21100/2535	1:1	0.087	0.044	-0.04	23.54	24.30	1.191	0.104	22.2
Left cheek	20	QPSK PCC 1_0	21100/2535	1:1	0.182	0.097	0.05	23.03	24.30	1.340	0.244	21.8
		QPSK SCC 0_0	21298/2554.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	21350/2560	1:1	0.109	0.056	-0.01	22.31	23.30	1.256	0.137	22.2
Left tilted	20	QPSK 50_0	21350/2560	1:1	0.031	0.013	0.09	22.31	23.30	1.256	0.039	22.2
Right cheek	20	QPSK 50_0	21350/2560	1:1	0.076	0.041	-0.02	22.31	23.30	1.256	0.095	22.2
Right tilted	20	QPSK 50_0	21350/2560	1:1	0.053	0.027	-0.08	22.31	23.30	1.256	0.067	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_50	21100/2535	1:1	0.169	0.095	0.17	21.14	21.80	1.164	0.197	22.2
Back side	20	QPSK 1_50	21100/2535	1:1	0.222	0.123	-0.18	21.14	21.80	1.164	0.258	22.2
Back side	20	QPSK PCC 1_0	21100/2535	1:1	0.188	0.102	0.03	20.55	21.80	1.334	0.251	21.8
		QPSK SCC 0_0	21298/2554.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	21100/2535	1:1	0.171	0.096	0.05	20.86	21.80	1.242	0.212	22.2
Back side	20	QPSK 50_25	21100/2535	1:1	0.221	0.123	0.04	20.86	21.80	1.242	0.274	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_50	21100/2535	1:1	0.239	0.130	0.02	19.34	20.30	1.247	0.298	21.9
Back side	20	QPSK 1_50	21100/2535	1:1	0.327	0.161	0.02	19.34	20.30	1.247	0.408	21.9
Left side	20	QPSK 1_50	21100/2535	1:1	0.069	0.037	0.02	19.34	20.30	1.247	0.086	22
Bottom side	20	QPSK 1_50	21100/2535	1:1	0.512	0.257	-0.08	19.34	20.30	1.247	**0.639**	22
Bottom side	20	QPSK PCC 1_0	21100/2535	1:1	0.422	0.211	0.06	18.88	20.30	1.387	0.585	21.8
		QPSK SCC 0_0	21298/2554.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	21100/2535	1:1	0.238	0.129	0.09	19.38	20.30	1.236	0.294	21.9
Back side	20	QPSK 50_25	21100/2535	1:1	0.325	0.160	0.01	19.38	20.30	1.236	0.402	21.9
Left side	20	QPSK 50_25	21100/2535	1:1	0.069	0.036	-0.07	19.38	20.30	1.236	0.085	22
Bottom side	20	QPSK 50_25	21100/2535	1:1	0.511	0.256	-0.08	19.38	20.30	1.236	0.632	22
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	20850/2510	1:1	0.088	0.043	0.07	17.28	18.30	1.265	0.111	22.5
Left tilted	20	QPSK 1_0	20850/2510	1:1	0.069	0.034	0.05	17.28	18.30	1.265	0.087	22.5
Right cheek	20	QPSK 1_0	20850/2510	1:1	0.300	0.128	0.02	17.28	18.30	1.265	0.379	22.4
Right tilted	20	QPSK 1_0	20850/2510	1:1	0.155	0.071	0.04	17.28	18.30	1.265	0.196	22.4
Head Test Data (50%RB) DSI2												

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Left cheek	20	QPSK 50_25	20850/2510	1:1	0.095	0.045	0.02	17.27	18.30	1.268	0.120	22.5
Left tilted	20	QPSK 50_25	20850/2510	1:1	0.063	0.032	0.01	17.27	18.30	1.268	0.080	22.5
Right cheek	20	QPSK 50_25	20850/2510	1:1	0.287	0.137	0.04	17.27	18.30	1.268	0.364	22.5
Right tilted	20	QPSK 50_25	20850/2510	1:1	0.177	0.077	0.01	17.27	18.30	1.268	0.224	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_0	20850/2510	1:1	0.080	0.041	0.01	21.29	22.30	1.262	0.101	22.4
Back side	20	QPSK 1_0	20850/2510	1:1	0.155	0.078	0.02	21.29	22.30	1.262	0.196	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	20850/2510	1:1	0.090	0.046	0.01	21.30	22.30	1.259	0.113	22.4
Back side	20	QPSK 50_25	20850/2510	1:1	0.184	0.092	-0.06	21.30	22.30	1.259	0.232	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	20850/2510	1:1	0.102	0.049	-0.15	19.30	20.30	1.259	0.128	22.4
Back side	20	QPSK 1_0	20850/2510	1:1	0.207	0.095	-0.02	19.30	20.30	1.259	0.261	22.4
Left side	20	QPSK 1_0	20850/2510	1:1	0.320	0.141	-0.04	19.30	20.30	1.259	0.403	22.4
Top side	20	QPSK 1_0	20850/2510	1:1	0.037	0.021	0.05	19.30	20.30	1.259	0.047	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	20850/2510	1:1	0.111	0.054	0.02	19.32	20.30	1.253	0.139	22.4
Back side	20	QPSK 50_0	20850/2510	1:1	0.240	0.110	-0.02	19.32	20.30	1.253	0.301	22.4
Left side	20	QPSK 50_0	20850/2510	1:1	0.337	0.147	0.01	19.32	20.30	1.253	0.422	22.4
Top side	20	QPSK 50_0	20850/2510	1:1	0.043	0.023	0.08	19.32	20.30	1.253	0.054	22.4

Table 20：SAR of LTE Band 7 for Head, Body and Hotspot.

8.2.11 SAR Result of LTE Band 12

LTE Band 12 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) DSI2												
Left cheek	10	QPSK 1_0	23060/704	1:1	0.091	0.052	0.01	23.42	24.40	1.253	0.114	21.9
Left tilted	10	QPSK 1_0	23060/704	1:1	0.028	0.019	0.07	23.42	24.40	1.253	0.035	21.9
Right cheek	10	QPSK 1_0	23060/704	1:1	0.158	0.083	0.01	23.42	24.40	1.253	**0.198**	21.9
Right tilted	10	QPSK 1_0	23060/704	1:1	0.043	0.028	0.02	23.42	24.40	1.253	0.054	21.9
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_0	23060/704	1:1	0.080	0.046	0.01	22.56	23.40	1.213	0.097	21.9
Left tilted	10	QPSK 25_0	23060/704	1:1	0.025	0.016	0.08	22.56	23.40	1.213	0.030	21.9
Right cheek	10	QPSK 25_0	23060/704	1:1	0.140	0.074	0.02	22.56	23.40	1.213	0.170	21.9
Right tilted	10	QPSK 25_0	23060/704	1:1	0.037	0.024	0.05	22.56	23.40	1.213	0.045	21.9
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23060/704	1:1	0.043	0.029	0.09	23.42	24.40	1.253	0.054	22.2
Back side	10	QPSK 1_0	23060/704	1:1	0.083	0.053	0.01	23.42	24.40	1.253	0.104	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_0	23060/704	1:1	0.043	0.029	0.01	22.56	23.40	1.213	0.052	22.2
Back side	10	QPSK 25_0	23060/704	1:1	0.090	0.056	0.01	22.56	23.40	1.213	0.109	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23060/704	1:1	0.086	0.052	0.04	23.42	24.40	1.253	0.108	22.2
Back side	10	QPSK 1_0	23060/704	1:1	0.149	0.087	0.01	23.42	24.40	1.253	0.187	22.2
Left side	10	QPSK 1_0	23060/704	1:1	0.214	0.127	0.05	23.42	24.40	1.253	0.268	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_0	23060/704	1:1	0.081	0.049	0.01	22.56	23.40	1.213	0.098	22.2
Back side	10	QPSK 25_0	23060/704	1:1	0.132	0.077	0.06	22.56	23.40	1.213	0.160	22.2
Left side	10	QPSK 25_0	23060/704	1:1	0.193	0.114	0.04	22.56	23.40	1.213	0.234	22.2
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	0.112	0.087	0.01	23.17	24.00	1.211	0.136	22
Left tilted	10	QPSK 1_0	23095/707.5	1:1	0.051	0.037	-0.06	23.17	24.00	1.211	0.062	22
Right cheek	10	QPSK 1_0	23095/707.5	1:1	0.139	0.111	0.05	23.17	24.00	1.211	0.168	22
Right tilted	10	QPSK 1_0	23095/707.5	1:1	0.084	0.059	0.02	23.17	24.00	1.211	0.102	22.1
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_0	23095/707.5	1:1	0.100	0.076	-0.04	22.13	23.00	1.222	0.122	22
Left tilted	10	QPSK 25_0	23095/707.5	1:1	0.043	0.031	-0.01	22.13	23.00	1.222	0.053	22

Right cheek	10	QPSK 25_0	23095/707.5	1:1	0.106	0.084	-0.07	22.13	23.00	1.222	0.130	22
Right tilted	10	QPSK 25_0	23095/707.5	1:1	0.073	0.051	0.06	22.13	23.00	1.222	0.089	22.1
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.147	0.113	0.05	23.17	24.00	1.211	0.178	22.1
Back side	10	QPSK 1_0	23095/707.5	1:1	0.196	0.150	0.01	23.17	24.00	1.211	**0.237**	22.1
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_0	23095/707.5	1:1	0.137	0.105	0.02	22.13	23.00	1.222	0.167	22.1
Back side	10	QPSK 25_0	23095/707.5	1:1	0.157	0.121	0.05	22.13	23.00	1.222	0.192	22.1
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23095/707.5	1:1	0.157	0.113	0.02	23.17	24.00	1.211	0.190	22.1
Back side	10	QPSK 1_0	23095/707.5	1:1	0.188	0.126	0.01	23.17	24.00	1.211	0.228	22.1
Right side	10	QPSK 1_0	23095/707.5	1:1	0.241	0.168	0.08	23.17	24.00	1.211	**0.292**	22.1
Bottom side	10	QPSK 1_0	23095/707.5	1:1	0.064	0.042	0.02	23.17	24.00	1.211	0.077	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_0	23095/707.5	1:1	0.127	0.091	0.08	22.13	23.00	1.222	0.155	22.1
Back side	10	QPSK 25_0	23095/707.5	1:1	0.159	0.107	0.02	22.13	23.00	1.222	0.194	22.1
Right side	10	QPSK 25_0	23095/707.5	1:1	0.204	0.142	0.07	22.13	23.00	1.222	0.249	22.1
Bottom side	10	QPSK 25_0	23095/707.5	1:1	0.053	0.035	0.05	22.13	23.00	1.222	0.065	22.1

Table 21：SAR of LTE Band 12 for Head, Body and Hotspot.

8.2.12 SAR Result of LTE Band 13

LTE Band 13 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) DSI2												
Left cheek	10	QPSK 1_0	23230/782	1:1	0.334	0.193	-0.04	23.32	24.40	1.282	0.428	21.9
Left tilted	10	QPSK 1_0	23230/782	1:1	0.110	0.073	0.08	23.32	24.40	1.282	0.141	21.9
Right cheek	10	QPSK 1_0	23230/782	1:1	0.591	0.318	0.02	23.32	24.40	1.282	**0.758**	21.9
Right tilted	10	QPSK 1_0	23230/782	1:1	0.179	0.113	-0.06	23.32	24.40	1.282	0.230	22.3
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_0	23230/782	1:1	0.268	0.156	0.01	22.28	23.40	1.294	0.347	21.9
Left tilted	10	QPSK 25_0	23230/782	1:1	0.090	0.059	0.05	22.28	23.40	1.294	0.116	21.9
Right cheek	10	QPSK 25_0	23230/782	1:1	0.478	0.257	0.02	22.28	23.40	1.294	0.619	21.9
Right tilted	10	QPSK 25_0	23230/782	1:1	0.154	0.096	-0.06	22.28	23.40	1.294	0.199	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23230/782	1:1	0.145	0.098	0.08	23.32	24.40	1.282	0.186	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.274	0.172	0.07	23.32	24.40	1.282	**0.351**	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_0	23230/782	1:1	0.121	0.081	0.06	22.28	23.40	1.294	0.157	22.2
Back side	10	QPSK 25_0	23230/782	1:1	0.229	0.144	0.04	22.28	23.40	1.294	0.296	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23230/782	1:1	0.271	0.174	0.02	23.32	24.40	1.282	0.348	22.2
Back side	10	QPSK 1_0	23230/782	1:1	0.496	0.289	0.01	23.32	24.40	1.282	0.636	22.2
Left side	10	QPSK 1_0	23230/782	1:1	0.669	0.384	0.02	23.32	24.40	1.282	**0.858**	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_0	23230/782	1:1	0.246	0.157	0.01	22.28	23.40	1.294	0.318	22.2
Back side	10	QPSK 25_0	23230/782	1:1	0.403	0.235	0.05	22.28	23.40	1.294	0.522	22.2
Left side	10	QPSK 25_0	23230/782	1:1	0.529	0.304	0.01	22.28	23.40	1.294	0.685	22.2
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	0.103	0.070	-0.05	22.82	24.00	1.312	0.135	22
Left tilted	10	QPSK 1_0	23230/782	1:1	0.046	0.032	0.01	22.82	24.00	1.312	0.060	22
Right cheek	10	QPSK 1_0	23230/782	1:1	0.116	0.092	-0.02	22.82	24.00	1.312	0.152	22
Right tilted	10	QPSK 1_0	23230/782	1:1	0.066	0.045	0.01	22.82	24.00	1.312	0.087	22.1
Head Test Data (50%RB) DSI2												
Left cheek	10	QPSK 25_0	23230/782	1:1	0.085	0.058	0.01	21.99	23.00	1.262	0.107	22
Left tilted	10	QPSK 25_0	23230/782	1:1	0.037	0.026	-0.04	21.99	23.00	1.262	0.047	22

Right cheek	10	QPSK 25_0	23230/782	1:1	0.088	0.071	0.02	21.99	23.00	1.262	0.111	22
Right tilted	10	QPSK 25_0	23230/782	1:1	0.050	0.034	0.07	21.99	23.00	1.262	0.063	22.1
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	10	QPSK 1_0	23230/782	1:1	0.136	0.104	0.04	22.82	24.00	1.312	0.178	22.1
Back side	10	QPSK 1_0	23230/782	1:1	0.135	0.092	0.01	22.82	24.00	1.312	0.177	22.1
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	10	QPSK 25_0	23230/782	1:1	0.104	0.080	0.01	21.99	23.00	1.262	0.131	22.1
Back side	10	QPSK 25_0	23230/782	1:1	0.118	0.080	0.06	21.99	23.00	1.262	0.149	22.1
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	10	QPSK 1_0	23230/782	1:1	0.166	0.111	0.01	22.82	24.00	1.312	0.218	22.1
Back side	10	QPSK 1_0	23230/782	1:1	0.238	0.154	0.02	22.82	24.00	1.312	0.312	22.1
Right side	10	QPSK 1_0	23230/782	1:1	0.168	0.115	0.02	22.82	24.00	1.312	0.220	22.1
Bottom side	10	QPSK 1_0	23230/782	1:1	0.093	0.061	0.07	22.82	24.00	1.312	0.122	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	10	QPSK 25_0	23230/782	1:1	0.128	0.086	0.07	21.99	23.00	1.262	0.162	22.1
Back side	10	QPSK 25_0	23230/782	1:1	0.187	0.121	0.05	21.99	23.00	1.262	0.236	22.1
Right side	10	QPSK 25_0	23230/782	1:1	0.157	0.109	0.02	21.99	23.00	1.262	0.198	22.1
Bottom side	10	QPSK 25_0	23230/782	1:1	0.074	0.048	0.07	21.99	23.00	1.262	0.093	22.1

Table 22：SAR of LTE Band 13 for Head, Body and Hotspot.

8.2.13 SAR Result of LTE Band 26

LTE Band 26 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) DSI2												
Left cheek	15	QPSK 1_0	26765/821.5	1:1	0.186	0.107	0.02	20.06	21.50	1.393	0.259	21.9
Left tilted	15	QPSK 1_0	26765/821.5	1:1	0.055	0.037	0.01	20.06	21.50	1.393	0.077	21.9
Right cheek	15	QPSK 1_0	26765/821.5	1:1	0.297	0.159	0.02	20.06	21.50	1.393	0.414	21.9
Right tilted	15	QPSK 1_0	26765/821.5	1:1	0.088	0.055	0.04	20.06	21.50	1.393	0.123	22.3
Head Test Data (50%RB) DSI2												
Left cheek	15	QPSK 36_0	26765/821.5	1:1	0.201	0.115	0.05	20.05	21.50	1.396	0.281	21.9
Left tilted	15	QPSK 36_0	26765/821.5	1:1	0.060	0.040	-0.02	20.05	21.50	1.396	0.084	21.9
Right cheek	15	QPSK 36_0	26765/821.5	1:1	0.346	0.185	0.02	20.05	21.50	1.396	**0.483**	21.9
Right tilted	15	QPSK 36_0	26765/821.5	1:1	0.099	0.062	0.16	20.05	21.50	1.396	0.138	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	15	QPSK 1_0	26765/821.5	1:1	0.144	0.097	0.02	22.56	24.00	1.393	0.201	22.2
Back side	15	QPSK 1_0	26765/821.5	1:1	0.262	0.163	0.01	22.56	24.00	1.393	**0.365**	22.2
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	15	QPSK 36_0	26765/821.5	1:1	0.127	0.086	0.01	21.73	23.00	1.340	0.170	22.2
Back side	15	QPSK 36_0	26765/821.5	1:1	0.225	0.140	0.04	21.73	23.00	1.340	0.301	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	15	QPSK 1_0	26765/821.5	1:1	0.233	0.148	0.01	21.61	23.00	1.377	0.321	22.2
Back side	15	QPSK 1_0	26765/821.5	1:1	0.410	0.238	0.05	21.61	23.00	1.377	0.565	22.2
Left side	15	QPSK 1_0	26765/821.5	1:1	0.418	0.235	0.05	21.61	23.00	1.377	0.576	22.2
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	15	QPSK 36_0	26765/821.5	1:1	0.249	0.158	0.08	21.74	23.00	1.337	0.333	22.2
Back side	15	QPSK 36_0	26765/821.5	1:1	0.423	0.246	0.01	21.74	23.00	1.337	0.565	22.2
Left side	15	QPSK 36_0	26765/821.5	1:1	0.443	0.249	0.04	21.74	23.00	1.337	**0.592**	22.2
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	0.096	0.064	0.01	22.63	24.00	1.371	0.132	22
Left tilted	15	QPSK 1_0	26865/831.5	1:1	0.043	0.033	0.05	22.63	24.00	1.371	0.059	22
Right cheek	15	QPSK 1_0	26865/831.5	1:1	0.103	0.082	0.01	22.63	24.00	1.371	0.141	22
Right tilted	15	QPSK 1_0	26865/831.5	1:1	0.056	0.038	-0.08	22.63	24.00	1.371	0.077	22.1
Head Test Data (50%RB) DSI2												
Left cheek	15	QPSK 36_0	26865/831.5	1:1	0.081	0.061	-0.02	21.70	23.00	1.349	0.109	22
Left tilted	15	QPSK 36_0	26865/831.5	1:1	0.037	0.028	-0.01	21.70	23.00	1.349	0.050	22

Right cheek	15	QPSK 36_0	26865/831.5	1:1	0.087	0.069	0.01	21.70	23.00	1.349	0.117	22
Right tilted	15	QPSK 36_0	26865/831.5	1:1	0.044	0.030	0.07	21.70	23.00	1.349	0.059	22
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.091	0.069	0.02	22.63	24.00	1.371	0.125	22.1
Back side	15	QPSK 1_0	26865/831.5	1:1	0.124	0.083	0.01	22.63	24.00	1.371	0.170	22.1
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	15	QPSK 36_0	26865/831.5	1:1	0.075	0.058	0.01	21.70	23.00	1.349	0.101	22.1
Back side	15	QPSK 36_0	26865/831.5	1:1	0.104	0.070	0.05	21.70	23.00	1.349	0.140	22.1
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	15	QPSK 1_0	26865/831.5	1:1	0.145	0.097	0.02	22.63	24.00	1.371	0.199	22.1
Back side	15	QPSK 1_0	26865/831.5	1:1	0.225	0.147	0.04	22.63	24.00	1.371	0.308	22.1
Right side	15	QPSK 1_0	26865/831.5	1:1	0.128	0.088	0.04	22.63	24.00	1.371	0.175	22.1
Bottom side	15	QPSK 1_0	26865/831.5	1:1	0.113	0.073	0.08	22.63	24.00	1.371	0.155	22.1
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	15	QPSK 36_0	26865/831.5	1:1	0.121	0.081	0.08	21.70	23.00	1.349	0.163	22.1
Back side	15	QPSK 36_0	26865/831.5	1:1	0.199	0.130	0.02	21.70	23.00	1.349	0.268	22.1
Right side	15	QPSK 36_0	26865/831.5	1:1	0.110	0.075	0.05	21.70	23.00	1.349	0.148	22.1
Bottom side	15	QPSK 36_0	26865/831.5	1:1	0.099	0.064	0.01	21.70	23.00	1.349	0.134	22.1

Table 23：SAR of LTE Band 26 for Head, Body and Hotspot.

8.2.14 SAR Result of LTE Band 41

LTE Band 41 SAR Test Record												
Ant 13 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	0.272	0.128	0.01	17.17	18.00	1.211	0.329	21.8
Left tilted	20	QPSK 1_0	40620/2593	1:1.58	0.333	0.154	0.07	17.17	18.00	1.211	0.403	21.8
Right cheek	20	QPSK 1_0	40620/2593	1:1.58	0.629	0.280	-0.01	17.17	18.00	1.211	**0.761**	21.8
Right tilted	20	QPSK 1_0	40620/2593	1:1.58	0.538	0.232	0.01	17.17	18.00	1.211	0.651	21.8
Right cheek	20	QPSK 1_0	39750/2506	1:1.58	0.579	0.262	-0.14	17.00	18.00	1.259	0.729	22.2
Right cheek	20	QPSK 1_0	40185/2549.5	1:1.58	0.571	0.255	0.05	17.08	18.00	1.236	0.706	22.2
Right cheek	20	QPSK 1_0	41055/2636.5	1:1.58	0.568	0.253	0.03	17.09	18.00	1.233	0.700	22.2
Right cheek	20	QPSK 1_0	41490/2680	1:1.58	0.535	0.238	0.02	17.08	18.00	1.236	0.661	22.2
Right tilted	20	QPSK 1_0	39750/2506	1:1.58	0.491	0.212	-0.03	17.00	18.00	1.259	0.618	22.2
Right tilted	20	QPSK 1_0	40185/2549.5	1:1.58	0.498	0.212	0.04	17.08	18.00	1.236	0.616	22.2
Right tilted	20	QPSK 1_0	41055/2636.5	1:1.58	0.494	0.212	-0.06	17.09	18.00	1.233	0.609	22.2
Right tilted	20	QPSK 1_0	41490/2680	1:1.58	0.451	0.193	-0.04	17.08	18.00	1.236	0.557	22.2
Right cheek	20	QPSK PCC 1_0 / QPSK SCC 0_0	40620/2593 / 40818/2612.8	1:1.58	0.557	0.276	0.07	16.93	18.00	1.279	0.713	21.8
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_0	40620/2593	1:1.58	0.266	0.126	-0.01	17.24	18.00	1.191	0.317	21.8
Left tilted	20	QPSK 50_0	40620/2593	1:1.58	0.339	0.157	-0.08	17.24	18.00	1.191	0.404	21.8
Right cheek	20	QPSK 50_0	40620/2593	1:1.58	0.635	0.283	0.05	17.24	18.00	1.191	0.756	21.8
Right tilted	20	QPSK 50_0	40620/2593	1:1.58	0.541	0.233	0.01	17.24	18.00	1.191	0.644	21.8
Right cheek	20	QPSK 50_0	39750/2506	1:1.58	0.583	0.263	0.02	17.12	18.00	1.225	0.714	22.2
Right cheek	20	QPSK 50_0	40185/2549.5	1:1.58	0.582	0.260	0.05	17.20	18.00	1.202	0.700	22.2
Right cheek	20	QPSK 50_0	41055/2636.5	1:1.58	0.562	0.249	0.08	17.17	18.00	1.211	0.680	22.2
Right cheek	20	QPSK 50_0	41490/2680	1:1.58	0.536	0.238	0.01	17.07	18.00	1.239	0.664	22.2
Right tilted	20	QPSK 50_0	39750/2506	1:1.58	0.492	0.210	0.04	17.12	18.00	1.225	0.603	22.2
Right tilted	20	QPSK 50_0	40185/2549.5	1:1.58	0.498	0.213	-0.02	17.20	18.00	1.202	0.599	22.2
Right tilted	20	QPSK 50_0	41055/2636.5	1:1.58	0.474	0.204	-0.06	17.17	18.00	1.211	0.574	22.2
Right tilted	20	QPSK 50_0	41490/2680	1:1.58	0.443	0.189	0.02	17.07	18.00	1.239	0.549	22.2
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.243	0.127	0.01	23.94	25.00	1.276	0.310	22.2
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.345	0.178	0.04	23.94	25.00	1.276	**0.440**	22.2
Back side	20	QPSK PCC 1_0 / QPSK SCC 0_0	40620/2593 / 40818/2612.8	1:1.58	0.248	0.124	0.05	23.92	25.00	1.282	0.318	21.8
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.214	0.112	0.05	23.00	24.00	1.259	0.269	22.2

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Back side	20	QPSK 50_0	40620/2593	1:1.58	0.276	0.142	0.07	23.00	24.00	1.259	0.347	22.2
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	40620/2593	1:1.58	0.211	0.107	0.05	20.15	21.00	1.216	0.257	21.9
Back side	20	QPSK 1_0	40620/2593	1:1.58	0.337	0.163	0.03	20.15	21.00	1.216	0.410	22.2
Left side	20	QPSK 1_0	40620/2593	1:1.58	0.096	0.049	0.06	20.15	21.00	1.216	0.117	21.9
Top side	20	QPSK 1_0	40620/2593	1:1.58	0.378	0.177	0.01	20.15	21.00	1.216	0.460	21.9
Top side	20	QPSK PCC 1_0	40620/2593	1:1.58	0.355	0.170	0.04	19.98	21.00	1.265	0.449	21.8
		QPSK SCC 0_0	40818/2612.8									
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_0	40620/2593	1:1.58	0.214	0.108	0.04	20.21	21.00	1.199	0.257	21.9
Back side	20	QPSK 50_0	40620/2593	1:1.58	0.337	0.163	0.04	20.21	21.00	1.199	0.404	22.2
Left side	20	QPSK 50_0	40620/2593	1:1.58	0.098	0.050	0.01	20.21	21.00	1.199	0.118	21.9
Top side	20	QPSK 50_0	40620/2593	1:1.58	0.382	0.180	0.01	20.21	21.00	1.199	0.458	21.9
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_50	40185/2549.5	1:1.58	0.090	0.047	-0.14	23.86	25.00	1.300	0.117	22.2
Left tilted	20	QPSK 1_50	40185/2549.5	1:1.58	0.030	0.015	0.02	23.86	25.00	1.300	0.039	22.2
Right cheek	20	QPSK 1_50	40185/2549.5	1:1.58	0.059	0.032	-0.03	23.86	25.00	1.300	0.077	22.2
Right tilted	20	QPSK 1_50	40185/2549.5	1:1.58	0.046	0.024	0.01	23.86	25.00	1.300	0.060	22.2
Left cheek	20	QPSK PCC 1_0	40185/2549.5	1:1.58	0.079	0.041	0.03	23.42	25.00	1.439	0.114	21.8
		QPSK SCC 0_0	40818/2612.8									
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	40620/2593	1:1.58	0.072	0.037	-0.02	23.06	24.00	1.242	0.089	22.2
Left tilted	20	QPSK 50_25	40620/2593	1:1.58	0.019	0.009	-0.08	23.06	24.00	1.242	0.024	22.2
Right cheek	20	QPSK 50_25	40620/2593	1:1.58	0.044	0.023	0.01	23.06	24.00	1.242	0.055	22.2
Right tilted	20	QPSK 50_25	40620/2593	1:1.58	0.031	0.016	0.09	23.06	24.00	1.242	0.038	22.2
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	40620/2593	1:1.58	0.133	0.074	-0.01	22.71	23.50	1.199	0.160	22
Back side	20	QPSK 1_99	40620/2593	1:1.58	0.174	0.095	0.02	22.71	23.50	1.199	0.209	22
Back side	20	QPSK PCC 1_0	40620/2593	1:1.58	0.181	0.098	0.08	22.09	23.50	1.384	0.250	21.8
		QPSK SCC 0_0	40818/2612.8									
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.105	0.059	0.01	22.81	23.50	1.172	0.123	22
Back side	20	QPSK 50_25	40620/2593	1:1.58	0.138	0.075	-0.02	22.81	23.50	1.172	0.162	22
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	40620/2593	1:1.58	0.216	0.112	0.05	21.78	22.50	1.180	0.255	21.9
Back side	20	QPSK 1_99	40620/2593	1:1.58	0.315	0.155	0.01	21.78	22.50	1.180	0.372	21.9
Left side	20	QPSK 1_99	40620/2593	1:1.58	0.059	0.032	0.07	21.78	22.50	1.180	0.070	21.9
Bottom side	20	QPSK 1_99	40620/2593	1:1.58	0.489	0.243	-0.08	21.78	22.50	1.180	**0.577**	22

Bottom side	20	QPSK PCC 1_0 QPSK SCC 0_0	40620/2593 40818/2612.8	1:1.58	0.436	0.217	-0.11	21.42	22.50	1.282	0.559	21.8
Front side	20	QPSK 50_25	40620/2593	1:1.58	0.223	0.115	0.04	21.85	22.50	1.161	0.259	21.9
Back side	20	QPSK 50_25	40620/2593	1:1.58	0.315	0.155	0.01	21.85	22.50	1.161	0.366	21.9
Left side	20	QPSK 50_25	40620/2593	1:1.58	0.061	0.033	-0.04	21.85	22.50	1.161	0.071	21.9
Bottom side	20	QPSK 50_25	40620/2593	1:1.58	0.455	0.226	0.01	21.85	22.50	1.161	0.528	22

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 13 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	0.315	0.194	-0.02	16.49	17.50	1.262	0.397	22.5
Left tilted	20	QPSK 1_50	132322/1745	1:1	0.372	0.218	0.02	16.49	17.50	1.262	0.469	22.5
Right cheek	20	QPSK 1_50	132322/1745	1:1	0.524	0.285	0.03	16.49	17.50	1.262	0.661	22.5
Right tilted	20	QPSK 1_50	132322/1745	1:1	0.536	0.265	0.03	16.49	17.50	1.262	0.676	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_25	132572/1770	1:1	0.351	0.216	-0.02	16.17	17.50	1.358	0.477	22.5
Left tilted	20	QPSK 50_25	132572/1770	1:1	0.399	0.233	0.01	16.17	17.50	1.358	0.542	22.5
Right cheek	20	QPSK 50_25	132572/1770	1:1	0.550	0.307	-0.11	16.17	17.50	1.358	**0.747**	22.5
Right tilted	20	QPSK 50_25	132572/1770	1:1	0.526	0.264	-0.02	16.17	17.50	1.358	0.714	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_99	132322/1745	1:1	0.287	0.179	-0.19	22.69	24.00	1.352	0.388	22.5
Back side	20	QPSK 1_99	132322/1745	1:1	0.412	0.265	-0.09	22.69	24.00	1.352	**0.557**	22.5
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_50	132322/1745	1:1	0.253	0.159	-0.01	22.27	23.50	1.327	0.336	22.5
Back side	20	QPSK 50_50	132322/1745	1:1	0.373	0.241	-0.10	22.27	23.50	1.327	0.495	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_99	132572/1770	1:1	0.229	0.143	-0.11	19.87	21.00	1.297	0.297	22.5
Back side	20	QPSK 1_99	132572/1770	1:1	0.360	0.214	-0.09	19.87	21.00	1.297	0.467	22.5
Left side	20	QPSK 1_99	132572/1770	1:1	0.105	0.062	0.12	19.87	21.00	1.297	0.136	22.5
Top side	20	QPSK 1_99	132572/1770	1:1	0.459	0.258	-0.01	19.87	21.00	1.297	0.595	22.5
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	132572/1770	1:1	0.243	0.152	-0.13	19.68	21.00	1.355	0.329	22.5
Back side	20	QPSK 50_25	132572/1770	1:1	0.382	0.229	-0.04	19.68	21.00	1.355	0.518	22.5
Left side	20	QPSK 50_25	132572/1770	1:1	0.120	0.070	-0.03	19.68	21.00	1.355	0.163	22.5
Top side	20	QPSK 50_25	132572/1770	1:1	0.483	0.271	-0.02	19.68	21.00	1.355	**0.655**	22.5
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_50	132322/1745	1:1	0.083	0.050	-0.05	23.80	24.50	1.175	0.098	22.3
Left tilted	20	QPSK 1_50	132322/1745	1:1	0.062	0.036	-0.11	23.80	24.50	1.175	0.073	22.3
Right cheek	20	QPSK 1_50	132322/1745	1:1	0.075	0.044	-0.02	23.80	24.50	1.175	0.088	22.3
Right tilted	20	QPSK 1_50	132322/1745	1:1	0.060	0.034	0.12	23.80	24.50	1.175	0.070	22.3
Head Test Data (50%RB) DSI2												

Left cheek	20	QPSK 50_25	132572/1770	1:1	0.068	0.041	0.07	22.37	22.50	1.030	0.070	22.3
Left tilted	20	QPSK 50_25	132572/1770	1:1	0.054	0.032	0.05	22.37	22.50	1.030	0.056	22.3
Right cheek	20	QPSK 50_25	132572/1770	1:1	0.065	0.038	-0.03	22.37	22.50	1.030	0.067	22.3
Right tilted	20	QPSK 50_25	132572/1770	1:1	0.047	0.026	-0.02	22.37	22.50	1.030	0.048	22.3
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_99	132322/1745	1:1	0.136	0.085	-0.18	20.82	22.00	1.312	0.178	22.5
Back side	20	QPSK 1_99	132322/1745	1:1	0.149	0.092	0.01	20.82	22.00	1.312	0.196	22.5
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_50	132322/1745	1:1	0.128	0.080	-0.06	20.73	22.00	1.340	0.171	22.5
Back side	20	QPSK 50_50	132322/1745	1:1	0.147	0.091	-0.11	20.73	22.00	1.340	0.197	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_0	132322/1745	1:1	0.196	0.120	0.08	19.75	21.00	1.334	0.261	22
Back side	20	QPSK 1_0	132322/1745	1:1	0.277	0.160	0.02	19.75	21.00	1.334	0.369	22
Left side	20	QPSK 1_0	132322/1745	1:1	0.083	0.047	0.07	19.75	21.00	1.334	0.111	22
Bottom side	20	QPSK 1_0	132322/1745	1:1	0.388	0.218	0.05	19.75	21.00	1.334	0.517	22
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_25	132322/1745	1:1	0.197	0.121	0.08	19.80	21.00	1.318	0.260	22
Back side	20	QPSK 50_25	132322/1745	1:1	0.279	0.161	0.05	19.80	21.00	1.318	0.368	22
Left side	20	QPSK 50_25	132322/1745	1:1	0.085	0.048	0.02	19.80	21.00	1.318	0.112	22
Bottom side	20	QPSK 50_25	132322/1745	1:1	0.378	0.211	-0.05	19.80	21.00	1.318	0.498	22

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

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8.2.16 SAR Result of NR Band n2

SA N2 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) DSI2												
Left cheek	20	QPSK 1_104	372000/1860	100%	0.281	0.186	0.09	17.08	18.00	1.236	0.347	22.5
Left tilted	20	QPSK 1_104	372000/1860	100%	0.323	0.195	0.02	17.08	18.00	1.236	0.399	22.5
Right cheek	20	QPSK 1_104	372000/1860	100%	0.507	0.290	0.01	17.08	18.00	1.236	0.627	22.5
Right tilted	20	QPSK 1_104	372000/1860	100%	0.437	0.224	0.12	17.08	18.00	1.236	0.540	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	380000/1900	100%	0.282	0.185	-0.08	16.94	18.00	1.276	0.360	22.5
Left tilted	20	QPSK 50_28	380000/1900	100%	0.332	0.198	-0.03	16.94	18.00	1.276	0.424	22.5
Right cheek	20	QPSK 50_28	380000/1900	100%	0.512	0.295	0.07	16.94	18.00	1.276	0.654	22.5
Right tilted	20	QPSK 50_28	380000/1900	100%	0.463	0.234	-0.05	16.94	18.00	1.276	0.591	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	20	QPSK 1_53	380000/1900	100%	0.226	0.144	0.06	23.60	24.50	1.230	0.278	22.4
Back side	20	QPSK 1_53	380000/1900	100%	0.342	0.206	-0.08	23.60	24.50	1.230	**0.421**	22.4
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	20	QPSK 50_28	376000/1880	100%	0.225	0.142	-0.14	23.43	24.50	1.279	0.288	22.4
Back side	20	QPSK 50_28	376000/1880	100%	0.297	0.182	-0.15	23.43	24.50	1.279	0.380	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_53	380000/1900	100%	0.223	0.135	-0.04	20.63	21.50	1.222	0.272	22.4
Back side	20	QPSK 1_53	380000/1900	100%	0.323	0.179	-0.02	20.63	21.50	1.222	0.395	22.4
Left side	20	QPSK 1_53	380000/1900	100%	0.079	0.042	-0.16	20.63	21.50	1.222	0.097	22.4
Top side	20	QPSK 1_53	380000/1900	100%	0.372	0.207	-0.19	20.63	21.50	1.222	0.455	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	380000/1900	100%	0.213	0.129	-0.08	20.41	21.50	1.285	0.274	22.4
Back side	20	QPSK 50_28	380000/1900	100%	0.313	0.175	0.02	20.41	21.50	1.285	0.402	22.4
Left side	20	QPSK 50_28	380000/1900	100%	0.081	0.042	0.13	20.41	21.50	1.285	0.104	22.4
Top side	20	QPSK 50_28	380000/1900	100%	0.371	0.205	0.09	20.41	21.50	1.285	0.477	22.4
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) DSI2												
Left cheek	20	QPSK 1_1	372000/1860	100%	0.113	0.071	-0.07	23.49	24.50	1.262	0.143	22.5
Left tilted	20	QPSK 1_1	372000/1860	100%	0.069	0.042	-0.17	23.49	24.50	1.262	0.087	22.5
Right cheek	20	QPSK 1_1	372000/1860	100%	0.107	0.067	0.15	23.49	24.50	1.262	0.135	22.5
Right tilted	20	QPSK 1_1	372000/1860	100%	0.067	0.039	-0.14	23.49	24.50	1.262	0.085	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	372000/1860	100%	0.105	0.660	0.14	23.30	24.50	1.318	0.138	22.5

Left tilted	20	QPSK 50_28	372000/1860	100%	0.066	0.040	-0.03	23.30	24.50	1.318	0.087	22.5
Right cheek	20	QPSK 50_28	372000/1860	100%	0.099	0.062	-0.12	23.30	24.50	1.318	0.131	22.5
Right tilted	20	QPSK 50_28	372000/1860	100%	0.059	0.035	-0.11	23.30	24.50	1.318	0.078	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	376000/1880	100%	0.157	0.091	-0.17	20.92	22.00	1.282	0.201	22.4
Back side	20	QPSK 1_1	376000/1880	100%	0.192	0.114	0.16	20.92	22.00	1.282	0.246	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	372000/1860	100%	0.171	0.097	-0.11	20.81	22.00	1.315	0.225	22.4
Back side	20	QPSK 50_28	372000/1860	100%	0.208	0.122	-0.07	20.81	22.00	1.315	0.274	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_1	380000/1900	100%	0.241	0.127	0.01	20.51	21.50	1.256	0.303	22.4
Back side	20	QPSK 1_1	380000/1900	100%	0.323	0.183	0.12	20.51	21.50	1.256	0.406	22.4
Left side	20	QPSK 1_1	380000/1900	100%	0.099	0.056	-0.14	20.51	21.50	1.256	0.124	22.4
Bottom side	20	QPSK 1_1	380000/1900	100%	0.368	0.200	0.00	20.51	21.50	1.256	0.462	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	376000/1880	100%	0.244	0.131	-0.16	20.30	21.50	1.318	0.322	22.4
Back side	20	QPSK 50_28	376000/1880	100%	0.344	0.190	0.12	20.30	21.50	1.318	0.453	22.4
Left side	20	QPSK 50_28	376000/1880	100%	0.105	0.060	-0.17	20.30	21.50	1.318	0.138	22.4
Bottom side	20	QPSK 50_28	376000/1880	100%	0.440	0.240	0.07	20.30	21.50	1.318	**0.580**	22.4
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) DSI2												
Left cheek	20	QPSK 1_1	372000/1860	100%	0.140	0.087	0.13	20.39	21.50	1.291	0.181	22.5
Left tilted	20	QPSK 1_1	372000/1860	100%	0.067	0.041	0.03	20.39	21.50	1.291	0.087	22.5
Right cheek	20	QPSK 1_1	372000/1860	100%	0.517	0.244	0.05	20.39	21.50	1.291	**0.668**	22.5
Right tilted	20	QPSK 1_1	372000/1860	100%	0.186	0.098	0.19	20.39	21.50	1.291	0.240	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	372000/1860	100%	0.126	0.079	0.14	20.27	21.50	1.327	0.167	22.5
Left tilted	20	QPSK 50_28	372000/1860	100%	0.063	0.040	0.05	20.27	21.50	1.327	0.084	22.5
Right cheek	20	QPSK 50_28	372000/1860	100%	0.502	0.265	-0.14	20.27	21.50	1.327	0.666	22.5
Right tilted	20	QPSK 50_28	372000/1860	100%	0.189	0.097	0.04	20.27	21.50	1.327	0.251	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	372000/1860	100%	0.009	0.005	-0.18	20.91	22.00	1.285	0.012	22.4
Back side	20	QPSK 1_1	372000/1860	100%	0.077	0.045	-0.10	20.91	22.00	1.285	0.099	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	372000/1860	100%	0.008	0.004	0.04	20.76	22.00	1.330	0.011	22.4
Back side	20	QPSK 50_28	372000/1860	100%	0.079	0.046	0.18	20.76	22.00	1.330	0.105	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_53	372000/1860	100%	0.061	0.035	-0.06	19.44	20.50	1.276	0.078	22.4
Back side	20	QPSK 1_53	372000/1860	100%	0.132	0.071	-0.12	19.44	20.50	1.276	0.168	22.4
Left side	20	QPSK 1_53	372000/1860	100%	0.140	0.069	0.05	19.44	20.50	1.276	0.179	22.4

Top side	20	QPSK 1_53	372000/1860	100%	0.006	0.003	-0.01	19.44	20.50	1.276	0.008	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	372000/1860	100%	0.060	0.034	0.08	19.35	20.50	1.303	0.078	22.4
Back side	20	QPSK 50_28	372000/1860	100%	0.127	0.069	0.11	19.35	20.50	1.303	0.166	22.4
Left side	20	QPSK 50_28	372000/1860	100%	0.129	0.066	-0.06	19.35	20.50	1.303	0.168	22.4
Top side	20	QPSK 50_28	372000/1860	100%	0.007	0.002	0.18	19.35	20.50	1.303	0.009	22.4

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

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8.2.17 SAR Result of NR Band n5

SA N5 SAR Test Record												
Ant 11 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) DSI2												
Left cheek	20	QPSK 1_1	167300/836.5	100%	0.325	0.196	-0.05	20.42	21.40	1.253	0.407	22.5
Left tilted	20	QPSK 1_1	167300/836.5	100%	0.115	0.079	0.17	20.42	21.40	1.253	0.144	22.5
Right cheek	20	QPSK 1_1	167300/836.5	100%	0.417	0.223	-0.13	20.42	21.40	1.253	**0.523**	22.5
Right tilted	20	QPSK 1_1	167300/836.5	100%	0.139	0.085	-0.13	20.42	21.40	1.253	0.174	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	166800/834	100%	0.320	0.194	-0.16	20.26	21.40	1.300	0.416	22.5
Left tilted	20	QPSK 50_28	166800/834	100%	0.106	0.072	-0.13	20.26	21.40	1.300	0.138	22.5
Right cheek	20	QPSK 50_28	166800/834	100%	0.401	0.274	-0.08	20.26	21.40	1.300	0.521	22.5
Right tilted	20	QPSK 50_28	166800/834	100%	0.131	0.081	-0.11	20.26	21.40	1.300	0.170	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	166800/834	100%	0.211	0.127	-0.13	23.44	24.40	1.247	0.263	22.4
Back side	20	QPSK 1_1	166800/834	100%	0.334	0.205	0.15	23.44	24.40	1.247	**0.417**	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	166800/834	100%	0.200	0.121	0.06	23.30	24.40	1.288	0.258	22.4
Back side	20	QPSK 50_28	166800/834	100%	0.314	0.186	0.03	23.30	24.40	1.288	0.405	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_1	166800/834	100%	0.341	0.192	-0.07	22.98	23.90	1.236	0.421	22.4
Back side	20	QPSK 1_1	166800/834	100%	0.563	0.308	0.07	22.98	23.90	1.236	0.696	22.4
Left side	20	QPSK 1_1	166800/834	100%	0.669	0.377	-0.12	22.98	23.90	1.236	0.827	22.4
Left side	20	QPSK 1_1	166800/834	100%	0.676	0.369	0.02	22.98	23.90	1.236	**0.836**	22.4
Left side	20	QPSK 1_1	167300/836.5	100%	0.663	0.355	0.16	22.92	23.90	1.253	0.831	22.4
Left side	20	QPSK 1_1	167800/839	100%	0.650	0.352	-0.14	22.83	23.90	1.279	0.832	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	167800/839	100%	0.296	0.166	-0.08	22.80	23.90	1.288	0.381	22.4
Back side	20	QPSK 50_28	167800/839	100%	0.462	0.258	0.04	22.80	23.90	1.288	0.595	22.4
Left side	20	QPSK 50_28	167800/839	100%	0.627	0.328	0.18	22.80	23.90	1.288	0.808	22.4
Left side	20	QPSK 50_28	166800/834	100%	0.617	0.325	0.17	22.70	23.90	1.318	0.813	22.4
Left side	20	QPSK 50_28	167300/836.5	100%	0.598	0.316	-0.04	22.75	23.90	1.303	0.779	22.4
Hotspot Test data (Separate 10mm 100%RB) DSI6												
Left side	20	QPSK 100_0	167300/836.5	100%	0.485	0.257	0.01	21.73	22.90	1.309	0.635	22.4
Ant 31 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) DSI2												
Left cheek	20	QPSK 1_1	166800/834	100%	0.126	0.085	0.07	23.35	24.50	1.303	0.164	22.5

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Left tilted	20	QPSK 1_1	166800/834	100%	0.061	0.044	-0.15	23.35	24.50	1.303	0.079	22.5
Right cheek	20	QPSK 1_1	166800/834	100%	0.113	0.084	-0.01	23.35	24.50	1.303	0.147	22.5
Right tilted	20	QPSK 1_1	166800/834	100%	0.074	0.055	-0.19	23.35	24.50	1.303	0.096	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	166800/834	100%	0.118	0.080	0.10	23.14	24.50	1.368	0.161	22.5
Left tilted	20	QPSK 50_28	166800/834	100%	0.060	0.044	-0.12	23.14	24.50	1.368	0.082	22.5
Right cheek	20	QPSK 50_28	166800/834	100%	0.116	0.086	0.08	23.14	24.50	1.368	0.159	22.5
Right tilted	20	QPSK 50_28	166800/834	100%	0.074	0.055	-0.01	23.14	24.50	1.368	0.101	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	166800/834	100%	0.076	0.049	0.06	22.32	23.50	1.312	0.100	22.4
Back side	20	QPSK 1_1	166800/834	100%	0.108	0.067	0.18	22.32	23.50	1.312	0.142	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	166800/834	100%	0.067	0.044	-0.04	22.11	23.50	1.377	0.092	22.4
Back side	20	QPSK 50_28	166800/834	100%	0.108	0.066	-0.16	22.11	23.50	1.377	0.149	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_1	166800/834	100%	0.127	0.081	-0.19	22.32	23.50	1.312	0.167	22.4
Back side	20	QPSK 1_1	166800/834	100%	0.206	0.122	0.03	22.32	23.50	1.312	0.270	22.4
Right side	20	QPSK 1_1	166800/834	100%	0.119	0.078	0.06	22.32	23.50	1.312	0.156	22.4
Bottom side	20	QPSK 1_1	166800/834	100%	0.132	0.076	0.01	22.32	23.50	1.312	0.173	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	166800/834	100%	0.118	0.075	-0.14	22.11	23.50	1.377	0.163	22.4
Back side	20	QPSK 50_28	166800/834	100%	0.196	0.119	0.04	22.11	23.50	1.377	0.270	22.4
Right side	20	QPSK 50_28	166800/834	100%	0.100	0.066	-0.07	22.11	23.50	1.377	0.138	22.4
Bottom side	20	QPSK 50_28	166800/834	100%	0.134	0.078	-0.08	22.11	23.50	1.377	0.185	22.4

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

8.2.18 SAR Result of NR Band n7

SA N7 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) DSI2												
Left cheek	40	QPSK 1_108	505000/2525	100%	0.218	0.106	0.01	13.70	14.50	1.202	0.262	22.5
Left tilted	40	QPSK 1_108	505000/2525	100%	0.246	0.121	0.16	13.70	14.50	1.202	0.296	22.5
Right cheek	40	QPSK 1_108	505000/2525	100%	0.444	0.206	-0.07	13.70	14.50	1.202	0.534	22.5
Right tilted	40	QPSK 1_108	505000/2525	100%	0.451	0.196	-0.17	13.70	14.50	1.202	0.542	22.5
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK 108_54	507000/2535	100%	0.217	0.106	0.09	13.44	14.50	1.276	0.277	22.5
Left tilted	40	QPSK 108_54	507000/2535	100%	0.240	0.118	0.18	13.44	14.50	1.276	0.306	22.5
Right cheek	40	QPSK 108_54	507000/2535	100%	0.439	0.204	0.12	13.44	14.50	1.276	0.560	22.5
Right tilted	40	QPSK 108_54	507000/2535	100%	0.459	0.177	-0.09	13.44	14.50	1.276	**0.586**	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	40	QPSK 1_108	505000/2525	100%	0.213	0.112	-0.18	21.18	22.00	1.208	0.257	22.4
Back side	40	QPSK 1_108	505000/2525	100%	0.320	0.161	-0.01	21.18	22.00	1.208	0.387	22.4
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	40	QPSK 108_54	505000/2525	100%	0.212	0.113	-0.03	20.93	22.00	1.279	0.271	22.4
Back side	40	QPSK 108_54	505000/2525	100%	0.322	0.165	0.07	20.93	22.00	1.279	**0.412**	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_108	505000/2525	100%	0.226	0.112	-0.07	18.17	19.00	1.211	0.274	22.4
Back side	40	QPSK 1_108	505000/2525	100%	0.351	0.167	-0.05	18.17	19.00	1.211	0.425	22.4
Left side	40	QPSK 1_108	505000/2525	100%	0.180	0.086	0.08	18.17	19.00	1.211	0.218	22.4
Top side	40	QPSK 1_108	505000/2525	100%	0.367	0.167	0.03	18.17	19.00	1.211	0.444	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 108_54	505000/2525	100%	0.218	0.109	0.03	17.91	19.00	1.285	0.280	22.4
Back side	40	QPSK 108_54	505000/2525	100%	0.343	0.161	-0.14	17.91	19.00	1.285	0.441	22.4
Left side	40	QPSK 108_54	505000/2525	100%	0.168	0.080	-0.13	17.91	19.00	1.285	0.216	22.4
Top side	40	QPSK 108_54	505000/2525	100%	0.360	0.164	0.02	17.91	19.00	1.285	0.463	22.4
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) DSI2												
Left cheek	40	QPSK 1_108	505000/2525	100%	0.157	0.084	-0.16	23.20	24.30	1.288	0.202	22.5
Left tilted	40	QPSK 1_108	505000/2525	100%	0.040	0.021	0.06	23.20	24.30	1.288	0.052	22.5
Right cheek	40	QPSK 1_108	505000/2525	100%	0.095	0.055	0.02	23.20	24.30	1.288	0.122	22.5
Right tilted	40	QPSK 1_108	505000/2525	100%	0.080	0.040	-0.09	23.20	24.30	1.288	0.103	22.5
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK 108_54	505000/2525	100%	0.215	0.115	0.09	23.05	24.30	1.334	0.287	22.5

Left tilted	40	QPSK 108_54	505000/2525	100%	0.054	0.028	0.00	23.05	24.30	1.334	0.072	22.5
Right cheek	40	QPSK 108_54	505000/2525	100%	0.126	0.072	0.18	23.05	24.30	1.334	0.168	22.5
Right tilted	40	QPSK 108_54	505000/2525	100%	0.114	0.057	0.11	23.05	24.30	1.334	0.152	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QPSK 1_1	509000/2545	100%	0.199	0.105	0.01	19.88	20.80	1.236	0.246	22.4
Back side	40	QPSK 1_1	509000/2545	100%	0.247	0.130	-0.12	19.88	20.80	1.236	0.305	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QPSK 108_54	507000/2535	100%	0.187	0.099	0.17	19.72	20.80	1.282	0.240	22.4
Back side	40	QPSK 108_54	507000/2535	100%	0.247	0.129	0.03	19.72	20.80	1.282	0.317	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_108	505000/2525	100%	0.284	0.137	0.05	18.35	19.30	1.245	0.353	22.4
Back side	40	QPSK 1_108	505000/2525	100%	0.339	0.164	-0.04	18.35	19.30	1.245	0.422	22.4
Left side	40	QPSK 1_108	505000/2525	100%	0.098	0.050	-0.14	18.35	19.30	1.245	0.122	22.4
Bottom side	40	QPSK 1_108	505000/2525	100%	0.436	0.220	-0.11	18.35	19.30	1.245	0.543	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 108_54	505000/2525	100%	0.288	0.140	0.07	18.31	19.30	1.256	0.362	22.4
Back side	40	QPSK 108_54	505000/2525	100%	0.343	0.166	0.14	18.31	19.30	1.256	0.431	22.4
Left side	40	QPSK 108_54	505000/2525	100%	0.103	0.053	-0.15	18.31	19.30	1.256	0.129	22.4
Bottom side	40	QPSK 108_54	505000/2525	100%	0.447	0.227	0.05	18.31	19.30	1.256	**0.561**	22.4
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) DSI2												
Left cheek	40	QPSK 1_1	505000/2525	100%	0.091	0.048	0.01	16.66	17.80	1.300	0.118	22.5
Left tilted	40	QPSK 1_1	505000/2525	100%	0.065	0.033	0.06	16.66	17.80	1.300	0.085	22.5
Right cheek	40	QPSK 1_1	505000/2525	100%	0.398	0.175	-0.07	16.66	17.80	1.300	0.517	22.5
Right tilted	40	QPSK 1_1	505000/2525	100%	0.177	0.084	0.05	16.66	17.80	1.300	0.230	22.5
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK 108_54	507000/2535	100%	0.119	0.062	0.11	16.43	17.80	1.371	0.163	22.5
Left tilted	40	QPSK 108_54	507000/2535	100%	0.083	0.043	0.19	16.43	17.80	1.371	0.114	22.5
Right cheek	40	QPSK 108_54	507000/2535	100%	0.299	0.111	0.03	16.43	17.80	1.371	0.410	22.5
Right tilted	40	QPSK 108_54	507000/2535	100%	0.222	0.103	-0.12	16.43	17.80	1.371	0.304	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QPSK 1_1	505000/2525	100%	0.102	0.051	-0.07	20.64	21.80	1.306	0.133	22.4
Back side	40	QPSK 1_1	505000/2525	100%	0.160	0.081	0.07	20.64	21.80	1.306	0.209	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QPSK 108_54	505000/2525	100%	0.116	0.059	-0.15	20.43	21.80	1.371	0.159	22.4
Back side	40	QPSK 108_54	505000/2525	100%	0.189	0.093	0.05	20.43	21.80	1.371	0.259	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_108	509000/2545	100%	0.210	0.101	0.17	19.63	20.80	1.309	0.275	22.4
Back side	40	QPSK 1_108	509000/2545	100%	0.368	0.169	-0.03	19.63	20.80	1.309	0.482	22.4
Left side	40	QPSK 1_108	509000/2545	100%	0.399	0.177	0.18	19.63	20.80	1.309	0.522	22.4

Top side	40	QPSK 1_108	509000/2545	100%	0.079	0.042	0.01	19.63	20.80	1.309	0.103	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 108_54	509000/2545	100%	0.199	0.095	0.02	19.43	20.80	1.371	0.273	22.4
Back side	40	QPSK 108_54	509000/2545	100%	0.363	0.166	0.12	19.43	20.80	1.371	0.498	22.4
Left side	40	QPSK 108_54	509000/2545	100%	0.402	0.187	0.11	19.43	20.80	1.371	0.551	22.4
Top side	40	QPSK 108_54	509000/2545	100%	0.080	0.043	-0.18	19.43	20.80	1.371	0.110	22.4

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.	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) DSI2												
Left cheek	20	QPSK 1_1	164800/824	100%	0.435	0.266	0.15	21.37	22.50	1.297	0.564	22.5
Left tilted	20	QPSK 1_1	164800/824	100%	0.145	0.098	0.07	21.37	22.50	1.297	0.188	22.5
Right cheek	20	QPSK 1_1	164800/824	100%	0.440	0.248	-0.07	21.37	22.50	1.297	0.571	22.5
Right tilted	20	QPSK 1_1	164800/824	100%	0.178	0.108	-0.12	21.37	22.50	1.297	0.231	22.5
Right cheek	20	QPSK 1_53	166300/831.5	100%	0.439	0.226	0.02	21.34	22.50	1.306	0.573	22.5
Right cheek	20	QPSK 1_1	167800/839	100%	0.436	0.215	0.05	21.30	22.50	1.318	0.575	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	164800/824	100%	0.402	0.242	0.09	21.28	22.50	1.324	0.532	22.5
Left tilted	20	QPSK 50_28	164800/824	100%	0.133	0.090	-0.14	21.28	22.50	1.324	0.176	22.5
Right cheek	20	QPSK 50_28	164800/824	100%	0.432	0.242	0.19	21.28	22.50	1.324	0.572	22.5
Right tilted	20	QPSK 50_28	164800/824	100%	0.182	0.112	-0.09	21.28	22.50	1.324	0.241	22.5
Right cheek	20	QPSK 50_28	166300/831.5	100%	0.419	0.229	-0.01	21.24	22.50	1.337	0.560	22.5
Right cheek	20	QPSK 50_28	167800/839	100%	0.430	0.235	0.02	21.18	22.50	1.355	**0.583**	22.5
Head Test Data (1RB) DSI3												
Left cheek	20	QPSK 1_1	164800/824	100%	0.435	0.266	0.15	21.37	22.00	1.156	0.503	22.5
Left tilted	20	QPSK 1_1	164800/824	100%	0.145	0.098	0.07	21.37	22.00	1.156	0.168	22.5
Right cheek	20	QPSK 1_1	164800/824	100%	0.440	0.248	-0.07	21.37	22.00	1.156	0.509	22.5
Right tilted	20	QPSK 1_1	164800/824	100%	0.178	0.108	-0.12	21.37	22.00	1.156	0.206	22.5
Right cheek	20	QPSK 1_53	166300/831.5	100%	0.439	0.226	0.02	21.34	22.00	1.164	0.511	22.5
Right cheek	20	QPSK 1_1	167800/839	100%	0.436	0.215	0.05	21.30	22.00	1.175	0.512	22.5
Head Test Data (50%RB) DSI3												
Left cheek	20	QPSK 50_28	164800/824	100%	0.402	0.242	0.09	21.28	22.00	1.180	0.474	22.5
Left tilted	20	QPSK 50_28	164800/824	100%	0.133	0.090	-0.14	21.28	22.00	1.180	0.157	22.5
Right cheek	20	QPSK 50_28	164800/824	100%	0.432	0.242	0.19	21.28	22.00	1.180	0.510	22.5
Right tilted	20	QPSK 50_28	164800/824	100%	0.182	0.112	-0.09	21.28	22.00	1.180	0.215	22.5
Right cheek	20	QPSK 50_28	166300/831.5	100%	0.419	0.229	-0.01	21.24	22.00	1.191	0.499	22.5
Right cheek	20	QPSK 50_28	167800/839	100%	0.430	0.235	0.02	21.18	22.00	1.208	0.519	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	164800/824	100%	0.198	0.117	0.16	23.42	24.50	1.282	0.254	22.4
Back side	20	QPSK 1_1	164800/824	100%	0.289	0.191	-0.15	23.42	24.50	1.282	0.371	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	164800/824	100%	0.209	0.129	-0.19	23.30	24.50	1.318	0.276	22.4
Back side	20	QPSK 50_28	164800/824	100%	0.291	0.178	-0.10	23.30	24.50	1.318	**0.384**	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_1	164800/824	100%	0.301	0.170	0.05	22.38	23.50	1.294	0.390	22.4

Back side	20	QPSK 1_1	164800/824	100%	0.476	0.260	0.09	22.38	23.50	1.294	0.616	22.4
Left side	20	QPSK 1_1	164800/824	100%	0.526	0.331	0.16	22.38	23.50	1.294	0.681	22.4
Left side	20	QPSK 1_1	166300/831.5	100%	0.531	0.326	-0.11	22.33	23.50	1.309	0.695	22.4
Left side	20	QPSK 1_1	167800/839	100%	0.517	0.330	0.19	22.24	23.50	1.337	0.691	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	164800/824	100%	0.300	0.171	0.13	22.24	23.50	1.337	0.401	22.4
Back side	20	QPSK 50_28	164800/824	100%	0.473	0.163	0.05	22.24	23.50	1.337	0.632	22.4
Left side	20	QPSK 50_28	164800/824	100%	0.522	0.324	0.15	22.24	23.50	1.337	0.698	22.4
Left side	20	QPSK 50_28	166300/831.5	100%	0.519	0.310	-0.09	22.24	23.50	1.337	0.694	22.4
Left side	20	QPSK 50_28	167800/839	100%	0.524	0.285	-0.04	22.20	23.50	1.349	**0.707**	22.4
Ant 31 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) DSI2												
Left cheek	20	QPSK 1_1	164800/824	100%	0.121	0.081	0.14	23.31	24.50	1.315	0.159	22.5
Left tilted	20	QPSK 1_1	164800/824	100%	0.058	0.042	-0.11	23.31	24.50	1.315	0.076	22.5
Right cheek	20	QPSK 1_1	164800/824	100%	0.115	0.084	0.01	23.31	24.50	1.315	0.151	22.5
Right tilted	20	QPSK 1_1	164800/824	100%	0.076	0.056	0.15	23.31	24.50	1.315	0.100	22.5
Head Test Data (50%RB) DSI2												
Left cheek	20	QPSK 50_28	166300/831.5	100%	0.119	0.081	0.03	23.16	24.50	1.361	0.162	22.5
Left tilted	20	QPSK 50_28	166300/831.5	100%	0.059	0.044	-0.17	23.16	24.50	1.361	0.080	22.5
Right cheek	20	QPSK 50_28	166300/831.5	100%	0.115	0.085	0.16	23.16	24.50	1.361	0.157	22.5
Right tilted	20	QPSK 50_28	166300/831.5	100%	0.073	0.055	-0.14	23.16	24.50	1.361	0.099	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	20	QPSK 1_1	164800/824	100%	0.086	0.055	0.13	23.31	24.50	1.315	0.113	22.4
Back side	20	QPSK 1_1	164800/824	100%	0.122	0.076	0.09	23.31	24.50	1.315	0.160	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	20	QPSK 50_28	166300/831.5	100%	0.091	0.059	0.01	23.16	24.50	1.361	0.124	22.4
Back side	20	QPSK 50_28	166300/831.5	100%	0.128	0.080	-0.08	23.16	24.50	1.361	0.174	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	20	QPSK 1_1	164800/824	100%	0.149	0.094	0.18	23.31	24.50	1.315	0.196	22.4
Back side	20	QPSK 1_1	164800/824	100%	0.239	0.145	-0.01	23.31	24.50	1.315	0.314	22.4
Right side	20	QPSK 1_1	164800/824	100%	0.157	0.104	0.19	23.31	24.50	1.315	0.206	22.4
Bottom side	20	QPSK 1_1	164800/824	100%	0.136	0.083	-0.06	23.31	24.50	1.315	0.179	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	20	QPSK 50_28	166300/831.5	100%	0.149	0.094	-0.10	23.16	24.50	1.361	0.203	22.4
Back side	20	QPSK 50_28	166300/831.5	100%	0.252	0.152	-0.14	23.16	24.50	1.361	0.343	22.4
Right side	20	QPSK 50_28	166300/831.5	100%	0.155	0.102	0.17	23.16	24.50	1.361	0.211	22.4
Bottom side	20	QPSK 50_28	166300/831.5	100%	0.135	0.083	-0.04	23.16	24.50	1.361	0.184	22.4

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												
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.(℃)
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QPSK 1_1	519000/2595	100%	0.197	0.105	0.16	20.13	21.20	1.279	0.252	22.4
Back side	40	QPSK 1_1	519000/2595	100%	0.221	0.123	0.07	20.13	21.20	1.279	**0.283**	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QPSK 50_28	519000/2595	100%	0.177	0.092	-0.15	20.04	21.20	1.306	0.231	22.4
Back side	40	QPSK 50_28	519000/2595	100%	0.211	0.112	-0.10	20.04	21.20	1.306	0.276	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK 1_1	519000/2595	100%	0.321	0.155	-0.07	19.15	20.20	1.274	0.409	22.4
Back side	40	QPSK 1_1	519000/2595	100%	0.358	0.178	0.05	19.15	20.20	1.274	0.456	22.4
Left side	40	QPSK 1_1	519000/2595	100%	0.109	0.056	-0.01	19.15	20.20	1.274	0.139	22.4
Bottom side	40	QPSK 1_1	519000/2595	100%	0.534	0.263	0.16	19.15	20.20	1.274	0.680	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK 50_28	519000/2595	100%	0.283	0.139	0.03	18.92	20.20	1.343	0.380	22.4
Back side	40	QPSK 50_28	519000/2595	100%	0.349	0.169	0.05	18.92	20.20	1.343	0.469	22.4
Left side	40	QPSK 50_28	519000/2595	100%	0.098	0.051	0.03	18.92	20.20	1.343	0.132	22.4
Bottom side	40	QPSK 50_28	519000/2595	100%	0.551	0.275	0.02	18.92	20.20	1.343	**0.740**	22.4

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

8.2.21 SAR Result of NR Band n41

SA N41 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) DSI2												
Left cheek	100	QPSK1_271	518598/2592.99	100%	0.258	0.133	0.16	14.93	15.70	1.194	0.308	22.5
Left tilted	100	QPSK1_271	518598/2592.99	100%	0.283	0.145	-0.08	14.93	15.70	1.194	0.338	22.5
Right cheek	100	QPSK1_271	518598/2592.99	100%	0.505	0.245	-0.05	14.93	15.70	1.194	0.603	22.5
Right tilted	100	QPSK1_271	518598/2592.99	100%	0.508	0.228	0.01	14.93	15.70	1.194	0.607	22.5
Right cheek	100	QPSK1_271	509202/2546.01	100%	0.579	0.277	-0.13	14.83	15.70	1.222	0.707	22.5
Right cheek	100	QPSK1_271	513900/2569.5	100%	0.557	0.268	0.08	14.83	15.70	1.222	0.681	22.5
Right cheek	100	QPSK1_271	523302/2616.51	100%	0.476	0.232	0.13	14.86	15.70	1.213	0.578	22.5
Right cheek	100	QPSK1_271	528000/2640	100%	0.441	0.213	0.07	14.88	15.70	1.208	0.533	22.5
Right tilted	100	QPSK1_271	509202/2546.01	100%	0.574	0.256	0.12	14.83	15.70	1.222	0.701	22.5
Right tilted	100	QPSK1_271	513900/2569.5	100%	0.546	0.245	0.04	14.83	15.70	1.222	0.667	22.5
Right tilted	100	QPSK1_271	523302/2616.51	100%	0.481	0.215	-0.19	14.86	15.70	1.213	0.584	22.5
Right tilted	100	QPSK1_271	528000/2640	100%	0.458	0.203	-0.17	14.88	15.70	1.208	0.553	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK135_69	528000/2640	100%	0.259	0.133	-0.15	14.72	15.70	1.253	0.325	22.5
Left tilted	100	QPSK135_69	528000/2640	100%	0.288	0.145	0.15	14.72	15.70	1.253	0.361	22.5
Right cheek	100	QPSK135_69	528000/2640	100%	0.514	0.248	0.02	14.72	15.70	1.253	0.644	22.5
Right tilted	100	QPSK135_69	528000/2640	100%	0.520	0.232	-0.09	14.72	15.70	1.253	0.652	22.5
Right cheek	100	QPSK135_69	509202/2546.01	100%	0.594	0.275	0.19	14.64	15.70	1.276	0.758	22.5
Right cheek	100	QPSK135_69	509202/2546.01	100%	0.782	0.342	0.16	14.64	15.70	1.276	**0.998**	22.5
Right cheek	100	QPSK135_69	513900/2569.5	100%	0.594	0.278	-0.05	14.65	15.70	1.274	0.756	22.5
Right cheek	100	QPSK135_69	518598/2592.99	100%	0.584	0.277	-0.15	14.67	15.70	1.268	0.740	22.5
Right cheek	100	QPSK135_69	523302/2616.51	100%	0.560	0.269	0.05	14.65	15.70	1.274	0.713	22.5
Right tilted	100	QPSK135_69	509202/2546.01	100%	0.585	0.255	-0.17	14.64	15.70	1.276	0.747	22.5
Right tilted	100	QPSK135_69	513900/2569.5	100%	0.580	0.255	-0.09	14.65	15.70	1.274	0.739	22.5
Right tilted	100	QPSK135_69	518598/2592.99	100%	0.575	0.255	-0.11	14.67	15.70	1.268	0.729	22.5
Right tilted	100	QPSK135_69	523302/2616.51	100%	0.560	0.248	-0.10	14.65	15.70	1.274	0.713	22.5
Head Test Data (100%RB) DSI2												
Right cheek	100	QPSK270_0	509202/2546.01	100%	0.625	0.275	0.03	13.66	14.70	1.271	0.794	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	100	QPSK1_271	528000/2640	100%	0.208	0.112	0.16	21.43	22.20	1.194	0.248	22.4
Back side	100	QPSK1_271	528000/2640	100%	0.280	0.144	-0.10	21.43	22.20	1.194	0.334	22.4
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	100	QPSK135_69	528000/2640	100%	0.252	0.132	-0.10	21.28	22.20	1.236	0.311	22.4
Back side	100	QPSK135_69	528000/2640	100%	0.299	0.156	-0.03	21.28	22.20	1.236	**0.370**	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												

Front side	100	QPSK1_271	528000/2640	100%	0.209	0.108	-0.13	18.36	19.20	1.213	0.254	22.4
Back side	100	QPSK1_271	528000/2640	100%	0.315	0.156	-0.05	18.36	19.20	1.213	0.382	22.4
Left side	100	QPSK1_271	528000/2640	100%	0.113	0.055	0.15	18.36	19.20	1.213	0.137	22.4
Top side	100	QPSK1_271	528000/2640	100%	0.378	0.184	-0.15	18.36	19.20	1.213	0.459	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK135_69	528000/2640	100%	0.247	0.125	-0.03	18.14	19.20	1.276	0.315	22.4
Back side	100	QPSK135_69	528000/2640	100%	0.363	0.178	0.07	18.14	19.20	1.276	0.463	22.4
Left side	100	QPSK135_69	528000/2640	100%	0.124	0.062	-0.17	18.14	19.20	1.276	0.158	22.4
Top side	100	QPSK135_69	528000/2640	100%	0.436	0.207	0.04	18.14	19.20	1.276	0.557	22.4
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) DSI2												
Left cheek	100	QPSK1_137	509202/2546.01	100%	0.368	0.195	0.03	25.30	26.20	1.230	0.453	22.5
Left tilted	100	QPSK1_137	509202/2546.01	100%	0.098	0.052	-0.18	25.30	26.20	1.230	0.121	22.5
Right cheek	100	QPSK1_137	509202/2546.01	100%	0.219	0.125	0.03	25.30	26.20	1.230	0.269	22.5
Right tilted	100	QPSK1_137	509202/2546.01	100%	0.192	0.096	0.12	25.30	26.20	1.230	0.236	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK135_138	509202/2546.01	100%	0.270	0.142	-0.02	25.23	26.20	1.250	0.338	22.5
Left tilted	100	QPSK135_138	509202/2546.01	100%	0.067	0.036	0.12	25.23	26.20	1.250	0.084	22.5
Right cheek	100	QPSK135_138	509202/2546.01	100%	0.166	0.093	0.02	25.23	26.20	1.250	0.208	22.5
Right tilted	100	QPSK135_138	509202/2546.01	100%	0.131	0.065	0.01	25.23	26.20	1.250	0.164	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	100	QPSK1_1	513900/2569.5	100%	0.170	0.090	-0.18	19.66	20.70	1.271	0.216	22.4
Back side	100	QPSK1_1	513900/2569.5	100%	0.215	0.110	-0.13	19.66	20.70	1.271	0.273	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	100	QPSK135_138	528000/2640	100%	0.151	0.079	-0.10	19.44	20.70	1.337	0.202	22.4
Back side	100	QPSK135_138	528000/2640	100%	0.197	0.100	0.01	19.44	20.70	1.337	0.263	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK1_1	523302/2616.51	100%	0.264	0.130	0.06	18.66	19.70	1.271	0.335	22.4
Back side	100	QPSK1_1	523302/2616.51	100%	0.310	0.152	0.03	18.66	19.70	1.271	0.394	22.4
Left side	100	QPSK1_1	523302/2616.51	100%	0.089	0.046	0.15	18.66	19.70	1.271	0.113	22.4
Bottom side	100	QPSK1_1	523302/2616.51	100%	0.436	0.216	0.03	18.66	19.70	1.271	0.554	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK135_138	509202/2546.01	100%	0.261	0.128	0.12	18.40	19.70	1.349	0.352	22.4
Back side	100	QPSK135_138	509202/2546.01	100%	0.266	0.135	-0.03	18.40	19.70	1.349	0.359	22.4
Left side	100	QPSK135_138	509202/2546.01	100%	0.083	0.044	-0.04	18.40	19.70	1.349	0.112	22.4
Bottom side	100	QPSK135_138	509202/2546.01	100%	0.428	0.207	0.16	18.40	19.70	1.349	0.577	22.4
Ant12 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 1-g (W/kg)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	100	QPSK1_1	509202/2546.01	100%	0.101	0.053	-0.06	17.77	18.50	1.183	0.119	22.5
Left tilted	100	QPSK1_1	509202/2546.01	100%	0.073	0.037	0.07	17.77	18.50	1.183	0.086	22.5
Right cheek	100	QPSK1_1	509202/2546.01	100%	0.464	0.199	0.13	17.77	18.50	1.183	0.549	22.5
Right tilted	100	QPSK1_1	509202/2546.01	100%	0.192	0.090	-0.08	17.77	18.50	1.183	0.227	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK135_69	523302/2616.51	100%	0.124	0.063	0.04	17.69	18.50	1.205	0.149	22.5
Left tilted	100	QPSK135_69	523302/2616.51	100%	0.091	0.046	-0.14	17.69	18.50	1.205	0.110	22.5
Right cheek	100	QPSK135_69	523302/2616.51	100%	0.495	0.212	0.06	17.69	18.50	1.205	0.596	22.5
Right tilted	100	QPSK135_69	523302/2616.51	100%	0.256	0.119	-0.11	17.69	18.50	1.205	0.308	22.5
Right cheek	100	QPSK135_69	509202/2546.01	100%	0.495	0.217	-0.09	17.56	18.50	1.242	0.615	22.5
Right cheek	100	QPSK135_69	513900/2569.5	100%	0.548	0.233	0.02	17.60	18.50	1.230	0.674	22.5
Right cheek	100	QPSK135_69	518598/2592.99	100%	0.512	0.218	-0.14	17.62	18.50	1.225	0.627	22.5
Right cheek	100	QPSK135_69	528000/2640	100%	0.499	0.210	-0.01	17.65	18.50	1.216	0.607	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	100	QPSK1_1	513900/2569.5	100%	0.139	0.071	-0.11	21.74	22.50	1.191	0.166	22.4
Back side	100	QPSK1_1	513900/2569.5	100%	0.254	0.126	-0.01	21.74	22.50	1.191	0.303	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	100	QPSK135_69	509202/2546.01	100%	0.143	0.075	-0.06	21.56	22.50	1.242	0.178	22.4
Back side	100	QPSK135_69	509202/2546.01	100%	0.266	0.134	0.08	21.56	22.50	1.242	0.330	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK1_1	518598/2592.99	100%	0.240	0.117	0.19	20.71	21.50	1.199	0.288	22.4
Back side	100	QPSK1_1	518598/2592.99	100%	0.440	0.206	0.17	20.71	21.50	1.199	0.528	22.4
Left side	100	QPSK1_1	518598/2592.99	100%	0.502	0.238	0.07	20.71	21.50	1.199	0.602	22.4
Top side	100	QPSK1_1	518598/2592.99	100%	0.106	0.054	-0.02	20.71	21.50	1.199	0.127	22.4
Left side	100	QPSK1_1	509202/2546.01	100%	0.411	0.174	-0.12	20.67	21.50	1.211	0.498	22.4
Left side	100	QPSK1_1	513900/2569.5	100%	0.504	0.209	0.16	20.63	21.50	1.222	0.616	22.4
Left side	100	QPSK1_1	523302/2616.51	100%	0.512	0.235	0.01	20.65	21.50	1.216	0.623	22.4
Left side	100	QPSK1_1	523302/2616.51	100%	0.530	0.245	-0.04	20.65	21.50	1.216	**0.645**	22.4
Left side	100	QPSK1_1	528000/2640	100%	0.521	0.221	0.04	20.67	21.50	1.211	0.631	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK135_69	528000/2640	100%	0.154	0.076	0.10	20.63	21.50	1.222	0.188	22.4
Back side	100	QPSK135_69	528000/2640	100%	0.324	0.145	0.09	20.63	21.50	1.222	0.396	22.4
Left side	100	QPSK135_69	528000/2640	100%	0.457	0.185	-0.10	20.63	21.50	1.222	0.558	22.4
Top side	100	QPSK135_69	528000/2640	100%	0.070	0.038	-0.18	20.63	21.50	1.222	0.086	22.4

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												
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) DSI2												
Left cheek	40	QPSK1_214	349000/1745	100%	0.291	0.196	-0.14	15.08	16.00	1.236	0.360	22.5
Left tilted	40	QPSK1_214	349000/1745	100%	0.338	0.209	-0.02	15.08	16.00	1.236	0.418	22.5
Right cheek	40	QPSK1_214	349000/1745	100%	0.517	0.297	-0.04	15.08	16.00	1.236	0.639	22.5
Right tilted	40	QPSK1_214	349000/1745	100%	0.451	0.239	0.04	15.08	16.00	1.236	0.557	22.5
Head Test Data (50%RB) DSI2												
Left cheek	40	QPSK108_54	349000/1745	100%	0.290	0.194	-0.07	14.88	16.00	1.294	0.375	22.5
Left tilted	40	QPSK108_54	349000/1745	100%	0.334	0.207	-0.14	14.88	16.00	1.294	0.432	22.5
Right cheek	40	QPSK108_54	349000/1745	100%	0.589	0.325	0.04	14.88	16.00	1.294	**0.762**	22.5
Right tilted	40	QPSK108_54	349000/1745	100%	0.447	0.238	-0.17	14.88	16.00	1.294	0.579	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	40	QPSK1_214	349000/1745	100%	0.290	0.186	0.14	22.06	23.00	1.242	0.360	22.4
Back side	40	QPSK1_214	349000/1745	100%	0.365	0.233	0.06	22.06	23.00	1.242	0.453	22.4
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	40	QPSK108_54	349000/1745	100%	0.286	0.182	-0.04	21.88	23.00	1.294	0.370	22.4
Back side	40	QPSK108_54	349000/1745	100%	0.397	0.249	-0.04	21.88	23.00	1.294	**0.514**	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QPSK1_214	349000/1745	100%	0.223	0.143	0.08	18.52	19.50	1.253	0.279	22.4
Back side	40	QPSK1_214	349000/1745	100%	0.307	0.189	-0.15	18.52	19.50	1.253	0.385	22.4
Left side	40	QPSK1_214	349000/1745	100%	0.083	0.048	0.10	18.52	19.50	1.253	0.104	22.4
Top side	40	QPSK1_214	349000/1745	100%	0.375	0.206	-0.17	18.52	19.50	1.253	0.470	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QPSK108_54	349000/1745	100%	0.210	0.135	0.10	18.38	19.50	1.294	0.272	22.4
Back side	40	QPSK108_54	349000/1745	100%	0.311	0.193	-0.17	18.38	19.50	1.294	0.402	22.4
Left side	40	QPSK108_54	349000/1745	100%	0.082	0.047	0.16	18.38	19.50	1.294	0.106	22.4
Top side	40	QPSK108_54	349000/1745	100%	0.359	0.199	-0.10	18.38	19.50	1.294	0.465	22.4
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) DSI2												
Left cheek	40	QOSK1_214	349000/1745	100%	0.113	0.071	0.10	23.08	24.00	1.236	0.140	22.5
Left tilted	40	QOSK1_214	349000/1745	100%	0.071	0.045	-0.05	23.08	24.00	1.236	0.088	22.5
Right cheek	40	QOSK1_214	349000/1745	100%	0.119	0.073	0.01	23.08	24.00	1.236	0.147	22.5
Right tilted	40	QOSK1_214	349000/1745	100%	0.078	0.048	-0.13	23.08	24.00	1.236	0.096	22.5
Head Test Data (50%RB) DSI2												

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Left cheek	40	QOSK108_54	352000/1760	100%	0.110	0.069	0.18	23.00	24.00	1.259	0.138	22.5
Left tilted	40	QOSK108_54	352000/1760	100%	0.070	0.044	0.19	23.00	24.00	1.259	0.088	22.5
Right cheek	40	QOSK108_54	352000/1760	100%	0.116	0.071	-0.19	23.00	24.00	1.259	0.146	22.5
Right tilted	40	QOSK108_54	352000/1760	100%	0.072	0.044	-0.01	23.00	24.00	1.259	0.091	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QOSK1_108	352000/1760	100%	0.208	0.121	-0.09	21.14	22.00	1.219	0.254	22.4
Back side	40	QOSK1_108	352000/1760	100%	0.250	0.143	0.00	21.14	22.00	1.219	0.305	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QOSK108_54	352000/1760	100%	0.222	0.129	0.07	21.06	22.00	1.242	0.276	22.4
Back side	40	QOSK108_54	352000/1760	100%	0.228	0.134	-0.18	21.06	22.00	1.242	0.283	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QOSK1_1	346000/1730	100%	0.375	0.211	-0.03	20.55	21.50	1.245	0.467	22.4
Back side	40	QOSK1_1	346000/1730	100%	0.408	0.227	0.11	20.55	21.50	1.245	0.508	22.4
Left side	40	QOSK1_1	346000/1730	100%	0.151	0.084	0.14	20.55	21.50	1.245	0.188	22.4
Bottom side	40	QOSK1_1	346000/1730	100%	0.466	0.260	0.11	20.55	21.50	1.245	**0.580**	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QOSK108_54	346000/1730	100%	0.377	0.206	0.00	20.65	21.50	1.216	0.459	22.4
Back side	40	QOSK108_54	346000/1730	100%	0.397	0.220	0.15	20.65	21.50	1.216	0.483	22.4
Left side	40	QOSK108_54	346000/1730	100%	0.150	0.082	-0.17	20.65	21.50	1.216	0.182	22.4
Bottom side	40	QOSK108_54	346000/1730	100%	0.428	0.237	0.16	20.65	21.50	1.216	0.521	22.4
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) DSI2												
Left cheek	40	QOSK1_108	352000/1760	100%	0.039	0.022	-0.10	20.24	21.00	1.191	0.046	22.5
Left tilted	40	QOSK1_108	352000/1760	100%	0.010	0.003	0.03	20.24	21.00	1.191	0.012	22.5
Right cheek	40	QOSK1_108	352000/1760	100%	0.167	0.083	0.05	20.24	21.00	1.191	0.199	22.5
Right tilted	40	QOSK1_108	352000/1760	100%	0.061	0.032	0.03	20.24	21.00	1.191	0.073	22.5
Head Test Data (50%RB) DSI2												
Left cheek	40	QOSK108_54	352000/1760	100%	0.033	0.015	-0.01	20.71	21.00	1.069	0.035	22.5
Left tilted	40	QOSK108_54	352000/1760	100%	0.009	0.001	0.18	20.71	21.00	1.069	0.010	22.5
Right cheek	40	QOSK108_54	352000/1760	100%	0.166	0.082	0.09	20.71	21.00	1.069	0.177	22.5
Right tilted	40	QOSK108_54	352000/1760	100%	0.064	0.033	0.04	20.71	21.00	1.069	0.068	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	40	QOSK1_1	346000/1730	100%	0.061	0.034	-0.01	21.73	22.50	1.194	0.073	22.4
Back side	40	QOSK1_1	346000/1730	100%	0.132	0.069	-0.04	21.73	22.50	1.194	0.158	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	40	QOSK108_54	346000/1730	100%	0.060	0.034	0.06	21.61	22.50	1.227	0.074	22.4
Back side	40	QOSK108_54	346000/1730	100%	0.127	0.068	-0.17	21.61	22.50	1.227	0.156	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	40	QOSK1_108	352000/1760	100%	0.002	0.001	0.07	20.24	21.00	1.191	0.002	22.4
Back side	40	QOSK1_108	352000/1760	100%	0.062	0.031	-0.19	20.24	21.00	1.191	0.074	22.4

Left side	40	QOSK1_108	352000/1760	100%	0.060	0.030	0.05	20.24	21.00	1.191	0.071	22.4
Top side	40	QOSK1_108	352000/1760	100%	0.003	0.001	-0.01	20.24	21.00	1.191	0.004	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	40	QOSK108_54	352000/1760	100%	0.003	0.002	-0.14	20.71	21.00	1.069	0.003	22.4
Back side	40	QOSK108_54	352000/1760	100%	0.056	0.028	-0.12	20.71	21.00	1.069	0.060	22.4
Left side	40	QOSK108_54	352000/1760	100%	0.063	0.030	-0.13	20.71	21.00	1.069	0.067	22.4
Top side	40	QOSK108_54	352000/1760	100%	0.004	0.002	0.10	20.71	21.00	1.069	0.004	22.4

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

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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) DSI2												
Left cheek	100	QPSK 1_137	633334/3500	100%	0.291	0.128	-0.07	16.46	18.00	1.426	0.415	22.5
Left tilted	100	QPSK 1_137	633334/3500	100%	0.312	0.134	-0.16	16.46	18.00	1.426	0.445	22.5
Right cheek	100	QPSK 1_137	633334/3500	100%	0.591	0.238	0.03	16.46	18.00	1.426	**0.843**	22.5
Right tilted	100	QPSK 1_137	633334/3500	100%	0.524	0.211	0.15	16.46	18.00	1.426	0.747	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.291	0.127	-0.07	16.43	18.00	1.435	0.418	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.299	0.129	0.14	16.43	18.00	1.435	0.429	22.5
Right cheek	100	QPSK 135_69	633334/3500	100%	0.582	0.224	0.06	16.43	18.00	1.435	0.835	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.514	0.206	-0.15	16.43	18.00	1.435	0.738	22.5
Head Test Data (100%RB) DSI2												
Right cheek	100	QPSK 270_0	633334/3500	100%	0.462	0.185	-0.11	15.36	17.00	1.459	0.674	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_137	633334/3500	100%	0.332	0.159	0.09	23.00	24.50	1.413	**0.469**	22.4
Back side	100	QPSK 1_137	633334/3500	100%	0.276	0.127	-0.12	23.00	24.50	1.413	0.390	22.4
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	633334/3500	100%	0.312	0.145	0.13	22.91	24.50	1.442	0.450	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.264	0.122	-0.05	22.91	24.50	1.442	0.381	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_1	633334/3500	100%	0.245	0.113	-0.05	20.02	21.50	1.406	0.344	22.4
Back side	100	QPSK 1_1	633334/3500	100%	0.206	0.088	-0.17	20.02	21.50	1.406	0.290	22.4
Left side	100	QPSK 1_1	633334/3500	100%	0.163	0.075	0.15	20.02	21.50	1.406	0.229	22.4
Top side	100	QPSK 1_1	633334/3500	100%	0.253	0.105	-0.05	20.02	21.50	1.406	0.356	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.252	0.116	-0.12	19.88	21.50	1.452	0.366	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.143	0.063	-0.12	19.88	21.50	1.452	0.208	22.4
Left side	100	QPSK 135_69	633334/3500	100%	0.212	0.093	0.01	19.88	21.50	1.452	0.307	22.4
Top side	100	QPSK 135_69	633334/3500	100%	0.255	0.105	0.03	19.88	21.50	1.452	**0.370**	22.4
Ant21 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) DSI2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.494	0.211	-0.09	17.94	18.50	1.138	0.562	22.5
Left tilted	100	QPSK 1_271	633334/3500	100%	0.516	0.222	-0.17	17.94	18.50	1.138	0.587	22.5
Right cheek	100	QPSK 1_271	633334/3500	100%	0.444	0.200	0.08	17.94	18.50	1.138	0.505	22.5

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Right tilted	100	QPSK 1_271	633334/3500	100%	0.501	0.224	0.17	17.94	18.50	1.138	0.570	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.546	0.230	0.10	17.80	18.50	1.175	0.641	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.554	0.226	-0.11	17.80	18.50	1.175	0.651	22.5
Right cheek	100	QPSK 135_69	633334/3500	100%	0.426	0.206	0.00	17.80	18.50	1.175	0.501	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.497	0.222	-0.12	17.80	18.50	1.175	0.584	22.5
Head Test Data (1RB) DSI3												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.494	0.211	-0.09	17.94	17.50	0.904	0.447	22.5
Left tilted	100	QPSK 1_271	633334/3500	100%	0.516	0.222	-0.17	17.94	17.50	0.904	0.466	22.5
Right cheek	100	QPSK 1_271	633334/3500	100%	0.444	0.200	0.08	17.94	17.50	0.904	0.401	22.5
Right tilted	100	QPSK 1_271	633334/3500	100%	0.501	0.224	0.17	17.94	17.50	0.904	0.453	22.5
Head Test Data (50%RB) DSI3												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.546	0.230	0.10	17.80	17.50	0.933	0.510	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.554	0.226	-0.11	17.80	17.50	0.933	0.517	22.5
Right cheek	100	QPSK 135_69	633334/3500	100%	0.426	0.206	0.00	17.80	17.50	0.933	0.398	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.497	0.222	-0.12	17.80	17.50	0.933	0.464	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_271	633334/3500	100%	0.075	0.035	0.02	19.87	20.50	1.156	0.087	22.4
Back side	100	QPSK 1_271	633334/3500	100%	0.102	0.050	0.09	19.87	20.50	1.156	0.118	22.4
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	633334/3500	100%	0.075	0.035	-0.18	19.70	20.50	1.202	0.090	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.090	0.048	0.15	19.70	20.50	1.202	0.108	22.4
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_1	633334/3500	100%	0.201	0.091	0.06	18.85	19.50	1.161	0.233	22.4
Back side	100	QPSK 1_1	633334/3500	100%	0.208	0.104	-0.05	18.85	19.50	1.161	0.242	22.4
Right side	100	QPSK 1_1	633334/3500	100%	0.073	0.036	-0.18	18.85	19.50	1.161	0.085	22.4
Top side	100	QPSK 1_1	633334/3500	100%	0.265	0.107	-0.12	18.85	19.50	1.161	0.308	22.4
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.174	0.078	0.14	18.66	19.50	1.213	0.211	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.182	0.092	0.04	18.66	19.50	1.213	0.221	22.4
Right side	100	QPSK 135_69	633334/3500	100%	0.063	0.035	-0.17	18.66	19.50	1.213	0.076	22.4
Top side	100	QPSK 135_69	633334/3500	100%	0.291	0.136	0.07	18.66	19.50	1.213	0.353	22.4
Ant 23 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) DSI2												
Left cheek	100	QPSK 1_1	633334/3500	100%	0.475	0.213	0.05	17.35	17.50	1.035	0.492	22.5
Left tilted	100	QPSK 1_1	633334/3500	100%	0.378	0.144	-0.15	17.35	17.50	1.035	0.391	22.5
Right cheek	100	QPSK 1_1	633334/3500	100%	0.120	0.056	-0.15	17.35	17.50	1.035	0.124	22.5
Right tilted	100	QPSK 1_1	633334/3500	100%	0.114	0.046	-0.09	17.35	17.50	1.035	0.118	22.5
Head Test Data(50%RB) DSI2												

Left cheek	100	QPSK 135_69	633334/3500	100%	0.435	0.196	-0.07	16.69	17.50	1.205	0.524	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.347	0.131	-0.15	16.69	17.50	1.205	0.418	22.5
Right cheek	100	QPSK 135_69	633334/3500	100%	0.108	0.050	-0.04	16.69	17.50	1.205	0.130	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.105	0.043	-0.18	16.69	17.50	1.205	0.127	22.5
Head Test Data(1RB) DSI3												
Left cheek	100	QPSK 1_1	633334/3500	100%	0.475	0.213	0.05	17.35	17.00	0.923	0.438	22.5
Left tilted	100	QPSK 1_1	633334/3500	100%	0.378	0.144	-0.15	17.35	17.00	0.923	0.349	22.5
Right cheek	100	QPSK 1_1	633334/3500	100%	0.120	0.056	-0.15	17.35	17.00	0.923	0.111	22.5
Right tilted	100	QPSK 1_1	633334/3500	100%	0.114	0.046	-0.09	17.35	17.00	0.923	0.105	22.5
Head Test Data(50%RB) DSI3												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.435	0.196	-0.07	16.69	17.00	1.074	0.467	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.347	0.131	-0.15	16.69	17.00	1.074	0.373	22.5
Right cheek	100	QPSK 135_69	633334/3500	100%	0.108	0.050	-0.04	16.69	17.00	1.074	0.116	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.105	0.043	-0.18	16.69	17.00	1.074	0.113	22.5
Body worn Test data(Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_1	633334/3500	100%	0.056	0.028	0.00	17.86	18.00	1.033	0.058	22.4
Back side	100	QPSK 1_1	633334/3500	100%	0.110	0.052	0.07	17.86	18.00	1.033	0.114	22.4
Body worn Test data(Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	633334/3500	100%	0.087	0.022	0.01	17.20	18.00	1.202	0.105	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.124	0.059	-0.08	17.20	18.00	1.202	0.149	22.4
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_1	633334/3500	100%	0.082	0.037	0.01	16.29	16.50	1.050	0.086	22.4
Back side	100	QPSK 1_1	633334/3500	100%	0.125	0.055	0.13	16.29	16.50	1.050	0.131	22.4
Right side	100	QPSK 1_1	633334/3500	100%	0.259	0.108	-0.06	16.29	16.50	1.050	0.272	22.4
Top side	100	QPSK 1_1	633334/3500	100%	0.067	0.029	0.08	16.29	16.50	1.050	0.070	22.4
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.089	0.024	-0.02	15.79	16.50	1.178	0.105	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.138	0.063	0.18	15.79	16.50	1.178	0.163	22.4
Right side	100	QPSK 135_69	633334/3500	100%	0.244	0.095	0.18	15.79	16.50	1.178	0.287	22.4
Top side	100	QPSK 135_69	633334/3500	100%	0.053	0.024	0.00	15.79	16.50	1.178	0.062	22.4
Ant 101 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) DSI2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.156	0.073	0.12	20.40	21.50	1.288	0.201	22.5
Left tilted	100	QPSK 1_271	633334/3500	100%	0.135	0.069	0.17	20.40	21.50	1.288	0.174	22.5
Right cheek	100	QPSK 1_271	633334/3500	100%	0.515	0.214	0.10	20.40	21.50	1.288	0.663	22.5
Right tilted	100	QPSK 1_271	633334/3500	100%	0.265	0.118	-0.02	20.40	21.50	1.288	0.341	22.5
Head Test Data(50%RB) DSI2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.166	0.080	-0.08	20.29	21.50	1.321	0.219	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.147	0.072	0.03	20.29	21.50	1.321	0.194	22.5

Right cheek	100	QPSK 135_69	633334/3500	100%	0.568	0.238	0.02	20.29	21.50	1.321	0.750	22.5
Right tilted	100	QPSK 135_69	633334/3500	100%	0.283	0.125	0.00	20.29	21.50	1.321	0.374	22.5
Body worn Test data(Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_271	633334/3500	100%	0.146	0.073	0.12	23.33	24.50	1.309	0.191	22.4
Back side	100	QPSK 1_271	633334/3500	100%	0.321	0.162	-0.02	23.33	24.50	1.309	0.420	22.4
Body worn Test data(Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	633334/3500	100%	0.164	0.078	0.10	23.20	24.50	1.349	0.221	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.335	0.169	0.04	23.20	24.50	1.349	0.452	22.4
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_137	633334/3500	100%	0.082	0.039	-0.19	19.46	20.50	1.271	0.104	22.4
Back side	100	QPSK 1_137	633334/3500	100%	0.230	0.104	-0.07	19.46	20.50	1.271	0.292	22.4
Left side	100	QPSK 1_137	633334/3500	100%	0.233	0.099	0.11	19.46	20.50	1.271	0.296	22.4
Top side	100	QPSK 1_137	633334/3500	100%	0.083	0.040	0.19	19.46	20.50	1.271	0.105	22.4
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.079	0.037	0.04	19.17	20.50	1.358	0.108	22.4
Back side	100	QPSK 135_69	633334/3500	100%	0.249	0.109	-0.05	19.17	20.50	1.358	0.338	22.4
Left side	100	QPSK 135_69	633334/3500	100%	0.251	0.107	0.04	19.17	20.50	1.358	0.341	22.4
Top side	100	QPSK 135_69	633334/3500	100%	0.088	0.041	-0.14	19.17	20.50	1.358	0.119	22.4

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

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 10-g (W/kg)	Liquid Temp.(℃)
Head Test Data (1RB) DSI2												
Left cheek	100	QPSK 1_271	650000/3750	100%	0.129	0.056	-0.16	16.87	18.00	1.297	0.167	22.5
Left tilted	100	QPSK 1_271	650000/3750	100%	0.159	0.063	0.09	16.87	18.00	1.297	0.206	22.5
Right cheek	100	QPSK 1_271	650000/3750	100%	0.361	0.135	0.01	16.87	18.00	1.297	0.468	22.5
Right tilted	100	QPSK 1_271	650000/3750	100%	0.288	0.106	-0.06	16.87	18.00	1.297	0.374	22.5
Right cheek	100	QPSK 1_271	652400/3786	100%	0.296	0.114	-0.15	16.48	18.00	1.419	0.420	22.5
Right cheek	100	QPSK 1_137	654800/3822	100%	0.314	0.120	-0.08	16.52	18.00	1.406	0.441	22.5
Right cheek	100	QPSK 1_271	657200/3858	100%	0.262	0.098	0.16	16.43	18.00	1.435	0.376	22.5
Right cheek	100	QPSK 1_271	659600/3894	100%	0.255	0.095	0.12	16.42	18.00	1.439	0.367	22.5
Right cheek	100	QPSK 1_271	662000/3930	100%	0.247	0.089	0.01	16.37	18.00	1.455	0.359	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.121	0.053	-0.11	16.66	18.00	1.361	0.165	22.5
Left tilted	100	QPSK 135_69	650000/3750	100%	0.152	0.063	0.09	16.66	18.00	1.361	0.207	22.5
Right cheek	100	QPSK 135_69	650000/3750	100%	0.341	0.141	-0.07	16.66	18.00	1.361	0.464	22.5
Right tilted	100	QPSK 135_69	650000/3750	100%	0.286	0.105	-0.06	16.66	18.00	1.361	0.389	22.5
Right cheek	100	QPSK 135_69	652400/3786	100%	0.305	0.124	0.05	16.30	18.00	1.479	0.451	22.5
Right cheek	100	QPSK 135_69	654800/3822	100%	0.295	0.114	0.10	16.30	18.00	1.479	0.436	22.5
Right cheek	100	QPSK 135_69	657200/3858	100%	0.276	0.105	-0.13	16.26	18.00	1.493	0.412	22.5
Right cheek	100	QPSK 135_69	659600/3894	100%	0.256	0.096	0.17	16.32	18.00	1.472	0.377	22.5
Right cheek	100	QPSK 135_69	662000/3930	100%	0.248	0.090	0.19	16.21	18.00	1.510	0.374	22.5
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_271	650000/3750	100%	0.335	0.152	0.12	23.43	24.50	1.279	0.429	22.5
Back side	100	QPSK 1_271	650000/3750	100%	0.132	0.060	-0.10	23.43	24.50	1.279	0.169	22.5
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	657200/3858	100%	0.337	0.158	0.06	23.17	24.50	1.358	**0.458**	22.5
Back side	100	QPSK 135_69	657200/3858	100%	0.106	0.047	-0.12	23.17	24.50	1.358	0.144	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_271	650000/3750	100%	0.189	0.079	-0.04	20.47	21.50	1.268	0.240	22.5
Back side	100	QPSK 1_271	650000/3750	100%	0.250	0.110	0.07	20.47	21.50	1.268	0.317	22.5
Left side	100	QPSK 1_271	650000/3750	100%	0.035	0.010	-0.14	20.47	21.50	1.268	0.044	22.5
Top side	100	QPSK 1_271	650000/3750	100%	0.283	0.112	0.11	20.47	21.50	1.268	0.359	22.5
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	654800/3822	100%	0.174	0.072	-0.02	20.17	21.50	1.358	0.236	22.5
Back side	100	QPSK 135_69	654800/3822	100%	0.222	0.097	-0.02	20.17	21.50	1.358	0.302	22.5
Left side	100	QPSK 135_69	654800/3822	100%	0.025	0.006	-0.03	20.17	21.50	1.358	0.034	22.5

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Top side	100	QPSK 135_69	654800/3822	100%	0.265	0.105	0.13	20.17	21.50	1.358	**0.360**	22.5
Ant21 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) DSI2												
Left cheek	100	QPSK 1_271	662000/3930	100%	0.266	0.102	0.04	18.29	18.50	1.050	0.279	22.5
Left tilted	100	QPSK 1_271	662000/3930	100%	0.287	0.108	-0.18	18.29	18.50	1.050	0.301	22.5
Right cheek	100	QPSK 1_271	662000/3930	100%	0.203	0.080	-0.19	18.29	18.50	1.050	0.213	22.5
Right tilted	100	QPSK 1_271	662000/3930	100%	0.219	0.086	0.16	18.29	18.50	1.050	0.230	22.5
Head Test Data (50%RB) DSI2												
Left cheek	100	QPSK 135_69	662000/3930	100%	0.277	0.109	-0.07	18.02	18.50	1.117	0.309	22.5
Left tilted	100	QPSK 135_69	662000/3930	100%	0.509	0.110	0.08	18.02	18.50	1.117	**0.568**	22.5
Right cheek	100	QPSK 135_69	662000/3930	100%	0.217	0.082	0.17	18.02	18.50	1.117	0.242	22.5
Right tilted	100	QPSK 135_69	662000/3930	100%	0.233	0.090	0.03	18.02	18.50	1.117	0.260	22.5
Body worn Test data (Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_1	650000/3750	100%	0.069	0.032	0.03	20.15	20.50	1.084	0.075	22.5
Back side	100	QPSK 1_1	650000/3750	100%	0.120	0.058	0.15	20.15	20.50	1.084	0.130	22.5
Body worn Test data (Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	657200/3858	100%	0.077	0.019	0.03	19.87	20.50	1.156	0.089	22.5
Back side	100	QPSK 135_69	657200/3858	100%	0.182	0.078	0.01	19.87	20.50	1.156	0.210	22.5
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_127	662000/3930	100%	0.122	0.052	0.00	19.22	19.50	1.067	0.130	22.5
Back side	100	QPSK 1_127	662000/3930	100%	0.114	0.053	-0.02	19.22	19.50	1.067	0.122	22.5
Right side	100	QPSK 1_127	662000/3930	100%	0.031	0.007	-0.05	19.22	19.50	1.067	0.033	22.5
Top side	100	QPSK 1_127	662000/3930	100%	0.245	0.113	0.17	19.22	19.50	1.067	0.261	22.5
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	662000/3930	100%	0.116	0.051	-0.02	18.92	19.50	1.143	0.133	22.5
Back side	100	QPSK 135_69	662000/3930	100%	0.148	0.070	0.10	18.92	19.50	1.143	0.169	22.5
Right side	100	QPSK 135_69	662000/3930	100%	0.050	0.018	-0.07	18.92	19.50	1.143	0.057	22.5
Top side	100	QPSK 135_69	662000/3930	100%	0.235	0.102	0.03	18.92	19.50	1.143	0.269	22.5
Ant 23 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) DSI2												
Left cheek	100	QPSK 1_271	657200/3858	100%	0.397	0.160	0.14	16.72	17.50	1.197	0.475	22.5
Left tilted	100	QPSK 1_271	657200/3858	100%	0.308	0.116	-0.05	16.72	17.50	1.197	0.369	22.5
Right cheek	100	QPSK 1_271	657200/3858	100%	0.115	0.047	0.04	16.72	17.50	1.197	0.138	22.5
Right tilted	100	QPSK 1_271	657200/3858	100%	0.108	0.042	-0.16	16.72	17.50	1.197	0.129	22.5
Left cheek	100	QPSK 1_137	650000/3750	100%	0.371	0.157	-0.10	16.69	17.50	1.205	0.447	22.5
Left cheek	100	QPSK 1_271	652400/3786	100%	0.366	0.148	0.16	16.61	17.50	1.227	0.449	22.5
Left cheek	100	QPSK 1_271	654800/3822	100%	0.374	0.151	-0.08	16.66	17.50	1.213	0.454	22.5

Left cheek	100	QPSK 1_137	659600/3894	100%	0.395	0.159	-0.07	16.70	17.50	1.202	0.475	22.5
Left cheek	100	QPSK 1_137	662000/3930	100%	0.400	0.158	0.06	16.66	17.50	1.213	0.485	22.5
Head Test Data(50%RB) DSI2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.361	0.151	0.12	16.56	17.50	1.242	0.448	22.5
Left tilted	100	QPSK 135_69	650000/3750	100%	0.257	0.094	0.09	16.56	17.50	1.242	0.319	22.5
Right cheek	100	QPSK 135_69	650000/3750	100%	0.104	0.042	0.03	16.56	17.50	1.242	0.129	22.5
Right tilted	100	QPSK 135_69	650000/3750	100%	0.085	0.034	0.13	16.56	17.50	1.242	0.106	22.5
Left cheek	100	QPSK 135_69	652400/3786	100%	0.338	0.139	0.16	16.44	17.50	1.276	0.431	22.5
Left cheek	100	QPSK 135_69	654800/3822	100%	0.342	0.142	-0.09	16.42	17.50	1.282	0.439	22.5
Left cheek	100	QPSK 135_69	657200/3858	100%	0.374	0.153	0.18	16.44	17.50	1.276	0.477	22.5
Left cheek	100	QPSK 135_69	659600/3894	100%	0.380	0.155	0.12	16.50	17.50	1.259	0.478	22.5
Left cheek	100	QPSK 135_69	662000/3930	100%	0.394	0.158	0.10	16.54	17.50	1.247	0.491	22.5
Body worn Test data(Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_137	650000/3750	100%	0.041	0.017	-0.16	17.22	18.00	1.197	0.049	22.5
Back side	100	QPSK 1_137	650000/3750	100%	0.092	0.040	0.12	17.22	18.00	1.197	0.110	22.5
Body worn Test data(Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	650000/3750	100%	0.052	0.021	-0.14	17.09	18.00	1.233	0.064	22.5
Back side	100	QPSK 135_69	650000/3750	100%	0.080	0.036	-0.15	17.09	18.00	1.233	0.099	22.5
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_137	659600/3894	100%	0.071	0.030	-0.08	15.75	16.50	1.189	0.084	22.5
Back side	100	QPSK 1_137	657200/3858	100%	0.135	0.058	0.15	15.75	16.50	1.189	0.160	22.5
Right side	100	QPSK 1_137	657200/3858	100%	0.223	0.086	0.03	15.75	16.50	1.189	0.265	22.5
Top side	100	QPSK 1_137	657200/3858	100%	0.064	0.029	-0.07	15.75	16.50	1.189	0.076	22.5
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	650000/3750	100%	0.055	0.023	0.19	15.61	16.50	1.227	0.068	22.5
Back side	100	QPSK 135_69	650000/3750	100%	0.125	0.052	-0.02	15.61	16.50	1.227	0.153	22.5
Right side	100	QPSK 135_69	650000/3750	100%	0.156	0.063	0.19	15.61	16.50	1.227	0.191	22.5
Top side	100	QPSK 135_69	650000/3750	100%	0.049	0.022	0.03	15.61	16.50	1.227	0.060	22.5
Ant 101 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) DSI2												
Left cheek	100	QPSK 1_271	650000/3750	100%	0.120	0.055	0.09	21.02	21.50	1.117	0.134	22.5
Left tilted	100	QPSK 1_271	650000/3750	100%	0.109	0.052	0.13	21.02	21.50	1.117	0.122	22.5
Right cheek	100	QPSK 1_271	650000/3750	100%	0.433	0.170	-0.06	21.02	21.50	1.117	0.484	22.5
Right tilted	100	QPSK 1_271	650000/3750	100%	0.245	0.105	0.05	21.02	21.50	1.117	0.274	22.5
Right cheek	100	QPSK 1_137	652400/3786	100%	0.379	0.148	-0.08	20.76	21.50	1.186	0.449	22.5
Right cheek	100	QPSK 1_137	654800/3822	100%	0.363	0.142	0.16	20.61	21.50	1.227	0.446	22.5
Right cheek	100	QPSK 1_271	657200/3858	100%	0.329	0.127	-0.14	20.64	21.50	1.219	0.401	22.5
Right cheek	100	QPSK 1_271	659600/3894	100%	0.313	0.119	0.03	20.77	21.50	1.183	0.370	22.5
Right cheek	100	QPSK 1_137	662000/3930	100%	0.317	0.121	0.16	20.75	21.50	1.189	0.377	22.5

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Head Test Data(50%RB) DSI2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.122	0.056	0.14	20.71	21.50	1.199	0.146	22.5
Left tilted	100	QPSK 135_69	650000/3750	100%	0.118	0.053	0.16	20.71	21.50	1.199	0.142	22.5
Right cheek	100	QPSK 135_69	650000/3750	100%	0.413	0.161	0.14	20.71	21.50	1.199	0.495	22.5
Right tilted	100	QPSK 135_69	650000/3750	100%	0.225	0.097	0.06	20.71	21.50	1.199	0.270	22.5
Right cheek	100	QPSK 135_69	652400/3786	100%	0.369	0.144	0.19	20.63	21.50	1.222	0.451	22.5
Right cheek	100	QPSK 135_69	654800/3822	100%	0.349	0.136	0.15	20.53	21.50	1.250	0.436	22.5
Right cheek	100	QPSK 135_69	657200/3858	100%	0.342	0.133	-0.13	20.52	21.50	1.253	0.429	22.5
Right cheek	100	QPSK 135_69	659600/3894	100%	0.326	0.126	0.16	20.65	21.50	1.216	0.396	22.5
Right cheek	100	QPSK 135_69	662000/3930	100%	0.316	0.120	0.19	20.61	21.50	1.227	0.388	22.5
Body worn Test data(Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_271	650000/3750	100%	0.119	0.055	0.00	23.53	24.50	1.250	0.149	22.5
Back side	100	QPSK 1_271	650000/3750	100%	0.328	0.162	0.10	23.53	24.50	1.250	0.410	22.5
Back side	100	QPSK 1_137	652400/3786	100%	0.278	0.123	0.01	23.34	24.50	1.306	0.363	22.5
Back side	100	QPSK 1_137	654800/3822	100%	0.248	0.110	0.03	23.25	24.50	1.334	0.331	22.5
Back side	100	QPSK 1_137	657200/3858	100%	0.241	0.106	0.08	23.24	24.50	1.337	0.322	22.5
Back side	100	QPSK 1_271	659600/3894	100%	0.212	0.094	-0.02	23.32	24.50	1.312	0.278	22.5
Back side	100	QPSK 1_271	662000/3930	100%	0.188	0.083	0.05	23.28	24.50	1.324	0.249	22.5
Body worn Test data(Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	650000/3750	100%	0.128	0.059	0.18	23.37	24.50	1.297	0.166	22.5
Back side	100	QPSK 135_69	650000/3750	100%	0.350	0.158	0.10	23.37	24.50	1.297	0.454	22.5
Back side	100	QPSK 135_69	652400/3786	100%	0.263	0.121	-0.03	22.14	24.50	1.722	0.453	22.5
Back side	100	QPSK 135_69	654800/3822	100%	0.245	0.109	0.12	22.14	24.50	1.722	0.422	22.5
Back side	100	QPSK 135_69	657200/3858	100%	0.233	0.104	0.17	22.13	24.50	1.726	0.402	22.5
Back side	100	QPSK 135_69	659600/3894	100%	0.225	0.098	0.08	22.15	24.50	1.718	0.387	22.5
Back side	100	QPSK 135_69	662000/3930	100%	0.217	0.096	0.08	22.13	24.50	1.726	0.375	22.5
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_271	650000/3750	100%	0.088	0.039	0.05	19.88	20.50	1.153	0.102	22.5
Back side	100	QPSK 1_271	650000/3750	100%	0.280	0.121	0.00	19.88	20.50	1.153	0.323	22.5
Left side	100	QPSK 1_271	650000/3750	100%	0.204	0.087	0.04	19.88	20.50	1.153	0.235	22.5
Top side	100	QPSK 1_271	650000/3750	100%	0.094	0.044	0.04	19.88	20.50	1.153	0.108	22.5
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	657200/3858	100%	0.068	0.029	0.04	19.78	20.50	1.180	0.080	22.5
Back side	100	QPSK 135_69	657200/3858	100%	0.220	0.100	-0.12	19.78	20.50	1.180	0.260	22.5
Left side	100	QPSK 135_69	657200/3858	100%	0.158	0.068	-0.14	19.78	20.50	1.180	0.186	22.5
Top side	100	QPSK 135_69	657200/3858	100%	0.101	0.048	-0.08	19.78	20.50	1.180	0.119	22.5

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

8.2.25 SAR Result of NR Band n78(3450-3550)

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 10-g (W/kg)	Liquid Temp.(℃)
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_137	633334/3500	100%	0.332	0.159	0.09	23.09	24.70	1.449	**0.481**	22.5
Back side	100	QPSK 1_137	633334/3500	100%	0.260	0.120	-0.06	23.09	24.70	1.449	0.377	22.3
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	633334/3500	100%	0.316	0.170	0.15	22.99	24.70	1.483	0.468	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.247	0.121	-0.08	22.99	24.70	1.483	0.366	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_137	633334/3500	100%	0.268	0.128	0.00	20.53	22.20	1.469	0.394	22.3
Back side	100	QPSK 1_137	633334/3500	100%	0.207	0.089	-0.14	20.53	22.20	1.469	0.304	22.3
Left side	100	QPSK 1_137	633334/3500	100%	0.210	0.094	-0.03	20.53	22.20	1.469	0.308	22.3
Top side	100	QPSK 1_137	633334/3500	100%	0.293	0.121	0.03	20.53	22.20	1.469	**0.430**	22.5
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.265	0.126	-0.09	20.51	22.20	1.476	0.391	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.197	0.086	0.01	20.51	22.20	1.476	0.291	22.3
Left side	100	QPSK 135_69	633334/3500	100%	0.220	0.096	-0.12	20.51	22.20	1.476	0.325	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.275	0.115	-0.10	20.51	22.20	1.476	0.406	22.3
Ant21 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.(℃)
Ant 23 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) DSI2												
Left cheek	100	QPSK 1_271	633334/3500	100%	0.427	0.193	-0.12	17.48	18.00	1.127	0.481	22.3
Left tilted	100	QPSK 1_271	633334/3500	100%	0.324	0.122	0.02	17.48	18.00	1.127	0.365	22.3
Right cheek	100	QPSK 1_271	633334/3500	100%	0.124	0.051	-0.16	17.48	18.00	1.127	0.140	22.3
Right tilted	100	QPSK 1_271	633334/3500	100%	0.130	0.052	-0.15	17.48	18.00	1.127	0.147	22.3
Head Test Data(50%RB) DSI2												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.555	0.216	0.02	17.38	18.00	1.153	**0.640**	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.363	0.139	0.01	17.38	18.00	1.153	0.419	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.126	0.053	-0.11	17.38	18.00	1.153	0.145	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.124	0.050	-0.07	17.38	18.00	1.153	0.143	22.3
Head Test Data(1RB) DSI3												

Left cheek	100	QPSK 1_271	633334/3500	100%	0.427	0.193	-0.12	17.48	17.00	0.895	0.382	22.3
Left tilted	100	QPSK 1_271	633334/3500	100%	0.324	0.122	0.02	17.48	17.00	0.895	0.290	22.3
Right cheek	100	QPSK 1_271	633334/3500	100%	0.124	0.051	-0.16	17.48	17.00	0.895	0.111	22.3
Right tilted	100	QPSK 1_271	633334/3500	100%	0.130	0.052	-0.15	17.48	17.00	0.895	0.116	22.3
Head Test Data(50%RB) DSI3												
Left cheek	100	QPSK 135_69	633334/3500	100%	0.555	0.216	0.02	17.38	17.00	0.916	0.509	22.5
Left tilted	100	QPSK 135_69	633334/3500	100%	0.363	0.139	0.01	17.38	17.00	0.916	0.333	22.3
Right cheek	100	QPSK 135_69	633334/3500	100%	0.126	0.053	-0.11	17.38	17.00	0.916	0.115	22.3
Right tilted	100	QPSK 135_69	633334/3500	100%	0.124	0.050	-0.07	17.38	17.00	0.916	0.114	22.3
Body worn Test data(Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_271	633334/3500	100%	0.068	0.032	0.14	17.93	18.50	1.140	0.078	22.3
Back side	100	QPSK 1_271	633334/3500	100%	0.134	0.062	-0.17	17.93	18.50	1.140	0.153	22.3
Body worn Test data(Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	633334/3500	100%	0.060	0.030	-0.09	17.84	18.50	1.164	0.070	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.119	0.055	0.07	17.84	18.50	1.164	0.139	22.3
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_271	633334/3500	100%	0.064	0.029	0.17	16.45	17.00	1.135	0.073	22.3
Back side	100	QPSK 1_271	633334/3500	100%	0.164	0.069	0.12	16.45	17.00	1.135	0.186	22.3
Right side	100	QPSK 1_271	633334/3500	100%	0.206	0.085	0.07	16.45	17.00	1.135	0.234	22.3
Top side	100	QPSK 1_271	633334/3500	100%	0.083	0.036	0.09	16.45	17.00	1.135	0.094	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	633334/3500	100%	0.075	0.032	0.13	16.36	17.00	1.159	0.087	22.3
Back side	100	QPSK 135_69	633334/3500	100%	0.165	0.070	0.11	16.36	17.00	1.159	0.191	22.3
Right side	100	QPSK 135_69	633334/3500	100%	0.176	0.075	-0.13	16.36	17.00	1.159	0.204	22.3
Top side	100	QPSK 135_69	633334/3500	100%	0.076	0.036	-0.07	16.36	17.00	1.159	0.088	22.3

Table 35：SAR of NR Band n78(3450-3550) for Head, Body and Hotspot.

8.2.26 SAR Result of NR Band n78(3700-3800)

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 10-g (W/kg)	Liquid Temp.(℃)
Body worn Test data (Separate 15mm 1RB) DSI7												
Front side	100	QPSK 1_1	650000/3750	100%	0.189	0.090	0.01	23.25	24.70	1.396	**0.264**	22.5
Back side	100	QPSK 1_1	650000/3750	100%	0.146	0.064	-0.16	23.25	24.70	1.396	0.204	22.3
Body worn Test data (Separate 15mm 50%RB) DSI7												
Front side	100	QPSK 135_69	650000/3750	100%	0.148	0.072	-0.06	23.32	24.70	1.374	0.203	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.131	0.059	-0.12	23.32	24.70	1.374	0.180	22.3
Hotspot Test data (Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_271	650000/3750	100%	0.248	0.115	-0.17	20.99	22.20	1.321	0.328	22.3
Back side	100	QPSK 1_271	650000/3750	100%	0.276	0.117	-0.08	20.99	22.20	1.321	0.365	22.3
Left side	100	QPSK 1_271	650000/3750	100%	0.253	0.106	-0.09	20.99	22.20	1.321	0.334	22.3
Top side	100	QPSK 1_271	650000/3750	100%	0.497	0.193	0.00	20.99	22.20	1.321	0.657	22.3
Hotspot Test data (Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	650000/3750	100%	0.277	0.123	-0.01	21.04	22.20	1.306	0.362	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.295	0.127	0.14	21.04	22.20	1.306	0.385	22.3
Left side	100	QPSK 135_69	650000/3750	100%	0.288	0.120	-0.06	21.04	22.20	1.306	0.376	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.507	0.205	0.04	21.04	22.20	1.306	**0.662**	22.5
Ant 23 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) DSI2												
Left cheek	100	QPSK 1_1	650000/3750	100%	0.482	0.180	0.10	17.42	18.00	1.143	**0.551**	22.5
Left tilted	100	QPSK 1_1	650000/3750	100%	0.291	0.109	0.16	17.42	18.00	1.143	0.333	22.3
Right cheek	100	QPSK 1_1	650000/3750	100%	0.122	0.048	-0.05	17.42	18.00	1.143	0.139	22.3
Right tilted	100	QPSK 1_1	650000/3750	100%	0.122	0.049	-0.05	17.42	18.00	1.143	0.139	22.3
Head Test Data(50%RB) DSI2												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.424	0.178	0.18	17.38	18.00	1.153	0.489	22.3
Left tilted	100	QPSK 135_69	650000/3750	100%	0.314	0.115	0.13	17.38	18.00	1.153	0.362	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.126	0.051	0.04	17.38	18.00	1.153	0.145	22.3
Right tilted	100	QPSK 135_69	650000/3750	100%	0.105	0.040	0.12	17.38	18.00	1.153	0.121	22.3
Head Test Data(1RB) DSI3												
Left cheek	100	QPSK 1_1	650000/3750	100%	0.482	0.180	0.10	17.42	17.00	0.908	0.438	22.5
Left tilted	100	QPSK 1_1	650000/3750	100%	0.291	0.109	0.16	17.42	17.00	0.908	0.264	22.3
Right cheek	100	QPSK 1_1	650000/3750	100%	0.122	0.048	-0.05	17.42	17.00	0.908	0.111	22.3
Right tilted	100	QPSK 1_1	650000/3750	100%	0.122	0.049	-0.05	17.42	17.00	0.908	0.111	22.3

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Head Test Data(50%RB) DSI3												
Left cheek	100	QPSK 135_69	650000/3750	100%	0.424	0.178	0.18	17.38	17.00	0.916	0.388	22.3
Left tilted	100	QPSK 135_69	650000/3750	100%	0.314	0.115	0.13	17.38	17.00	0.916	0.288	22.3
Right cheek	100	QPSK 135_69	650000/3750	100%	0.126	0.051	0.04	17.38	17.00	0.916	0.115	22.3
Right tilted	100	QPSK 135_69	650000/3750	100%	0.105	0.040	0.12	17.38	17.00	0.916	0.096	22.3
Body worn Test data(Separate 15mm 1RB) DSI4												
Front side	100	QPSK 1_1	650000/3750	100%	0.050	0.017	0.02	17.91	18.50	1.146	0.057	22.3
Back side	100	QPSK 1_1	650000/3750	100%	0.100	0.046	0.11	17.91	18.50	1.146	0.115	22.3
Body worn Test data(Separate 15mm 50%RB) DSI4												
Front side	100	QPSK 135_69	650000/3750	100%	0.046	0.023	0.19	17.85	18.50	1.161	0.053	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.098	0.045	0.09	17.85	18.50	1.161	0.114	22.3
Hotspot Test data(Separate 10mm 1RB) DSI6												
Front side	100	QPSK 1_1	650000/3750	100%	0.081	0.036	0.03	16.51	17.00	1.119	0.091	22.3
Back side	100	QPSK 1_1	650000/3750	100%	0.151	0.064	-0.02	16.51	17.00	1.119	0.169	22.3
Right side	100	QPSK 1_1	650000/3750	100%	0.154	0.065	0.15	16.51	17.00	1.119	0.172	22.3
Top side	100	QPSK 1_1	650000/3750	100%	0.070	0.032	-0.19	16.51	17.00	1.119	0.078	22.3
Hotspot Test data(Separate 10mm 50%RB) DSI6												
Front side	100	QPSK 135_69	650000/3750	100%	0.061	0.027	0.13	16.35	17.00	1.161	0.071	22.3
Back side	100	QPSK 135_69	650000/3750	100%	0.149	0.064	0.14	16.35	17.00	1.161	0.173	22.3
Right side	100	QPSK 135_69	650000/3750	100%	0.247	0.095	-0.08	16.35	17.00	1.161	0.287	22.3
Top side	100	QPSK 135_69	650000/3750	100%	0.060	0.027	0.02	16.35	17.00	1.161	0.070	22.3

Table 36：SAR of NR Band n78(3700-3800) for Head, Body and Hotspot.

8.2.27 SAR Result of WIFI 2.4G

Wi-Fi 2.4G 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	802.11b	6/2437	98.67%	1.013	0.404	0.200	0.13	14.21	14.50	1.069	**0.438**	22.1
Left tilted	802.11b	6/2437	98.67%	1.013	0.270	0.140	-0.03	14.21	14.50	1.069	0.293	22.1
Right cheek	802.11b	6/2437	98.67%	1.013	0.183	0.105	0.11	14.21	14.50	1.069	0.198	22.1
Right tilted	802.11b	6/2437	98.67%	1.013	0.210	0.110	0.07	14.21	14.50	1.069	0.228	22.1
Body worn Test data (Separate 15mm)												
Front side	802.11b	6/2437	98.67%	1.013	0.003	0.001	-0.15	14.85	15.00	1.035	0.003	22.1
Back side	802.11b	6/2437	98.67%	1.013	0.114	0.068	0.06	14.85	15.00	1.035	**0.120**	22.1
Hotspot Test data (Separate 10mm)												
Front side	802.11b	6/2437	98.67%	1.013	0.067	0.036	-0.14	14.85	15.00	1.035	0.070	22.1
Back side	802.11b	6/2437	98.67%	1.013	0.217	0.126	0.05	14.85	15.00	1.035	**0.228**	22.1
Right side	802.11b	6/2437	98.67%	1.013	0.003	0.002	-0.16	14.85	15.00	1.035	0.003	22.1
Top side	802.11b	6/2437	98.67%	1.013	0.090	0.043	0.09	14.85	15.00	1.035	0.094	22.1

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												
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												
Left cheek	802.11 HT40	54/5270	96.34%	1.038	0.324	0.113	0.12	13.61	15.00	1.377	0.463	22.1
Left tilted	802.11 HT40	54/5270	96.34%	1.038	0.267	0.090	0.14	13.61	15.00	1.377	0.382	22.1
Right cheek	802.11 HT40	54/5270	96.34%	1.038	0.127	0.046	-0.11	13.61	15.00	1.377	0.182	22.1
Right tilted	802.11 HT40	54/5270	96.34%	1.038	0.129	0.046	0.05	13.61	15.00	1.377	0.184	22.1
Head Test Data of U-NII-2C												
Left cheek	802.11 VTH80	138/5690	92.66%	1.079	0.354	0.119	-0.18	13.04	13.50	1.112	0.425	22.1
Left tilted	802.11 VTH80	138/5690	92.66%	1.079	0.271	0.086	0.07	13.04	13.50	1.112	0.325	22.1
Right cheek	802.11 VTH80	138/5690	92.66%	1.079	0.135	0.050	-0.09	13.04	13.50	1.112	0.162	22.1
Right tilted	802.11 VTH80	138/5690	92.66%	1.079	0.142	0.050	-0.02	13.04	13.50	1.112	0.170	22.1
Head Test Data of U-NII-3												
Left cheek	802.11 VTH80	155/5775	92.66%	1.079	0.407	0.120	0.06	13.20	14.50	1.349	**0.593**	22.5
Left tilted	802.11 VTH80	155/5775	92.66%	1.079	0.261	0.086	0.00	13.20	14.50	1.349	0.380	22.1
Right cheek	802.11 VTH80	155/5775	92.66%	1.079	0.146	0.050	0.10	13.20	14.50	1.349	0.213	22.1
Right tilted	802.11 VTH80	155/5775	92.66%	1.079	0.158	0.057	-0.11	13.20	14.50	1.349	0.230	22.1
Head Test Data of U-NII-2A(Simultaneous)												
Left cheek	802.11 HT40	54/5270	96.34%	1.038	0.324	0.113	0.12	13.61	13.00	0.869	0.292	22.1
Left tilted	802.11 HT40	54/5270	96.34%	1.038	0.267	0.090	0.14	13.61	13.00	0.869	0.241	22.1
Right cheek	802.11 HT40	54/5270	96.34%	1.038	0.127	0.046	-0.11	13.61	13.00	0.869	0.115	22.1
Right tilted	802.11 HT40	54/5270	96.34%	1.038	0.129	0.046	0.05	13.61	13.00	0.869	0.116	22.1
Head Test Data of U-NII-2C(Simultaneous)												
Left cheek	802.11 VTH80	138/5690	92.66%	1.079	0.354	0.119	-0.18	13.04	13.00	0.991	0.379	22.1
Left tilted	802.11 VTH80	138/5690	92.66%	1.079	0.271	0.086	0.07	13.04	13.00	0.991	0.290	22.1
Right cheek	802.11 VTH80	138/5690	92.66%	1.079	0.135	0.050	-0.09	13.04	13.00	0.991	0.144	22.1
Right tilted	802.11 VTH80	138/5690	92.66%	1.079	0.142	0.050	-0.02	13.04	13.00	0.991	0.152	22.1
Head Test Data of U-NII-3(Simultaneous)												
Left cheek	802.11 VTH80	155/5775	92.66%	1.079	0.407	0.120	0.06	13.20	13.00	0.955	0.419	22.5
Left tilted	802.11 VTH80	155/5775	92.66%	1.079	0.261	0.086	0.00	13.20	13.00	0.955	0.269	22.1
Right cheek	802.11 VTH80	155/5775	92.66%	1.079	0.146	0.050	0.10	13.20	13.00	0.955	0.150	22.1
Right tilted	802.11 VTH80	155/5775	92.66%	1.079	0.158	0.057	-0.11	13.20	13.00	0.955	0.163	22.1
Body worn Test data of U-NII-2A (Separate 15mm)												
Front side	802.11 HT40	54/5270	96.34%	1.038	0.132	0.054	0.04	16.61	18.00	1.377	0.189	22.1
Back side	802.11 HT40	54/5270	96.34%	1.038	0.166	0.065	-0.03	16.61	18.00	1.377	**0.237**	22.5
Body worn Test data of U-NII-2C (Separate 15mm)												
Front side	802.11 VTH80	138/5690	92.66%	1.079	0.121	0.048	-0.07	16.53	17.00	1.114	0.146	22.1

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Back side	802.11 VTH80	138/5690	92.66%	1.079	0.160	0.068	0.07	16.53	17.00	1.114	0.192	22.1
Body worn Test data of U-NII-3 (Separate 15mm)												
Front side	802.11 VTH80	155/5775	92.66%	1.079	0.086	0.036	0.16	15.62	17.00	1.374	0.128	22.1
Back side	802.11 VTH80	155/5775	92.66%	1.079	0.132	0.053	0.05	15.62	17.00	1.374	0.196	22.1
Hotspot Test data of U-NII-1 (Separate 10mm)												
Front side	802.11 HT40	46/5230	96.34%	1.038	0.165	0.064	0.18	16.43	18.00	1.435	0.246	22.1
Back side	802.11 HT40	46/5230	96.34%	1.038	0.298	0.106	0.02	16.43	18.00	1.435	**0.444**	22.5
Right side	802.11 HT40	46/5230	96.34%	1.038	0.238	0.097	-0.07	16.43	18.00	1.435	0.355	22.1
Top side	802.11 HT40	46/5230	96.34%	1.038	0.154	0.061	0.15	16.43	18.00	1.435	0.229	22.1
Hotspot Test data of U-NII-3 (Separate 10mm)												
Front side	802.11 VTH80	155/5775	92.66%	1.079	0.126	0.047	0.11	15.62	17.00	1.374	0.187	22.1
Back side	802.11 VTH80	155/5775	92.66%	1.079	0.194	0.078	0.03	15.62	17.00	1.374	0.288	22.1
Right side	802.11 VTH80	155/5775	92.66%	1.079	0.224	0.090	0.17	15.62	17.00	1.374	0.332	22.1
Top side	802.11 VTH80	155/5775	92.66%	1.079	0.168	0.069	-0.05	15.62	17.00	1.374	0.249	22.1
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)												
Front side	802.11 HT40	54/5270	96.34%	1.038	1.130	0.349	0.12	16.61	18.00	1.377	0.499	22.1
Back side	802.11 HT40	54/5270	96.34%	1.038	1.130	0.397	0.02	16.61	18.00	1.377	0.568	22.1
Right side	802.11 HT40	54/5270	96.34%	1.038	3.460	0.869	0.08	16.61	18.00	1.377	**1.242**	22.5
Top side	802.11 HT40	54/5270	96.34%	1.038	2.130	0.455	-0.16	16.61	18.00	1.377	0.650	22.1
Product specific 10gSAR Test data of U-NII-2C (Separate 0mm)												
Front side	802.11 VTH80	138/5690	92.66%	1.079	1.090	0.347	0.08	16.53	17.00	1.114	0.417	22.1
Back side	802.11 VTH80	138/5690	92.66%	1.079	1.030	0.361	-0.17	16.53	17.00	1.114	0.434	22.1
Right side	802.11 VTH80	138/5690	92.66%	1.079	2.000	0.689	-0.10	16.53	17.00	1.114	0.829	22.1
Top side	802.11 VTH80	138/5690	92.66%	1.079	1.190	0.297	-0.01	16.53	17.00	1.114	0.357	22.1

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

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	77.53%	1.290	0.331	0.159	0.19	13.11	13.50	1.094	**0.467**	22.1
Left tilted	DH5	39/2441	77.53%	1.290	0.225	0.112	0.05	13.11	13.50	1.094	0.317	22.1
Right cheek	DH5	39/2441	77.53%	1.290	0.129	0.074	-0.01	13.11	13.50	1.094	0.182	22.1
Right tilted	DH5	39/2441	77.53%	1.290	0.156	0.082	0.09	13.11	13.50	1.094	0.220	22.1
Body worn Test data (Separate 15mm)												
Front side	DH5	39/2441	77.53%	1.290	0.003	0.001	-0.17	13.11	13.50	1.094	0.004	22.1
Back side	DH5	39/2441	77.53%	1.290	0.031	0.018	0.09	13.11	13.50	1.094	**0.043**	22.1
Hotspot Test data (Separate 10mm)												
Front side	DH5	39/2441	77.53%	1.290	0.043	0.024	-0.06	13.11	13.50	1.094	0.061	22.1
Back side	DH5	39/2441	77.53%	1.290	0.041	0.024	0.00	13.11	13.50	1.094	0.058	22.1
Right side	DH5	39/2441	77.53%	1.290	0.002	0.001	0.18	13.11	13.50	1.094	0.003	22.1
Top side	DH5	39/2441	77.53%	1.290	0.069	0.040	0.05	13.11	13.50	1.094	**0.098**	22.1

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

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8.3 Multiple Transmitter Evaluation

8.3.1 Simultaneous SAR test evaluation

No.	Simultaneous Tx Combination	Head	Body worn	Hotspot	Limbs
1	WWAN + WLAN 2.4GHz Ant22(chain0)	Yes	Yes	Yes	Yes
2	WWAN + WLAN 5GHz Ant23(chain0)	Yes	Yes	Yes	Yes
3	WWAN + BT	Yes	Yes	Yes	Yes
4	WWAN + WLAN 5GHz Ant23(chain0) + BT	Yes	Yes	Yes	Yes
5	WLAN 5GHz Ant23(chain0) + BT	Yes	Yes	Yes	Yes

Note:

1) The device does not support DTM function.

8.3.2 Simultaneous Transmission SAR Summation Scenario

Head:

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant11	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Left cheek	0.212	0.438	0.419	0.467	0.650	0.631	0.679	1.098	0.886
	Left tilted	0.082	0.293	0.290	0.317	0.375	0.372	0.399	0.689	0.607
	Right cheek	0.406	0.198	0.150	0.182	0.604	0.556	0.588	0.738	0.332
	Right tilted	0.120	0.228	0.163	0.220	0.348	0.283	0.340	0.503	0.383
WCDMA B5	Left cheek	0.218	0.438	0.419	0.467	0.656	0.637	0.685	1.104	
	Left tilted	0.095	0.293	0.290	0.317	0.388	0.385	0.412	0.702	
	Right cheek	0.515	0.198	0.150	0.182	0.713	0.665	0.697	0.847	
	Right tilted	0.146	0.228	0.163	0.220	0.374	0.309	0.366	0.529	
CDMA BC0	Left cheek	0.372	0.438	0.419	0.467	0.810	0.791	0.839	1.258	
	Left tilted	0.138	0.293	0.290	0.317	0.431	0.428	0.455	0.745	
	Right cheek	0.561	0.198	0.150	0.182	0.759	0.711	0.743	0.893	
	Right tilted	0.163	0.228	0.163	0.220	0.391	0.326	0.383	0.546	
LTE B12(17)	Left cheek	0.114	0.438	0.419	0.467	0.552	0.533	0.581	1.000	
	Left tilted	0.035	0.293	0.290	0.317	0.328	0.325	0.352	0.642	
	Right cheek	0.198	0.198	0.150	0.182	0.396	0.348	0.380	0.530	
	Right tilted	0.054	0.228	0.163	0.220	0.282	0.217	0.274	0.437	
LTE B13	Left cheek	0.428	0.438	0.419	0.467	0.866	0.847	0.895	1.314	
	Left tilted	0.141	0.293	0.290	0.317	0.434	0.431	0.458	0.748	
	Right cheek	0.758	0.198	0.150	0.182	0.956	0.908	0.940	1.090	
	Right tilted	0.230	0.228	0.163	0.220	0.458	0.393	0.450	0.613	
LTE B26(5)	Left cheek	0.281	0.438	0.419	0.467	0.719	0.700	0.748	1.167	
	Left tilted	0.084	0.293	0.290	0.317	0.377	0.374	0.401	0.691	
	Right cheek	0.483	0.198	0.150	0.182	0.681	0.633	0.665	0.815	
	Right tilted	0.138	0.228	0.163	0.220	0.366	0.301	0.358	0.521	
N5	Left cheek	0.416	0.438	0.419	0.467	0.854	0.835	0.883	1.302	
	Left tilted	0.144	0.293	0.290	0.317	0.437	0.434	0.461	0.751	
	Right cheek	0.523	0.198	0.150	0.182	0.721	0.673	0.705	0.855	
	Right tilted	0.174	0.228	0.163	0.220	0.402	0.337	0.394	0.557	
N26	Left cheek	0.503	0.438	0.419	0.467	0.941	0.922	0.970	1.389	
	Left tilted	0.168	0.293	0.290	0.317	0.461	0.458	0.485	0.775	
	Right cheek	0.519	0.198	0.150	0.182	0.717	0.669	0.701	0.851	
	Right tilted	0.215	0.228	0.163	0.220	0.443	0.378	0.435	0.598	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant31	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Left cheek	0.146	0.438	0.419	0.467	0.584	0.565	0.613	1.032	0.886
	Left tilted	0.075	0.293	0.290	0.317	0.368	0.365	0.392	0.682	0.607
	Right cheek	0.167	0.198	0.150	0.182	0.365	0.317	0.349	0.499	0.332
	Right tilted	0.083	0.228	0.163	0.220	0.311	0.246	0.303	0.466	0.383
WCDMA B5	Left cheek	0.128	0.438	0.419	0.467	0.566	0.547	0.595	1.014	
	Left tilted	0.057	0.293	0.290	0.317	0.350	0.347	0.374	0.664	
	Right cheek	0.132	0.198	0.150	0.182	0.330	0.282	0.314	0.464	
	Right tilted	0.074	0.228	0.163	0.220	0.302	0.237	0.294	0.457	
CDMA BC0	Left cheek	0.166	0.438	0.419	0.467	0.604	0.585	0.633	1.052	
	Left tilted	0.079	0.293	0.290	0.317	0.372	0.369	0.396	0.686	
	Right cheek	0.151	0.198	0.150	0.182	0.349	0.301	0.333	0.483	
	Right tilted	0.093	0.228	0.163	0.220	0.321	0.256	0.313	0.476	
LTE B5	Left cheek	0.166	0.438	0.419	0.467	0.604	0.585	0.633	1.052	
	Left tilted	0.067	0.293	0.290	0.317	0.360	0.357	0.384	0.674	
	Right cheek	0.151	0.198	0.150	0.182	0.349	0.301	0.333	0.483	
	Right tilted	0.080	0.228	0.163	0.220	0.308	0.243	0.300	0.463	
LTE B12(17)	Left cheek	0.136	0.438	0.419	0.467	0.574	0.555	0.603	1.022	
	Left tilted	0.062	0.293	0.290	0.317	0.355	0.352	0.379	0.669	
	Right cheek	0.168	0.198	0.150	0.182	0.366	0.318	0.350	0.500	
	Right tilted	0.102	0.228	0.163	0.220	0.330	0.265	0.322	0.485	
LTE B13	Left cheek	0.135	0.438	0.419	0.467	0.573	0.554	0.602	1.021	
	Left tilted	0.060	0.293	0.290	0.317	0.353	0.350	0.377	0.667	
	Right cheek	0.152	0.198	0.150	0.182	0.350	0.302	0.334	0.484	
	Right tilted	0.087	0.228	0.163	0.220	0.315	0.250	0.307	0.470	
LTE B26	Left cheek	0.132	0.438	0.419	0.467	0.570	0.551	0.599	1.018	
	Left tilted	0.059	0.293	0.290	0.317	0.352	0.349	0.376	0.666	
	Right cheek	0.141	0.198	0.150	0.182	0.339	0.291	0.323	0.473	
	Right tilted	0.077	0.228	0.163	0.220	0.305	0.240	0.297	0.460	
N5	Left cheek	0.164	0.438	0.419	0.467	0.602	0.583	0.631	1.050	
	Left tilted	0.082	0.293	0.290	0.317	0.375	0.372	0.399	0.689	
	Right cheek	0.159	0.198	0.150	0.182	0.357	0.309	0.341	0.491	
	Right tilted	0.101	0.228	0.163	0.220	0.329	0.264	0.321	0.484	
N26	Left cheek	0.401	0.438	0.419	0.467	0.839	0.820	0.868	1.287	
	Left tilted	0.632	0.293	0.290	0.317	0.925	0.922	0.949	1.239	
	Right cheek	0.707	0.198	0.150	0.182	0.905	0.857	0.889	1.039	
	Right tilted	0.000	0.228	0.163	0.220	0.228	0.163	0.220	0.383	

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant13	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Left cheek	0.315	0.438	0.419	0.467	0.753	0.734	0.782	1.201	0.886
	Left tilted	0.329	0.293	0.290	0.317	0.622	0.619	0.646	0.936	0.607
	Right cheek	0.535	0.198	0.150	0.182	0.733	0.685	0.717	0.867	0.332
	Right tilted	0.483	0.228	0.163	0.220	0.711	0.646	0.703	0.866	0.383
WCDMA B2	Left cheek	0.341	0.438	0.419	0.467	0.779	0.760	0.808	1.227	
	Left tilted	0.382	0.293	0.290	0.317	0.675	0.672	0.699	0.989	
	Right cheek	0.593	0.198	0.150	0.182	0.791	0.743	0.775	0.925	
	Right tilted	0.493	0.228	0.163	0.220	0.721	0.656	0.713	0.876	
WCDMA B4	Left cheek	0.440	0.438	0.419	0.467	0.878	0.859	0.907	1.326	
	Left tilted	0.573	0.293	0.290	0.317	0.866	0.863	0.890	1.180	
	Right cheek	0.704	0.198	0.150	0.182	0.902	0.854	0.886	1.036	
	Right tilted	0.617	0.228	0.163	0.220	0.845	0.780	0.837	1.000	
LTE B2	Left cheek	0.401	0.438	0.419	0.467	0.839	0.820	0.868	1.287	
	Left tilted	0.437	0.293	0.290	0.317	0.730	0.727	0.754	1.044	
	Right cheek	0.697	0.198	0.150	0.182	0.895	0.847	0.879	1.029	
	Right tilted	0.495	0.228	0.163	0.220	0.723	0.658	0.715	0.878	
LTE B7	Left cheek	0.369	0.438	0.419	0.467	0.807	0.788	0.836	1.255	
	Left tilted	0.425	0.293	0.290	0.317	0.718	0.715	0.742	1.032	
	Right cheek	0.795	0.198	0.150	0.182	0.993	0.945	0.977	1.127	
	Right tilted	0.704	0.228	0.163	0.220	0.932	0.867	0.924	1.087	
LTE B41(38)	Left cheek	0.329	0.438	0.419	0.467	0.767	0.748	0.796	1.215	
	Left tilted	0.404	0.293	0.290	0.317	0.697	0.694	0.721	1.011	
	Right cheek	0.761	0.198	0.150	0.182	0.959	0.911	0.943	1.093	
	Right tilted	0.651	0.228	0.163	0.220	0.879	0.814	0.871	1.034	
LTE B66(4)	Left cheek	0.477	0.438	0.419	0.467	0.915	0.896	0.944	1.363	
	Left tilted	0.542	0.293	0.290	0.317	0.835	0.832	0.859	1.149	
	Right cheek	0.747	0.198	0.150	0.182	0.945	0.897	0.929	1.079	
	Right tilted	0.714	0.228	0.163	0.220	0.942	0.877	0.934	1.097	
N2	Left cheek	0.360	0.438	0.419	0.467	0.798	0.779	0.827	1.246	
	Left tilted	0.424	0.293	0.290	0.317	0.717	0.714	0.741	1.031	
	Right cheek	0.654	0.198	0.150	0.182	0.852	0.804	0.836	0.986	
	Right tilted	0.591	0.228	0.163	0.220	0.819	0.754	0.811	0.974	
N7	Left cheek	0.277	0.438	0.419	0.467	0.715	0.696	0.744	1.163	
	Left tilted	0.306	0.293	0.290	0.317	0.599	0.596	0.623	0.913	
	Right cheek	0.560	0.198	0.150	0.182	0.758	0.710	0.742	0.892	
	Right tilted	0.697	0.228	0.163	0.220	0.925	0.860	0.917	1.080	
N41(38)	Left cheek	0.325	0.438	0.419	0.467	0.763	0.744	0.792	1.211	
	Left tilted	0.361	0.293	0.290	0.317	0.654	0.651	0.678	0.968	
	Right cheek	0.998	0.198	0.150	0.182	1.196	1.148	1.180	1.330	
	Right tilted	0.747	0.228	0.163	0.220	0.975	0.910	0.967	1.130	
N66	Left cheek	0.375	0.438	0.419	0.467	0.813	0.794	0.842	1.261	
	Left tilted	0.432	0.293	0.290	0.317	0.725	0.722	0.749	1.039	
	Right cheek	0.762	0.198	0.150	0.182	0.960	0.912	0.944	1.094	
	Right tilted	0.579	0.228	0.163	0.220	0.807	0.742	0.799	0.962	

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N77&N78 (3450-3550)	Left cheek	0.418	0.438	0.419	0.467	0.856	0.837	0.885	1.304
	Left tilted	0.445	0.293	0.290	0.317	0.738	0.735	0.762	1.052
	Right cheek	0.843	0.198	0.150	0.182	1.041	0.993	1.025	1.175
	Right tilted	0.747	0.228	0.163	0.220	0.975	0.910	0.967	1.130
N77 (3700-3980) &N78 (3700-3800)	Left cheek	0.167	0.438	0.419	0.467	0.605	0.586	0.634	1.053
	Left tilted	0.207	0.293	0.290	0.317	0.500	0.497	0.524	0.814
	Right cheek	0.468	0.198	0.150	0.182	0.666	0.618	0.650	0.800
	Right tilted	0.389	0.228	0.163	0.220	0.617	0.552	0.609	0.772

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant41	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Left cheek	0.062	0.438	0.419	0.467	0.500	0.481	0.529	0.948	0.886
	Left tilted	0.047	0.293	0.290	0.317	0.340	0.337	0.364	0.654	0.607
	Right cheek	0.064	0.198	0.150	0.182	0.262	0.214	0.246	0.396	0.332
	Right tilted	0.028	0.228	0.163	0.220	0.256	0.191	0.248	0.411	0.383
WCDMA B2	Left cheek	0.136	0.438	0.419	0.467	0.574	0.555	0.603	1.022	
	Left tilted	0.099	0.293	0.290	0.317	0.392	0.389	0.416	0.706	
	Right cheek	0.134	0.198	0.150	0.182	0.332	0.284	0.316	0.466	
	Right tilted	0.061	0.228	0.163	0.220	0.289	0.224	0.281	0.444	
WCDMA B4	Left cheek	0.158	0.438	0.419	0.467	0.596	0.577	0.625	1.044	
	Left tilted	0.079	0.293	0.290	0.317	0.372	0.369	0.396	0.686	
	Right cheek	0.137	0.198	0.150	0.182	0.335	0.287	0.319	0.469	
	Right tilted	0.099	0.228	0.163	0.220	0.327	0.262	0.319	0.482	
LTE B2	Left cheek	0.093	0.438	0.419	0.467	0.531	0.512	0.560	0.979	
	Left tilted	0.063	0.293	0.290	0.317	0.356	0.353	0.380	0.670	
	Right cheek	0.077	0.198	0.150	0.182	0.275	0.227	0.259	0.409	
	Right tilted	0.049	0.228	0.163	0.220	0.277	0.212	0.269	0.432	
LTE B7	Left cheek	0.244	0.438	0.419	0.467	0.682	0.663	0.711	1.130	
	Left tilted	0.062	0.293	0.290	0.317	0.355	0.352	0.379	0.669	
	Right cheek	0.126	0.198	0.150	0.182	0.324	0.276	0.308	0.458	
	Right tilted	0.104	0.228	0.163	0.220	0.332	0.267	0.324	0.487	
LTE B41(38)	Left cheek	0.117	0.438	0.419	0.467	0.555	0.536	0.584	1.003	
	Left tilted	0.039	0.293	0.290	0.317	0.332	0.329	0.356	0.646	
	Right cheek	0.077	0.198	0.150	0.182	0.275	0.227	0.259	0.409	
	Right tilted	0.060	0.228	0.163	0.220	0.288	0.223	0.280	0.443	
LTE B66(4)	Left cheek	0.098	0.438	0.419	0.467	0.536	0.517	0.565	0.984	
	Left tilted	0.073	0.293	0.290	0.317	0.366	0.363	0.390	0.680	
	Right cheek	0.088	0.198	0.150	0.182	0.286	0.238	0.270	0.420	
	Right tilted	0.070	0.228	0.163	0.220	0.298	0.233	0.290	0.453	
N2	Left cheek	0.143	0.438	0.419	0.467	0.581	0.562	0.610	1.029	
	Left tilted	0.087	0.293	0.290	0.317	0.380	0.377	0.404	0.694	
	Right cheek	0.135	0.198	0.150	0.182	0.333	0.285	0.317	0.467	
	Right tilted	0.085	0.228	0.163	0.220	0.313	0.248	0.305	0.468	
N7	Left cheek	0.287	0.438	0.419	0.467	0.725	0.706	0.754	1.173	
	Left tilted	0.072	0.293	0.290	0.317	0.365	0.362	0.389	0.679	
	Right cheek	0.168	0.198	0.150	0.182	0.366	0.318	0.350	0.500	
	Right tilted	0.152	0.228	0.163	0.220	0.380	0.315	0.372	0.535	
N41(38)	Left cheek	0.453	0.438	0.419	0.467	0.891	0.872	0.920	1.339	
	Left tilted	0.121	0.293	0.290	0.317	0.414	0.411	0.438	0.728	
	Right cheek	0.269	0.198	0.150	0.182	0.467	0.419	0.451	0.601	
	Right tilted	0.236	0.228	0.163	0.220	0.464	0.399	0.456	0.619	
N66	Left cheek	0.140	0.438	0.419	0.467	0.578	0.559	0.607	1.026	
	Left tilted	0.088	0.293	0.290	0.317	0.381	0.378	0.405	0.695	
	Right cheek	0.147	0.198	0.150	0.182	0.345	0.297	0.329	0.479	
	Right tilted	0.096	0.228	0.163	0.220	0.324	0.259	0.316	0.479	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant12	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
LTE B2	Left cheek	0.098	0.438	0.419	0.467	0.536	0.517	0.565	0.984	0.886
	Left tilted	0.057	0.293	0.290	0.317	0.350	0.347	0.374	0.664	0.607
	Right cheek	0.405	0.198	0.150	0.182	0.603	0.555	0.587	0.737	0.332
	Right tilted	0.150	0.228	0.163	0.220	0.378	0.313	0.370	0.533	0.383
LTE B4	Left cheek	0.104	0.438	0.419	0.467	0.542	0.523	0.571	0.990	
	Left tilted	0.074	0.293	0.290	0.317	0.367	0.364	0.391	0.681	
	Right cheek	0.465	0.198	0.150	0.182	0.663	0.615	0.647	0.797	
	Right tilted	0.222	0.228	0.163	0.220	0.450	0.385	0.442	0.605	
LTE B7	Left cheek	0.120	0.438	0.419	0.467	0.558	0.539	0.587	1.006	
	Left tilted	0.087	0.293	0.290	0.317	0.380	0.377	0.404	0.694	
	Right cheek	0.379	0.198	0.150	0.182	0.577	0.529	0.561	0.711	
	Right tilted	0.224	0.228	0.163	0.220	0.452	0.387	0.444	0.607	
N2	Left cheek	0.181	0.438	0.419	0.467	0.619	0.600	0.648	1.067	
	Left tilted	0.087	0.293	0.290	0.317	0.380	0.377	0.404	0.694	
	Right cheek	0.668	0.198	0.150	0.182	0.866	0.818	0.850	1.000	
	Right tilted	0.251	0.228	0.163	0.220	0.479	0.414	0.471	0.634	
N7	Left cheek	0.163	0.438	0.419	0.467	0.601	0.582	0.630	1.049	
	Left tilted	0.114	0.293	0.290	0.317	0.407	0.404	0.431	0.721	
	Right cheek	0.517	0.198	0.150	0.182	0.715	0.667	0.699	0.849	
	Right tilted	0.304	0.228	0.163	0.220	0.532	0.467	0.524	0.687	
N41(38)	Left cheek	0.149	0.438	0.419	0.467	0.587	0.568	0.616	1.035	
	Left tilted	0.110	0.293	0.290	0.317	0.403	0.400	0.427	0.717	
	Right cheek	0.674	0.198	0.150	0.182	0.872	0.824	0.856	1.006	
	Right tilted	0.308	0.228	0.163	0.220	0.536	0.471	0.528	0.691	
N66	Left cheek	0.046	0.438	0.419	0.467	0.484	0.465	0.513	0.932	
	Left tilted	0.012	0.293	0.290	0.317	0.305	0.302	0.329	0.619	
	Right cheek	0.199	0.198	0.150	0.182	0.397	0.349	0.381	0.531	
	Right tilted	0.073	0.228	0.163	0.220	0.301	0.236	0.293	0.456	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant101	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450-3550)	Left cheek	0.219	0.438	0.419	0.467	0.657	0.638	0.686	1.105	0.886
	Left tilted	0.194	0.293	0.290	0.317	0.487	0.484	0.511	0.801	0.607
	Right cheek	0.750	0.198	0.150	0.182	0.948	0.900	0.932	1.082	0.332
	Right tilted	0.374	0.228	0.163	0.220	0.602	0.537	0.594	0.757	0.383
N77 (3700-3980) &N78 (3700-3800)	Left cheek	0.146	0.438	0.419	0.467	0.584	0.565	0.613	1.032	
	Left tilted	0.142	0.293	0.290	0.317	0.435	0.432	0.459	0.749	
	Right cheek	0.495	0.198	0.150	0.182	0.693	0.645	0.677	0.827	
	Right tilted	0.274	0.228	0.163	0.220	0.502	0.437	0.494	0.657	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant23	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77 (3450-3550)	Left cheek	0.467	0.438	0.419	0.467	0.905	0.886	0.934	1.353	0.886
	Left tilted	0.373	0.293	0.290	0.317	0.666	0.663	0.690	0.980	0.607
	Right cheek	0.116	0.198	0.150	0.182	0.314	0.266	0.298	0.448	0.332
	Right tilted	0.113	0.228	0.163	0.220	0.341	0.276	0.333	0.496	0.383
N77 (3700-3980)	Left cheek	0.491	0.438	0.419	0.467	0.929	0.910	0.958	1.377	
	Left tilted	0.369	0.293	0.290	0.317	0.662	0.659	0.686	0.976	
	Right cheek	0.138	0.198	0.150	0.182	0.336	0.288	0.320	0.470	
	Right tilted	0.129	0.228	0.163	0.220	0.357	0.292	0.349	0.512	
N78 (3450-3550)	Left cheek	0.509	0.438	0.419	0.467	0.947	0.928	0.976	1.395	
	Left tilted	0.333	0.293	0.290	0.317	0.626	0.623	0.650	0.940	
	Right cheek	0.115	0.198	0.150	0.182	0.313	0.265	0.297	0.447	
	Right tilted	0.116	0.228	0.163	0.220	0.344	0.279	0.336	0.499	
N78 (3700-3800)	Left cheek	0.438	0.438	0.419	0.467	0.876	0.857	0.905	1.324	
	Left tilted	0.288	0.293	0.290	0.317	0.581	0.578	0.605	0.895	
	Right cheek	0.115	0.198	0.150	0.182	0.313	0.265	0.297	0.447	
	Right tilted	0.111	0.228	0.163	0.220	0.339	0.274	0.331	0.494	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant21	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450-3550)	Left cheek	0.510	0.438	0.419	0.467	0.948	0.929	0.977	1.396	0.886
	Left tilted	0.517	0.293	0.290	0.317	0.810	0.807	0.834	1.124	0.607
	Right cheek	0.401	0.198	0.150	0.182	0.599	0.551	0.583	0.733	0.332
	Right tilted	0.464	0.228	0.163	0.220	0.692	0.627	0.684	0.847	0.383
N77 (3700-3980) &N78 (3700-3800)	Left cheek	0.309	0.438	0.419	0.467	0.747	0.728	0.776	1.195	
	Left tilted	0.568	0.293	0.290	0.317	0.861	0.858	0.885	1.175	
	Right cheek	0.242	0.198	0.150	0.182	0.440	0.392	0.424	0.574	
	Right tilted	0.260	0.228	0.163	0.220	0.488	0.423	0.480	0.643	

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Body:

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant11	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Front side	0.242	0.003	0.189	0.004	0.245	0.431	0.246	0.435	0.193
	Back side	0.345	0.120	0.237	0.043	0.465	0.582	0.388	0.625	0.280
WCDMA B5	Front side	0.206	0.003	0.189	0.004	0.209	0.395	0.210	0.399	
	Back side	0.319	0.120	0.237	0.043	0.439	0.556	0.362	0.599	
CDMA BC0	Front side	0.221	0.003	0.189	0.004	0.224	0.410	0.225	0.414	
	Back side	0.376	0.120	0.237	0.043	0.496	0.613	0.419	0.656	
LTE B5	Front side	0.277	0.003	0.189	0.004	0.280	0.466	0.281	0.470	
	Back side	0.449	0.120	0.237	0.043	0.569	0.686	0.492	0.729	
LTE B12(17)	Front side	0.054	0.003	0.189	0.004	0.057	0.243	0.058	0.247	
	Back side	0.109	0.120	0.237	0.043	0.229	0.346	0.152	0.389	
LTE B13	Front side	0.178	0.003	0.189	0.004	0.181	0.367	0.182	0.371	
	Back side	0.177	0.120	0.237	0.043	0.297	0.414	0.220	0.457	
LTE B26	Front side	0.201	0.003	0.189	0.004	0.204	0.390	0.205	0.394	
	Back side	0.365	0.120	0.237	0.043	0.485	0.602	0.408	0.645	
N5	Front side	0.263	0.003	0.189	0.004	0.266	0.452	0.267	0.456	
	Back side	0.417	0.120	0.237	0.043	0.537	0.654	0.460	0.697	
N26	Front side	0.503	0.003	0.189	0.004	0.506	0.692	0.507	0.696	
	Back side	0.168	0.120	0.237	0.043	0.288	0.405	0.211	0.448	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant31	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Front side	0.146	0.003	0.189	0.004	0.149	0.335	0.150	0.339	0.193
	Back side	0.201	0.120	0.237	0.043	0.321	0.438	0.244	0.481	0.280
WCDMA B5	Front side	0.114	0.003	0.189	0.004	0.117	0.303	0.118	0.307	
	Back side	0.214	0.120	0.237	0.043	0.334	0.451	0.257	0.494	
CDMA BC0	Front side	0.128	0.003	0.189	0.004	0.131	0.317	0.132	0.321	
	Back side	0.181	0.120	0.237	0.043	0.301	0.418	0.224	0.461	
LTE B12(17)	Front side	0.178	0.003	0.189	0.004	0.181	0.367	0.182	0.371	
	Back side	0.237	0.120	0.237	0.043	0.357	0.474	0.280	0.517	
LTE B13	Front side	0.178	0.003	0.189	0.004	0.181	0.367	0.182	0.371	
	Back side	0.177	0.120	0.237	0.043	0.297	0.414	0.220	0.457	
LTE B26(5)	Front side	0.125	0.003	0.189	0.004	0.128	0.314	0.129	0.318	
	Back side	0.170	0.120	0.237	0.043	0.290	0.407	0.213	0.450	
N5	Front side	0.100	0.003	0.189	0.004	0.103	0.289	0.104	0.293	
	Back side	0.149	0.120	0.237	0.043	0.269	0.386	0.192	0.429	
N26	Front side	0.000	0.003	0.189	0.004	0.003	0.189	0.004	0.193	
	Back side	0.000	0.120	0.237	0.043	0.120	0.237	0.043	0.280	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant13	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Front side	0.129	0.003	0.189	0.004	0.132	0.318	0.133	0.322	0.193
	Back side	0.144	0.120	0.237	0.043	0.264	0.381	0.187	0.424	0.280
WCDMA B2	Front side	0.231	0.003	0.189	0.004	0.234	0.420	0.235	0.424	
	Back side	0.259	0.120	0.237	0.043	0.379	0.496	0.302	0.539	
WCDMA B4	Front side	0.436	0.003	0.189	0.004	0.439	0.625	0.440	0.629	
	Back side	0.569	0.120	0.237	0.043	0.689	0.806	0.612	0.849	
LTE B2	Front side	0.249	0.003	0.189	0.004	0.252	0.438	0.253	0.442	
	Back side	0.315	0.120	0.237	0.043	0.435	0.552	0.358	0.595	
LTE B4	Front side	0.388	0.003	0.189	0.004	0.391	0.577	0.392	0.581	
	Back side	0.557	0.120	0.237	0.043	0.677	0.794	0.600	0.837	
LTE B7	Front side	0.309	0.003	0.189	0.004	0.312	0.498	0.313	0.502	
	Back side	0.447	0.120	0.237	0.043	0.567	0.684	0.490	0.727	
LTE B41(38)	Front side	0.310	0.003	0.189	0.004	0.313	0.499	0.314	0.503	
	Back side	0.440	0.120	0.237	0.043	0.560	0.677	0.483	0.720	
LTE B66	Front side	0.388	0.003	0.189	0.004	0.391	0.577	0.392	0.581	
	Back side	0.557	0.120	0.237	0.043	0.677	0.794	0.600	0.837	
N2	Front side	0.288	0.003	0.189	0.004	0.291	0.477	0.292	0.481	
	Back side	0.421	0.120	0.237	0.043	0.541	0.658	0.464	0.701	
N7	Front side	0.257	0.003	0.189	0.004	0.260	0.446	0.261	0.450	
	Back side	0.400	0.120	0.237	0.043	0.520	0.637	0.443	0.680	
N41(38)	Front side	0.311	0.003	0.189	0.004	0.314	0.500	0.315	0.504	
	Back side	0.370	0.120	0.237	0.043	0.490	0.607	0.413	0.650	
N66	Front side	0.370	0.003	0.189	0.004	0.373	0.559	0.374	0.563	
	Back side	0.514	0.120	0.237	0.043	0.634	0.751	0.557	0.794	
N77 (3450~3550)	Front side	0.469	0.003	0.189	0.004	0.472	0.658	0.473	0.662	
	Back side	0.390	0.120	0.237	0.043	0.510	0.627	0.433	0.670	
N77 (3700~3980)	Front side	0.458	0.003	0.189	0.004	0.461	0.647	0.462	0.651	
	Back side	0.169	0.120	0.237	0.043	0.289	0.406	0.212	0.449	
N78 (3450~3550)	Front side	0.481	0.003	0.189	0.004	0.484	0.670	0.485	0.674	
	Back side	0.377	0.120	0.237	0.043	0.497	0.614	0.420	0.657	
N78 (3700~3800)	Front side	0.264	0.003	0.189	0.004	0.267	0.453	0.268	0.457	
	Back side	0.204	0.120	0.237	0.043	0.324	0.441	0.247	0.484	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant41	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT					
		1	2	5	8	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Front side	0.144	0.003	0.189	0.004	0.147	0.333	0.148	0.337	0.193
	Back side	0.225	0.120	0.237	0.043	0.345	0.462	0.268	0.505	0.280
WCDMA B2	Front side	0.392	0.003	0.189	0.004	0.395	0.581	0.396	0.585	
	Back side	0.427	0.120	0.237	0.043	0.547	0.664	0.470	0.707	
WCDMA B4	Front side	0.259	0.003	0.189	0.004	0.262	0.448	0.263	0.452	
	Back side	0.410	0.120	0.237	0.043	0.530	0.647	0.453	0.690	
LTE B2	Front side	0.127	0.003	0.189	0.004	0.130	0.316	0.131	0.320	
	Back side	0.182	0.120	0.237	0.043	0.302	0.419	0.225	0.462	
LTE B7	Front side	0.212	0.003	0.189	0.004	0.215	0.401	0.216	0.405	
	Back side	0.274	0.120	0.237	0.043	0.394	0.511	0.317	0.554	
LTE B41(38)	Front side	0.160	0.003	0.189	0.004	0.163	0.349	0.164	0.353	
	Back side	0.250	0.120	0.237	0.043	0.370	0.487	0.293	0.530	
LTE B66(4)	Front side	0.178	0.003	0.189	0.004	0.181	0.367	0.182	0.371	
	Back side	0.197	0.120	0.237	0.043	0.317	0.434	0.240	0.477	
N2	Front side	0.225	0.003	0.189	0.004	0.228	0.414	0.229	0.418	
	Back side	0.274	0.120	0.237	0.043	0.394	0.511	0.317	0.554	
N7	Front side	0.246	0.003	0.189	0.004	0.249	0.435	0.250	0.439	
	Back side	0.317	0.120	0.237	0.043	0.437	0.554	0.360	0.597	
N38	Front side	0.252	0.003	0.189	0.004	0.255	0.441	0.256	0.445	
	Back side	0.283	0.120	0.237	0.043	0.403	0.520	0.326	0.563	
N41	Front side	0.216	0.003	0.189	0.004	0.219	0.405	0.220	0.409	
	Back side	0.273	0.120	0.237	0.043	0.393	0.510	0.316	0.553	
N66	Front side	0.276	0.003	0.189	0.004	0.279	0.465	0.280	0.469	
	Back side	0.305	0.120	0.237	0.043	0.425	0.542	0.348	0.585	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant12	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT					
		1	2	5	8	1+2	1+3	1+4	1+3+4	3+4
LTE B2	Front side	0.048	0.003	0.189	0.004	0.051	0.237	0.052	0.241	0.193
	Back side	0.115	0.120	0.237	0.043	0.235	0.352	0.158	0.395	0.280
LTE B4	Front side	0.058	0.003	0.189	0.004	0.061	0.247	0.062	0.251	
	Back side	0.148	0.120	0.237	0.043	0.268	0.385	0.191	0.428	
LTE B7	Front side	0.113	0.003	0.189	0.004	0.116	0.302	0.117	0.306	
	Back side	0.232	0.120	0.237	0.043	0.352	0.469	0.275	0.512	
N2	Front side	0.012	0.003	0.189	0.004	0.015	0.201	0.016	0.205	
	Back side	0.105	0.120	0.237	0.043	0.225	0.342	0.148	0.385	
N7	Front side	0.159	0.003	0.189	0.004	0.162	0.348	0.163	0.352	
	Back side	0.259	0.120	0.237	0.043	0.379	0.496	0.302	0.539	
N41(38)	Front side	0.178	0.003	0.189	0.004	0.181	0.367	0.182	0.371	
	Back side	0.330	0.120	0.237	0.043	0.450	0.567	0.373	0.610	
N66	Front side	0.074	0.003	0.189	0.004	0.077	0.263	0.078	0.267	
	Back side	0.158	0.120	0.237	0.043	0.278	0.395	0.201	0.438	

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant101	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT					
		1	2	5	8	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450~3550)	Front side	0.221	0.003	0.189	0.004	0.224	0.410	0.225	0.414	0.193
	Back side	0.452	0.120	0.237	0.043	0.572	0.689	0.495	0.732	0.280
N77 (3700~3980)&N78 (3700~3800)	Front side	0.166	0.003	0.189	0.004	0.169	0.355	0.170	0.359	
	Back side	0.454	0.120	0.237	0.043	0.574	0.691	0.497	0.734	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant23	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT					
		1	2	5	8	1+2	1+3	1+4	1+3+4	3+4
N77 (3450~3550)	Front side	0.105	0.003	0.189	0.004	0.108	0.294	0.109	0.298	0.193
	Back side	0.149	0.120	0.237	0.043	0.269	0.386	0.192	0.429	0.280
N77 (3700~3980)	Front side	0.064	0.003	0.189	0.004	0.067	0.253	0.068	0.257	
	Back side	0.110	0.120	0.237	0.043	0.230	0.347	0.153	0.390	
N78 (3450~3550)	Front side	0.078	0.003	0.189	0.004	0.081	0.267	0.082	0.271	
	Back side	0.153	0.120	0.237	0.043	0.273	0.390	0.196	0.433	
N78 (3700~3800)	Front side	0.057	0.003	0.189	0.004	0.060	0.246	0.061	0.250	
	Back side	0.115	0.120	0.237	0.043	0.235	0.352	0.158	0.395	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant21	WiFi 2.4G Ant6(chain0)	WiFi 5G Ant6(chain0)	BT					
		1	2	5	8	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450~3550)	Front side	0.090	0.003	0.189	0.004	0.093	0.279	0.094	0.283	0.193
	Back side	0.118	0.120	0.237	0.043	0.238	0.355	0.161	0.398	0.280
N77 (3700~3980) &N78 (3700~3800)	Front side	0.089	0.003	0.189	0.004	0.092	0.278	0.093	0.282	
	Back side	0.210	0.120	0.237	0.043	0.330	0.447	0.253	0.490	

Hotspot:

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant11	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Front side	0.373	0.070	0.246	0.061	0.443	0.619	0.434	0.680	0.307
	Back side	0.483	0.228	0.444	0.058	0.711	0.927	0.541	0.985	0.502
	Left side	0.630	0.000	0.000	0.000	0.630	0.630	0.630	0.630	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	0.347
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B5	Front side	0.268	0.070	0.246	0.061	0.338	0.514	0.329	0.575	
	Back side	0.569	0.228	0.444	0.058	0.797	1.013	0.627	1.071	
	Left side	0.746	0.000	0.000	0.000	0.746	0.746	0.746	0.746	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
CDMA BC0	Front side	0.277	0.070	0.246	0.061	0.347	0.523	0.338	0.584	
	Back side	0.422	0.228	0.444	0.058	0.650	0.866	0.480	0.924	
	Left side	0.584	0.000	0.000	0.000	0.584	0.584	0.584	0.584	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B12(17)	Front side	0.108	0.070	0.246	0.061	0.178	0.354	0.169	0.415	
	Back side	0.187	0.228	0.444	0.058	0.415	0.631	0.245	0.689	
	Left side	0.268	0.000	0.000	0.000	0.268	0.268	0.268	0.268	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B13	Front side	0.348	0.070	0.246	0.061	0.418	0.594	0.409	0.655	
	Back side	0.636	0.228	0.444	0.058	0.864	1.080	0.694	1.138	
	Left side	0.858	0.000	0.000	0.000	0.858	0.858	0.858	0.858	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B26(5)	Front side	0.333	0.070	0.246	0.061	0.403	0.579	0.394	0.640	
	Back side	0.565	0.228	0.444	0.058	0.793	1.009	0.623	1.067	
	Left side	0.592	0.000	0.000	0.000	0.592	0.592	0.592	0.592	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N5	Front side	0.421	0.070	0.246	0.061	0.491	0.667	0.482	0.728	
	Back side	0.696	0.228	0.444	0.058	0.924	1.140	0.754	1.198	
	Left side	0.836	0.000	0.000	0.000	0.836	0.836	0.836	0.836	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

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N26	Front side	0.000	0.070	0.246	0.061	0.070	0.246	0.061	0.307
	Back side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant31	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM850	Front side	0.176	0.070	0.246	0.061	0.246	0.422	0.237	0.483	0.307
	Back side	0.359	0.228	0.444	0.058	0.587	0.803	0.417	0.861	0.502
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.153	0.003	0.355	0.003	0.156	0.508	0.156	0.511	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	0.347
	Bottom side	0.174	0.000	0.000	0.000	0.174	0.174	0.174	0.174	0.000
WCDMA B5	Front side	0.125	0.070	0.246	0.061	0.195	0.371	0.186	0.432	
	Back side	0.237	0.228	0.444	0.058	0.465	0.681	0.295	0.739	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.123	0.003	0.355	0.003	0.126	0.478	0.126	0.481	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.109	0.000	0.000	0.000	0.109	0.109	0.109	0.109	
CDMA BC0	Front side	0.205	0.070	0.246	0.061	0.275	0.451	0.266	0.512	
	Back side	0.337	0.228	0.444	0.058	0.565	0.781	0.395	0.839	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.210	0.003	0.355	0.003	0.213	0.565	0.213	0.568	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.193	0.000	0.000	0.000	0.193	0.193	0.193	0.193	
LTE B12(17)	Front side	0.190	0.070	0.246	0.061	0.260	0.436	0.251	0.497	
	Back side	0.228	0.228	0.444	0.058	0.456	0.672	0.286	0.730	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.292	0.003	0.355	0.003	0.295	0.647	0.295	0.650	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.077	0.000	0.000	0.000	0.077	0.077	0.077	0.077	
LTE B13	Front side	0.218	0.070	0.246	0.061	0.288	0.464	0.279	0.525	
	Back side	0.312	0.228	0.444	0.058	0.540	0.756	0.370	0.814	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.220	0.003	0.355	0.003	0.223	0.575	0.223	0.578	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.122	0.000	0.000	0.000	0.122	0.122	0.122	0.122	
LTE B26(5)	Front side	0.199	0.070	0.246	0.061	0.269	0.445	0.260	0.506	
	Back side	0.308	0.228	0.444	0.058	0.536	0.752	0.366	0.810	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.175	0.003	0.355	0.003	0.178	0.530	0.178	0.533	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.155	0.000	0.000	0.000	0.155	0.155	0.155	0.155	
N5	Front side	0.167	0.070	0.246	0.061	0.237	0.413	0.228	0.474	
	Back side	0.270	0.228	0.444	0.058	0.498	0.714	0.328	0.772	
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Right side	0.156	0.003	0.355	0.003	0.159	0.511	0.159	0.514	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.185	0.000	0.000	0.000	0.185	0.185	0.185	0.185	
N26	Front side	0.203	0.070	0.246	0.061	0.273	0.449	0.264	0.510	

	Back side	0.343	0.228	0.444	0.058	0.571	0.787	0.401	0.845
	Left side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Right side	0.211	0.003	0.355	0.003	0.214	0.566	0.214	0.569
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.184	0.000	0.000	0.000	0.184	0.184	0.184	0.184

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant13	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Front side	0.211	0.070	0.246	0.061	0.281	0.457	0.272	0.518	0.307
	Back side	0.251	0.228	0.444	0.058	0.479	0.695	0.309	0.753	0.502
	Left side	0.065	0.000	0.000	0.000	0.065	0.065	0.065	0.065	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	0.358
	Top side	0.325	0.094	0.249	0.098	0.419	0.574	0.423	0.672	0.347
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCDMA B2	Front side	0.197	0.070	0.246	0.061	0.267	0.443	0.258	0.504	
	Back side	0.216	0.228	0.444	0.058	0.444	0.660	0.274	0.718	
	Left side	0.078	0.000	0.000	0.000	0.078	0.078	0.078	0.078	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.348	0.094	0.249	0.098	0.442	0.597	0.446	0.695	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
WCDMA B4	Front side	0.280	0.070	0.246	0.061	0.350	0.526	0.341	0.587	
	Back side	0.425	0.228	0.444	0.058	0.653	0.869	0.483	0.927	
	Left side	0.111	0.000	0.000	0.000	0.111	0.111	0.111	0.111	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.529	0.094	0.249	0.098	0.623	0.778	0.627	0.876	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B2	Front side	0.233	0.070	0.246	0.061	0.303	0.479	0.294	0.540	
	Back side	0.306	0.228	0.444	0.058	0.534	0.750	0.364	0.808	
	Left side	0.080	0.000	0.000	0.000	0.080	0.080	0.080	0.080	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.427	0.094	0.249	0.098	0.521	0.676	0.525	0.774	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B7	Front side	0.289	0.070	0.246	0.061	0.359	0.535	0.350	0.596	
	Back side	0.471	0.228	0.444	0.058	0.699	0.915	0.529	0.973	
	Left side	0.140	0.000	0.000	0.000	0.140	0.140	0.140	0.140	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.562	0.094	0.249	0.098	0.656	0.811	0.660	0.909	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B41(38)	Front side	0.257	0.070	0.246	0.061	0.327	0.503	0.318	0.564	
	Back side	0.410	0.228	0.444	0.058	0.638	0.854	0.468	0.912	
	Left side	0.118	0.000	0.000	0.000	0.118	0.118	0.118	0.118	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.460	0.094	0.249	0.098	0.554	0.709	0.558	0.807	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B66(4)	Front side	0.329	0.070	0.246	0.061	0.399	0.575	0.390	0.636	
	Back side	0.518	0.228	0.444	0.058	0.746	0.962	0.576	1.020	
	Left side	0.163	0.000	0.000	0.000	0.163	0.163	0.163	0.163	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.655	0.094	0.249	0.098	0.749	0.904	0.753	1.002	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N2	Front side	0.274	0.070	0.246	0.061	0.344	0.520	0.335	0.581	

	Back side	0.402	0.228	0.444	0.058	0.630	0.846	0.460	0.904
	Left side	0.104	0.000	0.000	0.000	0.104	0.104	0.104	0.104
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.477	0.094	0.249	0.098	0.571	0.726	0.575	0.824
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N7	Front side	0.280	0.070	0.246	0.061	0.350	0.526	0.341	0.587
	Back side	0.441	0.228	0.444	0.058	0.669	0.885	0.499	0.943
	Left side	0.218	0.000	0.000	0.000	0.218	0.218	0.218	0.218
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.463	0.094	0.249	0.098	0.557	0.712	0.561	0.810
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N41(38)	Front side	0.315	0.070	0.246	0.061	0.385	0.561	0.376	0.622
	Back side	0.463	0.228	0.444	0.058	0.691	0.907	0.521	0.965
	Left side	0.158	0.000	0.000	0.000	0.158	0.158	0.158	0.158
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.557	0.094	0.249	0.098	0.651	0.806	0.655	0.904
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N66	Front side	0.467	0.070	0.246	0.061	0.537	0.713	0.528	0.774
	Back side	0.508	0.228	0.444	0.058	0.736	0.952	0.566	1.010
	Left side	0.188	0.000	0.000	0.000	0.188	0.188	0.188	0.188
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.580	0.000	0.000	0.000	0.580	0.580	0.580	0.580
N77 (3450~3550)	Front side	0.366	0.070	0.246	0.061	0.436	0.612	0.427	0.673
	Back side	0.290	0.228	0.444	0.058	0.518	0.734	0.348	0.792
	Left side	0.307	0.000	0.000	0.000	0.307	0.307	0.307	0.307
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.370	0.094	0.249	0.098	0.464	0.619	0.468	0.717
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N77 (3700~3980)	Front side	0.240	0.070	0.246	0.061	0.310	0.486	0.301	0.547
	Back side	0.317	0.228	0.444	0.058	0.545	0.761	0.375	0.819
	Left side	0.044	0.000	0.000	0.000	0.044	0.044	0.044	0.044
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.360	0.094	0.249	0.098	0.454	0.609	0.458	0.707
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N78 (3450~3550)	Front side	0.394	0.070	0.246	0.061	0.464	0.640	0.455	0.701
	Back side	0.304	0.228	0.444	0.058	0.532	0.748	0.362	0.806
	Left side	0.325	0.000	0.000	0.000	0.325	0.325	0.325	0.325
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.430	0.094	0.249	0.098	0.524	0.679	0.528	0.777
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N78 (3700~3800)	Front side	0.362	0.070	0.246	0.061	0.432	0.608	0.423	0.669
	Back side	0.385	0.228	0.444	0.058	0.613	0.829	0.443	0.887
	Left side	0.376	0.000	0.000	0.000	0.376	0.376	0.376	0.376
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.662	0.094	0.249	0.098	0.756	0.911	0.760	1.009
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant41	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
GSM1900	Front side	0.225	0.070	0.246	0.061	0.295	0.471	0.286	0.532	0.307
	Back side	0.368	0.228	0.444	0.058	0.596	0.812	0.426	0.870	0.502
	Left side	0.085	0.000	0.000	0.000	0.085	0.085	0.085	0.085	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	0.347
	Bottom side	0.617	0.000	0.000	0.000	0.617	0.617	0.617	0.617	0.000
WCDMA B2	Front side	0.219	0.070	0.246	0.061	0.289	0.465	0.280	0.526	
	Back side	0.355	0.228	0.444	0.058	0.583	0.799	0.413	0.857	
	Left side	0.079	0.000	0.000	0.000	0.079	0.079	0.079	0.079	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.478	0.000	0.000	0.000	0.478	0.478	0.478	0.478	
WCDMA B4	Front side	0.191	0.070	0.246	0.061	0.261	0.437	0.252	0.498	
	Back side	0.247	0.228	0.444	0.058	0.475	0.691	0.305	0.749	
	Left side	0.085	0.000	0.000	0.000	0.085	0.085	0.085	0.085	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.359	0.000	0.000	0.000	0.359	0.359	0.359	0.359	
LTE B2	Front side	0.269	0.070	0.246	0.061	0.339	0.515	0.330	0.576	
	Back side	0.366	0.228	0.444	0.058	0.594	0.810	0.424	0.868	
	Left side	0.097	0.000	0.000	0.000	0.097	0.097	0.097	0.097	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.591	0.000	0.000	0.000	0.591	0.591	0.591	0.591	
LTE B7	Front side	0.298	0.070	0.246	0.061	0.368	0.544	0.359	0.605	
	Back side	0.408	0.228	0.444	0.058	0.636	0.852	0.466	0.910	
	Left side	0.086	0.000	0.000	0.000	0.086	0.086	0.086	0.086	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.639	0.000	0.000	0.000	0.639	0.639	0.639	0.639	
LTE B41(38)	Front side	0.259	0.070	0.246	0.061	0.329	0.505	0.320	0.566	
	Back side	0.372	0.228	0.444	0.058	0.600	0.816	0.430	0.874	
	Left side	0.071	0.000	0.000	0.000	0.071	0.071	0.071	0.071	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.577	0.000	0.000	0.000	0.577	0.577	0.577	0.577	
LTE B66(4)	Front side	0.261	0.070	0.246	0.061	0.331	0.507	0.322	0.568	
	Back side	0.369	0.228	0.444	0.058	0.597	0.813	0.427	0.871	
	Left side	0.112	0.000	0.000	0.000	0.112	0.112	0.112	0.112	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
	Bottom side	0.517	0.000	0.000	0.000	0.517	0.517	0.517	0.517	
N2	Front side	0.322	0.070	0.246	0.061	0.392	0.568	0.383	0.629	

	Back side	0.453	0.228	0.444	0.058	0.681	0.897	0.511	0.955
	Left side	0.138	0.000	0.000	0.000	0.138	0.138	0.138	0.138
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.580	0.000	0.000	0.000	0.580	0.580	0.580	0.580
N7	Front side	0.362	0.070	0.246	0.061	0.432	0.608	0.423	0.669
	Back side	0.431	0.228	0.444	0.058	0.659	0.875	0.489	0.933
	Left side	0.129	0.000	0.000	0.000	0.129	0.129	0.129	0.129
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.561	0.000	0.000	0.000	0.561	0.561	0.561	0.561
N38	Front side	0.409	0.070	0.246	0.061	0.479	0.655	0.470	0.716
	Back side	0.469	0.228	0.444	0.058	0.697	0.913	0.527	0.971
	Left side	0.139	0.000	0.000	0.000	0.139	0.139	0.139	0.139
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.740	0.000	0.000	0.000	0.740	0.740	0.740	0.740
N41	Front side	0.352	0.070	0.246	0.061	0.422	0.598	0.413	0.659
	Back side	0.394	0.228	0.444	0.058	0.622	0.838	0.452	0.896
	Left side	0.113	0.000	0.000	0.000	0.113	0.113	0.113	0.113
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.577	0.000	0.000	0.000	0.577	0.577	0.577	0.577
N66	Front side	0.467	0.070	0.246	0.061	0.537	0.713	0.528	0.774
	Back side	0.508	0.228	0.444	0.058	0.736	0.952	0.566	1.010
	Left side	0.188	0.000	0.000	0.000	0.188	0.188	0.188	0.188
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358
	Top side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347
	Bottom side	0.580	0.000	0.000	0.000	0.580	0.580	0.580	0.580

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant12	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
LTE B2	Front side	0.111	0.070	0.246	0.061	0.181	0.357	0.172	0.418	0.307
	Back side	0.258	0.228	0.444	0.058	0.486	0.702	0.316	0.760	0.502
	Left side	0.288	0.000	0.000	0.000	0.288	0.288	0.288	0.288	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	0.358
	Top side	0.042	0.094	0.249	0.098	0.136	0.291	0.140	0.389	0.347
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE B4	Front side	0.083	0.070	0.246	0.061	0.153	0.329	0.144	0.390	
	Back side	0.251	0.228	0.444	0.058	0.479	0.695	0.309	0.753	
	Left side	0.267	0.000	0.000	0.000	0.267	0.267	0.267	0.267	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.041	0.094	0.249	0.098	0.135	0.290	0.139	0.388	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
LTE B7	Front side	0.139	0.070	0.246	0.061	0.209	0.385	0.200	0.446	
	Back side	0.301	0.228	0.444	0.058	0.529	0.745	0.359	0.803	
	Left side	0.422	0.000	0.000	0.000	0.422	0.422	0.422	0.422	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.054	0.094	0.249	0.098	0.148	0.303	0.152	0.401	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N2	Front side	0.078	0.070	0.246	0.061	0.148	0.324	0.139	0.385	
	Back side	0.168	0.228	0.444	0.058	0.396	0.612	0.226	0.670	
	Left side	0.179	0.000	0.000	0.000	0.179	0.179	0.179	0.179	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.009	0.094	0.249	0.098	0.103	0.258	0.107	0.356	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N7	Front side	0.275	0.070	0.246	0.061	0.345	0.521	0.336	0.582	
	Back side	0.498	0.228	0.444	0.058	0.726	0.942	0.556	1.000	
	Left side	0.551	0.000	0.000	0.000	0.551	0.551	0.551	0.551	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.110	0.094	0.249	0.098	0.204	0.359	0.208	0.457	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N41(38)	Front side	0.288	0.070	0.246	0.061	0.358	0.534	0.349	0.595	
	Back side	0.528	0.228	0.444	0.058	0.756	0.972	0.586	1.030	
	Left side	0.645	0.000	0.000	0.000	0.645	0.645	0.645	0.645	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.127	0.094	0.249	0.098	0.221	0.376	0.225	0.474	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
N66	Front side	0.003	0.070	0.246	0.061	0.073	0.249	0.064	0.310	
	Back side	0.074	0.228	0.444	0.058	0.302	0.518	0.132	0.576	
	Left side	0.071	0.000	0.000	0.000	0.071	0.071	0.071	0.071	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.004	0.094	0.249	0.098	0.098	0.253	0.102	0.351	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant101	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450~3550)	Front side	0.108	0.070	0.246	0.061	0.178	0.354	0.169	0.415	0.307
	Back side	0.338	0.228	0.444	0.058	0.566	0.782	0.396	0.840	0.502
	Left side	0.341	0.000	0.000	0.000	0.341	0.341	0.341	0.341	0.000
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	0.358
	Top side	0.119	0.094	0.249	0.098	0.213	0.368	0.217	0.466	0.347
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N77 (3700~3980) &N78 (3700~3800)	Front side	0.102	0.070	0.246	0.061	0.172	0.348	0.163	0.409	
	Back side	0.323	0.228	0.444	0.058	0.551	0.767	0.381	0.825	
	Left side	0.235	0.000	0.000	0.000	0.235	0.235	0.235	0.235	
	Right side	0.000	0.003	0.355	0.003	0.003	0.355	0.003	0.358	
	Top side	0.119	0.094	0.249	0.098	0.213	0.368	0.217	0.466	
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Test position		SARmax (W/kg)				Summed SAR				
		Main Ant23	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77 (3450~3550)	Front side	0.105	0.000	0.000	0.000	0.105	0.105	0.105	0.105	0.000
	Back side	0.163	0.070	0.246	0.061	0.233	0.409	0.224	0.470	0.307
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	0.502
	Right side	0.287	0.000	0.000	0.000	0.287	0.287	0.287	0.287	0.000
	Top side	0.070	0.003	0.355	0.003	0.073	0.425	0.073	0.428	0.358
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	0.347
N77 (3700~3980)	Front side	0.084	0.000	0.000	0.000	0.084	0.084	0.084	0.084	
	Back side	0.160	0.070	0.246	0.061	0.230	0.406	0.221	0.467	
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	
	Right side	0.265	0.000	0.000	0.000	0.265	0.265	0.265	0.265	
	Top side	0.076	0.003	0.355	0.003	0.079	0.431	0.079	0.434	
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
N78 (3450~3550)	Front side	0.087	0.000	0.000	0.000	0.087	0.087	0.087	0.087	
	Back side	0.191	0.070	0.246	0.061	0.261	0.437	0.252	0.498	
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	
	Right side	0.234	0.000	0.000	0.000	0.234	0.234	0.234	0.234	
	Top side	0.094	0.003	0.355	0.003	0.097	0.449	0.097	0.452	
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	
N78 (3700~3800)	Front side	0.091	0.000	0.000	0.000	0.091	0.091	0.091	0.091	
	Back side	0.173	0.070	0.246	0.061	0.243	0.419	0.234	0.480	
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	
	Right side	0.287	0.000	0.000	0.000	0.287	0.287	0.287	0.287	
	Top side	0.078	0.003	0.355	0.003	0.081	0.433	0.081	0.436	
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	

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Test position		SARmax (W/kg)				Summed SAR				
		Main Ant21	WiFi 2.4G Ant22(chain0)	WiFi 5G Ant23(chain0)	BT					
		1	2	3	4	1+2	1+3	1+4	1+3+4	3+4
N77&N78 (3450~3550)	Front side	0.233	0.000	0.000	0.000	0.233	0.233	0.233	0.233	0.000
	Back side	0.242	0.070	0.246	0.061	0.312	0.488	0.303	0.549	0.307
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	0.502
	Right side	0.085	0.000	0.000	0.000	0.085	0.085	0.085	0.085	0.000
	Top side	0.353	0.003	0.355	0.003	0.356	0.708	0.356	0.711	0.358
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	0.347
N77 (3700~3980) &N78 (3700~3800)	Front side	0.133	0.000	0.000	0.000	0.133	0.133	0.133	0.133	
	Back side	0.169	0.070	0.246	0.061	0.239	0.415	0.230	0.476	
	Left side	0.000	0.228	0.444	0.058	0.228	0.444	0.058	0.502	
	Right side	0.057	0.000	0.000	0.000	0.057	0.057	0.057	0.057	
	Top side	0.269	0.003	0.355	0.003	0.272	0.624	0.272	0.627	
	Bottom side	0.000	0.094	0.249	0.098	0.094	0.249	0.098	0.347	

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) DASY8; Module SAR:V16.2.4.2524

Hardware Reference

	Equipment	Manufacturer	Model	Inventory No.	Calibration Date	Due date of calibration
☒	DAE	SPEAG	DAE4	SZ-WSR-M-083	2024/02/22	2025/02/21
☒	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	DAE4ip	SZ-WSR-M-074	2023/07/14	2024/07/13
☒	DAE	SPEAG	DAE4ip	SZ-WSR-M-078	2023/09/12	2024/09/11
☒	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-027	2023/06/05	2024/06/04
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-075	2023/07/17	2024/07/16
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-079	2023/09/11	2024/09/10
☒	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
☒	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
☒	Radio Communication Analyzer	Anritsu	MT8820C	SZ-WSR-M-005	2024/01/30	2025/01/29
☒	Radio Communication Analyzer	Anritsu	MT8820C	SZ-WSR-M-018	2023/05/25	2024/05/24
☒	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
☒	Spectrum Analyzer	Rohde & Schwarz	FSV	SZ-WRG-M-012	2024/01/30	2025/01/29
☒	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	NA	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 Measurement Uncertainty

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 40：Measurement Uncertainty

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11 Calibration certificate

Please see the Appendix C

12 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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