



## FCC SAR TEST REPORT

**Application No.:** ZR/2021/40021  
**Applicant:** HMD Global Oy  
**Manufacturer:** HMD Global Oy  
**Product Name:** smart phone  
**Model No.(EUT):** N1374DL  
**Brand Name:** Nokia  
**FCC ID:** 2AJOTTA-1374  
**Standards:** FCC 47CFR §2.1093  
**Date of Receipt:** 2021-04-28  
**Date of Test:** 2021-04-30 to 2021-06-15  
**Date of Issue:** 2021-07-04  
**Test conclusion:** **PASS \***

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

Authorized Signature:

Derek Yang  
Wireless Laboratory Manager



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## REVISION HISTORY

Report Number	Revision	Description	Issue Date
ZR/2021/4002109	01	Original	2021-07-04



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## TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product Specific 10-g SAR
GSM850	0.71	0.50	0.46	NA
GSM1900	1.10	0.53	0.66	NA
WCDMA Band II	1.20	0.70	0.90	NA
WCDMA Band IV	1.30	0.67	0.89	NA
WCDMA Band V	0.74	0.53	0.53	NA
LTE Band 2	1.31	0.57	1.03	NA
LTE Band 4	1.44	1.04	1.41	NA
LTE Band 5	0.69	0.52	0.52	NA
LTE Band 12	0.52	0.36	0.36	NA
LTE Band 13	0.64	0.37	0.37	NA
LTE Band 41	0.15	0.77	0.77	NA
LTE Band 66	1.28	1.09	1.23	NA
LTE Band 71	0.79	0.20	0.44	NA
NR Band n2	<0.10	0.65	0.85	NA
NR Band n5	0.59	0.43	0.43	NA
NR Band n25	<0.10	0.68	0.82	NA
NR Band n41	<0.10	0.10	0.10	NA
NR Band n66	<0.10	0.62	0.80	NA
NR Band n71	0.78	0.17	0.39	NA
NR Band n77	0.29	<0.10	<0.10	NA
WI-FI (2.4GHz)	0.33	0.22	0.29	NA
WI-FI (5GHz)	0.48	0.73	0.64	1.76
BT	0.17	<0.10	<0.10	NA
SAR Limited(W/kg)		1.6		4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product Specific 10-g SAR
Sum SAR	1.57	1.58	1.58	1.76
SPLSR	NA	NA	NA	NA
SPLSR Limited		0.04		0.1

Reviewed by

Jackson Li

Prepared by

Roman Pan

**Test Engineer:** Rick Chen, Vito Wang, Jack Huang, York Liu, Charley Shen

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## 1 General Information

### 1.1 Details of Client

Applicant:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600 Espoo, Finland
Manufacturer:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600 Espoo, Finland

### 1.2 Test Location

Company: SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab  
Address: No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China  
Post code: 518057  
Telephone: +86 (0) 755 2601 2053  
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E-mail: ee.shenzhen@sgs.com

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## 1.3 Test Facility

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

• **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **A2LA (Certificate No. 3816.01)**

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• **VCCI**

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• **FCC –Designation Number: CN1178**

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

Designation Number: CN1178. Test Firm Registration Number: 406779.

• **Industry Canada (IC)**

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

CAB identifier: CN0006

IC#: 4620C.

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## 1.4 General Description of EUT

Device Type :	portable device				
Exposure Category:	uncontrolled environment / general population				
Product Name:	smart phone				
Model No.(EUT):	N1374DL				
FCC ID:	2AJOTTA-1374				
Brand name:	Nokia				
Product Phase:	production unit				
IMEI:	357923770011551 / 357923770010801 / 357923770010942 / 357923770011437				
Hardware Version:	V1.0				
Software Version:	02US_0_029				
Antenna Type:	Inner Antenna				
Device Operating Configurations :					
Modulation Mode:	<b>GSM:</b> GMSK, 8PSK; <b>WCDMA:</b> QPSK; <b>LTE:</b> QPSK,16QAM,64QAM <b>5G NR:</b> DFT-s-OFDM (PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM), CP-OFDM (QPSK, 16QAM, 64QAM, 256QAM) <b>WIFI:</b> DSSS, OFDM, OFDMA; <b>BT:</b> GFSK, π/4DQPSK,8DPSK				
Device Class:	B				
GPRS Multi-slots Class:	12	EGPRS Multi-slots Class:	12		
HSDPA UE Category:	14	HSUPA UE Category	6		
DC-HSDPA UE Category:	24				
Power Class	4,tested with power level 5(GSM850)				
	1,tested with power level 0(GSM1900)				
	3, tested with power control "all 1"(WCDMA Band)				
	3, tested with power control Max Power(LTE Band)				
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)		
	GSM850	824~849	869~894		
	GSM1900	1850~1910	1930~1990		
	WCDMA Band II	1850~1910	1930~1990		
	WCDMA Band IV	1710~1755	2110~2155		
	WCDMA Band V	824~849	869~894		
	LTE Band 2	1850 ~1910	1930 ~1990		
	LTE Band 4	1710~1755	2110~2155		
	LTE Band 5	824~849	869~894		
	LTE Band 12	699~716	729~746		
	LTE Band 13	777~787	746~756		
	LTE Band 41	2496~2690	2496~2690		
	LTE Band 66	1710~1780	2110~2200		
	LTE Band 71	663~698	617~652		
	NR Band n2	1850~1910	1930~1990		
	NR Band n5	824~849	869~894		
	NR Band n25	1850~1915	1930~1995		
	NR Band n41	2496~2690	2496~2690		

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	NR Band n66	1710~1780	2110~2200
	NR Band n71	663~698	617~652
	NR Band n77	3300~4200	3300~4200
	Bluetooth	2400~2483.5	2400~2483.5
	Wi-Fi 2.4G	2412~2462	2412~2462
	Wi-Fi 5G	5150~5250	5150~5250
		5250~5350	5250~5350
		5470~5725	5470~5725
		5725~5850	5725~5850
Battery Information:	Battery Model:	CN110	
	Nominal Voltage:	3.87V	
	Rated capacity:	4370mAh	
	Manufacture:	Sunwoda Electronic CO.LTD	

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### 1.4.1 DUT Antenna Locations(Back View)

Refer to Appendix D Photographs

Note:

- 1) The test device is a smart phone. The overall diagonal dimension of this device is 167 mm. Per KDB 648474 D04, because the diagonal distance of this device is  $\geq 160$ mm, so it is a phablet.

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

EUT Sides for SAR Testing							
Mode	Exposure Condition	Front	Back	Left	Right	Top	Bottom
Ant1	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	Yes	No	Yes
Ant3	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	Yes	No	Yes
Ant4	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
Ant5	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
Ant6	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	Yes	Yes	No
Ant8	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	Yes	Yes	No
WIFI/BT Ant	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No

Table 1: EUT Sides for SAR Testing

Note:

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

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### 1.4.2 LTE CA additional specification

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

- Intra-band carrier aggregation requirements for uplink.
- Intra-band and inter-band carrier aggregation requirements for downlink.

The possible downlink and uplink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.101 V15.4.0. The conducted power measurement results of downlink and uplink LTE CA are provided in Section 8 of this report per 3GPP TS 36.521-1 V14.4.0. The downlink LTE CA SAR test is not required since the maximum output power for downlink LTE CA was not more than 0.25dB higher than the maximum output power for without downlink LTE CA.

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

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

- UL PCC configuration is determined by the required test channel
- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

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

3) For this device, as the maximum output for Intra-band uplink LTE CA is  $\leq$  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  $> 1.2 \text{ W/kg}$ , UL CA SAR is also required for all required test channels (PCC based)

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

Intra-band contiguous CA operating bands:

E-UTRA CA Band	E-UTRA Band	Uplink (UL) operating band		Downlink (DL) operating band		Duplex Mode		
		BS receive / UE transmit		BS transmit / UE receive				
		$F_{UL\_low} - F_{UL\_high}$	$F_{DL\_low} - F_{DL\_high}$	$F_{DL\_low} - F_{DL\_high}$	$F_{DL\_low} - F_{DL\_high}$			
CA_5	5	824 MHz	-	849 MHz	869 MHz	-	894 MHz	FDD
CA_66	66	1710 MHz	-	1780 MHz	2110 MHz	-	2200 MHz	FDD

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### 1.4.3 Power reduction specification

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

- 1) A fixed level power reduction is applied for some frequency bands when hotspot mode becomes active. When the hotspot is disabled, the power value will be recovered.
- 2) A fixed level power reduction is applied for some frequency bands when handset operate "held to the ear" condition, the power reduction triggered by audio receiver detection. The audio receiver detection is used to determine head or body scenario.
- 3) A fixed level power reduction is applied for some frequency bands when simultaneously transmitting with the other antennas in certain simultaneous transmission conditions. The standalone SAR compliance still uses the standalone SAR results tested at the maximum output power level without any power reduction.
- 4) The proximity sensor is used to indicate when the device is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes of main antenna to ensure SAR compliance(Refer to section 5.4 for detailed proximity Sensor information and validation data per KDB 616217).

The following tables summarize the key power reduction information. The detailed full power which is the Max. power the state can use and reduced tune-up specifications and conducted power measurement results are provided in Appendix E.

Main antenna(Ant3) Power Level(dBm)	
Power Reduction Scenario	LTE Band 41
Full power	24.0
Simultaneous Transmission	22.0

Main antenna(Ant6) Power Level(dBm)					
Power Reduction Scenario	GSM850	WCDMA Band V	LTE Band 5	LTE Band 12	LTE Band 13
Full power/Receiver off	33.5	24.0	24.0	24.0	24.0
Receiver on	32.5	23.0	22.5	23.0	23.0

Main antenna(Ant8) Power Level(dBm)						
Power Reduction Scenario	GSM1900	WCDMA Band II	WCDMA Band IV	LTE Band 2	LTE Band 4	LTE Band 66
Full power/Receiver off/Sensor off	30.5	24.0	24.0	24.0	24.0	24.0
Receiver on	27.0	18.5	19.0	19.0	19.5	17.5
Sensor on	29.0	21.0	22.0	21.0	22.0	22.0



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NR Band antenna(Ant1) Power Level(dBm)			
Power Reduction Scenario	n2	n25	n66
Sensor off	23.5	23.5	23.5
Sensor on	18.0	18.0	19.0

WIFI antenna Power Level(dBm)			
Power Reduction Scenario	WIFI 5G		
	chain 1	chain 2	MIMO
Receiver off/Sensor off/Hotspot off	19.5	19.5	19.5
Receiver on	14.5	19.5	15.0
Sensor on	14.5	13.5	13.5
Hotspot on	14.5	13.5	13.5

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## 1.5 Test Specification

Identity	Document Title
FCC 47CFR §2.1093	Radiofrequency Radiation Exposure Evaluation: Portable Devices
ANSI/IEEE C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.
IEEE 1528-2013	Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
KDB 941225 D01	3G SAR Measurement Procedures v03r01
KDB 941225 D05	SAR for LTE Devices v02r05
KDB 941225 D05A	LTE Rel.10 KDB Inquiry Sheet v01r02
KDB 941225 D06	Hotspot Mode SAR v02r01
KDB 248227 D01	SAR Guidance for IEEE 802.11 Wi-Fi SAR v02r02
KDB 648474 D04	Handset SAR v01r03
KDB 447498 D01	General RF Exposure Guidance v06
KDB 865664 D01	SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02	RF Exposure Reporting v01r02
KDB 690783 D01	SAR Listings on Grants v01r03
KDB 616217 D04	SAR for laptop and tablets v01r02



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## 1.6 RF exposure limits

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

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## 2 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%

Ambient noise is checked and found very low and in compliance with requirement of standards.  
Reflection of surrounding objects is minimized and in compliance with requirement of standards.

Table 2: The Ambient Conditions



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### 3 SAR Measurements System Configuration

#### 3.1 The SAR Measurement System

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

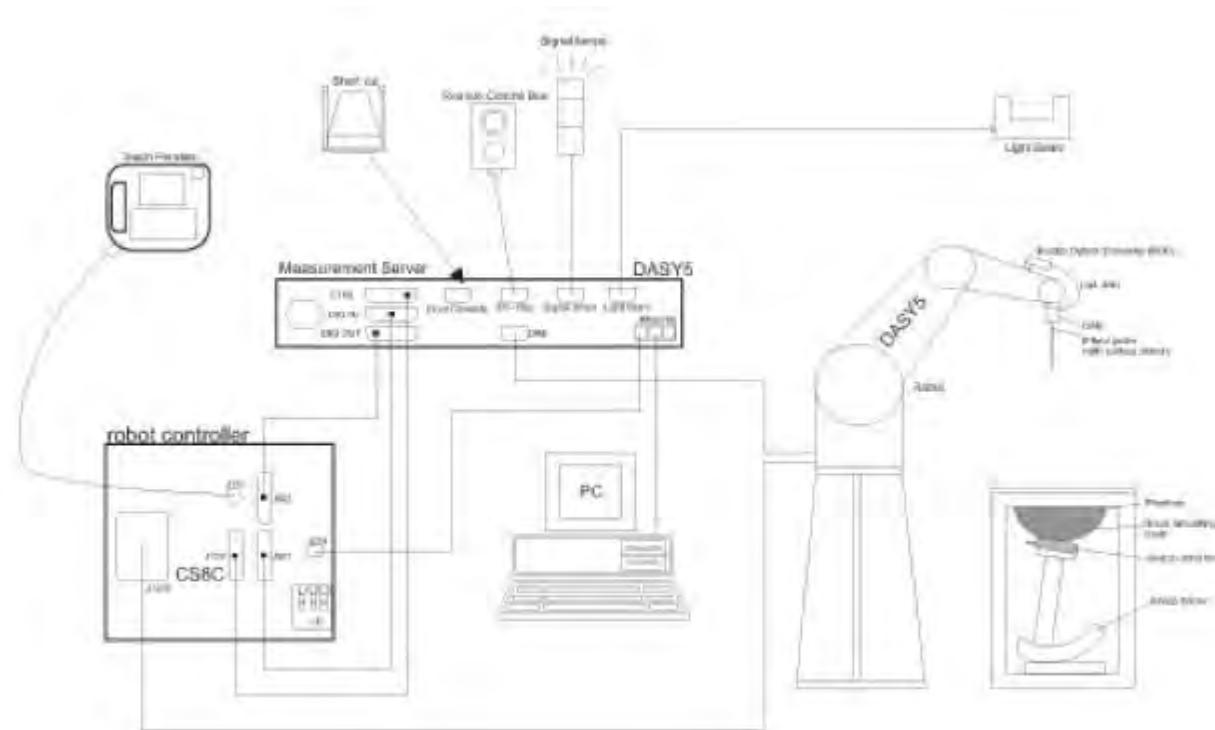
The DASY5 system for performing compliance tests consists of the following items:

A standard high precision 6-axis robot (Stabile RX family) with controller, teach pendant and software .An arm extension for accommodation the data acquisition electronics (DAE).

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

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

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



F-1. SAR Measurement System Configuration

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

### 3.2 Isotropic E-field Probe EX3DV4

	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
<b>Calibration</b>	ISO/IEC 17025 <a href="#">calibration service</a> available.
<b>Frequency</b>	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
<b>Directivity</b>	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
<b>Dynamic Range</b>	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)
<b>Dimensions</b>	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
<b>Application</b>	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%.
<b>Compatibility</b>	DASY3, DASY4, DASY52 SAR and higher, EASY4/MRI



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### 3.3 Data Acquisition Electronics (DAE)

<b>Model</b>	DAE	
<b>Construction</b>	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.	
<b>Measurement Range</b>	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
<b>Input Offset Voltage</b>	< 5µV (with auto zero)	
<b>Input Bias Current</b>	< 50 fA	
<b>Dimensions</b>	60 x 60 x 68 mm	

### 3.4 SAM Twin Phantom

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

<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)		
<b>Liquid Compatibility</b>	Compatible with all SPEAG tissue simulating liquids (incl. DGBE type)		
<b>Shell Thickness</b>	$2.0 \pm 0.2$ mm (bottom plate)		
<b>Dimensions</b>	Major axis: 600 mm Minor axis: 400 mm		
<b>Filling Volume</b>	approx. 30 liters		
<b>Wooden Support</b>	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  $\epsilon=3$  and loss tangent  $\delta=0.02$ . The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

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## 3.7 Measurement procedure

### 3.7.1 Scanning procedure

#### Step 1: Power reference measurement

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

#### Step 2: Area scan

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

#### Step 3: Zoom scan

Around this point, a volume of 32mm\*32mm\*30mm ( $f \leq 2\text{GHz}$ ), 30mm\*30mm\*30mm ( $f$  for 2-3GHz) and 24mm\*24mm\*22mm ( $f$  for 5-6GHz) was assessed by measuring 5x5x7 points ( $f \leq 2\text{GHz}$ ), 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.

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		$\leq 3 \text{ GHz}$	$> 3 \text{ GHz}$
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		$5 \pm 1 \text{ mm}$	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
		$\leq 2 \text{ GHz}: \leq 15 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 12 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 12 \text{ mm}$ $4 - 6 \text{ GHz}: \leq 10 \text{ mm}$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$		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 $\leq$ 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$		$\leq 2 \text{ GHz}: \leq 8 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz}: \leq 5 \text{ mm}^*$ $4 - 6 \text{ GHz}: \leq 4 \text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$	$\leq 5 \text{ mm}$	$3 - 4 \text{ GHz}: \leq 4 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 3 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1): \text{between } 1^{\text{st}} \text{ two points closest to phantom surface}$	$3 - 4 \text{ GHz}: \leq 3 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 2.5 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
		$\Delta z_{\text{Zoom}}(n>1): \text{between subsequent points}$	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$
Minimum zoom scan volume	x, y, z	$\geq 30 \text{ mm}$	$3 - 4 \text{ GHz}: \geq 28 \text{ mm}$ $4 - 5 \text{ GHz}: \geq 25 \text{ mm}$ $5 - 6 \text{ GHz}: \geq 22 \text{ mm}$

#### 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.  $\pm 5\%$

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### 3.7.2 Data Storage

The DASY software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension ".DAE4". The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated. The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [m W/g], [m W/cm<sup>2</sup>], [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	Dcp <i>i</i>	
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:

$$V_i = U_i + U_i^2 \cdot c_f / d_c p_i$$

With  $V_i$  = compensated signal of channel  $i$  ( $i = x, y, z$ )

$U_i$  = input signal of channel  $i$  ( $i = x, y, z$ )

$c_f$  = crest factor of exciting field (DASY parameter)

$d_c i$  = diode compression point (DASY parameter)

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

E-field probes:

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

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H-field probes:

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

With  $V_i$  = compensated signal of channel i ( $i = x, y, z$ )

Norm $i$  = sensor sensitivity of channel i ( $i = x, y, z$ )

[mV/(V/m)2] for E-field Probes

ConvF = sensitivity enhancement in solution

a $ij$  = sensor sensitivity factors for H-field probes

f = carrier frequency [GHz]

E $i$  = electric field strength of channel i in V/m

H $i$  = 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.

$$SAR = (E_{tot}^2 \cdot \sigma) / (\epsilon \cdot 1000)$$

with SAR = local specific absorption rate in mW/g

E $tot$  = total field strength in V/m

$\sigma$  = conductivity in [mho/m] or [Siemens/m]

$\epsilon$  = equivalent tissue density in g/cm<sup>3</sup>

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.

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

with P $pwe$  = equivalent power density of a plane wave in mW/cm<sup>2</sup>

E $tot$  = total electric field strength in V/m

H $tot$  = total magnetic field strength in A/m



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## **4 SAR measurement variability and uncertainty**

### **4.1 SAR measurement variability**

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is  $\geq 0.80$  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  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is  $\geq 1.5$  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.



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## 5 Description of Test Position

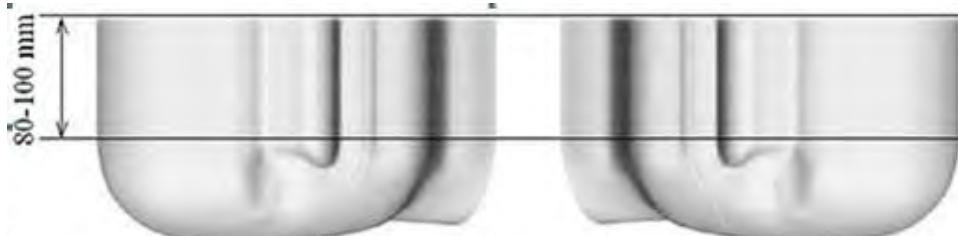
### 5.1 Head Exposure Condition

#### 5.1.1 SAM Phantom Shape

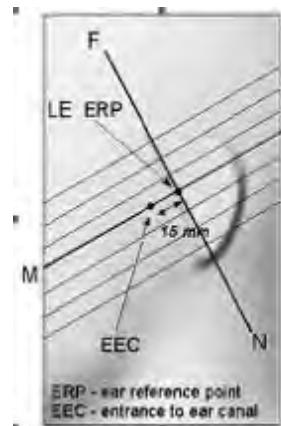


F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

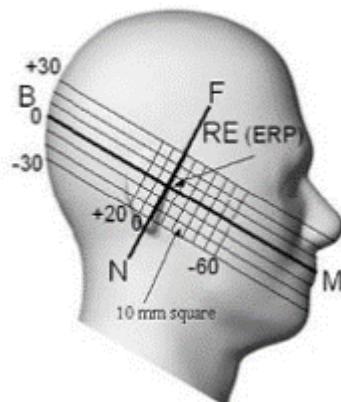
Note: The centre strip including the nose region has a different thickness tolerance.



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

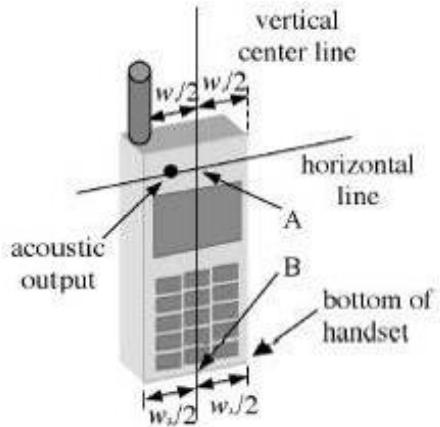


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

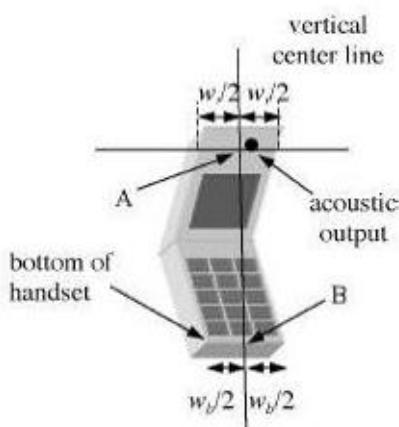


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

### 5.1.2 EUT constructions



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



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

### 5.1.3 Definition of the “cheek” position

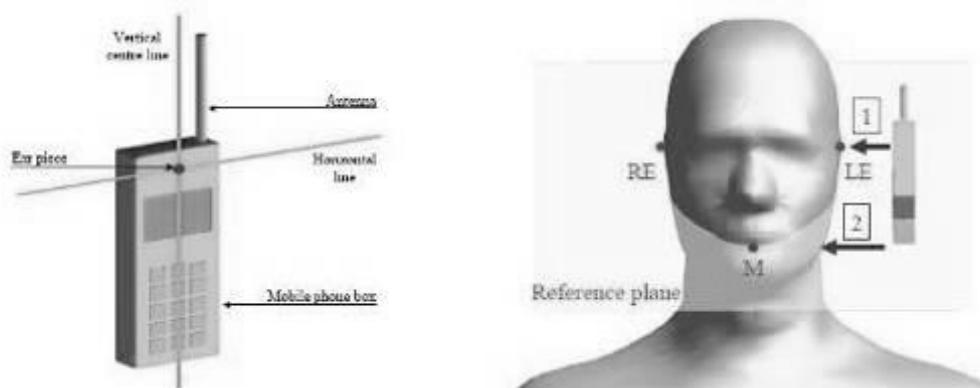
- Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the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

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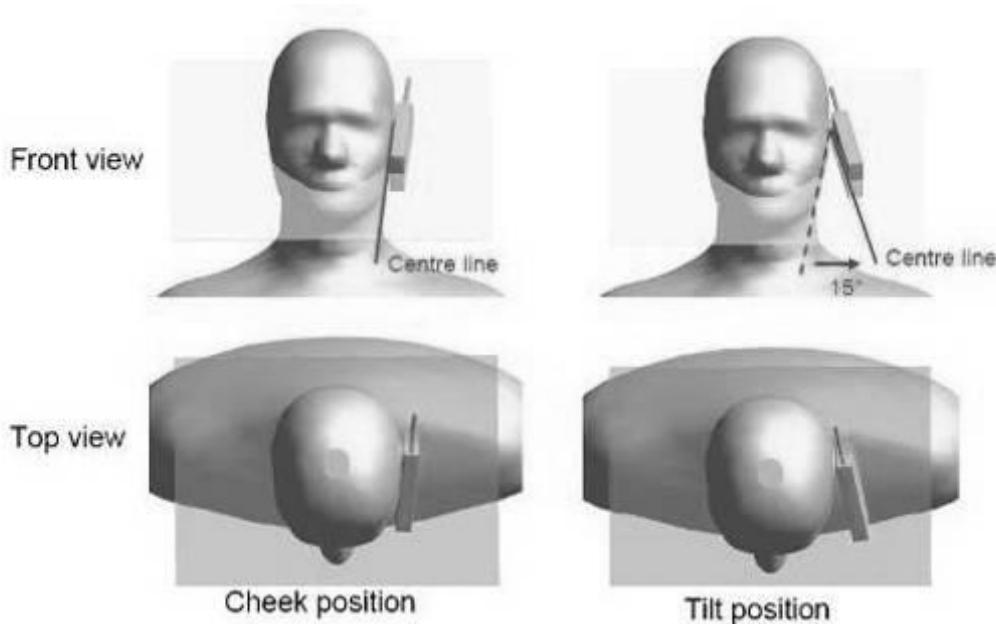
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#### 5.1.4 Definition of the “tilted” position

- Position the device in the “cheek” position described above;
- 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

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## 5.2 Body Exposure Condition

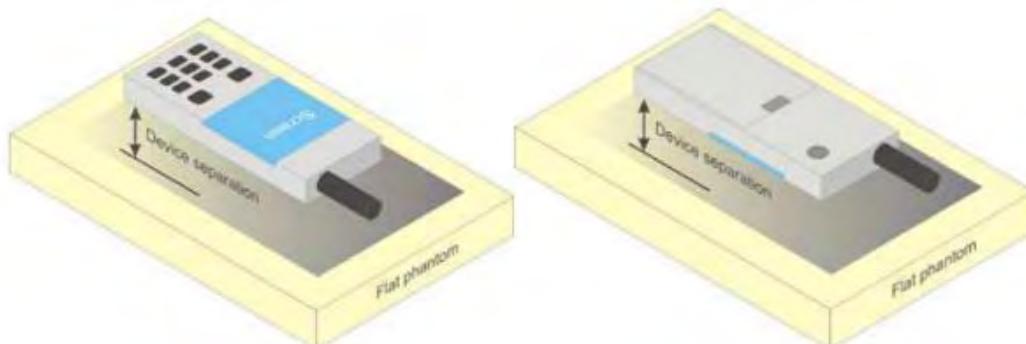
### 5.2.1 Body-worn accessory exposure conditions

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

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

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## 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 ( $L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$ ) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. For devices with form factors smaller than 9 cm x 5 cm, a test separation distance of 5 mm is required.

## 5.3 Extremity exposure conditions

Per FCC KDB 648474D04, for smart phones with a display diagonal dimension  $> 15.0 \text{ cm}$  or an overall diagonal dimension  $> 16.0 \text{ cm}$  that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the device is marketed as "Phablet".

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25 \text{ mm}$  from that surface or edge, in direct contact with a flat phantom, for Product Specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, Product Specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2 \text{ W/kg}$ ; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

Due to the SAR result, no frequency bands need to test with 0mm for the Product Specific 10-g SAR.



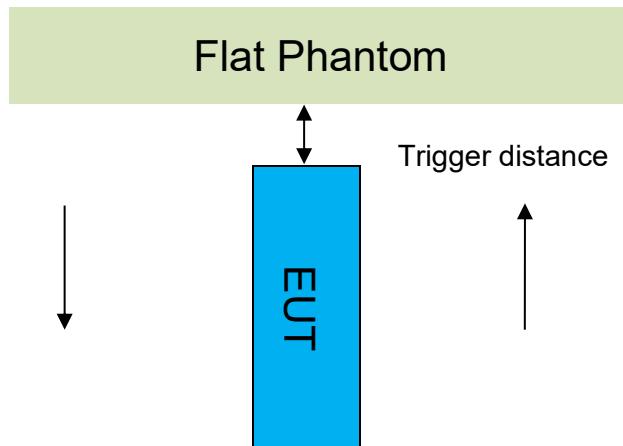
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## 5.1 Proximity Sensor Triggering Test

### 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)			
Antenna	Ant8	Ant1	WIFI Ant
Band	GSM1900, WCDMA B2/4, LTE B2/4/66	NR Band n2/25/66	WIFI 5G chain1/2/MIMO
Position	Front/Back/Left/Top	Front/Back/Left/Bottom	Front/Back/Top
Minimum	Front/Left:15, Back/Top:20	Front/Left:15, Back/Bottom:20	Front:15, Back/Top:20
Required SAR Test	Front/Left:14, Back/Top:19	Front/Left:14, Back/Bottom:19	Front:14, Back/Top:19

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.

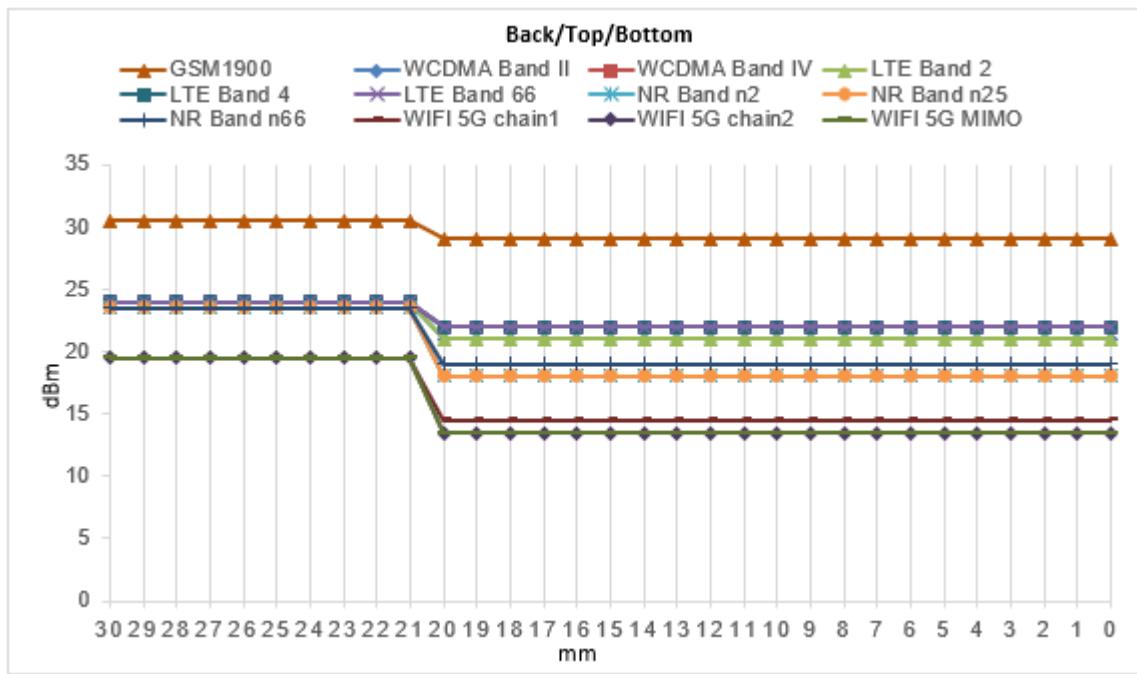
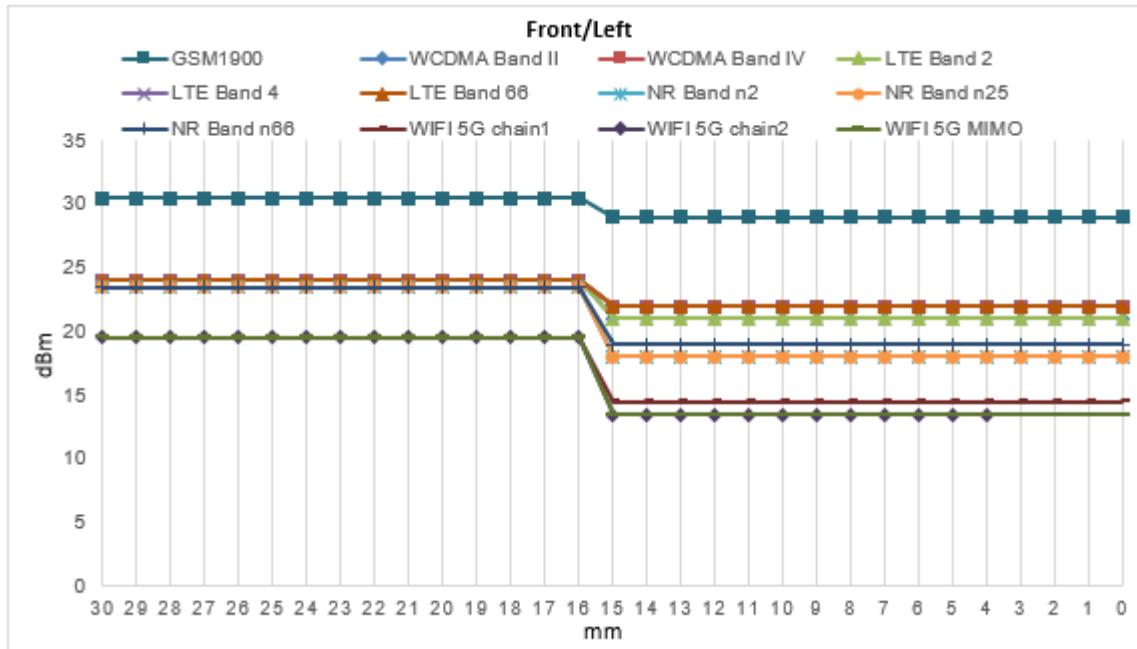
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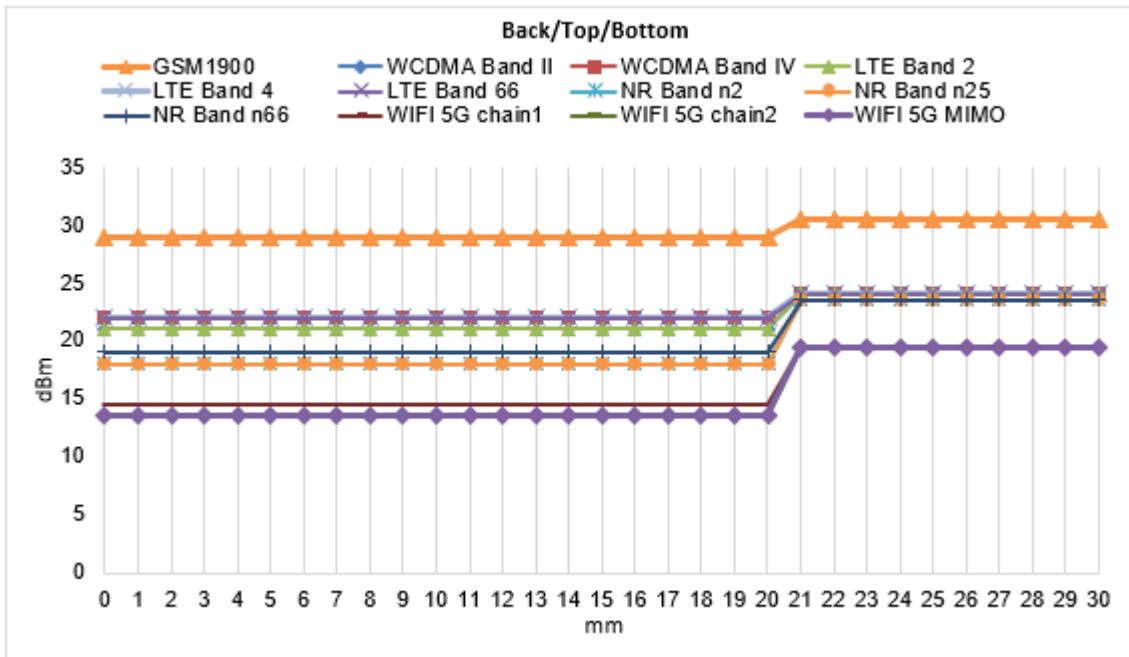
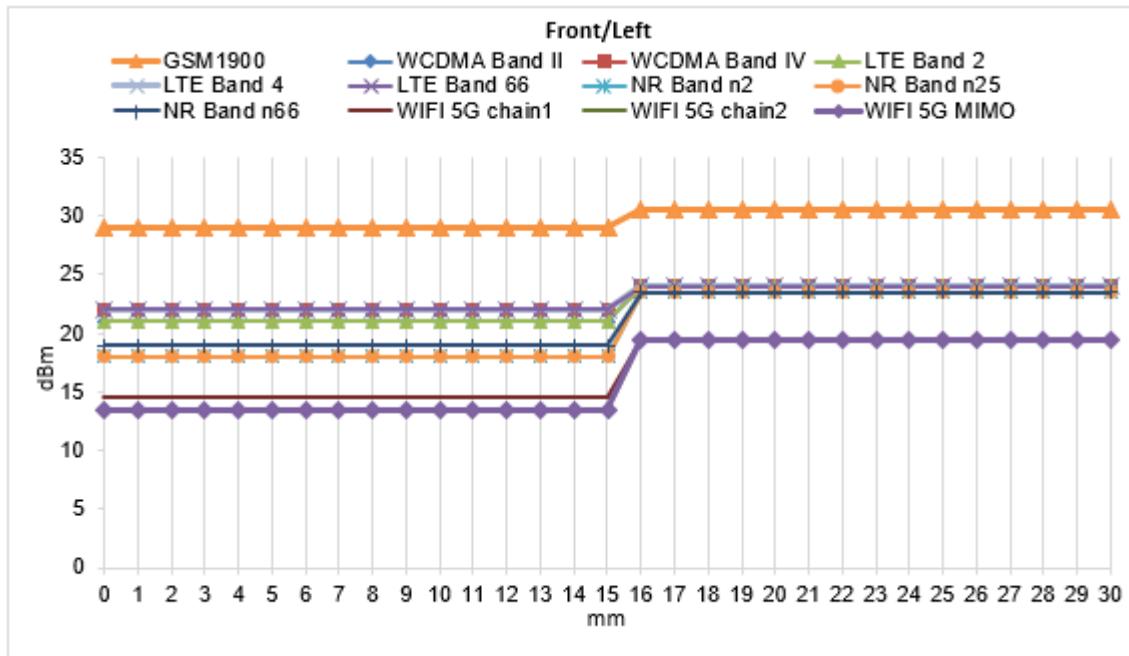
- DUT Moving Toward(Trigger)the Phantom



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- DUT Moving Away(Release) from the Phantom



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### Proximity sensor coverage

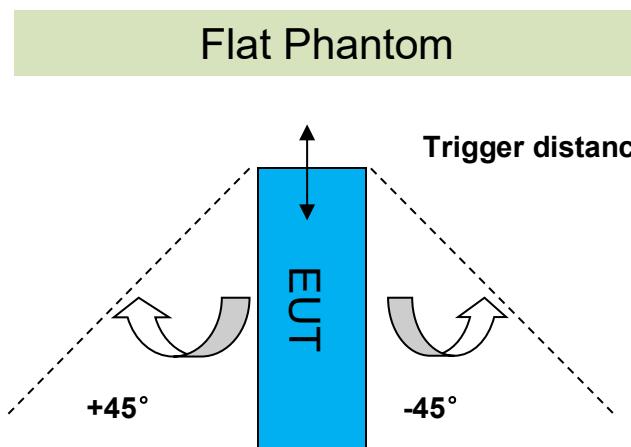
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing,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

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

Rotating the tablet around the edge next to the phantom in  $\leq 10^\circ$  increments until the tablet is  $\pm 45^\circ$  from the vertical position at  $0^\circ$ , and the maximum output power remains in the reduced mode.



Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Top Side													
Band (MHz)	Minimum trigger distance Per KDB616217§6.2	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
GSM1900	Left:15mm, Top:20mm	Left:15mm, Top:20mm	on	on	on	on	on	on	on	on	on	on	on
WCDMA B2/4	Left:15mm, Top:20mm	Left:15mm, Top:20mm	on	on	on	on	on	on	on	on	on	on	on
LTE B2/4/66	Left:15mm, Top:20mm	Left:15mm, Top:20mm	on	on	on	on	on	on	on	on	on	on	on
NR Band n2/25/66	Left:15mm, Bottom:20mm	Left:15mm, Bottom:20mm	on	on	on	on	on	on	on	on	on	on	on
WIFI 5G chain1/2/MIMO	Top:20mm	Top:20mm	on	on	on	on	on	on	on	on	on	on	on



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## 6 SAR System Verification Procedure

### 6.1 Tissue Simulate Liquid

#### 6.1.1 Recipes for Tissue Simulate Liquid

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

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

Table 3: Recipe of Tissue Simulate Liquid

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### 6.1.2 Measurement for Tissue Simulate Liquid

The dielectric properties for this Tissue Simulate Liquids were measured by using the Agilent Model 85070E Dielectric Probe in conjunction with Agilent E5071C Network Analyzer (300 KHz-8500 MHz). The Conductivity ( $\sigma$ ) and Permittivity ( $\epsilon_r$ ) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was  $22\pm2^\circ\text{C}$ .

Tissue Type	Measured Frequency (MHz)	Target Tissue ( $\pm 5\%$ )		Measured Tissue		Liquid Temp. (°C)	Measured Date
		$\epsilon_r$	$\sigma(\text{S/m})$	$\epsilon_r$	$\sigma(\text{S/m})$		
750 Head	750	41.9 (39.81~44)	0.89 (0.85~0.94)	41.234	0.887	22.1	2021-05-04
750 Head	750	41.9 (39.81~44)	0.89 (0.85~0.94)	41.649	0.895	22.1	2021-05-05
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.233	0.904	22.1	2021-04-30
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	40.728	0.892	22.1	2021-05-02
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	39.496	1.324	22.2	2021-05-12
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.058	1.326	22.2	2021-05-15
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.794	1.330	22.2	2021-06-15
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.356	1.375	22.3	2021-05-07
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.300	1.387	22.3	2021-05-08
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	38.780	1.398	22.3	2021-05-10
2450 Head	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	38.239	1.825	22.0	2021-05-25
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.115	1.962	22.1	2021-05-06
3700 Head	3700	37.7 (35.82~39.59)	3.12 (2.96~3.28)	37.205	3.070	22.1	2021-05-28
5250 Head	5250	35.9 (34.11~37.70)	4.71 (4.47~4.95)	35.408	4.581	22.2	2021-06-06
5250 Head	5250	35.9 (34.11~37.70)	4.71 (4.47~4.95)	35.906	4.696	22.2	2021-06-12
5600 Head	5250	35.5 (33.73~37.28)	5.07 (4.82~5.32)	34.736	5.045	22.2	2021-06-06
5600 Head	5250	35.5 (33.73~37.28)	5.07 (4.82~5.32)	34.953	5.081	22.2	2021-06-12
5750 Head	5750	35.4 (33.63~37.17)	5.22 (4.96~5.48)	34.364	5.225	22.2	2021-06-06
5750 Head	5750	35.4 (33.63~37.17)	5.22 (4.96~5.48)	34.590	5.252	22.2	2021-06-12

Table 4: Measurement result of Tissue electric parameters

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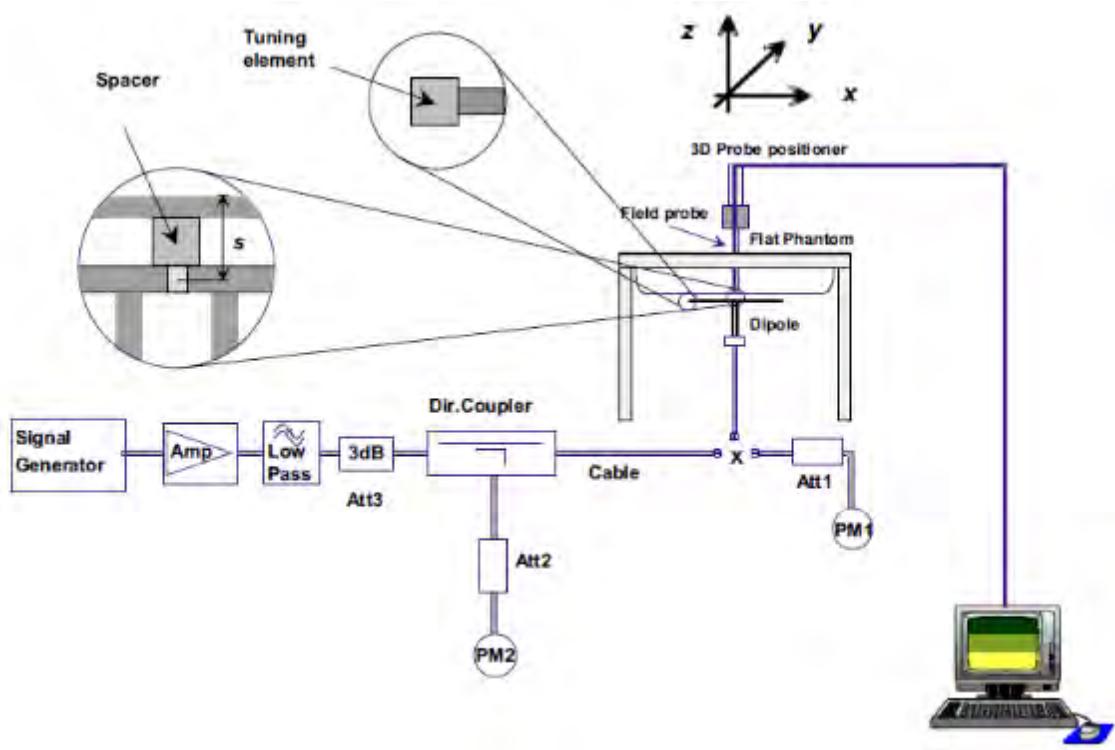
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## 6.2 SAR System Check

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  $22\pm2^{\circ}\text{C}$ , the relative humidity was in the range 60% and the liquid depth above the ear reference points was above  $15\pm0.5$  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

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### 6.2.1 Justification for Extended SAR Dipole Calibrations

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



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### 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) ( $\pm 10\%$ )	Target SAR (normalized to 1W) ( $\pm 10\%$ )	Liquid Temp. (°C)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D750V2	Head	1.98	1.31	7.92	5.24	8.39 (7.55~9.23)	5.63 (5.07~6.19)	22.1	2021-05-04
D750V2	Head	2.19	1.43	8.76	5.72	8.39 (7.55~9.23)	5.63 (5.07~6.19)	22.1	2021-05-05
D835V2	Head	2.43	1.60	9.72	6.40	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2021-04-30
D835V2	Head	2.48	1.62	9.92	6.48	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2021-05-02
D1750V2	Head	8.88	4.54	35.52	18.16	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021-05-12
D1750V2	Head	9.47	5.02	37.88	20.08	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021-05-15
D1750V2	Head	9.49	5.04	37.96	20.16	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021-06-15
D1900V2	Head	10.20	5.25	40.80	21.00	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2021-05-07
D1900V2	Head	10.30	5.31	41.20	21.24	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2021-05-08
D1900V2	Head	10.40	5.35	41.60	21.40	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2021-05-10
D2450V2	Head	12.90	5.96	51.60	23.84	51.9 (46.71~57.09)	23.8 (21.42~26.18)	22.0	2021-05-25
D2600V2	Head	13.50	6.04	54.00	24.16	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2021-05-06
Validation Kit		Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) ( $\pm 10\%$ )	Target SAR (normalized to 1W) ( $\pm 10\%$ )	Liquid Temp. (°C)	Measured Date
		1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)		
D3700V2	Head(3.7GHz)	6.82	2.40	68.20	24.00	67.8 (61.02~74.58)	24.7 (22.23~27.17)	22.1	2021-05-28
D5GHzV2	Head(5.25GHz)	8.08	2.25	80.80	22.50	75.2 (67.68~82.72)	21.5 (19.35~23.65)	22.2	2021-06-06
	Head(5.25GHz)	8.09	2.21	80.90	22.10	75.2 (67.68~82.72)	21.5 (19.35~23.65)	22.2	2021-06-12
	Head(5.60GHz)	8.38	2.39	83.80	23.90	80.0 (72.0~88.0)	22.7 (20.43~24.97)	22.2	2021-06-06
	Head(5.60GHz)	7.63	2.15	76.30	21.50	80.0 (72.0~88.0)	22.7 (20.43~24.97)	22.2	2021-06-12
	Head(5.75GHz)	7.49	2.12	74.90	21.20	78.7 (70.83~86.57)	22.3 (20.07~24.53)	22.2	2021-06-06
	Head(5.75GHz)	7.53	2.13	75.30	21.30	78.7 (70.83~86.57)	22.3 (20.07~24.53)	22.2	2021-06-12

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  $\leq \frac{1}{4}$  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  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as "otherwise" in the applicable procedures; SAR measurement is required for the secondary mode.

## 7.2 Operation Configurations

### 7.2.1 GSM Test Configuration

SAR tests for GSM 850 and GSM 1900, a communication link is set up with a base station by air link. Using CMW500 the power lever is set to "5" and "0" in SAR of GSM 850 and GSM 1900. The tests in the band of GSM 850 and GSM 1900 are performed in the mode of GPRS/EGPRS function. Since the GPRS class is 12 for this EUT, it has at most 4 timeslots in uplink and at most 4 timeslots in downlink, the maximum total timeslot is 5. The EGPRS class is 12 for this EUT, it has at most 4 timeslots in uplink, and at most 4 timeslots in downlink, the maximum total timeslot is 5.

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

When SAR tests for EGPRS mode is necessary, GMSK modulation should be used to minimize SAR measurement error due to higher peak-to-average power (PAR) ratios inherent in 8-PSK.

The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode



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## 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 (DPCCCH, 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 spreading code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the handset, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC.

### 4) . HSDPA / HSUPA / DC-HSDPA

According to KDB 941225 D01v03, RMC 12.2kbps setting is used to evaluate SAR. If the maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is  $\leq \frac{1}{4}$  dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA

#### a) HSDPA

HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors( $\beta_c$ ,  $\beta_d$ ), and HS-DPCCH power offset parameters ( $\Delta ACK$ ,  $\Delta NACK$ ,  $\Delta CQI$ ) 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.



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Sub-test	$\beta_c$	Bd	$\beta_d(SF)$	$\beta_c/\beta_d$	$\beta_{hs}$	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:  $\Delta ACK, \Delta NACK$  and  $\Delta CQI = 8$  Ahs =  $\beta_{hs}/\beta_c = 30/15$   $\beta_{hs} = 30/15 * \beta_c$

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,  $\Delta ACK$  and  $\Delta NACK = 8$  ( Ahs=30/15) with  $\beta_{hs}=30/15 * \beta_c$ , and  $\Delta CQI = 7$  ( Ahs=24/15) with  $\beta_{hs}=24/15 * \beta_c$ .

Note3: CM=1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

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

Table 7: HSDPA UE category

### b) HSUPA

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

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Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}^{(1)}$	$\beta_{ac}$	$\beta_{ed}$	$\beta_{ed}$ (SF)	$\beta_{ed}$ (code)	CM <sup>(2)</sup>	MP R <sup>(3)</sup> (dB)	AG <sup>(4)</sup> Inde x <sup>(5)</sup>	E-TFC I <sup>(6)</sup>
1 <sup>(7)</sup>	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64 <sup>(7)</sup>	11/15 <sup>(3)</sup>	22/15 <sup>(7)</sup>	209/225 <sup>(7)</sup>	1039/225 <sup>(7)</sup>	4 <sup>(7)</sup>	1 <sup>(7)</sup>	1.0 <sup>(7)</sup>	0.0 <sup>(7)</sup>	20 <sup>(7)</sup>	75 <sup>(7)</sup>
2 <sup>(7)</sup>	6/15 <sup>(7)</sup>	15/15 <sup>(7)</sup>	64 <sup>(7)</sup>	6/15 <sup>(7)</sup>	12/15 <sup>(7)</sup>	12/15 <sup>(7)</sup>	94/75 <sup>(7)</sup>	4 <sup>(7)</sup>	1 <sup>(7)</sup>	3.0 <sup>(7)</sup>	2.0 <sup>(7)</sup>	12 <sup>(7)</sup>	67 <sup>(7)</sup>
3 <sup>(7)</sup>	15/15 <sup>(7)</sup>	9/15 <sup>(7)</sup>	64 <sup>(7)</sup>	15/9 <sup>(7)</sup>	30/15 <sup>(7)</sup>	30/15 <sup>(7)</sup>	$\beta_{ad1}:47/1$ $5_{4^7}$ $\beta_{ad2}:47/1$ $5_{4^7}$	4 <sup>(7)</sup>	2 <sup>(7)</sup>	2.0 <sup>(7)</sup>	1.0 <sup>(7)</sup>	15 <sup>(7)</sup>	92 <sup>(7)</sup>
4 <sup>(7)</sup>	2/15 <sup>(7)</sup>	15/15 <sup>(7)</sup>	64 <sup>(7)</sup>	2/15 <sup>(7)</sup>	4/15 <sup>(7)</sup>	2/15 <sup>(7)</sup>	56/75 <sup>(7)</sup>	4 <sup>(7)</sup>	1 <sup>(7)</sup>	3.0 <sup>(7)</sup>	2.0 <sup>(7)</sup>	17 <sup>(7)</sup>	71 <sup>(7)</sup>
5 <sup>(7)</sup>	15/15 <sup>(4)</sup>	15/15 <sup>(4)</sup>	64 <sup>(7)</sup>	15/15 <sup>(4)</sup>	30/15 <sup>(7)</sup>	24/15 <sup>(7)</sup>	134/15 <sup>(7)</sup>	4 <sup>(7)</sup>	1 <sup>(7)</sup>	1.0 <sup>(7)</sup>	0.0 <sup>(7)</sup>	21 <sup>(7)</sup>	81 <sup>(7)</sup>
Note 1: $\Delta ACK, \Delta NACK$ and $\Delta CQI = 8$ $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_{ac}$													
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 $\beta_c/\beta_d$ 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 $\beta_c/\beta_d$ 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: $\beta_{ad}$ 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 Spreading 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&2SF 4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF 4	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



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**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
DPCCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

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

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

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

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

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

**Note:**

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

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Inf. Bit Payload	120						
CRC Addition	120	24	CRC				
Code Block Segmentation	144						
Turbo-Encoding (R=1/3)		432				12	Tail Bits
1st Rate Matching		432					
RV Selection		960					
Physical Channel Segmentation		960					

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

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

Sub-test <sup>v</sup>	$\beta_c^v$	$\beta_d^v$	$\beta_d^v(SF)^v$	$\beta_c^v/\beta_d^v$	$\beta_{hs}^v(1)^v$	CM(dB)(2) <sup>v</sup>	MPR (dB) <sup>v</sup>
1 <sup>v</sup>	2/15 <sup>v</sup>	15/15 <sup>v</sup>	64 <sup>v</sup>	2/15 <sup>v</sup>	4/15 <sup>v</sup>	0.0 <sup>v</sup>	0 <sup>v</sup>
2 <sup>v</sup>	12/15(3) <sup>v</sup>	15/15(3) <sup>v</sup>	64 <sup>v</sup>	12/15(3) <sup>v</sup>	24/15 <sup>v</sup>	1.0 <sup>v</sup>	0 <sup>v</sup>
3 <sup>v</sup>	15/15 <sup>v</sup>	8/15 <sup>v</sup>	64 <sup>v</sup>	15/8 <sup>v</sup>	30/15 <sup>v</sup>	1.5 <sup>v</sup>	0.5 <sup>v</sup>
4 <sup>v</sup>	15/15 <sup>v</sup>	4/15 <sup>v</sup>	64 <sup>v</sup>	15/4 <sup>v</sup>	30/15 <sup>v</sup>	1.5 <sup>v</sup>	0.5 <sup>v</sup>

Note 1:  $\Delta ACK, \Delta NACK$  and  $\Delta CQI = 8$        $A_{hs} = \beta_{hs}/\beta_c = 30/15$        $\beta_{hs} = 30/15 * \beta_c$   
Note 2: CM=1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.  
Note 3: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

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

Note:

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

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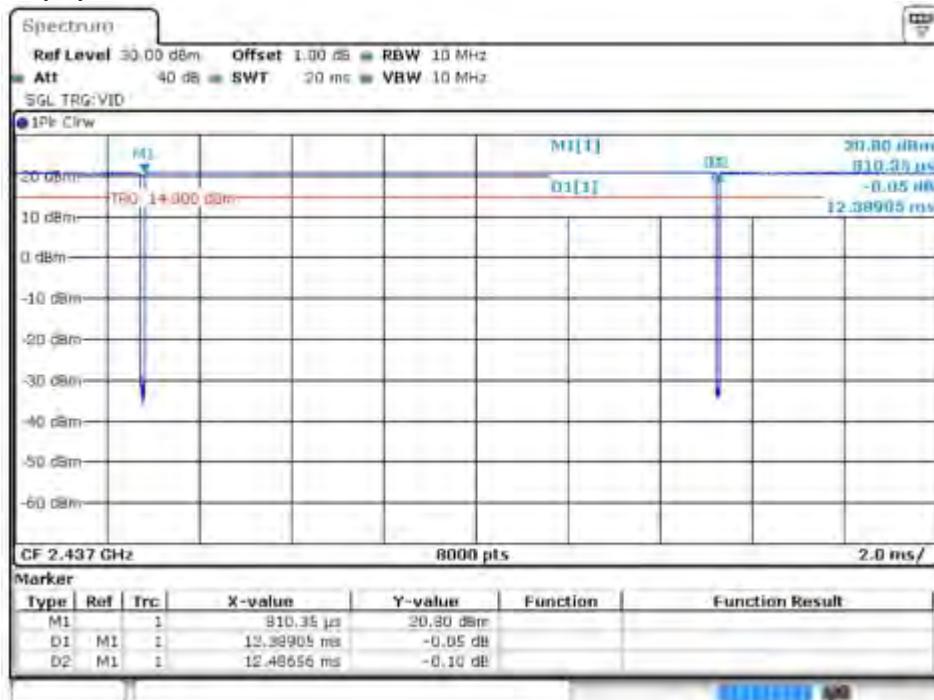


### 7.2.3 WiFi Test Configuration

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

#### 7.2.3.1 Duty cycle

- 1) Wi-Fi 2.4GHz 802.11b  
Duty cycle=12.38905/12.48656=99.22%



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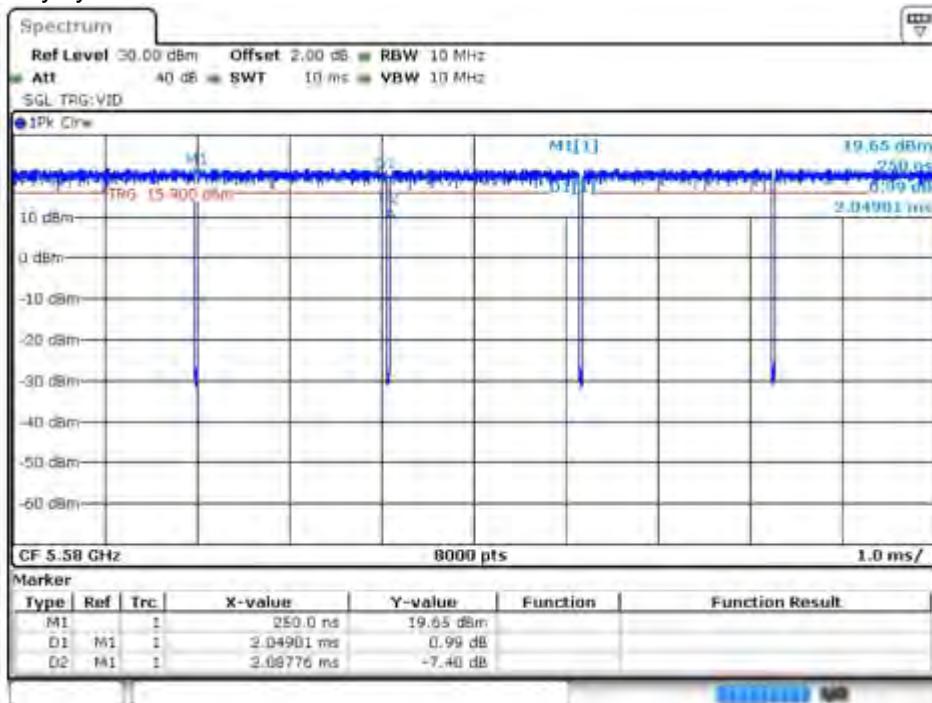
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- 2) Wi-Fi 5GHz 802.11a:  
Duty cycle=2.04901/2.08776=98.14%



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### 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  $\leq 0.4 \text{ W/kg}$ , 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  $> 0.4 \text{ W/kg}$ , 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  $\leq 0.8 \text{ W/kg}$  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  $> 0.8 \text{ W/kg}$ , SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2 \text{ W/kg}$  or all required channels are tested. a) Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

### 7.2.3.3 Initial Test Configuration Procedures

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required. SAR test reduction for subsequent highest output test channels is determined according to *reported* SAR of the initial test configuration.

For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.

When the *reported* SAR of the initial test configuration is  $> 0.8 \text{ W/kg}$ , SAR measurement is required for subsequent next highest measured output power channel(s) in the initial test configuration until *reported* SAR is  $\leq 1.2 \text{ W/kg}$  or all required channels are tested.

### 7.2.3.4 Subsequent Test Configuration Procedures

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

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

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- 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  $\leq 1.2 \text{ W/kg}$ , 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  $> 1.2 \text{ W/kg}$  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”



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### 7.2.3.5 2.4 GHz WiFi SAR Procedures

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

- **802.11b DSSS SAR Test Requirements**

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

- 1) . When the reported SAR of the highest measured maximum output power channel for the exposure configuration is  $\leq 0.8 \text{ W/kg}$ , no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) . When the reported SAR is  $> 0.8 \text{ W/kg}$ , SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is  $> 1.2 \text{ W/kg}$ , 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  $\leq 1.2 \text{ W/kg}$ .

- **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.

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### 7.2.3.6 5 GHz WiFi SAR Procedures

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

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

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  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  $\leq 1.2$  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.

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### 7.2.4 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The Anritsu MT8821C 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.

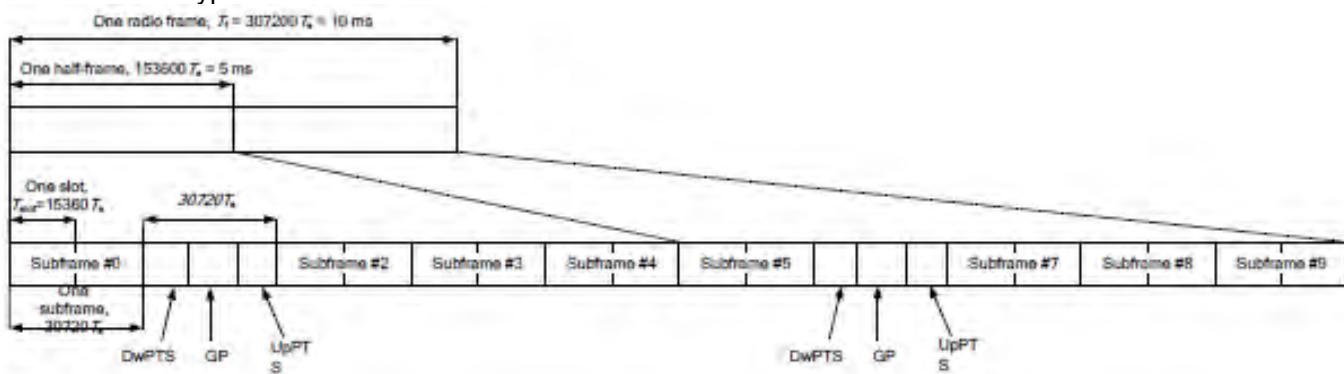
#### TDD LTE test consideration

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:



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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		
5	6592.Ts	4384.Ts	5120.Ts	20480.Ts	4384.Ts	5120.Ts
6	19760.Ts			23040.Ts		
7	21952.Ts			25600.Ts		
8	24144.Ts			-		
9	13168.Ts			-		

Uplink-downlink configurations.

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

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

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



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**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 configuration [RB]						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM				≥ 1			≤ 5

**C) A-MPR**

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

**D) Largest channel bandwidth standalone SAR test requirements****1) QPSK with 1 RB allocation**

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

**2) QPSK with 50% RB allocation**

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

**3) QPSK with 100% RB allocation**

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

**4) Higher order modulations**

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

**E) Other channel bandwidth standalone SAR test requirements**

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

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### 7.2.5 NR Band Test Configuration

1. For this FCC report, NR Band n2/n5/n25/n41/n66/n71/n77 support NSA mode. NSA mode operations are possible only with LTE under EN-DC mode and the operations are possible as following table:

Band/Antenna		N2	N5	N25	N41	N66	N71	N77
		Ant1	Ant6	Ant1	Ant3	Ant1	Ant6	Ant5
LTE Band 2	Ant1		V				V	
	Ant8				V	V		V
LTE Band 4	Ant8							
LTE Band 5	Ant6	V				V		V
LTE Band 12	Ant6	V		V		V		V
LTE Band 13	Ant6	V				V		V
LTE Band 41	Ant3							
LTE Band 66	Ant1		V				V	
	Ant8	V		V	V			V
LTE Band 71	Ant6							

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

Band		n2	n5	n25	n41	n66	n71	n77
NR mode		NSA	Yes	Yes	Yes	Yes	Yes	Yes
Modulation	DFT-s-OFDM	PI/2 BPSK	Yes	Yes	Yes	Yes	Yes	Yes
		QPSK	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes
	CP-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes	Yes
		Duty Cycle	100%	100%	100%	25%	100%	25%

Band	SCS	Bandwidth											
		5Mhz	10Mhz	15Mhz	20Mhz	25Mhz	30Mhz	40Mhz	50Mhz	60Mhz	70Mhz	80Mhz	90Mhz
n2	15KHZ	Yes	Yes	Yes	Yes	N/A							
	30KHZ	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	15KHZ	Yes	Yes	Yes	Yes	N/A							
	30KHZ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n25	15KHZ	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n41	15KHZ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	N/A	N/A	Yes	N/A	Yes	Yes	Yes	N/A	Yes	Yes	Yes
n66	15KHZ	Yes	Yes	Yes	Yes	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n71	15KHZ	Yes	Yes	Yes	Yes	N/A							
	30KHZ	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	15KHZ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	30KHZ	N/A	N/A	N/A	N/A	N/A	Yes						

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3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
  - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 3GPP 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not  $\frac{1}{2}$  dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is  $\leq 1.45$  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  $\frac{1}{2}$  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  $\leq 0.8$  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  $\frac{1}{2}$  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  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  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 <sup>1</sup>	≤ 1.2 <sup>1</sup>	≤ 0.2 <sup>1</sup>
		≤ 0.5 <sup>2</sup>	≤ 0.5 <sup>2</sup>	0 <sup>2</sup>
	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 SAR, as the existing SAR test system cannot test the multiple different frequency bands simultaneous Transmission SAR at the same time, we suggest that the conservative "max + max" multi-Tx and SAR scaling method can be used to evaluate the inter-band Uplink EN-DC SAR from standalone SAR test results of each LTE and NR EN-DC component band and the conservative "max + max" multi-Tx method to combine the scaled SAR value from each EN-DC component band as the inter-band Uplink EN-DC SAR. All Simultaneous Transmission Scenarios will be evaluated independently in the final SAR report.
8. When the reported SAR for and EN DC configuration is greater than 1.2 W/kg, EN DC SAR is also required for other NR based test channels.
9. EN DC SAR is also required for standalone NR configurations greater than 1.2 W/kg when scaled to the EN DC power level.

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## 8 Test Result

### 8.1 Measurement of RF Conducted Power

**Note:** The detailed conducted power table can refer to Appendix E.

#### 8.1.1 Conducted Power of GSM

**Note:**

- 1) . CMW500 measures GSM peak and average output power for active timeslots. 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 =  $10 \times \log (\text{Burst-averaged power mW} \times \text{Slot used} / 8)$
- 3) . When the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel must be used

#### 8.1.2 Conducted Power of WCDMA

**Note:**

- 1) when the maximum output power variation across the required test channels is  $> \frac{1}{2}$  dB, instead of the middle channel, the highest output power channel must be used.

#### 8.1.3 Conducted Power of LTE

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## **8.1.4 Conducted Power of Uplink LTE CA**

The following conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion. 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  $\frac{1}{4}$  dB higher than the maximum output power measured when downlink carrier aggregation inactive.

Power test equipment: Anritsu Radio Communication Analyzer MT8821C were used.

### **8.1.4.1 Conducted Power of Uplink LTE CA**

Note:

- 1) This device supports uplink carrier aggregation for LTE CA\_5B, CA\_66B, CA\_66C with a maximum of two 20MHz component carriers.
- 2) 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.
- 3) 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.
- 4) Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05.



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#### **8.1.4.2 Conducted Power of Downlink LTE CA**

In this section, the following 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  $\frac{1}{4}$  dB higher than the maximum output power measured when downlink carrier aggregation inactive, therefore SAR evaluation with downlink carrier aggregation can be excluded.

Power test equipment: Anritsu Radio Communication Analyzer MT8821C

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 below, so the downlink only carrier aggregation conditions for this device can be excluded from SAR testing

**Note:**

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.



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### **8.1.5 Conducted Power of WIFI**

Note:

- a) Power must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band.
- b) 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.
- c) 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.



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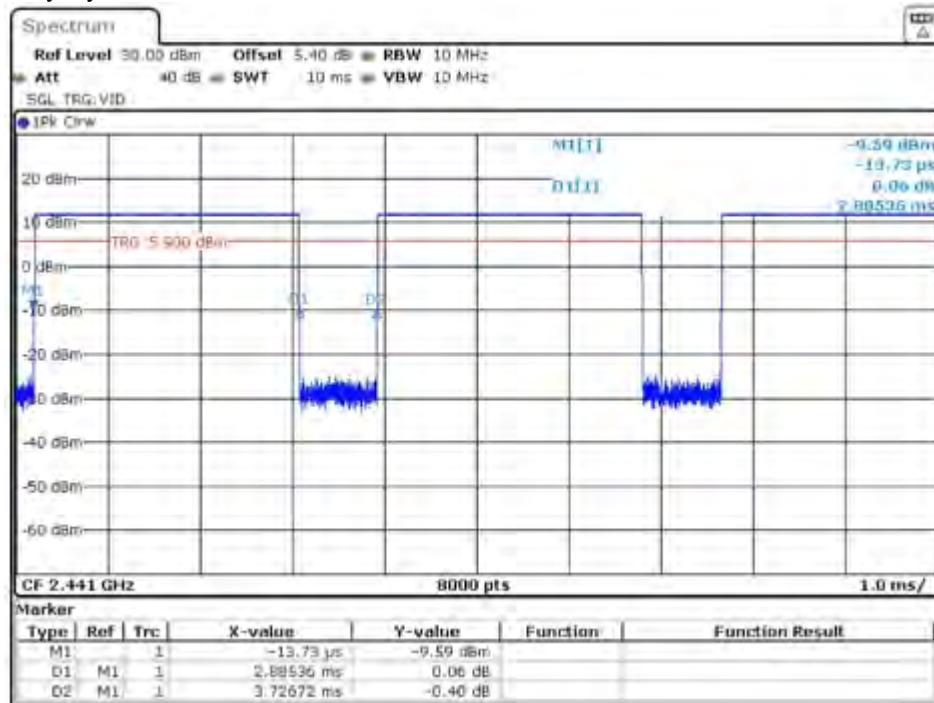
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### 8.1.6 Conducted Power of BT

BT DH5

Duty Cycle=2.88536/3.72672=77.42%



Note:

- 1)The conducted power of BT is measured with RMS detector.

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## 8.2 Stand-alone SAR test evaluation

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and Product specific 10g SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

Freq. Band	Frequency (GHz)	Position	Average Power		Test Separation (mm)	Calculate Value	Exclusion Threshold	Exclusion (Y/N)
			dBm	mW				
Wi-Fi	2.45	Head	19.50	89.13	0	27.9	3	N
		Body-worn	19.50	89.13	10	14.0	3	N
		hotspot	19.50	89.13	10	14.0	3	N
Wi-Fi	5	Head	14.50	28.18	0	12.6	3	N
		Body-worn	19.50	89.13	10	19.9	3	N
		hotspot	14.50	28.18	10	6.3	3	N
Bluetooth	2.48	Head	12.00	15.85	0	5.0	3	N
		Body-worn	12.00	15.85	10	2.5	3	Y
		hotspot	12.00	15.85	10	2.5	3	Y

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

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## 8.3 Measurement of SAR Data

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8\text{W/kg}$  for 1-g or  $2.0\text{W/kg}$  for 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$ .
  - $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between  $100\text{ MHz}$  and  $200\text{ MHz}$ .
  - $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .
- 3) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2\text{ W/kg}$ , SAR test for the other 802.11 modes are not required.
- 4) For Wi-Fi 5G, 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  $\leq 1.2\text{ W/kg}$ , SAR is not required for U-NII-1 band for that configuration.
- 5) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) bands does not support hotspot function.
- 6) The EN-DC is reduced by XdB therefore power (the power reduced can be refer to Appendix E) and SAR was estimated based on standalone results.
- 7) The Simultaneous is reduced by XdB therefore power (the power reduced can be refer to Appendix E) and SAR was estimated based on standalone results.



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### 8.3.1 SAR Result of GSM850

ANT6 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Head Test data										
Left cheek	GSM	190/836.6	1:8.3	0.378	0.01	31.66	32.50	1.213	0.459	22.1
Left tilted	GSM	190/836.6	1:8.3	0.418	-0.02	31.66	32.50	1.213	0.507	22.1
Right cheek	GSM	190/836.6	1:8.3	0.581	-0.04	31.66	32.50	1.213	<b>0.705</b>	22.1
Right tilted	GSM	190/836.6	1:8.3	0.529	-0.05	31.66	32.50	1.213	0.642	22.1
Body worn Test data(Separate 10mm)										
Front side	GSM	190/836.6	1:8.3	0.281	0.04	32.56	33.50	1.242	0.349	22.1
Back side	GSM	190/836.6	1:8.3	0.400	0.02	32.56	33.50	1.242	<b>0.497</b>	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.169	0.02	26.47	27.50	1.268	0.214	22.1
Back side	GPRS 4TS	190/836.6	1:2.075	0.220	-0.07	26.47	27.50	1.268	0.279	22.1
Left side	GPRS 4TS	190/836.6	1:2.075	0.223	0.05	26.47	27.50	1.268	0.283	22.1
Right side	GPRS 4TS	190/836.6	1:2.075	0.065	0.18	26.47	27.50	1.268	0.082	22.1
Top side	GPRS 4TS	190/836.6	1:2.075	0.363	0.18	26.47	27.50	1.268	<b>0.460</b>	22.1

Table 11: SAR of GSM850

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### 8.3.2 SAR Result of GSM1900

ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Head Test data										
Left cheek	GSM	661/1880	1:8.3	0.718	-0.08	25.89	27.00	1.291	0.927	22.3
Left cheek	GSM	512/1850.2	1:8.3	0.659	0.03	25.76	27.00	1.330	0.877	22.3
Left cheek	GSM	810/1909.8	1:8.3	0.665	0.06	25.90	27.00	1.288	0.857	22.3
Left tilted	GSM	661/1880	1:8.3	0.810	-0.05	25.89	27.00	1.291	1.046	22.3
Left tilted	GSM	512/1850.2	1:8.3	0.742	-0.05	25.76	27.00	1.330	0.987	22.3
Left tilted	GSM	810/1909.8	1:8.3	0.855	0.00	25.90	27.00	1.288	<b>1.101</b>	22.3
Right cheek	GSM	661/1880	1:8.3	0.534	0.18	25.89	27.00	1.291	0.690	22.3
Right tilted	GSM	661/1880	1:8.3	0.788	-0.19	25.89	27.00	1.291	1.017	22.3
Right tilted	GSM	512/1850.2	1:8.3	0.680	0.08	25.76	27.00	1.330	0.905	22.3
Right tilted	GSM	810/1909.8	1:8.3	0.788	0.03	25.90	27.00	1.288	1.015	22.3
Body worn Test data(Separate 10mm) (Sensor on)										
Front side	GSM	661/1880	1:8.3	0.281	0.10	27.81	29.00	1.315	0.370	22.3
Back side	GSM	661/1880	1:8.3	0.405	0.17	27.81	29.00	1.315	<b>0.533</b>	22.3
Body worn Test data(Sensor off)										
Front side 14mm	GSM	661/1880	1:8.3	0.219	-0.19	29.36	30.50	1.300	0.285	22.3
Back side 19mm	GSM	661/1880	1:8.3	0.281	0.08	29.36	30.50	1.300	0.365	22.3
Hotspot Test data(Separate 10mm) (Sensor on)										
Front side	GPRS 4TS	661/1880	1:2.075	0.448	0.15	22.21	23.00	1.199	0.537	22.3
Back side	GPRS 4TS	661/1880	1:2.075	0.553	0.02	22.21	23.00	1.199	<b>0.663</b>	22.3
Left side	GPRS 4TS	661/1880	1:2.075	0.043	0.09	22.21	23.00	1.199	0.052	22.3
Top side	GPRS 4TS	661/1880	1:2.075	0.490	-0.17	22.21	23.00	1.199	0.588	22.3
Hotspot Test data(Sensor off)										
Front side 14mm	GPRS 4TS	661/1880	1:2.075	0.219	-0.19	23.72	24.50	1.197	0.262	22.3
Back side 19mm	GPRS 4TS	661/1880	1:2.075	0.281	0.08	23.72	24.50	1.197	0.336	22.3
Left side 14mm	GPRS 4TS	661/1880	1:2.075	0.049	0.06	23.72	24.50	1.197	0.058	22.3
Right side 10mm	GPRS 4TS	661/1880	1:2.075	0.130	-0.08	23.72	24.50	1.197	0.156	22.3
Top side 19mm	GPRS 4TS	661/1880	1:2.075	0.265	0.12	23.72	24.50	1.197	0.317	22.3

Simultaneous Transmission SAR										
ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Left cheek	GSM	661/1880	1:8.3	0.718	-0.08	25.89	26.50	1.151	0.826	22.3
Left cheek	GSM	512/1850.2	1:8.3	0.659	0.03	25.76	26.50	1.186	0.781	22.3
Left cheek	GSM	810/1909.8	1:8.3	0.665	0.06	25.90	26.50	1.148	0.764	22.3
Left tilted	GSM	661/1880	1:8.3	0.810	-0.05	25.89	26.50	1.151	0.932	22.3
Left tilted	GSM	512/1850.2	1:8.3	0.742	-0.05	25.76	26.50	1.186	0.880	22.3
Left tilted	GSM	810/1909.8	1:8.3	0.855	0.00	25.90	26.50	1.148	0.982	22.3
Right cheek	GSM	661/1880	1:8.3	0.534	0.18	25.89	26.50	1.151	0.615	22.3
Right tilted	GSM	661/1880	1:8.3	0.788	-0.19	25.89	26.50	1.151	0.907	22.3
Right tilted	GSM	512/1850.2	1:8.3	0.680	0.08	25.76	26.50	1.186	0.806	22.3
Right tilted	GSM	810/1909.8	1:8.3	0.788	0.03	25.90	26.50	1.148	0.905	22.3

Table 12: SAR of GSM1900

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### 8.3.3 SAR Result of WCDMA Band II

ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Head Test data										
Left cheek	RMC	9400/1880	1:1	0.750	-0.20	17.33	18.50	1.309	0.982	22.3
Left cheek	RMC	9262/1852.4	1:1	0.822	-0.19	17.51	18.50	1.256	1.032	22.3
Left cheek	RMC	9538/1907.6	1:1	0.780	0.00	17.39	18.50	1.291	1.007	22.3
Left tilted	RMC	9400/1880	1:1	0.677	-0.12	17.33	18.50	1.309	0.886	22.3
Left tilted	RMC	9262/1852.4	1:1	0.898	0.04	17.51	18.50	1.256	1.128	22.3
Left tilted	RMC	9538/1907.6	1:1	0.929	-0.02	17.39	18.50	1.291	<b>1.200</b>	22.3
Left tilted-repeat	RMC	9538/1907.6	1:1	0.917	0.07	17.39	18.50	1.291	1.184	22.3
Right cheek	RMC	9400/1880	1:1	0.571	0.00	17.33	18.50	1.309	0.748	22.3
Right tilted	RMC	9400/1880	1:1	0.712	0.01	17.33	18.50	1.309	0.932	22.3
Right tilted	RMC	9262/1852.4	1:1	0.803	-0.14	17.51	18.50	1.256	1.009	22.3
Right tilted	RMC	9538/1907.6	1:1	0.767	0.07	17.39	18.50	1.291	0.990	22.3
Body worn Test data(Separate 10mm) (Sensor on)										
Front side	RMC	9400/1880	1:1	0.374	0.14	19.91	21.00	1.285	0.481	22.3
Back side	RMC	9400/1880	1:1	0.547	0.16	19.91	21.00	1.285	<b>0.703</b>	22.3
Body worn Test data(Sensor off)										
Front side 14mm	RMC	9400/1880	1:1	0.502	-0.13	22.86	24.00	1.300	0.653	22.3
Back side 19mm	RMC	9400/1880	1:1	0.393	0.12	22.86	24.00	1.300	0.511	22.3
Hotspot Test data(Separate 10mm) (Sensor on)										
Front side	RMC	9400/1880	1:1	0.374	0.14	19.91	21.00	1.285	0.481	22.3
Back side	RMC	9400/1880	1:1	0.547	0.16	19.91	21.00	1.285	0.703	22.3
Left side	RMC	9400/1880	1:1	0.050	0.12	19.91	21.00	1.285	0.064	22.3
Top side	RMC	9400/1880	1:1	0.656	-0.18	19.91	21.00	1.285	0.843	22.3
Top side	RMC	9262/1852.4	1:1	0.652	0.02	19.95	21.00	1.274	0.830	22.3
Top side	RMC	9538/1907.6	1:1	0.690	0.02	19.87	21.00	1.297	<b>0.895</b>	22.3
Hotspot Test data(Sensor off)										
Front side 14mm	RMC	9400/1880	1:1	0.502	-0.13	22.86	24.00	1.300	0.653	22.3
Back side 19mm	RMC	9400/1880	1:1	0.393	0.12	22.86	24.00	1.300	0.511	22.3
Left side 14mm	RMC	9400/1880	1:1	0.077	0.10	22.86	24.00	1.300	0.100	22.3
Right side 10mm	RMC	9400/1880	1:1	0.160	0.10	22.86	24.00	1.300	0.208	22.3
Top side 19mm	RMC	9400/1880	1:1	0.475	0.03	22.86	24.00	1.300	0.618	22.3

### Simultaneous Transmission SAR

ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Left cheek	RMC	9400/1880	1:1	0.750	-0.20	17.33	17.50	1.040	0.780	22.3
Left cheek	RMC	9262/1852.4	1:1	0.822	-0.19	17.51	17.50	0.998	0.820	22.3
Left cheek	RMC	9538/1907.6	1:1	0.780	0.00	17.39	17.50	1.026	0.800	22.3
Left tilted	RMC	9400/1880	1:1	0.677	-0.12	17.33	17.50	1.040	0.704	22.3
Left tilted	RMC	9262/1852.4	1:1	0.898	0.04	17.51	17.50	0.998	0.896	22.3
Left tilted	RMC	9538/1907.6	1:1	0.929	-0.02	17.39	17.50	1.026	0.953	22.3
Right cheek	RMC	9400/1880	1:1	0.571	0.00	17.33	17.50	1.040	0.594	22.3
Right tilted	RMC	9400/1880	1:1	0.712	0.01	17.33	17.50	1.040	0.740	22.3
Right tilted	RMC	9262/1852.4	1:1	0.803	-0.14	17.51	17.50	0.998	0.801	22.3
Right tilted	RMC	9538/1907.6	1:1	0.767	0.07	17.39	17.50	1.026	0.787	22.3

Table 13: SAR of WCDMA Band II

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Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1 <sup>st</sup> Repeated	Ratio	2 <sup>nd</sup> Repeated	3 <sup>rd</sup> Repeated
			SAR (1g)		SAR (1g)	SAR (1g)
Left tilted	9538/1907.6	0.929	0.917	1.013	N/A	N/A
Note: 1) When the original highest measured SAR is $\geq 0.80$ W/kg, the measurement was repeated once.						
2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was $> 1.20$ or when the original or repeated measurement was $\geq 1.45$ W/kg ( $\sim 10\%$ from the 1-g SAR limit).						
3) A third repeated measurement was preformed only if the original, first or second repeated measurement was $\geq 1.5$ W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is $> 1.20$ .						
4) Repeated measurements are not required when the original highest measured SAR is $< 0.80$ W/kg						



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## 8.3.4 SAR Result of WCDMA Band IV

ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Head Test data										
Left cheek	RMC	1412/1732.4	1:1	1.030	0.04	17.99	19.00	1.262	<b>1.300</b>	22.2
Left cheek-repeat	RMC	1412/1732.4	1:1	0.980	0.05	17.99	19.00	1.262	1.237	22.2
Left cheek	RMC	1312/1712.4	1:1	0.865	-0.03	17.85	19.00	1.303	1.127	22.2
Left cheek	RMC	1513/1752.6	1:1	0.878	-0.04	17.91	19.00	1.285	1.128	22.2
Left tilted	RMC	1412/1732.4	1:1	1.020	0.50	17.99	19.00	1.262	1.287	22.2
Left tilted	RMC	1312/1712.4	1:1	0.727	-0.05	17.85	19.00	1.303	0.947	22.2
Left tilted	RMC	1513/1752.6	1:1	0.843	-0.14	17.91	19.00	1.285	1.083	22.2
Right cheek	RMC	1412/1732.4	1:1	0.768	-0.01	17.99	19.00	1.262	0.969	22.2
Right cheek	RMC	1312/1712.4	1:1	0.703	-0.08	17.85	19.00	1.303	0.916	22.2
Right cheek	RMC	1513/1752.6	1:1	0.758	-0.06	17.91	19.00	1.285	0.974	22.2
Right tilted	RMC	1412/1732.4	1:1	0.927	0.03	17.99	19.00	1.262	1.170	22.2
Right tilted	RMC	1312/1712.4	1:1	0.876	0.00	17.85	19.00	1.303	1.142	22.2
Right tilted	RMC	1513/1752.6	1:1	0.961	-0.20	17.91	19.00	1.285	1.235	22.2
Body worn Test data(Separate 10mm) (Sensor on)										
Front side	RMC	1412/1732.4	1:1	0.446	0.16	20.93	22.00	1.279	0.571	22.2
Back side	RMC	1412/1732.4	1:1	0.524	0.19	20.93	22.00	1.279	<b>0.670</b>	22.2
Body worn Test data(Sensor off)										
Front side 14mm	RMC	1412/1732.4	1:1	0.452	0.10	22.92	24.00	1.282	0.580	22.2
Back side 19mm	RMC	1412/1732.4	1:1	0.482	0.17	22.92	24.00	1.282	0.618	22.2
Hotspot Test data(Separate 10mm) (Sensor on)										
Front side	RMC	1412/1732.4	1:1	0.446	0.16	20.93	22.00	1.279	0.571	22.2
Back side	RMC	1412/1732.4	1:1	0.524	0.19	20.93	22.00	1.279	0.670	22.2
Left side	RMC	1412/1732.4	1:1	0.073	0.13	20.93	22.00	1.279	0.093	22.2
Top side	RMC	1412/1732.4	1:1	0.692	0.06	20.93	22.00	1.279	<b>0.885</b>	22.2
Top side	RMC	1312/1712.4	1:1	0.588	0.04	20.88	22.00	1.294	0.761	22.2
Top side	RMC	1513/1752.6	1:1	0.683	0.06	20.90	22.00	1.288	0.880	22.2
Hotspot Test data(Sensor off)										
Front side 14mm	RMC	1412/1732.4	1:1	0.452	0.10	22.92	24.00	1.282	0.580	22.2
Back side 19mm	RMC	1412/1732.4	1:1	0.482	0.17	22.92	24.00	1.282	0.618	22.2
Left side 14mm	RMC	1412/1732.4	1:1	0.226	0.10	22.92	24.00	1.282	0.290	22.2
Right side 10mm	RMC	1412/1732.4	1:1	0.131	0.12	22.92	24.00	1.282	0.168	22.2
Top side 19mm	RMC	1412/1732.4	1:1	0.331	0.08	22.92	24.00	1.282	0.424	22.2

Simultaneous Transmission SAR										
ANT8 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Left cheek	RMC	1412/1732.4	1:1	1.030	0.04	17.99	17.50	0.893	0.920	22.2
Left cheek	RMC	1312/1712.4	1:1	0.865	-0.03	17.85	17.50	0.923	0.798	22.2
Left cheek	RMC	1513/1752.6	1:1	0.878	-0.04	17.91	17.50	0.910	0.799	22.2
Left tilted	RMC	1412/1732.4	1:1	1.020	0.50	17.99	17.50	0.893	0.911	22.2
Left tilted	RMC	1312/1712.4	1:1	0.727	-0.05	17.85	17.50	0.923	0.671	22.2
Left tilted	RMC	1513/1752.6	1:1	0.843	-0.14	17.91	17.50	0.910	0.767	22.2
Right cheek	RMC	1412/1732.4	1:1	0.768	-0.01	17.99	17.50	0.893	0.686	22.2
Right cheek	RMC	1312/1712.4	1:1	0.703	-0.08	17.85	17.50	0.923	0.649	22.2
Right cheek	RMC	1513/1752.6	1:1	0.758	-0.06	17.91	17.50	0.910	0.690	22.2
Right tilted	RMC	1412/1732.4	1:1	0.927	0.03	17.99	17.50	0.893	0.828	22.2

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Right tilted	RMC	1312/1712.4	1:1	0.876	0.00	17.85	17.50	0.923	0.808	22.2
Right tilted	RMC	1513/1752.6	1:1	0.961	-0.20	17.91	17.50	0.910	0.874	22.2

Table 14: SAR of WCDMA Band IV

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1 <sup>st</sup> Repeated	Ratio	2 <sup>nd</sup> Repeated	3 <sup>rd</sup> Repeated
			SAR (1g)		SAR (1g)	SAR (1g)
Left cheek	1412/1732.4	1.030	0.980	1.051	N/A	N/A

Note: 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.  
 2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).  
 3) A third repeated measurement was preformed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .  
 4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg

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### 8.3.5 SAR Result of WCDMA Band V

ANT6 Test Record										
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted Power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp
Head Test data										
Left cheek	RMC	4182/836.4	1:1	0.410	-0.01	22.15	23.00	1.216	0.499	22.1
Left tilted	RMC	4182/836.4	1:1	0.407	0.04	22.15	23.00	1.216	0.495	22.1
Right cheek	RMC	4182/836.4	1:1	0.609	-0.13	22.15	23.00	1.216	<b>0.741</b>	22.1
Right tilted	RMC	4182/836.4	1:1	0.605	0.09	22.15	23.00	1.216	0.736	22.1
Body Worn Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.355	0.02	23.18	24.00	1.208	0.429	22.1
Back side	RMC	4182/836.4	1:1	0.439	0.04	23.18	24.00	1.208	<b>0.530</b>	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.355	0.02	23.18	24.00	1.208	0.429	22.1
Back side	RMC	4182/836.4	1:1	0.439	0.04	23.18	24.00	1.208	<b>0.530</b>	22.1
Left side	RMC	4182/836.4	1:1	0.172	0.03	23.18	24.00	1.208	0.208	22.1
Right side	RMC	4182/836.4	1:1	0.094	0.05	23.18	24.00	1.208	0.113	22.1
Top side	RMC	4182/836.4	1:1	0.382	-0.04	23.18	24.00	1.208	0.461	22.1

Table 15: SAR of WCDMA Band V



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### 8.3.6 SAR Result of LTE Band 2

ANT8 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	18900/1880	1:1	0.794	-0.14	18.11	19.00	1.227	0.975	22.3
Left tilted	20	QPSK 1RB_50	18900/1880	1:1	0.970	0.00	18.11	19.00	1.227	1.191	22.3
Right cheek	20	QPSK 1RB_50	18900/1880	1:1	0.624	0.20	18.11	19.00	1.227	0.766	22.3
Right tilted	20	QPSK 1RB_50	18900/1880	1:1	0.839	-0.02	18.11	19.00	1.227	1.030	22.3
Left cheek	20	QPSK 1RB_50	18700/1860	1:1	0.766	-0.18	17.54	19.00	1.400	1.072	22.3
Left cheek	20	QPSK 1RB_50	19100/1900	1:1	0.642	-0.01	18.06	19.00	1.242	0.797	22.3
Left tilted	20	QPSK 1RB_50	18700/1860	1:1	0.893	-0.11	17.54	19.00	1.400	1.250	22.3
Left tilted	20	QPSK 1RB_50	19100/1900	1:1	0.720	-0.11	18.06	19.00	1.242	0.894	22.3
Right tilted	20	QPSK 1RB_50	18700/1860	1:1	0.862	-0.03	17.54	19.00	1.400	1.206	22.3
Right tilted	20	QPSK 1RB_50	19100/1900	1:1	0.750	-0.04	18.06	19.00	1.242	0.931	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	18900/1880	1:1	0.781	-0.14	18.05	19.00	1.245	0.972	22.3
Left tilted	20	QPSK 50RB_0	18900/1880	1:1	0.921	-0.16	18.05	19.00	1.245	1.146	22.3
Right cheek	20	QPSK 50RB_0	18900/1880	1:1	0.634	0.15	18.05	19.00	1.245	0.789	22.3
Right tilted	20	QPSK 50RB_0	18900/1880	1:1	0.886	0.01	18.05	19.00	1.245	1.103	22.3
Left cheek	20	QPSK 50RB_0	18700/1860	1:1	0.794	-0.14	17.55	19.00	1.396	1.109	22.3
Left cheek	20	QPSK 50RB_0	19100/1900	1:1	0.664	-0.01	17.83	19.00	1.309	0.869	22.3
Left tilted	20	QPSK 50RB_0	18700/1860	1:1	0.936	-0.08	17.55	19.00	1.396	1.307	22.3
Left tilted	20	QPSK 50RB_0	19100/1900	1:1	0.946	-0.1	17.83	19.00	1.309	1.238	22.3
Right tilted	20	QPSK 50RB_0	18700/1860	1:1	0.899	-0.01	17.55	19.00	1.396	1.255	22.3
Right tilted	20	QPSK 50RB_0	19100/1900	1:1	0.797	0.01	17.83	19.00	1.309	1.043	22.3
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	18900/1880	1:1	0.784	-0.20	17.78	19.00	1.324	1.038	22.3
Left tilted	20	QPSK 100RB_0	18900/1880	1:1	0.927	-0.11	17.78	19.00	1.324	1.228	22.3
Right tilted	20	QPSK 100RB_0	18900/1880	1:1	0.891	-0.03	17.78	19.00	1.324	1.180	22.3
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	21.00	1.256	0.481	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	21.00	1.256	0.548	22.3
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	21.00	1.300	0.443	22.3
Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	21.00	1.300	0.571	22.3
Body Worn Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_0	18900/1880	1:1	0.440	-0.08	23.09	24.00	1.233	0.543	22.3
Back side 19mm	20	QPSK 1RB_0	18900/1880	1:1	0.385	0.03	23.09	24.00	1.233	0.475	22.3
Body Worn Test data(50%RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	18900/1880	1:1	0.375	0.03	22.29	23.00	1.178	0.442	22.3
Back side 19mm	20	QPSK 50RB_0	18900/1880	1:1	0.408	0.08	22.29	23.00	1.178	0.480	22.3
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	21.00	1.256	0.481	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	21.00	1.256	0.548	22.3
Left side	20	QPSK 1RB_0	18900/1880	1:1	0.045	0.04	20.01	21.00	1.256	0.057	22.3
Top side	20	QPSK 1RB_0	18900/1880	1:1	0.648	0.20	20.01	21.00	1.256	0.814	22.3
Top side	20	QPSK 1RB_0	18700/1860	1:1	0.608	0.05	19.68	21.00	1.355	0.824	22.3
Top side	20	QPSK 1RB_0	19100/1900	1:1	0.625	0.14	20.00	21.00	1.259	0.787	22.3
Hotspot Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	21.00	1.300	0.443	22.3

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Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	21.00	1.300	0.571	22.3
Left side	20	QPSK 50RB_0	18700/1860	1:1	0.0496	0.19	19.86	21.00	1.300	0.064	22.3
Top side	20	QPSK 50RB_0	18700/1860	1:1	0.793	-0.06	19.86	21.00	1.300	<b>1.031</b>	22.3
Top side	20	QPSK 50RB_0	18900/1880	1:1	0.647	0.19	19.74	21.00	1.337	0.865	22.3
Top side	20	QPSK 50RB_0	19100/1900	1:1	0.665	0.16	19.82	21.00	1.312	0.873	22.3
Hotspot Test data (Separate 10mm 100%RB) (Sensor on)											
Top side	20	QPSK 100RB_0	18900/1880	1:1	0.639	0.20	19.79	21.00	1.321	0.844	22.3
Hotspot Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_0	18900/1880	1:1	0.440	-0.08	23.09	24.00	1.233	0.543	22.3
Back side 19mm	20	QPSK 1RB_0	18900/1880	1:1	0.385	0.03	23.09	24.00	1.233	0.475	22.3
Left side 14mm	20	QPSK 1RB_0	18900/1880	1:1	0.067	0.14	23.09	24.00	1.233	0.083	22.3
Right side 10mm	20	QPSK 1RB_0	18900/1880	1:1	0.187	-0.19	23.09	24.00	1.233	0.231	22.3
Top side 19mm	20	QPSK 1RB_0	18900/1880	1:1	0.433	0.18	23.09	24.00	1.233	0.534	22.3
Hotspot Test data(50%RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	18900/1880	1:1	0.375	0.03	22.29	23.00	1.178	0.442	22.3
Back side 19mm	20	QPSK 50RB_0	18900/1880	1:1	0.408	0.08	22.29	23.00	1.178	0.480	22.3
Left side 14mm	20	QPSK 50RB_0	18900/1880	1:1	0.055	0.11	22.29	23.00	1.178	0.065	22.3
Right side 10mm	20	QPSK 50RB_0	18900/1880	1:1	0.155	0.12	22.29	23.00	1.178	0.183	22.3
Top side 19mm	20	QPSK 50RB_0	18900/1880	1:1	0.363	0.17	22.29	23.00	1.178	0.427	22.3

ANT1(EN_DC) Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_0	19100/1900	1:1	0.037	-0.20	22.70	24.00	1.349	<b>0.050</b>	22.3
Left tilted	20	QPSK 1RB_0	19100/1900	1:1	0.019	-0.03	22.70	24.00	1.349	0.026	22.3
Right cheek	20	QPSK 1RB_0	19100/1900	1:1	0.020	-0.16	22.70	24.00	1.349	0.027	22.3
Right tilted	20	QPSK 1RB_0	19100/1900	1:1	0.018	-0.17	22.70	24.00	1.349	0.024	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	18700/1860	1:1	0.023	0.15	21.79	23.00	1.321	0.030	22.3
Left tilted	20	QPSK 50RB_25	18700/1860	1:1	0.014	0.05	21.79	23.00	1.321	0.018	22.3
Right cheek	20	QPSK 50RB_25	18700/1860	1:1	0.017	-0.19	21.79	23.00	1.321	0.022	22.3
Right tilted	20	QPSK 50RB_25	18700/1860	1:1	0.015	0.16	21.79	23.00	1.321	0.020	22.3
Body Worn Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	19100/1900	1:1	0.140	0.07	22.70	24.00	1.349	0.189	22.3
Back side	20	QPSK 1RB_0	19100/1900	1:1	0.200	-0.08	22.70	24.00	1.349	0.270	22.3
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	18700/1860	1:1	0.161	-0.1	21.79	23.00	1.321	0.213	22.3
Back side	20	QPSK 50RB_25	18700/1860	1:1	0.234	-0.01	21.79	23.00	1.321	<b>0.309</b>	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	19100/1900	1:1	0.140	0.07	22.70	24.00	1.349	0.189	22.3
Back side	20	QPSK 1RB_0	19100/1900	1:1	0.200	-0.08	22.70	24.00	1.349	0.270	22.3
Left side	20	QPSK 1RB_0	19100/1900	1:1	0.011	0.18	22.70	24.00	1.349	0.015	22.3
Right side	20	QPSK 1RB_0	19100/1900	1:1	0.013	-0.14	22.70	24.00	1.349	0.017	22.3
Bottom side	20	QPSK 1RB_0	19100/1900	1:1	0.323	0.04	22.70	24.00	1.349	0.436	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	18700/1860	1:1	0.161	-0.1	21.79	23.00	1.321	0.213	22.3
Back side	20	QPSK 50RB_25	18700/1860	1:1	0.234	-0.01	21.79	23.00	1.321	0.309	22.3
Left side	20	QPSK 50RB_25	18700/1860	1:1	0.011	0.07	21.79	23.00	1.321	0.015	22.3
Right side	20	QPSK 50RB_25	18700/1860	1:1	0.015	-0.02	21.79	23.00	1.321	0.019	22.3
Bottom side	20	QPSK 50RB_25	18700/1860	1:1	0.359	-0.19	21.79	23.00	1.321	<b>0.474</b>	22.3

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Simultaneous Transmission SAR											
ANT8 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	18900/1880	1:1	0.794	-0.14	18.11	17.50	0.869	0.690	22.3
Left tilted	20	QPSK 1RB_50	18900/1880	1:1	0.970	0.00	18.11	17.50	0.869	0.843	22.3
Right cheek	20	QPSK 1RB_50	18900/1880	1:1	0.624	0.20	18.11	17.50	0.869	0.542	22.3
Right tilted	20	QPSK 1RB_50	18900/1880	1:1	0.839	-0.02	18.11	17.50	0.869	0.729	22.3
Left cheek	20	QPSK 1RB_50	18700/1860	1:1	0.766	-0.18	17.54	17.50	0.991	0.759	22.3
Left cheek	20	QPSK 1RB_50	19100/1900	1:1	0.642	-0.01	18.06	17.50	0.879	0.564	22.3
Left tilted	20	QPSK 1RB_50	18700/1860	1:1	0.893	-0.11	17.54	17.50	0.991	0.885	22.3
Left tilted	20	QPSK 1RB_50	19100/1900	1:1	0.720	-0.11	18.06	17.50	0.879	0.633	22.3
Right tilted	20	QPSK 1RB_50	18700/1860	1:1	0.862	-0.03	17.54	17.50	0.991	0.854	22.3
Right tilted	20	QPSK 1RB_50	19100/1900	1:1	0.750	-0.04	18.06	17.50	0.879	0.659	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	18900/1880	1:1	0.781	-0.14	18.05	17.50	0.881	0.688	22.3
Left tilted	20	QPSK 50RB_0	18900/1880	1:1	0.921	-0.16	18.05	17.50	0.881	0.811	22.3
Right cheek	20	QPSK 50RB_0	18900/1880	1:1	0.634	0.15	18.05	17.50	0.881	0.559	22.3
Right tilted	20	QPSK 50RB_0	18900/1880	1:1	0.886	0.01	18.05	17.50	0.881	0.781	22.3
Left cheek	20	QPSK 50RB_0	18700/1860	1:1	0.794	-0.14	17.55	17.50	0.989	0.785	22.3
Left cheek	20	QPSK 50RB_0	19100/1900	1:1	0.664	-0.01	17.83	17.50	0.927	0.615	22.3
Left tilted	20	QPSK 50RB_0	18700/1860	1:1	0.936	-0.08	17.55	17.50	0.989	0.925	22.3
Left tilted	20	QPSK 50RB_0	19100/1900	1:1	0.946	-0.1	17.83	17.50	0.927	0.877	22.3
Right tilted	20	QPSK 50RB_0	18700/1860	1:1	0.899	-0.01	17.55	17.50	0.989	0.889	22.3
Right tilted	20	QPSK 50RB_0	19100/1900	1:1	0.797	0.01	17.83	17.50	0.927	0.739	22.3
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	18900/1880	1:1	0.784	-0.20	17.78	17.50	0.938	0.735	22.3
Left tilted	20	QPSK 100RB_0	18900/1880	1:1	0.927	-0.11	17.78	17.50	0.938	0.869	22.3
Right tilted	20	QPSK 100RB_0	18900/1880	1:1	0.891	-0.03	17.78	17.50	0.938	0.835	22.3
EN_DC Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	18900/1880	1:1	0.794	-0.14	18.11	16.00	0.615	0.488	22.3
Left tilted	20	QPSK 1RB_50	18900/1880	1:1	0.970	0.00	18.11	16.00	0.615	0.597	22.3
Right cheek	20	QPSK 1RB_50	18900/1880	1:1	0.624	0.20	18.11	16.00	0.615	0.384	22.3
Right tilted	20	QPSK 1RB_50	18900/1880	1:1	0.839	-0.02	18.11	16.00	0.615	0.516	22.3
Left cheek	20	QPSK 1RB_50	18700/1860	1:1	0.766	-0.18	17.54	16.00	0.701	0.537	22.3
Left cheek	20	QPSK 1RB_50	19100/1900	1:1	0.642	-0.01	18.06	16.00	0.622	0.400	22.3
Left tilted	20	QPSK 1RB_50	18700/1860	1:1	0.893	-0.11	17.54	16.00	0.701	0.626	22.3
Left tilted	20	QPSK 1RB_50	19100/1900	1:1	0.720	-0.11	18.06	16.00	0.622	0.448	22.3
Right tilted	20	QPSK 1RB_50	18700/1860	1:1	0.862	-0.03	17.54	16.00	0.701	0.605	22.3
Right tilted	20	QPSK 1RB_50	19100/1900	1:1	0.750	-0.04	18.06	16.00	0.622	0.467	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	18900/1880	1:1	0.781	-0.14	18.05	16.00	0.624	0.487	22.3
Left tilted	20	QPSK 50RB_0	18900/1880	1:1	0.921	-0.16	18.05	16.00	0.624	0.574	22.3
Right cheek	20	QPSK 50RB_0	18900/1880	1:1	0.634	0.15	18.05	16.00	0.624	0.395	22.3
Right tilted	20	QPSK 50RB_0	18900/1880	1:1	0.886	0.01	18.05	16.00	0.624	0.553	22.3
Left cheek	20	QPSK 50RB_0	18700/1860	1:1	0.794	-0.14	17.55	16.00	0.700	0.556	22.3
Left cheek	20	QPSK 50RB_0	19100/1900	1:1	0.664	-0.01	17.83	16.00	0.656	0.436	22.3
Left tilted	20	QPSK 50RB_0	18700/1860	1:1	0.936	-0.08	17.55	16.00	0.700	0.655	22.3
Left tilted	20	QPSK 50RB_0	19100/1900	1:1	0.946	-0.1	17.83	16.00	0.656	0.621	22.3
Right tilted	20	QPSK 50RB_0	18700/1860	1:1	0.899	-0.01	17.55	16.00	0.700	0.629	22.3
Right tilted	20	QPSK 50RB_0	19100/1900	1:1	0.797	0.01	17.83	16.00	0.656	0.523	22.3

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Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	18900/1880	1:1	0.784	-0.20	17.78	16.00	0.664	0.520	22.3
Left tilted	20	QPSK 100RB_0	18900/1880	1:1	0.927	-0.11	17.78	16.00	0.664	0.615	22.3
Right tilted	20	QPSK 100RB_0	18900/1880	1:1	0.891	-0.03	17.78	16.00	0.664	0.591	22.3
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	17.00	0.500	0.192	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	17.00	0.500	0.218	22.3
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	17.00	0.518	0.177	22.3
Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	17.00	0.518	0.227	22.3
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	17.00	0.500	0.192	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	17.00	0.500	0.218	22.3
Left side	20	QPSK 1RB_0	18900/1880	1:1	0.045	0.04	20.01	17.00	0.500	0.023	22.3
Top side	20	QPSK 1RB_0	18900/1880	1:1	0.648	0.20	20.01	17.00	0.500	0.324	22.3
Top side	20	QPSK 1RB_0	18700/1860	1:1	0.608	0.05	19.68	17.00	0.540	0.328	22.3
Top side	20	QPSK 1RB_0	19100/1900	1:1	0.625	0.14	20.00	17.00	0.501	0.313	22.3
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	17.00	0.518	0.177	22.3
Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	17.00	0.518	0.227	22.3
Left side	20	QPSK 50RB_0	18700/1860	1:1	0.0496	0.19	19.86	17.00	0.518	0.026	22.3
Top side	20	QPSK 50RB_0	18700/1860	1:1	0.793	-0.06	19.86	17.00	0.518	0.410	22.3
Top side	20	QPSK 50RB_0	18900/1880	1:1	0.647	0.19	19.74	17.00	0.532	0.344	22.3
Top side	20	QPSK 50RB_0	19100/1900	1:1	0.665	0.16	19.82	17.00	0.522	0.347	22.3
Hotspot Test data (Separate 10mm 100%RB) (Sensor on)											
Top side	20	QPSK 100RB_0	18900/1880	1:1	0.639	0.20	19.79	17.00	0.526	0.336	22.3
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	18900/1880	1:1	0.794	-0.14	18.11	15.00	0.489	0.388	22.3
Left tilted	20	QPSK 1RB_50	18900/1880	1:1	0.970	0.00	18.11	15.00	0.489	0.474	22.3
Right cheek	20	QPSK 1RB_50	18900/1880	1:1	0.624	0.20	18.11	15.00	0.489	0.305	22.3
Right tilted	20	QPSK 1RB_50	18900/1880	1:1	0.839	-0.02	18.11	15.00	0.489	0.410	22.3
Left cheek	20	QPSK 1RB_50	18700/1860	1:1	0.766	-0.18	17.54	15.00	0.557	0.427	22.3
Left cheek	20	QPSK 1RB_50	19100/1900	1:1	0.642	-0.01	18.06	15.00	0.494	0.317	22.3
Left tilted	20	QPSK 1RB_50	18700/1860	1:1	0.893	-0.11	17.54	15.00	0.557	0.498	22.3
Left tilted	20	QPSK 1RB_50	19100/1900	1:1	0.720	-0.11	18.06	15.00	0.494	0.356	22.3
Right tilted	20	QPSK 1RB_50	18700/1860	1:1	0.862	-0.03	17.54	15.00	0.557	0.480	22.3
Right tilted	20	QPSK 1RB_50	19100/1900	1:1	0.750	-0.04	18.06	15.00	0.494	0.371	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	18900/1880	1:1	0.781	-0.14	18.05	15.00	0.495	0.387	22.3
Left tilted	20	QPSK 50RB_0	18900/1880	1:1	0.921	-0.16	18.05	15.00	0.495	0.456	22.3
Right cheek	20	QPSK 50RB_0	18900/1880	1:1	0.634	0.15	18.05	15.00	0.495	0.314	22.3
Right tilted	20	QPSK 50RB_0	18900/1880	1:1	0.886	0.01	18.05	15.00	0.495	0.439	22.3
Left cheek	20	QPSK 50RB_0	18700/1860	1:1	0.794	-0.14	17.55	15.00	0.556	0.441	22.3
Left cheek	20	QPSK 50RB_0	19100/1900	1:1	0.664	-0.01	17.83	15.00	0.521	0.346	22.3
Left tilted	20	QPSK 50RB_0	18700/1860	1:1	0.936	-0.08	17.55	15.00	0.556	0.520	22.3
Left tilted	20	QPSK 50RB_0	19100/1900	1:1	0.946	-0.1	17.83	15.00	0.521	0.493	22.3
Right tilted	20	QPSK 50RB_0	18700/1860	1:1	0.899	-0.01	17.55	15.00	0.556	0.500	22.3
Right tilted	20	QPSK 50RB_0	19100/1900	1:1	0.797	0.01	17.83	15.00	0.521	0.415	22.3
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	18900/1880	1:1	0.784	-0.20	17.78	15.00	0.527	0.413	22.3
Left tilted	20	QPSK 100RB_0	18900/1880	1:1	0.927	-0.11	17.78	15.00	0.527	0.489	22.3

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Right tilted	20	QPSK 100RB_0	18900/1880	1:1	0.891	-0.03	17.78	15.00	0.527	0.470	22.3
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	18.00	0.630	0.241	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	18.00	0.630	0.274	22.3
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	18.00	0.652	0.222	22.3
Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	18.00	0.652	0.286	22.3
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.383	0.14	20.01	18.00	0.630	0.241	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.436	0.07	20.01	18.00	0.630	0.274	22.3
Left side	20	QPSK 1RB_0	18900/1880	1:1	0.045	0.04	20.01	18.00	0.630	0.028	22.3
Top side	20	QPSK 1RB_0	18900/1880	1:1	0.648	0.20	20.01	18.00	0.630	0.408	22.3
Top side	20	QPSK 1RB_0	18700/1860	1:1	0.608	0.05	19.68	18.00	0.679	0.413	22.3
Top side	20	QPSK 1RB_0	19100/1900	1:1	0.625	0.14	20.00	18.00	0.631	0.394	22.3
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	18700/1860	1:1	0.341	-0.04	19.86	18.00	0.652	0.222	22.3
Back side	20	QPSK 50RB_0	18700/1860	1:1	0.439	0.09	19.86	18.00	0.652	0.286	22.3
Left side	20	QPSK 50RB_0	18700/1860	1:1	0.050	0.19	19.86	18.00	0.652	0.032	22.3
Top side	20	QPSK 50RB_0	18700/1860	1:1	0.793	-0.06	19.86	18.00	0.652	0.517	22.3
Top side	20	QPSK 50RB_0	18900/1880	1:1	0.647	0.19	19.74	18.00	0.670	0.433	22.3
Top side	20	QPSK 50RB_0	19100/1900	1:1	0.665	0.16	19.82	18.00	0.658	0.437	22.3
Hotspot Test data (Separate 10mm 100%RB) (Sensor on)											
Top side	20	QPSK 100RB_0	18900/1880	1:1	0.639	0.20	19.79	18.00	0.662	0.423	22.3

Table 16: SAR of LTE Band 2



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### 8.3.7 SAR Result of LTE Band 4

ANT8 Test Record												
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data(1RB)												
Left cheek	20	QPSK 1RB_50	20175/1732.5	1:1	0.863	0.09	18.44	19.50	1.276	1.102	22.2	
Left tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.902	-0.02	18.44	19.50	1.276	1.151	22.2	
Right cheek	20	QPSK 1RB_50	20175/1732.5	1:1	1.050	-0.07	18.44	19.50	1.276	1.340	22.2	
Right tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.995	-0.12	18.44	19.50	1.276	1.270	22.2	
Left cheek	20	QPSK 1RB_50	20050/1720	1:1	0.893	-0.11	18.40	19.50	1.288	1.150	22.2	
Left cheek	20	QPSK 1RB_50	20300/1745	1:1	0.725	-0.01	18.35	19.50	1.303	0.945	22.2	
Left tilted	20	QPSK 1RB_50	20050/1720	1:1	1.030	0.02	18.40	19.50	1.288	1.327	22.2	
Left tilted	20	QPSK 1RB_50	20300/1745	1:1	0.903	-0.02	18.35	19.50	1.303	1.177	22.2	
Right cheek	20	QPSK 1RB_50	20050/1720	1:1	1.060	0.02	18.40	19.50	1.288	1.366	22.2	
Right cheek	20	QPSK 1RB_50	20300/1745	1:1	0.994	-0.11	18.35	19.50	1.303	1.295	22.2	
Right tilted	20	QPSK 1RB_50	20050/1720	1:1	1.020	-0.03	18.40	19.50	1.288	1.314	22.2	
Right tilted	20	QPSK 1RB_50	20300/1745	1:1	0.930	0.00	18.35	19.50	1.303	1.212	22.2	
Head Test data(50%RB)												
Left cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.894	-0.09	18.39	19.50	1.291	1.154	22.2	
Left tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.971	0.04	18.39	19.50	1.291	1.254	22.2	
Right cheek	20	QPSK 50RB_0	20175/1732.5	1:1	1.112	-0.05	18.39	19.50	1.291	<b>1.436</b>	22.2	
Right cheek-repeat	20	QPSK 50RB_0	20175/1732.5	1:1	1.076	0.03	18.39	19.50	1.291	1.389	22.2	
Right tilted	20	QPSK 50RB_0	20175/1732.5	1:1	1.000	-0.04	18.39	19.50	1.291	1.291	22.2	
Left cheek	20	QPSK 50RB_0	20050/1720	1:1	0.912	0.02	18.34	19.50	1.306	1.191	22.2	
Left cheek	20	QPSK 50RB_0	20300/1745	1:1	0.875	-0.01	18.35	19.50	1.303	1.140	22.2	
Left tilted	20	QPSK 50RB_0	20050/1720	1:1	1.030	-0.07	18.34	19.50	1.306	1.345	22.2	
Left tilted	20	QPSK 50RB_0	20300/1745	1:1	0.916	0.1	18.35	19.50	1.303	1.194	22.2	
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.980	-0.05	18.34	19.50	1.306	1.280	22.2	
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	1.010	-0.09	18.35	19.50	1.303	1.316	22.2	
Right tilted	20	QPSK 50RB_0	20050/1720	1:1	1.040	-0.06	18.34	19.50	1.306	1.358	22.2	
Right tilted	20	QPSK 50RB_0	20300/1745	1:1	0.928	-0.05	18.35	19.50	1.303	1.209	22.2	
Head Test data(100%RB)												
Left cheek	20	QPSK 100RB_0	20175/1732.5	1:1	0.943	0.06	18.30	19.50	1.318	1.243	22.2	
Left tilted	20	QPSK 100RB_0	20175/1732.5	1:1	0.942	0.16	18.30	19.50	1.318	1.242	22.2	
Right cheek	20	QPSK 100RB_0	20175/1732.5	1:1	1.030	-0.11	18.30	19.50	1.318	1.358	22.2	
Right tilted	20	QPSK 100RB_0	20175/1732.5	1:1	1.010	-0.07	18.30	19.50	1.318	1.331	22.2	
Body Worn Test data(Separate 10mm 1RB) (Sensor on)												
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	22.00	1.262	0.809	22.2	
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	22.00	1.262	0.916	22.2	
Front side	20	QPSK 1RB_99	20175/1732.5	1:1	0.620	0.12	20.89	22.00	1.291	0.801	22.2	
Front side	20	QPSK 1RB_99	20050/1720	1:1	0.593	0.12	20.96	22.00	1.271	0.753	22.2	
Back side	20	QPSK 1RB_99	20175/1732.5	1:1	0.754	-0.01	20.89	22.00	1.291	0.974	22.2	
Back side	20	QPSK 1RB_99	20050/1720	1:1	0.683	0.04	20.96	22.00	1.271	0.868	22.2	
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)												
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	22.00	1.334	0.783	22.2	
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	22.00	1.334	0.897	22.2	
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.724	0.03	20.41	22.00	1.442	<b>1.044</b>	22.2	
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.670	0.01	20.65	22.00	1.365	0.914	22.2	
Body Worn Test data(Separate 10mm 100%RB) (Sensor on)												
Front side	20	QPSK 100RB_0	20050/1720	1:1	0.427	0.15	20.65	22.00	1.365	0.583	22.2	
Back side	20	QPSK 100RB_0	20050/1720	1:1	0.631	-0.09	20.65	22.00	1.365	0.861	22.2	

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Body Worn Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_99	20300/1745	1:1	0.442	0.16	23.01	24.00	1.256	0.555	22.2
Back side 19mm	20	QPSK 1RB_99	20300/1745	1:1	0.339	0.02	23.01	24.00	1.256	0.426	22.2
Body Worn Test data(50%RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	20300/1745	1:1	0.341	0.15	22.00	23.00	1.259	0.429	22.2
Back side 19mm	20	QPSK 50RB_0	20300/1745	1:1	0.257	-0.01	22.00	23.00	1.259	0.324	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	22.00	1.262	0.809	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	22.00	1.262	0.916	22.2
Left side	20	QPSK 1RB_99	20300/1745	1:1	0.075	-0.16	20.99	22.00	1.262	0.094	22.2
Top side	20	QPSK 1RB_99	20300/1745	1:1	0.946	0.05	20.99	22.00	1.262	1.194	22.2
Front side	20	QPSK 1RB_99	20175/1732.5	1:1	0.620	0.12	20.89	22.00	1.291	0.801	22.2
Front side	20	QPSK 1RB_99	20050/1720	1:1	0.593	0.12	20.96	22.00	1.271	0.753	22.2
Back side	20	QPSK 1RB_99	20175/1732.5	1:1	0.754	-0.01	20.89	22.00	1.291	0.974	22.2
Back side	20	QPSK 1RB_99	20050/1720	1:1	0.683	0.04	20.96	22.00	1.271	0.868	22.2
Top side	20	QPSK 1RB_99	20175/1732.5	1:1	0.940	0.10	20.89	22.00	1.291	1.214	22.2
Top side	20	QPSK 1RB_99	20050/1720	1:1	0.921	0.08	20.96	22.00	1.271	1.170	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	22.00	1.334	0.783	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	22.00	1.334	0.897	22.2
Left side	20	QPSK 50RB_0	20050/1720	1:1	0.119	-0.02	20.75	22.00	1.334	0.159	22.2
Top side	20	QPSK 50RB_0	20050/1720	1:1	1.060	0.14	20.75	22.00	1.334	1.414	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.724	0.03	20.41	22.00	1.442	1.044	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.670	0.01	20.65	22.00	1.365	0.914	22.2
Top side	20	QPSK 50RB_0	20300/1745	1:1	0.878	0.18	20.41	22.00	1.442	1.266	22.2
Top side	20	QPSK 50RB_0	20175/1732.5	1:1	0.893	-0.02	20.65	22.00	1.365	1.219	22.2
Hotspot Test data(Separate 10mm 100%RB) (Sensor on)											
Front side	20	QPSK 100RB_0	20050/1720	1:1	0.427	0.15	20.65	22.00	1.365	0.583	22.2
Back side	20	QPSK 100RB_0	20050/1720	1:1	0.631	-0.09	20.65	22.00	1.365	0.861	22.2
Top side	20	QPSK 100RB_0	20050/1720	1:1	0.924	-0.06	20.65	22.00	1.365	1.261	22.2
Hotspot Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_99	20300/1745	1:1	0.442	0.16	23.01	24.00	1.256	0.555	22.2
Back side 19mm	20	QPSK 1RB_99	20300/1745	1:1	0.339	0.02	23.01	24.00	1.256	0.426	22.2
Left side 14mm	20	QPSK 1RB_99	20300/1745	1:1	0.141	0.20	23.01	24.00	1.256	0.177	22.2
Right side 10mm	20	QPSK 1RB_99	20300/1745	1:1	0.204	0.05	23.01	24.00	1.256	0.256	22.2
Top side 19mm	20	QPSK 1RB_99	20300/1745	1:1	0.371	0.07	23.01	24.00	1.256	0.466	22.2
Hotspot Test data(50%RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	20300/1745	1:1	0.341	0.15	22.00	23.00	1.259	0.429	22.2
Back side 19mm	20	QPSK 50RB_0	20300/1745	1:1	0.257	-0.01	22.00	23.00	1.259	0.324	22.2
Left side 14mm	20	QPSK 50RB_0	20300/1745	1:1	0.117	0.17	22.00	23.00	1.259	0.147	22.2
Right side 10mm	20	QPSK 50RB_0	20300/1745	1:1	0.153	0.04	22.00	23.00	1.259	0.193	22.2
Top side 19mm	20	QPSK 50RB_0	20300/1745	1:1	0.301	0.09	22.00	23.00	1.259	0.379	22.2

Simultaneous Transmission SAR											
ANT8 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	20175/1732.5	1:1	0.863	0.09	18.44	18.00	0.904	0.780	22.2
Left tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.902	-0.02	18.44	18.00	0.904	0.815	22.2
Right cheek	20	QPSK 1RB_50	20175/1732.5	1:1	1.050	-0.07	18.44	18.00	0.904	0.949	22.2
Right tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.995	-0.12	18.44	18.00	0.904	0.899	22.2

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Left cheek	20	QPSK 1RB_50	20050/1720	1:1	0.893	-0.11	18.40	18.00	0.912	0.814	22.2
Left cheek	20	QPSK 1RB_50	20300/1745	1:1	0.725	-0.01	18.35	18.00	0.923	0.669	22.2
Left tilted	20	QPSK 1RB_50	20050/1720	1:1	1.030	0.02	18.40	18.00	0.912	0.939	22.2
Left tilted	20	QPSK 1RB_50	20300/1745	1:1	0.903	-0.02	18.35	18.00	0.923	0.833	22.2
Right cheek	20	QPSK 1RB_50	20050/1720	1:1	1.060	0.02	18.40	18.00	0.912	0.967	22.2
Right cheek	20	QPSK 1RB_50	20300/1745	1:1	0.994	-0.11	18.35	18.00	0.923	0.917	22.2
Right tilted	20	QPSK 1RB_50	20050/1720	1:1	1.020	-0.03	18.40	18.00	0.912	0.930	22.2
Right tilted	20	QPSK 1RB_50	20300/1745	1:1	0.930	0.00	18.35	18.00	0.923	0.858	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.894	-0.09	18.39	18.00	0.914	0.817	22.2
Left tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.971	0.04	18.39	18.00	0.914	0.888	22.2
Right cheek	20	QPSK 50RB_0	20175/1732.5	1:1	1.112	-0.05	18.39	18.00	0.914	1.016	22.2
Right tilted	20	QPSK 50RB_0	20175/1732.5	1:1	1.000	-0.04	18.39	18.00	0.914	0.914	22.2
Left cheek	20	QPSK 50RB_0	20050/1720	1:1	0.912	0.02	18.34	18.00	0.925	0.843	22.2
Left cheek	20	QPSK 50RB_0	20300/1745	1:1	0.875	-0.01	18.35	18.00	0.923	0.807	22.2
Left tilted	20	QPSK 50RB_0	20050/1720	1:1	1.030	-0.07	18.34	18.00	0.925	0.952	22.2
Left tilted	20	QPSK 50RB_0	20300/1745	1:1	0.916	0.1	18.35	18.00	0.923	0.845	22.2
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.980	-0.05	18.34	18.00	0.925	0.906	22.2
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	1.010	-0.09	18.35	18.00	0.923	0.932	22.2
Right tilted	20	QPSK 50RB_0	20050/1720	1:1	1.040	-0.06	18.34	18.00	0.925	0.962	22.2
Right tilted	20	QPSK 50RB_0	20300/1745	1:1	0.928	-0.05	18.35	18.00	0.923	0.856	22.2
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	20175/1732.5	1:1	0.943	0.06	18.30	18.00	0.933	0.880	22.2
Left tilted	20	QPSK 100RB_0	20175/1732.5	1:1	0.942	0.16	18.30	18.00	0.933	0.879	22.2
Right cheek	20	QPSK 100RB_0	20175/1732.5	1:1	1.030	-0.11	18.30	18.00	0.933	0.961	22.2
Right tilted	20	QPSK 100RB_0	20175/1732.5	1:1	1.010	-0.07	18.30	18.00	0.933	0.943	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	19.50	0.710	0.455	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	19.50	0.710	0.515	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	19.50	0.750	0.440	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	19.50	0.750	0.505	22.2
Body Worn Test data(Separate 10mm 100%RB) (Sensor on)											
Front side	20	QPSK 100RB_0	20050/1720	1:1	0.427	0.15	20.65	19.50	0.767	0.328	22.2
Back side	20	QPSK 100RB_0	20050/1720	1:1	0.631	-0.09	20.65	19.50	0.767	0.484	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	19.50	0.710	0.455	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	19.50	0.710	0.515	22.2
Left side	20	QPSK 1RB_99	20300/1745	1:1	0.075	-0.16	20.99	19.50	0.710	0.053	22.2
Top side	20	QPSK 1RB_99	20300/1745	1:1	0.946	0.05	20.99	19.50	0.710	0.671	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	19.50	0.750	0.440	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	19.50	0.750	0.505	22.2
Left side	20	QPSK 50RB_0	20050/1720	1:1	0.119	-0.02	20.75	19.50	0.750	0.089	22.2
Top side	20	QPSK 50RB_0	20050/1720	1:1	1.060	0.14	20.75	19.50	0.750	0.795	22.2
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	20175/1732.5	1:1	0.863	0.09	18.44	15.00	0.453	0.391	22.2
Left tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.902	-0.02	18.44	15.00	0.453	0.409	22.2
Right cheek	20	QPSK 1RB_50	20175/1732.5	1:1	1.050	-0.07	18.44	15.00	0.453	0.476	22.2
Right tilted	20	QPSK 1RB_50	20175/1732.5	1:1	0.995	-0.12	18.44	15.00	0.453	0.451	22.2
Left cheek	20	QPSK 1RB_50	20050/1720	1:1	0.893	-0.11	18.40	15.00	0.457	0.408	22.2

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Left cheek	20	QPSK 1RB_50	20300/1745	1:1	0.725	-0.01	18.35	15.00	0.462	0.335	22.2
Left tilted	20	QPSK 1RB_50	20050/1720	1:1	1.030	0.02	18.40	15.00	0.457	0.471	22.2
Left tilted	20	QPSK 1RB_50	20300/1745	1:1	0.903	-0.02	18.35	15.00	0.462	0.418	22.2
Right cheek	20	QPSK 1RB_50	20050/1720	1:1	1.060	0.02	18.40	15.00	0.457	0.485	22.2
Right cheek	20	QPSK 1RB_50	20300/1745	1:1	0.994	-0.11	18.35	15.00	0.462	0.460	22.2
Right tilted	20	QPSK 1RB_50	20050/1720	1:1	1.020	-0.03	18.40	15.00	0.457	0.466	22.2
Right tilted	20	QPSK 1RB_50	20300/1745	1:1	0.930	0.00	18.35	15.00	0.462	0.430	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.894	-0.09	18.39	15.00	0.458	0.410	22.2
Left tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.971	0.04	18.39	15.00	0.458	0.445	22.2
Right cheek	20	QPSK 50RB_0	20175/1732.5	1:1	1.112	-0.05	18.39	15.00	0.458	0.509	22.2
Right tilted	20	QPSK 50RB_0	20175/1732.5	1:1	1.000	-0.04	18.39	15.00	0.458	0.458	22.2
Left cheek	20	QPSK 50RB_0	20050/1720	1:1	0.912	0.02	18.34	15.00	0.463	0.423	22.2
Left cheek	20	QPSK 50RB_0	20300/1745	1:1	0.875	-0.01	18.35	15.00	0.462	0.405	22.2
Left tilted	20	QPSK 50RB_0	20050/1720	1:1	1.030	-0.07	18.34	15.00	0.463	0.477	22.2
Left tilted	20	QPSK 50RB_0	20300/1745	1:1	0.916	0.10	18.35	15.00	0.462	0.424	22.2
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.980	-0.05	18.34	15.00	0.463	0.454	22.2
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	1.010	-0.09	18.35	15.00	0.462	0.467	22.2
Right tilted	20	QPSK 50RB_0	20050/1720	1:1	1.040	-0.06	18.34	15.00	0.463	0.482	22.2
Right tilted	20	QPSK 50RB_0	20300/1745	1:1	0.928	-0.05	18.35	15.00	0.462	0.429	22.2
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	20175/1732.5	1:1	0.943	0.06	18.30	15.00	0.468	0.441	22.2
Left tilted	20	QPSK 100RB_0	20175/1732.5	1:1	0.942	0.16	18.30	15.00	0.468	0.441	22.2
Right cheek	20	QPSK 100RB_0	20175/1732.5	1:1	1.030	-0.11	18.30	15.00	0.468	0.482	22.2
Right tilted	20	QPSK 100RB_0	20175/1732.5	1:1	1.010	-0.07	18.30	15.00	0.468	0.472	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	18.00	0.502	0.322	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	18.00	0.502	0.365	22.2
Front side	20	QPSK 1RB_99	20175/1732.5	1:1	0.620	0.12	20.89	18.00	0.514	0.319	22.2
Front side	20	QPSK 1RB_99	20050/1720	1:1	0.593	0.12	20.96	18.00	0.506	0.300	22.2
Back side	20	QPSK 1RB_99	20175/1732.5	1:1	0.754	-0.01	20.89	18.00	0.514	0.388	22.2
Back side	20	QPSK 1RB_99	20050/1720	1:1	0.683	0.04	20.96	18.00	0.506	0.345	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	18.00	0.531	0.312	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	18.00	0.531	0.357	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.724	0.03	20.41	18.00	0.574	0.416	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.670	0.01	20.65	18.00	0.543	0.364	22.2
Body Worn Test data(Separate 10mm 100%RB) (Sensor on)											
Front side	20	QPSK 100RB_0	20050/1720	1:1	0.427	0.15	20.65	18.00	0.543	0.232	22.2
Back side	20	QPSK 100RB_0	20050/1720	1:1	0.631	-0.09	20.65	18.00	0.543	0.343	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.641	0.10	20.99	18.00	0.502	0.322	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.726	0.06	20.99	18.00	0.502	0.365	22.2
Left side	20	QPSK 1RB_99	20300/1745	1:1	0.075	-0.16	20.99	18.00	0.502	0.037	22.2
Top side	20	QPSK 1RB_99	20300/1745	1:1	0.946	0.05	20.99	18.00	0.502	0.475	22.2
Front side	20	QPSK 1RB_99	20175/1732.5	1:1	0.620	0.12	20.89	18.00	0.514	0.319	22.2
Front side	20	QPSK 1RB_99	20050/1720	1:1	0.593	0.12	20.96	18.00	0.506	0.300	22.2
Back side	20	QPSK 1RB_99	20175/1732.5	1:1	0.754	-0.01	20.89	18.00	0.514	0.388	22.2
Back side	20	QPSK 1RB_99	20050/1720	1:1	0.683	0.04	20.96	18.00	0.506	0.345	22.2
Top side	20	QPSK 1RB_99	20175/1732.5	1:1	0.940	0.10	20.89	18.00	0.514	0.483	22.2
Top side	20	QPSK 1RB_99	20050/1720	1:1	0.921	0.08	20.96	18.00	0.506	0.466	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											

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Front side	20	QPSK 50RB_0	20050/1720	1:1	0.587	0.09	20.75	18.00	0.531	0.312	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.673	0.04	20.75	18.00	0.531	0.357	22.2
Left side	20	QPSK 50RB_0	20050/1720	1:1	0.119	-0.02	20.75	18.00	0.531	0.063	22.2
Top side	20	QPSK 50RB_0	20050/1720	1:1	1.060	0.14	20.75	18.00	0.531	0.563	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.724	0.03	20.41	18.00	0.574	0.416	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.670	0.01	20.65	18.00	0.543	0.364	22.2
Top side	20	QPSK 50RB_0	20300/1745	1:1	0.978	0.18	20.41	18.00	0.574	0.561	22.2
Top side	20	QPSK 50RB_0	20175/1732.5	1:1	0.893	-0.02	20.65	18.00	0.543	0.485	22.2
Hotspot Test data(Separate 10mm 100%RB) (Sensor on)											
Front side	20	QPSK 100RB_0	20050/1720	1:1	0.427	0.15	20.65	18.00	0.543	0.232	22.2
Back side	20	QPSK 100RB_0	20050/1720	1:1	0.631	-0.09	20.65	18.00	0.543	0.343	22.2
Top side	20	QPSK 100RB_0	20050/1720	1:1	0.924	-0.06	20.65	18.00	0.543	0.502	22.2

Table 17: SAR of LTE Band 4

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1 <sup>st</sup> Repeated	Ratio	2 <sup>nd</sup> Repeated	3 <sup>rd</sup> Repeated
			SAR (1g)		SAR (1g)	SAR (1g)
Right cheek	20175/1732.5	1.112	1.076	1.033	N/A	N/A

Note: 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.

2) A second repeated measurement was preformed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).

3) A third repeated measurement was preformed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

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



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### 8.3.8 SAR Result of LTE Band 5

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	20525/836.5	1:1	0.311	0.05	21.70	22.50	1.202	0.374	22.1
Left tilted	10	QPSK 1RB_25	20525/836.5	1:1	0.194	0.17	21.70	22.50	1.202	0.233	22.1
Right cheek	10	QPSK 1RB_25	20525/836.5	1:1	0.516	0.18	21.70	22.50	1.202	0.620	22.1
Right tilted	10	QPSK 1RB_25	20525/836.5	1:1	0.521	0.06	21.70	22.50	1.202	0.626	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	20525/836.5	1:1	0.332	0.11	21.40	22.50	1.288	0.428	22.1
Left tilted	10	QPSK 25RB_0	20525/836.5	1:1	0.200	0.09	21.40	22.50	1.288	0.258	22.1
Right cheek	10	QPSK 25RB_0	20525/836.5	1:1	0.533	0.06	21.40	22.50	1.288	<b>0.687</b>	22.1
Right cheek	10	PCC 1RB_0	20525/836.5	1:1	0.521	0.03	21.39	22.50	1.291	0.673	22.1
		SCC 1RB_49	20426/826.6								
Right tilted	10	QPSK 25RB_0	20525/836.5	1:1	0.495	0.05	21.40	22.50	1.288	0.638	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	20525/836.5	1:1	0.355	0.02	23.25	24.00	1.189	0.422	22.1
Back side	10	QPSK 1RB_25	20525/836.5	1:1	0.438	0.04	23.25	24.00	1.189	<b>0.521</b>	22.1
Back side	10	PCC 1RB_0	20525/836.5	1:1	0.425	0.05	23.22	24.00	1.197	0.509	22.1
		SCC 1RB_49	20426/826.6								
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	20525/836.5	1:1	0.254	0.05	22.05	23.00	1.245	0.316	22.1
Back side	10	QPSK 25RB_0	20525/836.5	1:1	0.357	0.03	22.05	23.00	1.245	0.444	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	20525/836.5	1:1	0.355	0.02	23.25	24.00	1.189	0.422	22.1
Back side	10	QPSK 1RB_25	20525/836.5	1:1	0.438	0.04	23.25	24.00	1.189	<b>0.521</b>	22.1
Back side	10	PCC 1RB_0	20525/836.5	1:1	0.425	0.05	23.22	24.00	1.197	0.509	22.1
		SCC 1RB_49	20426/826.6								
Left side	10	QPSK 1RB_25	20525/836.5	1:1	0.253	0.03	23.25	24.00	1.189	0.301	22.1
Right side	10	QPSK 1RB_25	20525/836.5	1:1	0.091	0.06	23.25	24.00	1.189	0.108	22.1
Top side	10	QPSK 1RB_25	20525/836.5	1:1	0.341	-0.11	23.25	24.00	1.189	0.405	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	20525/836.5	1:1	0.254	0.05	22.05	23.00	1.245	0.316	22.1
Back side	10	QPSK 25RB_0	20525/836.5	1:1	0.357	0.03	22.05	23.00	1.245	0.444	22.1
Left side	10	QPSK 25RB_0	20525/836.5	1:1	0.199	0.05	22.05	23.00	1.245	0.248	22.1
Right side	10	QPSK 25RB_0	20525/836.5	1:1	0.070	0.07	22.05	23.00	1.245	0.087	22.1
Top side	10	QPSK 25RB_0	20525/836.5	1:1	0.333	0.01	22.05	23.00	1.245	0.414	22.1

ENDC Simultaneous Transmission SAR											
ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	20525/836.5	1:1	0.355	0.02	23.25	24.00	1.189	0.422	22.1
Back side	10	QPSK 1RB_25	20525/836.5	1:1	0.438	0.04	23.25	24.00	1.189	<b>0.521</b>	22.1
Back side	10	PCC 1RB_0	20525/836.5	1:1	0.425	0.05	23.22	24.00	1.197	0.509	22.1
		SCC 1RB_49	20426/826.6								
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	20525/836.5	1:1	0.254	0.05	22.05	23.00	1.313	0.079	22.1
Back side	10	QPSK 25RB_0	20525/836.5	1:1	0.357	0.03	22.05	23.00	1.313	0.112	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	20525/836.5	1:1	0.355	0.02	23.25	24.00	1.237	0.084	22.1
Back side	10	QPSK 1RB_25	20525/836.5	1:1	0.438	0.04	23.25	24.00	1.237	0.104	22.1

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Left side	10	QPSK 1RB_25	20525/836.5	1:1	0.253	0.03	23.25	17.00	0.237	0.060	22.1
Right side	10	QPSK 1RB_25	20525/836.5	1:1	0.091	0.06	23.25	17.00	0.237	0.022	22.1
Top side	10	QPSK 1RB_25	20525/836.5	1:1	0.341	-0.11	23.25	17.00	0.237	0.081	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	20525/836.5	1:1	0.254	0.05	22.05	17.00	0.313	0.079	22.1
Back side	10	QPSK 25RB_0	20525/836.5	1:1	0.357	0.03	22.05	17.00	0.313	0.112	22.1
Left side	10	QPSK 25RB_0	20525/836.5	1:1	0.199	0.05	22.05	17.00	0.313	0.062	22.1
Right side	10	QPSK 25RB_0	20525/836.5	1:1	0.070	0.07	22.05	17.00	0.313	0.022	22.1
Top side	10	QPSK 25RB_0	20525/836.5	1:1	0.333	0.01	22.05	17.00	0.313	0.104	22.1
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	20525/836.5	1:1	0.311	0.05	21.70	21.00	0.851	0.265	22.1
Left tilted	10	QPSK 1RB_25	20525/836.5	1:1	0.194	0.17	21.70	21.00	0.851	0.165	22.1
Right cheek	10	QPSK 1RB_25	20525/836.5	1:1	0.516	0.18	21.70	21.00	0.851	0.439	22.1
Right tilted	10	QPSK 1RB_25	20525/836.5	1:1	0.521	0.06	21.70	21.00	0.851	0.443	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	20525/836.5	1:1	0.332	0.11	21.40	21.00	0.912	0.303	22.1
Left tilted	10	QPSK 25RB_0	20525/836.5	1:1	0.200	0.09	21.40	21.00	0.912	0.182	22.1
Right cheek	10	QPSK 25RB_0	20525/836.5	1:1	0.533	0.06	21.40	21.00	0.912	0.486	22.1
Right tilted	10	QPSK 25RB_0	20525/836.5	1:1	0.495	0.05	21.40	21.00	0.912	0.451	22.1

Table 18: SAR of LTE Band 5



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## 8.3.9 SAR Result of LTE Band 12

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	23095/707.5	1:1	0.219	0.10	22.32	23.00	1.169	0.256	22.1
Left tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.177	0.07	22.32	23.00	1.169	0.207	22.1
Right cheek	10	QPSK 1RB_25	23095/707.5	1:1	0.406	0.07	22.32	23.00	1.169	0.475	22.1
Right tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.371	0.10	22.32	23.00	1.169	0.434	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	23095/707.5	1:1	0.224	0.09	22.07	23.00	1.239	0.277	22.1
Left tilted	10	QPSK 25RB_0	23095/707.5	1:1	0.179	0.08	22.07	23.00	1.239	0.222	22.1
Right cheek	10	QPSK 25RB_0	23095/707.5	1:1	0.422	0.07	22.07	23.00	1.239	0.523	22.1
Right tilted	10	QPSK 25RB_0	23095/707.5	1:1	0.381	0.09	22.07	23.00	1.239	0.472	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23095/707.5	1:1	0.112	0.04	23.12	24.00	1.225	0.137	22.1
Back side	10	QPSK 1RB_25	23095/707.5	1:1	0.292	0.04	23.12	24.00	1.225	0.358	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23095/707.5	1:1	0.092	0.03	22.14	23.00	1.219	0.113	22.1
Back side	10	QPSK 25RB_0	23095/707.5	1:1	0.230	0.00	22.14	23.00	1.219	0.280	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23095/707.5	1:1	0.112	0.04	23.12	24.00	1.225	0.137	22.1
Back side	10	QPSK 1RB_25	23095/707.5	1:1	0.292	0.04	23.12	24.00	1.225	0.358	22.1
Left side	10	QPSK 1RB_25	23095/707.5	1:1	0.286	0.04	23.12	24.00	1.225	0.350	22.1
Right side	10	QPSK 1RB_25	23095/707.5	1:1	0.075	-0.06	23.12	24.00	1.225	0.091	22.1
Top side	10	QPSK 1RB_25	23095/707.5	1:1	0.167	0.03	23.12	24.00	1.225	0.205	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23095/707.5	1:1	0.092	0.03	22.14	23.00	1.219	0.113	22.1
Back side	10	QPSK 25RB_0	23095/707.5	1:1	0.230	0.00	22.14	23.00	1.219	0.280	22.1
Left side	10	QPSK 25RB_0	23095/707.5	1:1	0.235	0.04	22.14	23.00	1.219	0.286	22.1
Right side	10	QPSK 25RB_0	23095/707.5	1:1	0.062	0.01	22.14	23.00	1.219	0.076	22.1
Top side	10	QPSK 25RB_0	23095/707.5	1:1	0.134	-0.09	22.14	23.00	1.219	0.163	22.1

ENDC Simultaneous Transmission SAR											
ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23095/707.5	1:1	0.112	0.04	23.12	17.00	0.244	0.027	22.1
Back side	10	QPSK 1RB_25	23095/707.5	1:1	0.292	0.04	23.12	17.00	0.244	0.071	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23095/707.5	1:1	0.092	0.03	22.14	17.00	0.306	0.028	22.1
Back side	10	QPSK 25RB_0	23095/707.5	1:1	0.230	0.00	22.14	17.00	0.306	0.070	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23095/707.5	1:1	0.112	0.04	23.12	17.00	0.244	0.027	22.1
Back side	10	QPSK 1RB_25	23095/707.5	1:1	0.292	0.04	23.12	17.00	0.244	0.071	22.1
Left side	10	QPSK 1RB_25	23095/707.5	1:1	0.286	0.04	23.12	17.00	0.244	0.070	22.1
Right side	10	QPSK 1RB_25	23095/707.5	1:1	0.075	-0.06	23.12	17.00	0.244	0.018	22.1
Top side	10	QPSK 1RB_25	23095/707.5	1:1	0.167	0.03	23.12	17.00	0.244	0.041	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23095/707.5	1:1	0.092	0.03	22.14	17.00	0.306	0.028	22.1
Back side	10	QPSK 25RB_0	23095/707.5	1:1	0.230	0.00	22.14	17.00	0.306	0.070	22.1

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Left side	10	QPSK 25RB_0	23095/707.5	1:1	0.235	0.04	22.14	17.00	0.306	0.072	22.1
Right side	10	QPSK 25RB_0	23095/707.5	1:1	0.062	0.01	22.14	17.00	0.306	0.019	22.1
Top side	10	QPSK 25RB_0	23095/707.5	1:1	0.134	-0.09	22.14	17.00	0.306	0.041	22.1
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	23095/707.5	1:1	0.219	0.10	22.32	22.00	0.929	0.203	22.1
Left tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.177	0.07	22.32	22.00	0.929	0.164	22.1
Right cheek	10	QPSK 1RB_25	23095/707.5	1:1	0.406	0.07	22.32	22.00	0.929	0.377	22.1
Right tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.371	0.10	22.32	22.00	0.929	0.345	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	23095/707.5	1:1	0.224	0.09	22.07	22.00	0.984	0.220	22.1
Left tilted	10	QPSK 25RB_0	23095/707.5	1:1	0.179	0.08	22.07	22.00	0.984	0.176	22.1
Right cheek	10	QPSK 25RB_0	23095/707.5	1:1	0.422	0.07	22.07	22.00	0.984	0.415	22.1
Right tilted	10	QPSK 25RB_0	23095/707.5	1:1	0.381	0.09	22.07	22.00	0.984	0.375	22.1

Table 19: SAR of LTE Band 12



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## 8.3.10 SAR Result of LTE Band 13

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	23230/782	1:1	0.296	0.06	22.40	23.00	1.148	0.340	22.1
Left tilted	10	QPSK 1RB_25	23230/782	1:1	0.248	0.08	22.40	23.00	1.148	0.285	22.1
Right cheek	10	QPSK 1RB_25	23230/782	1:1	0.515	0.09	22.40	23.00	1.148	0.591	22.1
Right tilted	10	QPSK 1RB_25	23230/782	1:1	0.491	0.05	22.40	23.00	1.148	0.564	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	23230/782	1:1	0.292	-0.05	22.11	23.00	1.227	0.358	22.1
Left tilted	10	QPSK 25RB_0	23230/782	1:1	0.250	0.05	22.11	23.00	1.227	0.307	22.1
Right cheek	10	QPSK 25RB_0	23230/782	1:1	0.520	0.09	22.11	23.00	1.227	<b>0.638</b>	22.1
Right tilted	10	QPSK 25RB_0	23230/782	1:1	0.499	0.04	22.11	23.00	1.227	0.612	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23230/782	1:1	0.113	0.05	23.13	24.00	1.222	0.138	22.1
Back side	10	QPSK 1RB_25	23230/782	1:1	0.303	0.04	23.13	24.00	1.222	<b>0.370</b>	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23230/782	1:1	0.087	0.02	22.17	23.00	1.211	0.105	22.1
Back side	10	QPSK 25RB_0	23230/782	1:1	0.239	0.00	22.17	23.00	1.211	0.289	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23230/782	1:1	0.113	0.05	23.13	24.00	1.222	0.138	22.1
Back side	10	QPSK 1RB_25	23230/782	1:1	0.303	0.04	23.13	24.00	1.222	<b>0.370</b>	22.1
Left side	10	QPSK 1RB_25	23230/782	1:1	0.260	0.03	23.13	24.00	1.222	0.318	22.1
Right side	10	QPSK 1RB_25	23230/782	1:1	0.071	0.06	23.13	24.00	1.222	0.087	22.1
Top side	10	QPSK 1RB_25	23230/782	1:1	0.271	0.07	23.13	24.00	1.222	0.331	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23230/782	1:1	0.087	0.02	22.17	23.00	1.211	0.105	22.1
Back side	10	QPSK 25RB_0	23230/782	1:1	0.239	0.00	22.17	23.00	1.211	0.289	22.1
Left side	10	QPSK 25RB_0	23230/782	1:1	0.207	0.04	22.17	23.00	1.211	0.251	22.1
Right side	10	QPSK 25RB_0	23230/782	1:1	0.055	0.03	22.17	23.00	1.211	0.066	22.1
Top side	10	QPSK 25RB_0	23230/782	1:1	0.215	0.10	22.17	23.00	1.211	0.260	22.1

ENDC Simultaneous Transmission SAR											
ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Body Worn Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23230/782	1:1	0.113	0.05	23.13	17.00	0.244	0.028	22.1
Back side	10	QPSK 1RB_25	23230/782	1:1	0.303	0.04	23.13	17.00	0.244	0.074	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23230/782	1:1	0.087	0.02	22.17	17.00	0.304	0.026	22.1
Back side	10	QPSK 25RB_0	23230/782	1:1	0.239	0.00	22.17	17.00	0.304	0.073	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23230/782	1:1	0.113	0.05	23.13	17.00	0.244	0.028	22.1
Back side	10	QPSK 1RB_25	23230/782	1:1	0.303	0.04	23.13	17.00	0.244	0.074	22.1
Left side	10	QPSK 1RB_25	23230/782	1:1	0.260	0.03	23.13	17.00	0.244	0.063	22.1
Right side	10	QPSK 1RB_25	23230/782	1:1	0.071	0.06	23.13	17.00	0.244	0.017	22.1
Top side	10	QPSK 1RB_25	23230/782	1:1	0.271	0.07	23.13	17.00	0.244	0.066	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_0	23230/782	1:1	0.087	0.02	22.17	17.00	0.304	0.026	22.1
Back side	10	QPSK 25RB_0	23230/782	1:1	0.239	0.00	22.17	17.00	0.304	0.073	22.1

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Left side	10	QPSK 25RB_0	23230/782	1:1	0.207	0.04	22.17	17.00	0.304	0.063	22.1
Right side	10	QPSK 25RB_0	23230/782	1:1	0.055	0.03	22.17	17.00	0.304	0.017	22.1
Top side	10	QPSK 25RB_0	23230/782	1:1	0.215	0.10	22.17	17.00	0.304	0.065	22.1
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	10	QPSK 1RB_25	23230/782	1:1	0.296	0.06	22.40	22.00	0.912	0.270	22.1
Left tilted	10	QPSK 1RB_25	23230/782	1:1	0.248	0.08	22.40	22.00	0.912	0.226	22.1
Right cheek	10	QPSK 1RB_25	23230/782	1:1	0.515	0.09	22.40	22.00	0.912	0.470	22.1
Right tilted	10	QPSK 1RB_25	23230/782	1:1	0.491	0.05	22.40	22.00	0.912	0.448	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_0	23230/782	1:1	0.292	-0.05	22.11	22.00	0.975	0.285	22.1
Left tilted	10	QPSK 25RB_0	23230/782	1:1	0.250	0.05	22.11	22.00	0.975	0.244	22.1
Right cheek	10	QPSK 25RB_0	23230/782	1:1	0.520	0.09	22.11	22.00	0.975	0.507	22.1
Right tilted	10	QPSK 25RB_0	23230/782	1:1	0.499	0.04	22.11	22.00	0.975	0.487	22.1

Table 20: SAR of LTE Band 13

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### 8.3.11 SAR Result of LTE Band 41

ANT3 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_99	40620/2593	1:1.58	0.124	0.08	23.15	24.00	1.216	<b>0.151</b>	22.1
Left tilted	20	QPSK 1RB_99	40620/2593	1:1.58	0.030	-0.01	23.15	24.00	1.216	0.036	22.1
Right cheek	20	QPSK 1RB_99	40620/2593	1:1.58	0.094	-0.15	23.15	24.00	1.216	0.114	22.1
Right tilted	20	QPSK 1RB_99	40620/2593	1:1.58	0.062	-0.03	23.15	24.00	1.216	0.075	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	40620/2593	1:1.58	0.095	0.00	22.23	23.00	1.194	0.113	22.1
Left tilted	20	QPSK 50RB_0	40620/2593	1:1.58	0.025	-0.10	22.23	23.00	1.194	0.030	22.1
Right cheek	20	QPSK 50RB_0	40620/2593	1:1.58	0.071	-0.05	22.23	23.00	1.194	0.085	22.1
Right tilted	20	QPSK 50RB_0	40620/2593	1:1.58	0.056	0.01	22.23	23.00	1.194	0.067	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	40620/2593	1:1.58	0.485	-0.04	23.15	24.00	1.216	0.590	22.1
Back side	20	QPSK 1RB_99	40620/2593	1:1.58	0.634	0.12	23.15	24.00	1.216	<b>0.771</b>	22.1
Back side	20	QPSK 1RB_99	39750/2506	1:1.58	0.341	-0.19	22.52	24.00	1.406	0.479	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.347	-0.03	22.73	24.00	1.340	0.465	22.1
Back side	20	QPSK 1RB_99	41055/2636.5	1:1.58	0.305	0.13	22.39	24.00	1.449	0.442	22.1
Back side	20	QPSK 1RB_99	41490/2680	1:1.58	0.259	0.12	22.30	24.00	1.479	0.383	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	40620/2593	1:1.58	0.392	0.00	22.23	23.00	1.194	0.468	22.1
Back side	20	QPSK 50RB_0	40620/2593	1:1.58	0.534	0.03	22.23	23.00	1.194	0.638	22.1
Back side	20	QPSK 50RB_0	39750/2506	1:1.58	0.267	0.02	21.63	23.00	1.371	0.366	22.1
Back side	20	QPSK 50RB_0	40185/2549.5	1:1.58	0.273	0.04	21.87	23.00	1.297	0.354	22.1
Back side	20	QPSK 50RB_0	41055/2636.5	1:1.58	0.252	-0.05	21.46	23.00	1.426	0.359	22.1
Back side	20	QPSK 50RB_0	41490/2680	1:1.58	0.219	0.08	21.39	23.00	1.449	0.317	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	40620/2593	1:1.58	0.485	-0.04	23.15	24.00	1.216	0.590	22.1
Back side	20	QPSK 1RB_99	40620/2593	1:1.58	0.634	0.12	23.15	24.00	1.216	<b>0.771</b>	22.1
Back side	20	QPSK 1RB_99	39750/2506	1:1.58	0.341	-0.19	22.52	24.00	1.406	0.479	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.347	-0.03	22.73	24.00	1.340	0.465	22.1
Back side	20	QPSK 1RB_99	41055/2636.5	1:1.58	0.305	0.13	22.39	24.00	1.449	0.442	22.1
Back side	20	QPSK 1RB_99	41490/2680	1:1.58	0.259	0.12	22.30	24.00	1.479	0.383	22.1
Left side	20	QPSK 1RB_99	40620/2593	1:1.58	0.345	0.08	23.15	24.00	1.216	0.420	22.1
Right side	20	QPSK 1RB_99	40620/2593	1:1.58	0.055	0.17	23.15	24.00	1.216	0.067	22.1
Bottom side	20	QPSK 1RB_99	40620/2593	1:1.58	0.538	0.05	23.15	24.00	1.216	0.654	22.1
Bottom side	20	QPSK 1RB_99	39750/2506	1:1.58	0.244	-0.18	22.52	24.00	1.406	0.343	22.1
Bottom side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.275	-0.09	22.73	24.00	1.340	0.368	22.1
Bottom side	20	QPSK 1RB_99	41055/2636.5	1:1.58	0.248	-0.03	22.39	24.00	1.449	0.359	22.1
Bottom side	20	QPSK 1RB_99	41490/2680	1:1.58	0.258	-0.06	22.30	24.00	1.479	0.382	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	40620/2593	1:1.58	0.392	0.00	22.23	23.00	1.194	0.468	22.1
Back side	20	QPSK 50RB_0	40620/2593	1:1.58	0.534	0.03	22.23	23.00	1.194	0.638	22.1
Back side	20	QPSK 50RB_0	39750/2506	1:1.58	0.267	0.02	21.63	23.00	1.371	0.366	22.1
Back side	20	QPSK 50RB_0	40185/2549.5	1:1.58	0.273	0.04	21.87	23.00	1.297	0.354	22.1
Back side	20	QPSK 50RB_0	41055/2636.5	1:1.58	0.252	-0.05	21.46	23.00	1.426	0.359	22.1
Back side	20	QPSK 50RB_0	41490/2680	1:1.58	0.219	0.08	21.39	23.00	1.449	0.317	22.1
Left side	20	QPSK 50RB_0	40620/2593	1:1.58	0.282	-0.02	22.23	23.00	1.194	0.337	22.1
Right side	20	QPSK 50RB_0	40620/2593	1:1.58	0.056	0.00	22.23	23.00	1.194	0.067	22.1

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Bottom side	20	QPSK 50RB_0	40620/2593	1:1.58	0.419	0.06	22.23	23.00	1.194	0.500	22.1
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Simultaneous Transmission SAR											
ANT3 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Hotspot Test data (Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	40620/2593	1:1.58	0.485	-0.04	23.15	22.00	0.767	0.372	22.1
Back side	20	QPSK 1RB_99	40620/2593	1:1.58	0.634	0.12	23.15	22.00	0.767	0.487	22.1
Back side	20	QPSK 1RB_99	39750/2506	1:1.58	0.341	-0.19	22.52	22.00	0.887	0.303	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.347	-0.03	22.73	22.00	0.845	0.293	22.1
Back side	20	QPSK 1RB_99	41055/2636.5	1:1.58	0.305	0.13	22.39	22.00	0.914	0.279	22.1
Back side	20	QPSK 1RB_99	41490/2680	1:1.58	0.259	0.12	22.30	22.00	0.933	0.242	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	40620/2593	1:1.58	0.392	0.00	22.23	22.00	0.948	0.372	22.1
Back side	20	QPSK 50RB_0	40620/2593	1:1.58	0.534	0.03	22.23	22.00	0.948	0.506	22.1
Back side	20	QPSK 50RB_0	39750/2506	1:1.58	0.267	0.02	21.63	22.00	1.089	0.291	22.1
Back side	20	QPSK 50RB_0	40185/2549.5	1:1.58	0.273	0.04	21.87	22.00	1.030	0.281	22.1
Back side	20	QPSK 50RB_0	41055/2636.5	1:1.58	0.252	-0.05	21.46	22.00	1.132	0.285	22.1
Back side	20	QPSK 50RB_0	41490/2680	1:1.58	0.219	0.08	21.39	22.00	1.151	0.252	22.1

Table 21: SAR of LTE Band 41



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### 8.3.12 SAR Result of LTE Band 66

ANT8 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	132322/1745	1:1	0.595	0.04	16.25	17.50	1.334	0.793	22.2
Left tilted	20	QPSK 1RB_50	132322/1745	1:1	0.856	-0.01	16.25	17.50	1.334	1.141	22.2
Left tilted	20	QPSK 1RB_50	132072/1720	1:1	0.776	0.02	16.23	17.50	1.340	1.040	22.2
Left tilted	20	QPSK 1RB_50	132572/1770	1:1	0.886	0.07	16.10	17.50	1.380	1.223	22.2
Right cheek	20	QPSK 1RB_50	132322/1745	1:1	0.490	0.04	16.25	17.50	1.334	0.653	22.2
Right tilted	20	QPSK 1RB_50	132322/1745	1:1	0.767	0.01	16.25	17.50	1.334	1.023	22.2
Right tilted	20	QPSK 1RB_50	132072/1720	1:1	0.712	0.03	16.23	17.50	1.340	0.954	22.2
Right tilted	20	QPSK 1RB_50	132572/1770	1:1	0.768	0.01	16.10	17.50	1.380	1.060	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	132322/1745	1:1	0.599	0.03	16.20	17.50	1.349	0.808	22.2
Left tilted	20	QPSK 50RB_0	132322/1745	1:1	0.867	0.06	16.20	17.50	1.349	1.170	22.2
Left tilted	20	QPSK 50RB_0	132072/1720	1:1	0.765	-0.05	16.19	17.50	1.352	1.034	22.2
Left tilted	20	QPSK 50RB_0	132572/1770	1:1	0.911	-0.03	16.03	17.50	1.403	<b>1.278</b>	22.2
Left tilted_66B	15	PCC 1RB_0	132597/1772.5	1:1	0.856	0.06	15.90	17.50	1.445	1.237	22.2
		SCC 1RB_24	132504/1763.2								
Left tilted_66C	20	PCC 1RB_0	132572/1770	1:1	0.845	0.07	16.01	17.50	1.409	1.191	22.2
		SCC 1RB_99	132374/1750.2								
Left tilted-repeat	20	QPSK 50RB_0	132572/1770	1:1	0.884	0.04	16.03	17.50	1.403	1.240	22.2
Right cheek	20	QPSK 50RB_0	132322/1745	1:1	0.478	0.04	16.20	17.50	1.349	0.645	22.2
Right tilted	20	QPSK 50RB_0	132322/1745	1:1	0.769	0.04	16.20	17.50	1.349	1.037	22.2
Right tilted	20	QPSK 50RB_0	132072/1720	1:1	0.734	0.00	16.19	17.50	1.352	0.992	22.2
Right tilted	20	QPSK 50RB_0	132572/1770	1:1	0.794	0.01	16.03	17.50	1.403	1.114	22.2
Head Test data(100%RB)											
Left tilted	20	QPSK 100RB_0	132072/1720	1:1	0.859	0.00	16.17	17.50	1.358	1.167	22.2
Right tilted	20	QPSK 100RB_0	132072/1720	1:1	0.737	0.02	16.17	17.50	1.358	1.001	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	22.00	1.309	0.776	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	22.00	1.309	1.071	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	22.00	1.318	0.950	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	22.00	1.315	1.047	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	22.00	1.315	0.740	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.06	20.81	22.00	1.315	<b>1.088</b>	22.2
Back side_66B	15	PCC 1RB_0	132597/1772.5	1:1	0.765	0.04	20.55	22.00	1.396	1.068	22.2
		SCC 1RB_24	132504/1763.2								
Back side_66C	20	PCC 1RB_0	132572/1770	1:1	0.771	0.06	20.55	22.00	1.396	1.077	22.2
		SCC 1RB_99	132374/1750.2								
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	22.00	1.334	0.941	22.2
Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	22.00	1.349	1.062	22.2
Body Worn Test data(Separate 10mm 100%RB) (Sensor on)											
Back side	20	QPSK 100RB_0	132572/1770	1:1	0.834	0.11	20.85	22.00	1.303	1.087	22.2
Body Worn Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_99	132572/1770	1:1	0.659	0.09	23.17	24.00	1.211	0.798	22.2
Back side 19mm	20	QPSK 1RB_99	132572/1770	1:1	0.480	0.14	23.17	24.00	1.211	0.581	22.2
Body Worn Test data(50RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	132572/1770	1:1	0.533	0.09	22.00	23.00	1.259	0.671	22.2

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Back side 19mm	20	QPSK 50RB_0	132572/1770	1:1	0.386	0.08	22.00	23.00	1.259	0.486	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	22.00	1.309	0.776	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	22.00	1.309	1.071	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	22.00	1.318	0.950	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	22.00	1.315	1.047	22.2
Left side	20	QPSK 1RB_99	132572/1770	1:1	0.165	0.20	20.83	22.00	1.309	0.216	22.2
Top side	20	QPSK 1RB_99	132572/1770	1:1	0.918	0.15	20.83	22.00	1.309	1.202	22.2
Top side	20	QPSK 1RB_99	132072/1720	1:1	0.733	0.16	20.80	22.00	1.318	0.966	22.2
Top side	20	QPSK 1RB_99	132322/1745	1:1	0.843	0.20	20.81	22.00	1.315	1.109	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	22.00	1.315	0.740	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.08	20.81	22.00	1.315	1.088	22.2
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	22.00	1.334	0.941	22.2
Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	22.00	1.349	1.062	22.2
Left side	20	QPSK 50RB_0	132572/1770	1:1	0.204	0.11	20.81	22.00	1.315	0.268	22.2
Top side	20	QPSK 50RB_0	132572/1770	1:1	0.919	0.18	20.81	22.00	1.315	1.209	22.2
Top side	20	QPSK 50RB_0	132072/1720	1:1	0.707	0.03	20.75	22.00	1.334	0.943	22.2
Top side	20	QPSK 50RB_0	132322/1745	1:1	0.829	0.19	20.70	22.00	1.349	1.118	22.2
Hotspot Test data (Separate 10mm 100%RB) (Sensor on)											
Back side	20	QPSK 100RB_0	132572/1770	1:1	0.834	0.11	20.85	22.00	1.303	1.087	22.2
Top side	20	QPSK 100RB_0	132572/1770	1:1	0.941	0.17	20.85	22.00	1.303	<b>1.226</b>	22.2
Top side_66B	15	PCC 1RB_0	132597/1772.5	1:1	0.874	0.04	20.55	22.00	1.396	1.220	22.2
		SCC 1RB_24	132504/1763.2								
Top side_66C	20	PCC 1RB_0	132572/1770	1:1	0.861	0.04	20.55	22.00	1.396	1.202	22.2
		SCC 1RB_99	132374/1750.2								
Hotspot Test data(1RB) (Sensor off)											
Front side 14mm	20	QPSK 1RB_99	132572/1770	1:1	0.659	0.09	23.17	24.00	1.211	0.798	22.2
Back side 19mm	20	QPSK 1RB_99	132572/1770	1:1	0.480	0.14	23.17	24.00	1.211	0.581	22.2
Left side 14mm	20	QPSK 1RB_99	132572/1770	1:1	0.138	0.07	23.17	24.00	1.211	0.167	22.2
Right side 10mm	20	QPSK 1RB_99	132572/1770	1:1	0.198	0.02	23.17	24.00	1.211	0.240	22.2
Top side 19mm	20	QPSK 1RB_99	132572/1770	1:1	0.497	0.16	23.17	24.00	1.211	0.602	22.2
Hotspot Test data(50%RB) (Sensor off)											
Front side 14mm	20	QPSK 50RB_0	132572/1770	1:1	0.533	0.09	22.00	23.00	1.259	0.671	22.2
Back side 19mm	20	QPSK 50RB_0	132572/1770	1:1	0.386	0.08	22.00	23.00	1.259	0.486	22.2
Left side 14mm	20	QPSK 50RB_0	132572/1770	1:1	0.122	0.06	22.00	23.00	1.259	0.154	22.2
Right side 10mm	20	QPSK 50RB_0	132572/1770	1:1	0.162	0.02	22.00	23.00	1.259	0.204	22.2
Top side 19mm	20	QPSK 50RB_0	132572/1770	1:1	0.398	0.01	22.00	23.00	1.259	0.501	22.2

<b>ANT1(EN_DC) Test Record</b>											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_0	132072/1720	1:1	0.014	-0.02	22.93	24.00	1.279	<b>0.017</b>	22.2
Left tilted	20	QPSK 1RB_0	132072/1720	1:1	0.007	0.05	22.93	24.00	1.279	0.008	22.2
Right cheek	20	QPSK 1RB_0	132072/1720	1:1	0.011	0.00	22.93	24.00	1.279	0.014	22.2
Right tilted	20	QPSK 1RB_0	132072/1720	1:1	0.010	0.00	22.93	24.00	1.279	0.013	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	132322/1745	1:1	0.010	0.07	22.00	23.00	1.259	0.012	22.2
Left tilted	20	QPSK 50RB_25	132322/1745	1:1	0.013	-0.17	22.00	23.00	1.259	0.016	22.2
Right cheek	20	QPSK 50RB_25	132322/1745	1:1	0.011	-0.13	22.00	23.00	1.259	0.014	22.2
Right tilted	20	QPSK 50RB_25	132322/1745	1:1	0.011	-0.08	22.00	23.00	1.259	0.014	22.2
Body Worn Test data(Separate 10mm 1RB)											

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Front side	20	QPSK 1RB_0	132072/1720	1:1	0.055	-0.15	22.93	24.00	1.279	0.070	22.2
Back side	20	QPSK 1RB_0	132072/1720	1:1	0.058	-0.01	22.93	24.00	1.279	0.075	22.2
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	132322/1745	1:1	0.053	-0.10	22.00	23.00	1.259	0.066	22.2
Back side	20	QPSK 50RB_25	132322/1745	1:1	0.071	0.06	22.00	23.00	1.259	<b>0.089</b>	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	132072/1720	1:1	0.055	-0.15	22.93	24.00	1.279	0.070	22.2
Back side	20	QPSK 1RB_0	132072/1720	1:1	0.058	-0.01	22.93	24.00	1.279	0.075	22.2
Left side	20	QPSK 1RB_0	132072/1720	1:1	0.006	-0.04	22.93	24.00	1.279	0.008	22.2
Right side	20	QPSK 1RB_0	132072/1720	1:1	0.004	-0.03	22.93	24.00	1.279	0.005	22.2
Bottom side	20	QPSK 1RB_0	132072/1720	1:1	0.132	0.06	22.93	24.00	1.279	0.169	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	132322/1745	1:1	0.053	-0.10	22.00	23.00	1.259	0.066	22.2
Back side	20	QPSK 50RB_25	132322/1745	1:1	0.078	0.05	22.00	23.00	1.259	0.098	22.2
Left side	20	QPSK 50RB_25	132322/1745	1:1	0.008	-0.07	22.00	23.00	1.259	0.010	22.2
Right side	20	QPSK 50RB_25	132322/1745	1:1	0.003	0.14	22.00	23.00	1.259	0.004	22.2
Bottom side	20	QPSK 50RB_25	132322/1745	1:1	0.135	0.13	22.00	23.00	1.259	<b>0.170</b>	22.2

Simultaneous Transmission SAR											
ANT8 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	132322/1745	1:1	0.595	0.04	16.25	16.50	1.059	0.630	22.2
Left tilted	20	QPSK 1RB_50	132322/1745	1:1	0.856	-0.01	16.25	16.50	1.059	0.907	22.2
Left tilted	20	QPSK 1RB_50	132072/1720	1:1	0.776	0.02	16.23	16.50	1.064	0.826	22.2
Left tilted	20	QPSK 1RB_50	132572/1770	1:1	0.886	0.07	16.10	16.50	1.096	0.971	22.2
Right cheek	20	QPSK 1RB_50	132322/1745	1:1	0.490	0.04	16.25	16.50	1.059	0.519	22.2
Right tilted	20	QPSK 1RB_50	132322/1745	1:1	0.767	0.01	16.25	16.50	1.059	0.812	22.2
Right tilted	20	QPSK 1RB_50	132072/1720	1:1	0.712	0.03	16.23	16.50	1.064	0.758	22.2
Right tilted	20	QPSK 1RB_50	132572/1770	1:1	0.768	0.01	16.10	16.50	1.096	0.842	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	132322/1745	1:1	0.599	0.03	16.20	16.50	1.072	0.642	22.2
Left tilted	20	QPSK 50RB_0	132322/1745	1:1	0.867	0.06	16.20	16.50	1.072	0.929	22.2
Left tilted	20	QPSK 50RB_0	132072/1720	1:1	0.765	-0.05	16.19	16.50	1.074	0.822	22.2
Left tilted	20	QPSK 50RB_0	132572/1770	1:1	0.911	-0.03	16.03	16.50	1.114	1.015	22.2
Right cheek	20	QPSK 50RB_0	132322/1745	1:1	0.478	0.04	16.20	16.50	1.072	0.512	22.2
Right tilted	20	QPSK 50RB_0	132322/1745	1:1	0.769	0.04	16.20	16.50	1.072	0.824	22.2
Right tilted	20	QPSK 50RB_0	132072/1720	1:1	0.734	0.00	16.19	16.50	1.074	0.788	22.2
Right tilted	20	QPSK 50RB_0	132572/1770	1:1	0.794	0.01	16.03	16.50	1.114	0.885	22.2
Head Test data(100%RB)											
Left tilted	20	QPSK 100RB_0	132072/1720	1:1	0.859	0.00	16.17	16.50	1.079	0.927	22.2
Right tilted	20	QPSK 100RB_0	132072/1720	1:1	0.737	0.02	16.17	16.50	1.079	0.795	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	19.50	0.736	0.437	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	19.50	0.736	0.602	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	19.50	0.741	0.534	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	19.50	0.740	0.589	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	19.50	0.740	0.416	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.06	20.81	19.50	0.740	0.612	22.2
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	19.50	0.750	0.529	22.2

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Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	19.50	0.759	0.597	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	19.50	0.736	0.437	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	19.50	0.736	0.602	22.2
Left side	20	QPSK 1RB_99	132572/1770	1:1	0.165	0.20	20.83	19.50	0.736	0.121	22.2
Top side	20	QPSK 1RB_99	132572/1770	1:1	0.918	0.15	20.83	19.50	0.736	0.676	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	19.50	0.740	0.416	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.08	20.81	19.50	0.740	0.612	22.2
Left side	20	QPSK 50RB_0	132572/1770	1:1	0.204	0.11	20.81	19.50	0.740	0.151	22.2
Top side	20	QPSK 50RB_0	132572/1770	1:1	0.919	0.18	20.81	19.50	0.740	0.680	22.2
ENDC Simultaneous Transmission SAR											
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_50	132322/1745	1:1	0.595	0.04	16.25	15.00	0.750	0.446	22.2
Left tilted	20	QPSK 1RB_50	132322/1745	1:1	0.856	-0.01	16.25	15.00	0.750	0.642	22.2
Left tilted	20	QPSK 1RB_50	132072/1720	1:1	0.776	0.02	16.23	15.00	0.753	0.585	22.2
Left tilted	20	QPSK 1RB_50	132572/1770	1:1	0.886	0.07	16.10	15.00	0.776	0.688	22.2
Right cheek	20	QPSK 1RB_50	132322/1745	1:1	0.490	0.04	16.25	15.00	0.750	0.367	22.2
Right tilted	20	QPSK 1RB_50	132322/1745	1:1	0.767	0.01	16.25	15.00	0.750	0.575	22.2
Right tilted	20	QPSK 1RB_50	132072/1720	1:1	0.712	0.03	16.23	15.00	0.753	0.536	22.2
Right tilted	20	QPSK 1RB_50	132572/1770	1:1	0.768	0.01	16.10	15.00	0.776	0.596	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	132322/1745	1:1	0.599	0.03	16.20	15.00	0.759	0.454	22.2
Left tilted	20	QPSK 50RB_0	132322/1745	1:1	0.867	0.06	16.20	15.00	0.759	0.658	22.2
Left tilted	20	QPSK 50RB_0	132072/1720	1:1	0.765	-0.05	16.19	15.00	0.760	0.582	22.2
Left tilted	20	QPSK 50RB_0	132572/1770	1:1	0.911	-0.03	16.03	15.00	0.789	0.719	22.2
Right cheek	20	QPSK 50RB_0	132322/1745	1:1	0.478	0.04	16.20	15.00	0.759	0.363	22.2
Right tilted	20	QPSK 50RB_0	132322/1745	1:1	0.769	0.04	16.20	15.00	0.759	0.583	22.2
Right tilted	20	QPSK 50RB_0	132072/1720	1:1	0.734	0.00	16.19	15.00	0.760	0.558	22.2
Right tilted	20	QPSK 50RB_0	132572/1770	1:1	0.794	0.01	16.03	15.00	0.789	0.626	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	17.00	0.414	0.246	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	17.00	0.414	0.339	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	17.00	0.417	0.301	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	17.00	0.416	0.331	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	17.00	0.416	0.234	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.06	20.81	17.00	0.416	0.344	22.2
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	17.00	0.422	0.298	22.2
Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	17.00	0.427	0.336	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	17.00	0.414	0.246	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	17.00	0.414	0.339	22.2
Left side	20	QPSK 1RB_99	132572/1770	1:1	0.165	0.20	20.83	17.00	0.414	0.068	22.2
Top side	20	QPSK 1RB_99	132572/1770	1:1	0.918	0.15	20.83	17.00	0.414	0.380	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	17.00	0.416	0.234	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.08	20.81	17.00	0.416	0.344	22.2
Left side	20	QPSK 50RB_0	132572/1770	1:1	0.204	0.11	20.81	17.00	0.416	0.085	22.2
Top side	20	QPSK 50RB_0	132572/1770	1:1	0.919	0.18	20.81	17.00	0.416	0.382	22.2
Inter-band UL CA Simultaneous Transmission SAR											
Head Test data(1RB)											

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Left cheek	20	QPSK 1RB_50	132322/1745	1:1	0.595	0.04	16.25	14.00	0.596	0.354	22.2
Left tilted	20	QPSK 1RB_50	132322/1745	1:1	0.856	-0.01	16.25	14.00	0.596	0.510	22.2
Left tilted	20	QPSK 1RB_50	132072/1720	1:1	0.776	0.02	16.23	14.00	0.598	0.464	22.2
Left tilted	20	QPSK 1RB_50	132572/1770	1:1	0.886	0.07	16.10	14.00	0.617	0.546	22.2
Right cheek	20	QPSK 1RB_50	132322/1745	1:1	0.490	0.04	16.25	14.00	0.596	0.292	22.2
Right tilted	20	QPSK 1RB_50	132322/1745	1:1	0.767	0.01	16.25	14.00	0.596	0.457	22.2
Right tilted	20	QPSK 1RB_50	132072/1720	1:1	0.712	0.03	16.23	14.00	0.598	0.426	22.2
Right tilted	20	QPSK 1RB_50	132572/1770	1:1	0.768	0.01	16.10	14.00	0.617	0.474	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	132322/1745	1:1	0.599	0.03	16.20	14.00	0.603	0.361	22.2
Left tilted	20	QPSK 50RB_0	132322/1745	1:1	0.867	0.06	16.20	14.00	0.603	0.522	22.2
Left tilted	20	QPSK 50RB_0	132072/1720	1:1	0.765	-0.05	16.19	14.00	0.604	0.462	22.2
Left tilted	20	QPSK 50RB_0	132572/1770	1:1	0.911	-0.03	16.03	14.00	0.627	0.571	22.2
Right cheek	20	QPSK 50RB_0	132322/1745	1:1	0.478	0.04	16.20	14.00	0.603	0.288	22.2
Right tilted	20	QPSK 50RB_0	132322/1745	1:1	0.769	0.04	16.20	14.00	0.603	0.463	22.2
Right tilted	20	QPSK 50RB_0	132072/1720	1:1	0.734	0.00	16.19	14.00	0.604	0.443	22.2
Right tilted	20	QPSK 50RB_0	132572/1770	1:1	0.794	0.01	16.03	14.00	0.627	0.498	22.2
Head Test data(100%RB)											
Left tilted	20	QPSK 100RB_0	132072/1720	1:1	0.859	0.00	16.17	14.00	0.607	0.521	22.2
Right tilted	20	QPSK 100RB_0	132072/1720	1:1	0.737	0.02	16.17	14.00	0.607	0.447	22.2
Body Worn Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	18.00	0.521	0.309	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	18.00	0.521	0.426	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	18.00	0.525	0.378	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	18.00	0.524	0.417	22.2
Body Worn Test data(Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	18.00	0.524	0.295	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.06	20.81	18.00	0.524	0.433	22.2
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	18.00	0.531	0.375	22.2
Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	18.00	0.537	0.423	22.2
Body Worn Test data(Separate 10mm 100%RB) (Sensor on)											
Back side	20	QPSK 100RB_0	132572/1770	1:1	0.834	0.11	20.85	18.00	0.519	0.433	22.2
Hotspot Test data(Separate 10mm 1RB) (Sensor on)											
Front side	20	QPSK 1RB_99	132572/1770	1:1	0.593	0.06	20.83	18.00	0.521	0.309	22.2
Back side	20	QPSK 1RB_99	132572/1770	1:1	0.818	0.09	20.83	18.00	0.521	0.426	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.721	0.20	20.80	18.00	0.525	0.378	22.2
Back side	20	QPSK 1RB_99	132322/1745	1:1	0.796	0.11	20.81	18.00	0.524	0.417	22.2
Left side	20	QPSK 1RB_99	132572/1770	1:1	0.165	0.20	20.83	18.00	0.521	0.086	22.2
Top side	20	QPSK 1RB_99	132572/1770	1:1	0.918	0.15	20.83	18.00	0.521	0.478	22.2
Top side	20	QPSK 1RB_99	132072/1720	1:1	0.733	0.16	20.80	18.00	0.525	0.385	22.2
Top side	20	QPSK 1RB_99	132322/1745	1:1	0.843	0.20	20.81	18.00	0.524	0.441	22.2
Hotspot Test data (Separate 10mm 50%RB) (Sensor on)											
Front side	20	QPSK 50RB_0	132572/1770	1:1	0.563	-0.02	20.81	18.00	0.524	0.295	22.2
Back side	20	QPSK 50RB_0	132572/1770	1:1	0.827	0.08	20.81	18.00	0.524	0.433	22.2
Back side	20	QPSK 50RB_0	132072/1720	1:1	0.706	0.05	20.75	18.00	0.531	0.375	22.2
Back side	20	QPSK 50RB_0	132322/1745	1:1	0.787	0.04	20.70	18.00	0.537	0.423	22.2
Left side	20	QPSK 50RB_0	132572/1770	1:1	0.204	0.11	20.81	18.00	0.524	0.107	22.2
Top side	20	QPSK 50RB_0	132572/1770	1:1	0.919	0.18	20.81	18.00	0.524	0.481	22.2
Top side	20	QPSK 50RB_0	132072/1720	1:1	0.707	0.03	20.75	18.00	0.531	0.375	22.2
Top side	20	QPSK 50RB_0	132322/1745	1:1	0.829	0.19	20.70	18.00	0.537	0.445	22.2
Hotspot Test data (Separate 10mm 100%RB) (Sensor on)											
Back side	20	QPSK 100RB_0	132572/1770	1:1	0.834	0.11	20.85	18.00	0.519	0.433	22.2

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Top side	20	QPSK 100RB_0	132572/1770	1:1	0.941	0.17	20.85	18.00	0.519	0.488	22.2
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Table 22: SAR of LTE Band 66



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### 8.3.13 SAR Result of LTE Band 71

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_0	133322/683	1:1	0.337	-0.04	23.17	24.00	1.211	0.408	22.1
Left tilted	20	QPSK 1RB_0	133322/683	1:1	0.289	0.10	23.17	24.00	1.211	0.350	22.1
Right cheek	20	QPSK 1RB_0	133322/683	1:1	0.649	-0.16	23.17	24.00	1.211	<b>0.786</b>	22.1
Right tilted	20	QPSK 1RB_0	133322/683	1:1	0.529	0.04	23.17	24.00	1.211	0.640	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	133222/673	1:1	0.252	-0.05	22.19	23.00	1.205	0.304	22.1
Left tilted	20	QPSK 50RB_0	133222/673	1:1	0.219	0.07	22.19	23.00	1.205	0.264	22.1
Right cheek	20	QPSK 50RB_0	133222/673	1:1	0.523	-0.03	22.19	23.00	1.205	0.630	22.1
Right tilted	20	QPSK 50RB_0	133222/673	1:1	0.434	0.06	22.19	23.00	1.205	0.523	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	133322/683	1:1	0.119	0.15	23.17	24.00	1.211	0.144	22.1
Back side	20	QPSK 1RB_0	133322/683	1:1	0.167	0.05	23.17	24.00	1.211	<b>0.202</b>	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	133222/673	1:1	0.096	0.12	22.19	23.00	1.205	0.116	22.1
Back side	20	QPSK 50RB_0	133222/673	1:1	0.116	0.06	22.19	23.00	1.205	0.140	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	133322/683	1:1	0.119	0.15	23.17	24.00	1.211	0.144	22.1
Back side	20	QPSK 1RB_0	133322/683	1:1	0.167	0.05	23.17	24.00	1.211	0.202	22.1
Left side	20	QPSK 1RB_0	133322/683	1:1	0.359	0.01	23.17	24.00	1.211	<b>0.435</b>	22.1
Right side	20	QPSK 1RB_0	133322/683	1:1	0.133	0.09	23.17	24.00	1.211	0.161	22.1
Top side	20	QPSK 1RB_0	133322/683	1:1	0.155	0.19	23.17	24.00	1.211	0.188	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	133222/673	1:1	0.096	0.12	22.19	23.00	1.205	0.116	22.1
Back side	20	QPSK 50RB_0	133222/673	1:1	0.116	0.06	22.19	23.00	1.205	0.140	22.1
Left side	20	QPSK 50RB_0	133222/673	1:1	0.298	-0.07	22.19	23.00	1.205	0.359	22.1
Right side	20	QPSK 50RB_0	133222/673	1:1	0.109	0.10	22.19	23.00	1.205	0.131	22.1
Top side	20	QPSK 50RB_0	133222/673	1:1	0.123	0.19	22.19	23.00	1.205	0.148	22.1

Table 23: SAR of LTE Band 71

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### 8.3.14 SAR Result of 5G NR n2

ANT1 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_1	376000/1880	100%	0.036	0.00	23.36	23.50	1.033	0.037	22.1
Left tilted	20	QPSK 1RB_1	376000/1880	100%	0.018	0.18	23.36	23.50	1.033	0.019	22.1
Right cheek	20	QPSK 1RB_1	376000/1880	100%	0.028	-0.06	23.36	23.50	1.033	0.029	22.1
Right tilted	20	QPSK 1RB_1	376000/1880	100%	0.020	-0.01	23.36	23.50	1.033	0.021	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_28	376000/1880	100%	0.037	-0.14	23.35	23.50	1.035	<b>0.038</b>	22.1
Left tilted	20	QPSK 50RB_28	376000/1880	100%	0.021	0.18	23.35	23.50	1.035	0.022	22.1
Right cheek	20	QPSK 50RB_28	376000/1880	100%	0.028	0.04	23.35	23.50	1.035	0.029	22.1
Right tilted	20	QPSK 50RB_28	376000/1880	100%	0.021	0.16	23.35	23.50	1.035	0.021	22.1
Body Worn Test data Sensor on(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	376000/1880	100%	0.287	0.00	17.58	18.00	1.102	0.316	22.1
Back side	20	QPSK 1RB_1	376000/1880	100%	0.331	-0.15	17.58	18.00	1.102	0.365	22.1
Body Worn Test data Sensor on(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	376000/1880	100%	0.288	0.09	17.44	18.00	1.138	0.328	22.1
Back side	20	QPSK 50RB_28	376000/1880	100%	0.474	0.1	17.44	18.00	1.138	0.539	22.1
Body Worn Test data Sensor off(1RB)											
Front side-14mm	20	QPSK 1RB_1	376000/1880	100%	0.536	-0.15	23.36	23.50	1.033	0.554	22.1
Back side-19mm	20	QPSK 1RB_1	376000/1880	100%	0.384	0.08	23.36	23.50	1.033	0.397	22.1
Body Worn Test data Sensor off(50%RB)											
Front side-14mm	20	QPSK 50RB_28	376000/1880	100%	0.628	-0.05	23.35	23.50	1.035	<b>0.650</b>	22.1
Back side-19mm	20	QPSK 50RB_28	376000/1880	100%	0.503	0.09	23.35	23.50	1.035	0.521	22.1
Hotspot Test data Sensor on(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	376000/1880	100%	0.287	0.00	17.58	18.00	1.102	0.316	22.1
Back side	20	QPSK 1RB_1	376000/1880	100%	0.331	-0.15	17.58	18.00	1.102	0.365	22.1
Left side	20	QPSK 1RB_1	376000/1880	100%	0.017	0.17	17.58	18.00	1.102	0.018	22.1
Bottom side	20	QPSK 1RB_1	376000/1880	100%	0.706	0.02	17.58	18.00	1.102	0.778	22.1
Hotspot Test data Sensor on(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	376000/1880	100%	0.288	0.09	17.44	18.00	1.138	0.328	22.1
Back side	20	QPSK 50RB_28	376000/1880	100%	0.474	0.1	17.44	18.00	1.138	0.539	22.1
Left side	20	QPSK 50RB_28	376000/1880	100%	0.0143	0.17	17.44	18.00	1.138	0.016	22.1
Bottom side	20	QPSK 50RB_28	376000/1880	100%	0.626	0.09	17.44	18.00	1.138	0.712	22.1
Hotspot Test data Sensor off(1RB)											
Front side-14mm	20	QPSK 1RB_1	376000/1880	100%	0.536	-0.15	23.36	23.50	1.033	0.554	22.1
Back side-19mm	20	QPSK 1RB_1	376000/1880	100%	0.384	0.08	23.36	23.50	1.033	0.397	22.1
Left side-14mm	20	QPSK 1RB_1	376000/1880	100%	0.037	0.05	23.36	23.50	1.033	0.038	22.1
Right side-10mm	20	QPSK 1RB_1	376000/1880	100%	0.063	0.08	23.36	23.50	1.033	0.065	22.1
Bottom side-19mm	20	QPSK 1RB_1	376000/1880	100%	0.675	0.14	23.36	23.50	1.033	0.697	22.1
Hotspot Test data Sensor off(50%RB)											
Front side-14mm	20	QPSK 50RB_28	376000/1880	100%	0.628	-0.05	23.35	23.50	1.035	<b>0.650</b>	22.1
Back side-19mm	20	QPSK 50RB_28	376000/1880	100%	0.503	0.09	23.35	23.50	1.035	0.521	22.1
Left side-14mm	20	QPSK 50RB_28	376000/1880	100%	0.0317	0.04	23.35	23.50	1.035	0.033	22.1
Right side-10mm	20	QPSK 50RB_28	376000/1880	100%	0.0237	0.09	23.35	23.50	1.035	0.025	22.1
Bottom side-19mm	20	QPSK 50RB_28	376000/1880	100%	0.822	0.14	23.35	23.50	1.035	<b>0.851</b>	22.1
Bottom side-19mm	20	QPSK 50RB_28	372000/1860	100%	0.752	0.01	23.25	23.50	1.059	0.797	22.1
Bottom side-19mm	20	QPSK 50RB_28	380000/1900	100%	0.801	0.06	23.30	23.50	1.047	0.839	22.1
Hotspot Test data Sensor off(100%RB)											

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Bottom side-19mm	20	QPSK 100RB_0	376000/1880	100%	0.561	0.04	22.04	22.50	1.112	0.624	22.1
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Table 24: SAR of 5G NR n2

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### 8.3.15 SAR Result of 5G NR n5

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_1	167300/836.5	100%	0.324	-0.05	23.28	24.00	1.180	0.382	22.1
Left tilted	20	QPSK 1RB_1	167300/836.5	100%	0.291	0.08	23.28	24.00	1.180	0.343	22.1
Right cheek	20	QPSK 1RB_1	167300/836.5	100%	0.476	0.04	23.28	24.00	1.180	0.562	22.1
Right tilted	20	QPSK 1RB_1	167300/836.5	100%	0.486	0.02	23.28	24.00	1.180	0.574	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_28	167300/836.5	100%	0.314	0.09	23.16	24.00	1.213	0.381	22.1
Left tilted	20	QPSK 50RB_28	167300/836.5	100%	0.287	0.11	23.16	24.00	1.213	0.348	22.1
Right cheek	20	QPSK 50RB_28	167300/836.5	100%	0.423	0.08	23.16	24.00	1.213	0.513	22.1
Right tilted	20	QPSK 50RB_28	167300/836.5	100%	0.485	-0.02	23.16	24.00	1.213	<b>0.588</b>	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	167300/836.5	100%	0.162	0.05	23.28	24.00	1.180	0.191	22.1
Back side	20	QPSK 1RB_1	167300/836.5	100%	0.347	0.02	23.28	24.00	1.180	0.410	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	167300/836.5	100%	0.208	0.05	23.16	24.00	1.213	0.252	22.1
Back side	20	QPSK 50RB_28	167300/836.5	100%	0.356	0.09	23.16	24.00	1.213	<b>0.432</b>	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	167300/836.5	100%	0.162	0.05	23.28	24.00	1.180	0.191	22.1
Back side	20	QPSK 1RB_1	167300/836.5	100%	0.347	0.02	23.28	24.00	1.180	0.410	22.1
Left side	20	QPSK 1RB_1	167300/836.5	100%	0.170	0.09	23.28	24.00	1.180	0.201	22.1
Right side	20	QPSK 1RB_1	167300/836.5	100%	0.060	0.20	23.28	24.00	1.180	0.071	22.1
Top side	20	QPSK 1RB_1	167300/836.5	100%	0.260	0.20	23.28	24.00	1.180	0.307	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	167300/836.5	100%	0.208	0.05	23.16	24.00	1.213	0.252	22.1
Back side	20	QPSK 50RB_28	167300/836.5	100%	0.356	0.09	23.16	24.00	1.213	<b>0.432</b>	22.1
Left side	20	QPSK 50RB_28	167300/836.5	100%	0.189	0.11	23.16	24.00	1.213	0.229	22.1
Right side	20	QPSK 50RB_28	167300/836.5	100%	0.077	0.1	23.16	24.00	1.213	0.093	22.1
Top side	20	QPSK 50RB_28	167300/836.5	100%	0.277	0.03	23.16	24.00	1.213	0.336	22.1

Table 25: SAR of 5G NR n5

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## 8.3.16 SAR Result of 5G NR n25

ANT1 Test Record												
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data(1RB)												
Left cheek	40	QPSK 1RB_1	376500/1882.5	100%	0.037	0.09	23.20	23.50	1.072	0.039	22.1	
Left tilted	40	QPSK 1RB_1	376500/1882.5	100%	0.016	-0.14	23.20	23.50	1.072	0.017	22.1	
Right cheek	40	QPSK 1RB_1	376500/1882.5	100%	0.027	0.10	23.20	23.50	1.072	0.028	22.1	
Right tilted	40	QPSK 1RB_1	376500/1882.5	100%	0.021	-0.03	23.20	23.50	1.072	0.022	22.1	
Head Test data(50%RB)												
Left cheek	40	QPSK 50RB_28	376500/1882.5	100%	0.038	0.15	23.02	23.50	1.117	<b>0.043</b>	22.1	
Left tilted	40	QPSK 50RB_28	376500/1882.5	100%	0.012	-0.03	23.02	23.50	1.117	0.013	22.1	
Right cheek	40	QPSK 50RB_28	376500/1882.5	100%	0.025	0.16	23.02	23.50	1.117	0.027	22.1	
Right tilted	40	QPSK 50RB_28	376500/1882.5	100%	0.017	0.04	23.02	23.50	1.117	0.019	22.1	
Body Worn Test data Sensor on(Separate 10mm 1RB)												
Front side	40	QPSK 1RB_1	376500/1882.5	100%	0.282	-0.19	17.64	18.00	1.086	0.306	22.1	
Back side	40	QPSK 1RB_1	376500/1882.5	100%	0.289	0.14	17.64	18.00	1.086	0.314	22.1	
Body Worn Test data Sensor on(Separate 10mm 50%RB)												
Front side	40	QPSK 50RB_28	376500/1882.5	100%	0.268	0.15	17.46	18.00	1.132	0.303	22.1	
Back side	40	QPSK 50RB_28	376500/1882.5	100%	0.276	-0.02	17.46	18.00	1.132	0.313	22.1	
Body Worn Test data Sensor off(1RB)												
Front side-14mm	40	QPSK 1RB_1	376500/1882.5	100%	0.510	0.02	23.20	23.50	1.072	0.546	22.1	
Back side-19mm	40	QPSK 1RB_1	376500/1882.5	100%	0.354	-0.02	23.20	23.50	1.072	0.379	22.1	
Body Worn Test data Sensor off(50%RB)												
Front side-14mm	40	QPSK 50RB_28	376500/1882.5	100%	0.612	0.15	23.02	23.50	1.117	<b>0.684</b>	22.1	
Back side-19mm	40	QPSK 50RB_28	376500/1882.5	100%	0.483	-0.02	23.02	23.50	1.117	0.539	22.1	
Hotspot Test data Sensor on(Separate 10mm 1RB)												
Front side	40	QPSK 1RB_1	376500/1882.5	100%	0.282	-0.19	17.64	18.00	1.086	0.306	22.1	
Back side	40	QPSK 1RB_1	376500/1882.5	100%	0.289	0.14	17.64	18.00	1.086	0.314	22.1	
Left side	40	QPSK 1RB_1	376500/1882.5	100%	0.022	-0.02	17.64	18.00	1.086	0.024	22.1	
Bottom side	40	QPSK 1RB_1	376500/1882.5	100%	0.600	-0.04	17.64	18.00	1.086	0.652	22.1	
Hotspot Test data Sensor on(Separate 10mm 50%RB)												
Front side	40	QPSK 50RB_28	376500/1882.5	100%	0.268	0.15	17.46	18.00	1.132	0.303	22.1	
Back side	40	QPSK 50RB_28	376500/1882.5	100%	0.276	-0.02	17.46	18.00	1.132	0.313	22.1	
Left side	40	QPSK 50RB_28	376500/1882.5	100%	0.017	-0.03	17.46	18.00	1.132	0.019	22.1	
Bottom side	40	QPSK 50RB_28	376500/1882.5	100%	0.623	-0.04	17.46	18.00	1.132	0.705	22.1	
Hotspot Test data Sensor off(1RB)												
Front side-14mm	40	QPSK 1RB_1	376500/1882.5	100%	0.510	0.02	23.20	23.50	1.072	0.546	22.1	
Back side-19mm	40	QPSK 1RB_1	376500/1882.5	100%	0.354	-0.02	23.20	23.50	1.072	0.379	22.1	
Left side-14mm	40	QPSK 1RB_1	376500/1882.5	100%	0.024	0.03	23.20	23.50	1.072	0.026	22.1	
Right side-10mm	40	QPSK 1RB_1	376500/1882.5	100%	0.064	0.03	23.20	23.50	1.072	0.069	22.1	
Bottom side-19mm	40	QPSK 1RB_1	376500/1882.5	100%	0.624	0.14	23.20	23.50	1.072	0.669	22.1	
Hotspot Test data Sensor off(50%RB)												
Front side-14mm	40	QPSK 50RB_28	376500/1882.5	100%	0.612	0.15	23.02	23.50	1.117	0.684	22.1	
Back side-19mm	40	QPSK 50RB_28	376500/1882.5	100%	0.483	-0.02	23.02	23.50	1.117	0.539	22.1	
Left side-14mm	40	QPSK 50RB_28	376500/1882.5	100%	0.0416	-0.03	23.02	23.50	1.117	0.046	22.1	
Right side-10mm	40	QPSK 50RB_28	376500/1882.5	100%	0.0691	-0.09	23.02	23.50	1.117	0.077	22.1	
Bottom side-19mm	40	QPSK 50RB_28	376500/1882.5	100%	0.738	0.14	23.02	23.50	1.117	<b>0.824</b>	22.1	
Bottom side-19mm	40	QPSK 50RB_28	372000/1860	100%	0.720	0.06	23.00	23.50	1.122	0.808	22.1	
Bottom side-19mm	40	QPSK 50RB_28	381000/1905	100%	0.705	0.04	22.97	23.50	1.130	0.797	22.1	
Hotspot Test data Sensor off(100%RB)												

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Bottom side-19mm	40	QPSK 100RB_0	376500/1882.5	100%	0.554	0.06	22.05	22.50	1.109	0.614	22.1
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Table 26: SAR of 5G NR n25



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### 8.3.17 SAR Result of 5G NR n41

ANT3 Test Record												
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data(1RB)												
Left cheek	100	QPSK 1RB_271	518598/2592.99	25%	0.016	-0.14	16.92	17.50	1.143	0.019	22.1	
Left tilted	100	QPSK 1RB_271	518598/2592.99	25%	0.013	0.19	16.92	17.50	1.143	0.014	22.1	
Right cheek	100	QPSK 1RB_271	518598/2592.99	25%	0.010	-0.07	16.92	17.50	1.143	0.011	22.1	
Right tilted	100	QPSK 1RB_271	518598/2592.99	25%	0.015	0.03	16.92	17.50	1.143	0.017	22.1	
Head Test data(50%RB)												
Left cheek	100	QPSK 135RB_69	518598/2592.99	25%	0.016	0.00	16.31	17.50	1.315	<b>0.021</b>	22.1	
Left tilted	100	QPSK 135RB_69	518598/2592.99	25%	0.005	0.00	16.31	17.50	1.315	0.006	22.1	
Right cheek	100	QPSK 135RB_69	518598/2592.99	25%	0.006	-0.14	16.31	17.50	1.315	0.008	22.1	
Right tilted	100	QPSK 135RB_69	518598/2592.99	25%	0.008	0.20	16.31	17.50	1.315	0.011	22.1	
Body Worn Test data(Separate 10mm 1RB)												
Front side	100	QPSK 1RB_271	518598/2592.99	25%	0.087	-0.15	16.92	17.50	1.143	0.099	22.1	
Back side	100	QPSK 1RB_271	518598/2592.99	25%	0.088	0.10	16.92	17.50	1.143	<b>0.101</b>	22.1	
Body Worn Test data(Separate 10mm 50%RB)												
Front side	100	QPSK 135RB_69	518598/2592.99	25%	0.071	-0.08	16.31	17.50	1.315	0.093	22.1	
Back side	100	QPSK 135RB_69	518598/2592.99	25%	0.073	-0.08	16.31	17.50	1.315	0.096	22.1	
Hotspot Test data(Separate 10mm 1RB)												
Front side	100	QPSK 1RB_271	518598/2592.99	25%	0.087	-0.15	16.92	17.50	1.143	0.099	22.1	
Back side	100	QPSK 1RB_271	518598/2592.99	25%	0.088	0.10	16.92	17.50	1.143	<b>0.101</b>	22.1	
Left side	100	QPSK 1RB_271	518598/2592.99	25%	0.040	-0.09	16.92	17.50	1.143	0.046	22.1	
Right side	100	QPSK 1RB_271	518598/2592.99	25%	0.013	-0.17	16.92	17.50	1.143	0.014	22.1	
Bottom side	100	QPSK 1RB_271	518598/2592.99	25%	0.086	-0.04	16.92	17.50	1.143	0.099	22.1	
Hotspot Test data (Separate 10mm 50%RB)												
Front side	100	QPSK 135RB_69	518598/2592.99	25%	0.071	-0.08	16.31	17.50	1.315	0.093	22.1	
Back side	100	QPSK 135RB_69	518598/2592.99	25%	0.073	-0.08	16.31	17.50	1.315	0.096	22.1	
Left side	100	QPSK 135RB_69	518598/2592.99	25%	0.046	0.10	16.31	17.50	1.315	0.060	22.1	
Right side	100	QPSK 135RB_69	518598/2592.99	25%	0.012	-0.02	16.31	17.50	1.315	0.016	22.1	
Bottom side	100	QPSK 135RB_69	518598/2592.99	25%	0.071	-0.19	16.31	17.50	1.315	0.093	22.1	

Table 27: SAR of 5G NR n41

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### 8.3.18 SAR Result of 5G NR n66

ANT1 Test Record												
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data(1RB)												
Left cheek	40	QPSK 1RB_1	352000/1760	100%	0.040	-0.10	23.41	23.50	1.021	<b>0.041</b>	22.1	
Left tilted	40	QPSK 1RB_1	352000/1760	100%	0.021	-0.08	23.41	23.50	1.021	0.021	22.1	
Right cheek	40	QPSK 1RB_1	352000/1760	100%	0.026	-0.09	23.41	23.50	1.021	0.027	22.1	
Right tilted	40	QPSK 1RB_1	352000/1760	100%	0.018	-0.18	23.41	23.50	1.021	0.018	22.1	
Head Test data(50%RB)												
Left cheek	40	QPSK 50RB_28	352000/1760	100%	0.035	-0.16	23.23	23.50	1.064	0.037	22.1	
Left tilted	40	QPSK 50RB_28	352000/1760	100%	0.015	0.17	23.23	23.50	1.064	0.016	22.1	
Right cheek	40	QPSK 50RB_28	352000/1760	100%	0.029	-0.02	23.23	23.50	1.064	0.031	22.1	
Right tilted	40	QPSK 50RB_28	352000/1760	100%	0.013	0.04	23.23	23.50	1.064	0.014	22.1	
Body Worn Test data Sensor on(Separate 10mm 1RB)												
Front side	40	QPSK 1RB_1	352000/1760	100%	0.399	-0.05	18.86	19.00	1.033	0.412	22.1	
Back side	40	QPSK 1RB_1	352000/1760	100%	0.382	0.05	18.86	19.00	1.033	0.395	22.1	
Body Worn Test data Sensor on(Separate 10mm 50%RB)												
Front side	40	QPSK 50RB_28	352000/1760	100%	0.335	-0.04	18.67	19.00	1.079	0.361	22.1	
Back side	40	QPSK 50RB_28	352000/1760	100%	0.429	0.06	18.67	19.00	1.079	0.463	22.1	
Body Worn Test data Sensor off(1RB)												
Front side-14mm	40	QPSK 1RB_1	352000/1760	100%	0.521	-0.19	23.41	23.50	1.021	0.532	22.1	
Back side-19mm	40	QPSK 1RB_1	352000/1760	100%	0.428	0.14	23.41	23.50	1.021	0.437	22.1	
Body Worn Test data Sensor off(50%RB)												
Front side-14mm	40	QPSK 50RB_28	352000/1760	100%	0.581	-0.17	23.23	23.50	1.064	<b>0.618</b>	22.1	
Back side-19mm	40	QPSK 50RB_28	352000/1760	100%	0.427	0.01	23.23	23.50	1.064	0.454	22.1	
Hotspot Test data Sensor on(Separate 10mm 1RB)												
Front side	40	QPSK 1RB_1	352000/1760	100%	0.399	-0.05	18.86	19.00	1.033	0.412	22.1	
Back side	40	QPSK 1RB_1	352000/1760	100%	0.382	0.05	18.86	19.00	1.033	0.395	22.1	
Left side	40	QPSK 1RB_1	352000/1760	100%	0.028	0.06	18.86	19.00	1.033	0.029	22.1	
Bottom side	40	QPSK 1RB_1	352000/1760	100%	0.682	0.03	18.86	19.00	1.033	0.704	22.1	
Hotspot Test data Sensor on(Separate 10mm 50%RB)												
Front side	40	QPSK 50RB_28	352000/1760	100%	0.335	-0.04	18.67	19.00	1.079	0.361	22.1	
Back side	40	QPSK 50RB_28	352000/1760	100%	0.429	0.06	18.67	19.00	1.079	0.463	22.1	
Left side	40	QPSK 50RB_28	352000/1760	100%	0.018	-0.14	18.67	19.00	1.079	0.019	22.1	
Bottom side	40	QPSK 50RB_28	352000/1760	100%	0.738	0.07	18.67	19.00	1.079	<b>0.796</b>	22.1	
Hotspot Test data Sensor off(1RB)												
Front side-14mm	40	QPSK 1RB_1	352000/1760	100%	0.521	-0.19	23.41	23.50	1.021	0.532	22.1	
Back side-19mm	40	QPSK 1RB_1	352000/1760	100%	0.428	0.14	23.41	23.50	1.021	0.437	22.1	
Left side-14mm	40	QPSK 1RB_1	352000/1760	100%	0.038	-0.08	23.41	23.50	1.021	0.039	22.1	
Right side-10mm	40	QPSK 1RB_1	352000/1760	100%	0.060	-0.08	23.41	23.50	1.021	0.061	22.1	
Bottom side-19mm	40	QPSK 1RB_1	352000/1760	100%	0.648	0.13	23.41	23.50	1.021	0.662	22.1	
Hotspot Test data Sensor off(50%RB)												
Front side-14mm	40	QPSK 50RB_28	352000/1760	100%	0.581	-0.17	23.23	23.50	1.064	<b>0.618</b>	22.1	
Back side-19mm	40	QPSK 50RB_28	352000/1760	100%	0.427	0.01	23.23	23.50	1.064	0.454	22.1	
Left side-14mm	40	QPSK 50RB_28	352000/1760	100%	0.0597	-0.14	23.23	23.50	1.064	0.064	22.1	
Right side-10mm	40	QPSK 50RB_28	352000/1760	100%	0.0698	-0.08	23.23	23.50	1.064	0.074	22.1	
Bottom side-19mm	40	QPSK 50RB_28	352000/1760	100%	0.715	0.17	23.23	23.50	1.064	0.761	22.1	

Table 28: SAR of 5G NR n66

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### 8.3.19 SAR Result of 5G NR n71

ANT6 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	20	QPSK 1RB_1	134600/673	100%	0.353	0.02	23.47	24.00	1.130	0.399	22.1
Left tilted	20	QPSK 1RB_1	134600/673	100%	0.298	0.07	23.47	24.00	1.130	0.337	22.1
Right cheek	20	QPSK 1RB_1	134600/673	100%	0.604	-0.04	23.47	24.00	1.130	0.682	22.1
Right tilted	20	QPSK 1RB_1	134600/673	100%	0.578	0.05	23.47	24.00	1.130	0.653	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_28	134600/673	100%	0.332	0.04	23.29	24.00	1.178	0.391	22.1
Left tilted	20	QPSK 50RB_28	134600/673	100%	0.309	-0.13	23.29	24.00	1.178	0.364	22.1
Right cheek	20	QPSK 50RB_28	134600/673	100%	0.663	0.02	23.29	24.00	1.178	<b>0.781</b>	22.1
Right tilted	20	QPSK 50RB_28	134600/673	100%	0.598	0.05	23.29	24.00	1.178	0.704	22.1
Body Worn Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	134600/673	100%	0.119	0.07	23.47	24.00	1.130	0.134	22.1
Back side	20	QPSK 1RB_1	134600/673	100%	0.154	0.04	23.47	24.00	1.130	<b>0.174</b>	22.1
Body Worn Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	134600/673	100%	0.130	0.06	23.29	24.00	1.178	0.153	22.1
Back side	20	QPSK 50RB_28	134600/673	100%	0.146	0.02	23.29	24.00	1.178	0.172	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	134600/673	100%	0.119	0.07	23.47	24.00	1.130	0.134	22.1
Back side	20	QPSK 1RB_1	134600/673	100%	0.154	0.04	23.47	24.00	1.130	0.174	22.1
Left side	20	QPSK 1RB_1	134600/673	100%	0.346	0.04	23.47	24.00	1.130	<b>0.391</b>	22.1
Right side	20	QPSK 1RB_1	134600/673	100%	0.130	0.09	23.47	24.00	1.130	0.147	22.1
Top side	20	QPSK 1RB_1	134600/673	100%	0.167	0.19	23.47	24.00	1.130	0.189	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	134600/673	100%	0.130	0.06	23.29	24.00	1.178	0.153	22.1
Back side	20	QPSK 50RB_28	134600/673	100%	0.146	0.02	23.29	24.00	1.178	0.172	22.1
Left side	20	QPSK 50RB_28	134600/673	100%	0.329	-0.03	23.29	24.00	1.178	0.387	22.1
Right side	20	QPSK 50RB_28	134600/673	100%	0.124	0.03	23.29	24.00	1.178	0.146	22.1
Top side	20	QPSK 50RB_28	134600/673	100%	0.162	0.18	23.29	24.00	1.178	0.191	22.1

Table 29: SAR of 5G NR n71

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### 8.3.20 SAR Result of 5G NR n77

ANT5 Test Record											
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data(1RB)											
Left cheek	100	QPSK 1RB_1	650000/3750	25%	0.060	0.12	17.10	17.50	1.096	0.066	22.1
Left tilted	100	QPSK 1RB_1	650000/3750	25%	0.021	0.00	17.10	17.50	1.096	0.023	22.1
Right cheek	100	QPSK 1RB_1	650000/3750	25%	0.184	-0.09	17.10	17.50	1.096	0.202	22.1
Right tilted	100	QPSK 1RB_1	650000/3750	25%	0.102	-0.15	17.10	17.50	1.096	0.112	22.1
Head Test data(50%RB)											
Left cheek	100	QPSK 135RB_69	650000/3750	25%	0.097	-0.15	16.92	17.50	1.143	0.111	22.1
Left tilted	100	QPSK 135RB_69	650000/3750	25%	0.060	0.00	16.92	17.50	1.143	0.069	22.1
Right cheek	100	QPSK 135RB_69	650000/3750	25%	0.252	-0.09	16.92	17.50	1.143	<b>0.288</b>	22.1
Right tilted	100	QPSK 135RB_69	650000/3750	25%	0.109	0.19	16.92	17.50	1.143	0.125	22.1
Body Worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_1	650000/3750	25%	0.044	0.02	17.10	17.50	1.096	0.048	22.1
Back side	100	QPSK 1RB_1	650000/3750	25%	0.062	0.12	17.10	17.50	1.096	<b>0.068</b>	22.1
Body Worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	650000/3750	25%	0.040	0.00	16.92	17.50	1.143	0.046	22.1
Back side	100	QPSK 135RB_69	650000/3750	25%	0.040	-0.03	16.92	17.50	1.143	0.046	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	650000/3750	25%	0.044	0.02	17.10	17.50	1.096	0.048	22.1
Back side	100	QPSK 1RB_1	650000/3750	25%	0.062	0.12	17.10	17.50	1.096	0.068	22.1
Left side	100	QPSK 1RB_1	650000/3750	25%	0.065	-0.17	17.10	17.50	1.096	<b>0.071</b>	22.1
Top side	100	QPSK 1RB_1	650000/3750	25%	0.011	0.00	17.10	17.50	1.096	0.012	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	650000/3750	25%	0.040	0.00	16.92	17.50	1.143	0.046	22.1
Back side	100	QPSK 135RB_69	650000/3750	25%	0.040	-0.03	16.92	17.50	1.143	0.046	22.1
Left side	100	QPSK 135RB_69	650000/3750	25%	0.062	-0.17	16.92	17.50	1.143	0.070	22.1
Top side	100	QPSK 135RB_69	650000/3750	25%	0.002	0.00	16.92	17.50	1.143	0.002	22.1

Table 30: SAR of 5G NR n77

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### 8.3.21 SAR Result of WIFI 2.4G

ANT9(chain1) Test Record												
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data												
Left cheek	802.11b	6/2437	99.22%	1.008	0.200	0.19	18.86	19.50	1.159	0.234	22	
Left tilted	802.11b	6/2437	99.22%	1.008	0.136	-0.09	18.86	19.50	1.159	0.159	22	
Right cheek	802.11b	6/2437	99.22%	1.008	0.085	-0.17	18.86	19.50	1.159	0.099	22	
Right tilted	802.11b	6/2437	99.22%	1.008	0.097	0.06	18.86	19.50	1.159	0.113	22	
Body worn Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.121	0.01	18.86	19.50	1.159	0.141	22	
Back side	802.11b	6/2437	99.22%	1.008	0.131	0.02	18.86	19.50	1.159	0.153	22	
Hotspot Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.121	0.01	18.86	19.50	1.159	0.141	22	
Back side	802.11b	6/2437	99.22%	1.008	0.131	0.02	18.86	19.50	1.159	0.153	22	
Right side	802.11b	6/2437	99.22%	1.008	0.098	0.09	18.86	19.50	1.159	0.114	22	
Top side	802.11b	6/2437	99.22%	1.008	0.246	0.11	18.86	19.50	1.159	0.287	22	
ANT10(chain2) Test Record												
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data												
Left cheek	802.11b	6/2437	99.22%	1.008	0.242	-0.10	18.19	19.50	1.352	0.330	22	
Left tilted	802.11b	6/2437	99.22%	1.008	0.218	0.16	18.19	19.50	1.352	0.297	22	
Right cheek	802.11b	6/2437	99.22%	1.008	0.110	0.07	18.19	19.50	1.352	0.150	22	
Right tilted	802.11b	6/2437	99.22%	1.008	0.118	0.02	18.19	19.50	1.352	0.161	22	
Body worn Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.035	0.04	18.19	19.50	1.352	0.047	22	
Back side	802.11b	6/2437	99.22%	1.008	0.112	0.08	18.19	19.50	1.352	0.153	22	
Hotspot Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.035	0.04	18.19	19.50	1.352	0.047	22	
Back side	802.11b	6/2437	99.22%	1.008	0.112	0.08	18.19	19.50	1.352	0.153	22	
Right side	802.11b	6/2437	99.22%	1.008	0.019	-0.12	18.19	19.50	1.352	0.026	22	
Top side	802.11b	6/2437	99.22%	1.008	0.078	0.17	18.19	19.50	1.352	0.106	22	
MIMO Test Record												
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.	
Head Test data												
Left cheek	802.11b	6/2437	99.22%	1.008	0.252	0.03	18.87	19.50	1.156	0.294	22	
Left tilted	802.11b	6/2437	99.22%	1.008	0.225	0.15	18.87	19.50	1.156	0.262	22	
Right cheek	802.11b	6/2437	99.22%	1.008	0.131	0.20	18.87	19.50	1.156	0.153	22	
Right tilted	802.11b	6/2437	99.22%	1.008	0.163	0.12	18.87	19.50	1.156	0.190	22	
Body worn Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.138	0.11	18.87	19.50	1.156	0.161	22	
Back side	802.11b	6/2437	99.22%	1.008	0.188	0.07	18.87	19.50	1.156	0.219	22	
Hotspot Test data (Separate 10mm)												
Front side	802.11b	6/2437	99.22%	1.008	0.138	0.11	18.87	19.50	1.156	0.161	22	
Back side	802.11b	6/2437	99.22%	1.008	0.188	0.07	18.87	19.50	1.156	0.219	22	
Right side	802.11b	6/2437	99.22%	1.008	0.083	0.16	18.87	19.50	1.156	0.097	22	
Top side	802.11b	6/2437	99.22%	1.008	0.211	0.10	18.87	19.50	1.156	0.246	22	

Table 31: SAR of WIFI 2.4G

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Mode	Tune-up (dBm)	Tune-up (mw)	Highest Reported SAR1-g(W/kg)	Adjusted SAR1-g(W/kg)	SAR test
Head					
802.11b	19.50	89.13	0.330	/	Yes
802.11g	17.50	56.23	/	0.208	No
802.1n 20M	17.00	50.12	/	0.186	No
802.11n 40M	16.50	44.67	/	0.165	No
Body worn					
802.11b	19.50	89.13	0.219	/	Yes
802.11g	17.50	56.23	/	0.138	No
802.1n 20M	17.00	50.12	/	0.123	No
802.11n 40M	16.50	44.67	/	0.110	No
Hotspot					
802.11b	19.50	89.13	0.287	/	Yes
802.11g	17.50	56.23	/	0.181	No
802.1n 20M	17.00	50.12	/	0.161	No
802.11n 40M	16.50	44.67	/	0.144	No

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### 8.3.22 SAR Result of WIFI 5G

ANT11(chain1) Test Record											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data of U-NII-2A											
Left cheek	802.11a	64/5320	98.14%	1.019	0.363	-0.03	13.76	14.50	1.186	0.439	22.2
Left tilted	802.11a	64/5320	98.14%	1.019	0.191	0.04	13.76	14.50	1.186	0.231	22.2
Right cheek	802.11a	64/5320	98.14%	1.019	0.062	-0.09	13.76	14.50	1.186	0.075	22.2
Right tilted	802.11a	64/5320	98.14%	1.019	0.063	-0.13	13.76	14.50	1.186	0.076	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	140/5700	98.14%	1.019	0.353	0.03	14.30	14.50	1.047	0.377	22.2
Left tilted	802.11a	140/5700	98.14%	1.019	0.248	0.02	14.30	14.50	1.047	0.265	22.2
Right cheek	802.11a	140/5700	98.14%	1.019	0.002	0.01	14.30	14.50	1.047	0.002	22.2
Right tilted	802.11a	140/5700	98.14%	1.019	0.001	0.01	14.30	14.50	1.047	0.001	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	149/5745	98.14%	1.019	0.458	-0.07	14.41	14.50	1.021	<b>0.476</b>	22.2
Left tilted	802.11a	149/5745	98.14%	1.019	0.323	-0.05	14.41	14.50	1.021	0.336	22.2
Right cheek	802.11a	149/5745	98.14%	1.019	0.235	0.09	14.41	14.50	1.021	0.244	22.2
Right tilted	802.11a	149/5745	98.14%	1.019	0.258	0.02	14.41	14.50	1.021	0.268	22.2
Body worn Test data of U-NII-2A Sensor on(Separate 10mm)											
Front side	802.11a	64/5320	98.14%	1.019	0.083	-0.09	13.76	14.50	1.186	0.100	22.2
Back side	802.11a	64/5320	98.14%	1.019	0.180	0.02	13.76	14.50	1.186	0.217	22.2
Body worn Test data of U-NII-2C Sensor on(Separate 10mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.123	-0.07	14.30	14.50	1.047	0.131	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.244	0.13	14.30	14.50	1.047	0.260	22.2
Body worn Test data of U-NII-3 Sensor on(Separate 10mm)											
Front side	802.11a	149/5745	98.14%	1.019	0.102	0.15	14.41	14.50	1.021	0.106	22.2
Back side	802.11a	149/5745	98.14%	1.019	0.247	-0.09	14.41	14.50	1.021	0.257	22.2
Body worn Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	64/5320	98.14%	1.019	0.268	0.09	18.83	19.50	1.167	0.319	22.2
Back side-19mm	802.11a	64/5320	98.14%	1.019	0.409	0.02	18.83	19.50	1.167	0.486	22.2
Body worn Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.284	0.02	19.34	19.50	1.038	0.300	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.652	0.06	19.34	19.50	1.038	0.689	22.2
Body worn Test data of U-NII-3 Sensor off											
Front side-14mm	802.11a	149/5745	98.14%	1.019	0.240	0.02	19.47	19.50	1.007	0.246	22.2
Back side-19mm	802.11a	149/5745	98.14%	1.019	0.596	0.14	19.47	19.50	1.007	0.612	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	48/5240	98.14%	1.019	0.070	-0.01	13.37	14.50	1.297	0.093	22.2
Back side	802.11a	48/5240	98.14%	1.019	0.175	0.13	13.37	14.50	1.297	0.231	22.2
Right side	802.11a	48/5240	98.14%	1.019	0.227	0.04	13.37	14.50	1.297	0.300	22.2
Top side	802.11a	48/5240	98.14%	1.019	0.077	-0.12	13.37	14.50	1.297	0.102	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	149/5745	98.14%	1.019	0.102	0.15	14.41	14.50	1.021	0.106	22.2
Back side	802.11a	149/5745	98.14%	1.019	0.247	-0.09	14.41	14.50	1.021	0.257	22.2
Right side	802.11a	149/5745	98.14%	1.019	0.306	0.02	14.41	14.50	1.021	0.318	22.2
Top side	802.11a	149/5745	98.14%	1.019	0.163	-0.08	14.41	14.50	1.021	0.170	22.2
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)10-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Product specific 10g SAR Test data of U-NII-2A Sensor on(Separate 0mm)											
Front side	802.11a	64/5320	98.14%	1.019	0.243	0.03	13.76	14.50	1.186	0.294	22.2
Back side	802.11a	64/5320	98.14%	1.019	0.217	0.01	13.76	14.50	1.186	0.262	22.2

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Top side	802.11a	64/5320	98.14%	1.019	0.153	0.19	13.76	14.50	1.186	0.185	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor on(Separate 0mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.240	-0.06	14.30	14.50	1.047	0.256	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.465	-0.08	14.30	14.50	1.047	0.496	22.2
Top side	802.11a	140/5700	98.14%	1.019	0.151	0	14.30	14.50	1.047	0.161	22.2
Product specific 10g SAR Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	64/5320	98.14%	1.019	0.268	0.09	18.83	19.50	1.167	0.319	22.2
Back side-19mm	802.11a	64/5320	98.14%	1.019	0.409	0.02	18.83	19.50	1.167	0.486	22.2
Right side-0mm	802.11a	64/5320	98.14%	1.019	1.480	0.13	18.83	19.50	1.167	<b>1.760</b>	22.2
Top side-19mm	802.11a	64/5320	98.14%	1.019	0.069	0.18	18.83	19.50	1.167	0.082	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.284	0.02	19.34	19.50	1.038	0.300	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.652	0.06	19.34	19.50	1.038	0.689	22.2
Right side-0mm	802.11a	140/5700	98.14%	1.019	1.530	0.19	19.34	19.50	1.038	1.618	22.2
Top side-19mm	802.11a	140/5700	98.14%	1.019	0.112	-0.12	19.34	19.50	1.038	0.118	22.2
<b>ANT10(chain2) Test Record</b>											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data of U-NII-2A											
Left cheek	802.11a	52/5260	98.14%	1.019	0.170	0.01	18.38	19.50	1.294	0.224	22.2
Left tilted	802.11a	52/5260	98.14%	1.019	0.226	-0.02	18.38	19.50	1.294	0.298	22.2
Right cheek	802.11a	52/5260	98.14%	1.019	0.196	-0.08	18.38	19.50	1.294	0.258	22.2
Right tilted	802.11a	52/5260	98.14%	1.019	0.310	-0.10	18.38	19.50	1.294	0.409	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	140/5700	98.14%	1.019	0.084	0.13	18.68	19.50	1.208	0.103	22.2
Left tilted	802.11a	140/5700	98.14%	1.019	0.101	0.03	18.68	19.50	1.208	0.124	22.2
Right cheek	802.11a	140/5700	98.14%	1.019	0.091	0.19	18.68	19.50	1.208	0.112	22.2
Right tilted	802.11a	140/5700	98.14%	1.019	0.094	-0.11	18.68	19.50	1.208	0.116	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	149/5745	98.14%	1.019	0.077	0.01	18.43	19.50	1.279	0.101	22.2
Left tilted	802.11a	149/5745	98.14%	1.019	0.091	-0.04	18.43	19.50	1.279	0.118	22.2
Right cheek	802.11a	149/5745	98.14%	1.019	0.099	0.00	18.43	19.50	1.279	0.130	22.2
Right tilted	802.11a	149/5745	98.14%	1.019	0.110	0.00	18.43	19.50	1.279	0.143	22.2
Body worn Test data of U-NII-2A Sensor on(Separate 10mm)											
Front side	802.11a	52/5260	98.14%	1.019	0.012	0.04	12.82	13.50	1.169	0.014	22.2
Back side	802.11a	52/5260	98.14%	1.019	0.496	-0.14	12.82	13.50	1.169	0.591	22.2
Body worn Test data of U-NII-2C Sensor on(Separate 10mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.009	0.02	12.60	13.50	1.230	0.011	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.121	0.02	12.60	13.50	1.230	0.152	22.2
Body worn Test data of U-NII-3 Sensor on(Separate 10mm)											
Front side	802.11a	149/5745	98.14%	1.019	0.006	0.07	12.37	13.50	1.297	0.008	22.2
Back side	802.11a	149/5745	98.14%	1.019	0.115	0.01	12.37	13.50	1.297	0.152	22.2
Body worn Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	52/5260	98.14%	1.019	0.027	0.00	18.38	19.50	1.294	0.036	22.2
Back side-19mm	802.11a	52/5260	98.14%	1.019	0.555	-0.09	18.38	19.50	1.294	<b>0.732</b>	22.2
Body worn Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.025	0.05	18.68	19.50	1.208	0.030	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.191	0.00	18.68	19.50	1.208	0.235	22.2
Body worn Test data of U-NII-3 Sensor off											
Front side-14mm	802.11a	149/5745	98.14%	1.019	0.025	0.00	18.43	19.50	1.279	0.033	22.2
Back side-19mm	802.11a	149/5745	98.14%	1.019	0.185	0.19	18.43	19.50	1.279	0.241	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	40/5200	98.14%	1.019	0.016	0.01	12.60	13.50	1.230	0.019	22.2

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Back side	802.11a	40/5200	98.14%	1.019	0.512	0.00	12.60	13.50	1.230	<b>0.642</b>	22.2
Right side	802.11a	40/5200	98.14%	1.019	0.002	0.01	12.60	13.50	1.230	0.003	22.2
Top side	802.11a	40/5200	98.14%	1.019	0.085	0.01	12.60	13.50	1.230	0.106	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	149/5745	98.14%	1.019	0.006	0.07	12.37	13.50	1.297	0.008	22.2
Back side	802.11a	149/5745	98.14%	1.019	0.115	0.01	12.37	13.50	1.297	0.152	22.2
Right side	802.11a	149/5745	98.14%	1.019	0.011	0.16	12.37	13.50	1.297	0.014	22.2
Top side	802.11a	149/5745	98.14%	1.019	0.038	0.08	12.37	13.50	1.297	0.050	22.2
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)10-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Product specific 10g SAR Test data of U-NII-1 Sensor on(Separate 0mm)											
Back side	802.11a	40/5200	98.14%	1.019	0.461	0.00	12.60	13.50	1.230	0.578	22.2
Product specific 10g SAR Test data of U-NII-2A Sensor on(Separate 0mm)											
Front side	802.11a	52/5260	98.14%	1.019	0.030	0.00	12.82	13.50	1.169	0.035	22.2
Back side	802.11a	52/5260	98.14%	1.019	0.532	-0.09	12.82	13.50	1.169	0.634	22.2
Top side	802.11a	52/5260	98.14%	1.019	0.107	-0.08	12.82	13.50	1.169	0.128	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor on(Separate 0mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.056	0.02	12.60	13.50	1.230	0.070	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.879	0.00	12.60	13.50	1.230	1.102	22.2
Top side	802.11a	140/5700	98.14%	1.019	0.112	0.04	12.60	13.50	1.230	0.140	22.2
Product specific 10g SAR Test data of U-NII-1 Sensor off											
Back side-19mm	802.11a	40/5200	98.14%	1.019	0.603	-0.06	18.05	19.50	1.396	0.858	22.2
Product specific 10g SAR Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	52/5260	98.14%	1.019	0.027	0.00	18.38	19.50	1.294	0.036	22.2
Back side-19mm	802.11a	52/5260	98.14%	1.019	0.555	-0.09	18.38	19.50	1.294	0.732	22.2
Right side-0mm	802.11a	52/5260	98.14%	1.019	0.025	0.10	18.38	19.50	1.294	0.033	22.2
Top side-19mm	802.11a	52/5260	98.14%	1.019	0.077	-0.08	18.38	19.50	1.294	0.101	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.025	0.05	18.68	19.50	1.208	0.030	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.191	0.00	18.68	19.50	1.208	0.235	22.2
Right side-0mm	802.11a	140/5700	98.14%	1.019	0.037	0.00	18.68	19.50	1.208	0.045	22.2
Top side-19mm	802.11a	140/5700	98.14%	1.019	0.000	0.01	18.68	19.50	1.208	0.000	22.2
MIMO Test Record											
Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data of U-NII-2A											
Left cheek	802.11a	64/5320	98.14%	1.019	0.204	-0.13	14.50	15.00	1.122	0.233	22.2
Left tilted	802.11a	64/5320	98.14%	1.019	0.143	0.18	14.50	15.00	1.122	0.163	22.2
Right cheek	802.11a	64/5320	98.14%	1.019	0.073	0.09	14.50	15.00	1.122	0.083	22.2
Right tilted	802.11a	64/5320	98.14%	1.019	0.055	-0.10	14.50	15.00	1.122	0.063	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	140/5700	98.14%	1.019	0.267	-0.18	14.84	15.00	1.038	0.282	22.2
Left tilted	802.11a	140/5700	98.14%	1.019	0.222	0.19	14.84	15.00	1.038	0.235	22.2
Right cheek	802.11a	140/5700	98.14%	1.019	0.071	0.00	14.84	15.00	1.038	0.075	22.2
Right tilted	802.11a	140/5700	98.14%	1.019	0.107	0.01	14.84	15.00	1.038	0.113	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	165/5825	98.14%	1.019	0.178	0.00	14.85	15.00	1.035	0.188	22.2
Left tilted	802.11a	165/5825	98.14%	1.019	0.165	0.04	14.85	15.00	1.035	0.174	22.2
Right cheek	802.11a	165/5825	98.14%	1.019	0.078	-0.11	14.85	15.00	1.035	0.082	22.2
Right tilted	802.11a	165/5825	98.14%	1.019	0.076	0.00	14.85	15.00	1.035	0.080	22.2
Body worn Test data of U-NII-2A Sensor on(Separate 10mm)											
Front side	802.11a	52/5260	98.14%	1.019	0.032	0.09	13.00	13.50	1.122	0.037	22.2
Back side	802.11a	52/5260	98.14%	1.019	0.188	-0.05	13.00	13.50	1.122	0.215	22.2

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Body worn Test data of U-NII-2C Sensor on(Separate 10mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.048	0.07	13.31	13.50	1.045	0.051	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.157	0.09	13.31	13.50	1.045	0.167	22.2
Body worn Test data of U-NII-3 Sensor on(Separate 10mm)											
Front side	802.11a	157/5785	98.14%	1.019	0.056	0.02	13.36	13.50	1.033	0.059	22.2
Back side	802.11a	157/5785	98.14%	1.019	0.160	0.01	13.36	13.50	1.033	0.168	22.2
Body worn Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	64/5320	98.14%	1.019	0.076	-0.08	19.07	19.50	1.104	0.086	22.2
Back side-19mm	802.11a	64/5320	98.14%	1.019	0.375	0.17	19.07	19.50	1.104	0.422	22.2
Body worn Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.152	0.06	19.40	19.50	1.023	0.158	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.470	0.02	19.40	19.50	1.023	0.490	22.2
Body worn Test data of U-NII-3 Sensor off											
Front side-14mm	802.11a	157/5785	98.14%	1.019	0.110	-0.04	19.44	19.50	1.014	0.114	22.2
Back side-19mm	802.11a	157/5785	98.14%	1.019	0.595	-0.19	19.44	19.50	1.014	0.615	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	40/5200	98.14%	1.019	0.031	0.06	12.83	13.50	1.167	0.037	22.2
Back side	802.11a	40/5200	98.14%	1.019	0.372	0.12	12.83	13.50	1.167	0.442	22.2
Right side	802.11a	40/5200	98.14%	1.019	0.071	-0.12	12.83	13.50	1.167	0.084	22.2
Top side	802.11a	40/5200	98.14%	1.019	0.044	0.05	12.83	13.50	1.167	0.052	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	157/5785	98.14%	1.019	0.056	0.02	13.36	13.50	1.033	0.059	22.2
Back side	802.11a	157/5785	98.14%	1.019	0.160	0.01	13.36	13.50	1.033	0.168	22.2
Right side	802.11a	157/5785	98.14%	1.019	0.093	-0.09	13.36	13.50	1.033	0.098	22.2
Top side	802.11a	157/5785	98.14%	1.019	0.051	0.00	13.36	13.50	1.033	0.054	22.2
Product specific 10g SAR Test data of U-NII-1 Sensor on(Separate 0mm)											
Back side	802.11a	40/5200	98.14%	1.019	0.307	0.00	12.83	13.50	1.167	0.365	22.2
Product specific 10g SAR Test data of U-NII-2A Sensor on(Separate 0mm)											
Front side	802.11a	52/5260	98.14%	1.019	0.095	0.04	13.00	13.50	1.122	0.108	22.2
Back side	802.11a	52/5260	98.14%	1.019	0.164	0.02	13.00	13.50	1.122	0.187	22.2
Top side	802.11a	52/5260	98.14%	1.019	0.085	-0.06	13.00	13.50	1.122	0.097	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor on(Separate 0mm)											
Front side	802.11a	140/5700	98.14%	1.019	0.115	0.06	13.31	13.50	1.045	0.122	22.2
Back side	802.11a	140/5700	98.14%	1.019	0.220	0.00	13.31	13.50	1.045	0.234	22.2
Top side	802.11a	140/5700	98.14%	1.019	0.089	0.13	13.31	13.50	1.045	0.094	22.2
Product specific 10g SAR Test data of U-NII-1 Sensor off											
Back side-19mm	802.11a	40/5200	98.14%	1.019	0.166	-0.06	18.91	19.50	1.146	0.194	22.2
Product specific 10g SAR Test data of U-NII-2A Sensor off											
Front side-14mm	802.11a	64/5320	98.14%	1.019	0.076	-0.08	19.07	19.50	1.104	0.086	22.2
Back side-19mm	802.11a	64/5320	98.14%	1.019	0.375	0.17	19.07	19.50	1.104	0.422	22.2
Right side-0mm	802.11a	64/5320	98.14%	1.019	0.659	0.06	19.07	19.50	1.104	0.741	22.2
Top side-19mm	802.11a	64/5320	98.14%	1.019	0.049	-0.06	19.07	19.50	1.104	0.056	22.2
Product specific 10g SAR Test data of U-NII-2C Sensor off											
Front side-14mm	802.11a	140/5700	98.14%	1.019	0.152	0.06	19.40	19.50	1.023	0.158	22.2
Back side-19mm	802.11a	140/5700	98.14%	1.019	0.470	0.02	19.40	19.50	1.023	0.490	22.2
Right side-0mm	802.11a	140/5700	98.14%	1.019	1.170	-0.12	19.40	19.50	1.023	1.220	22.2
Top side-19mm	802.11a	140/5700	98.14%	1.019	0.096	0.13	19.40	19.50	1.023	0.100	22.2

Table 32: SAR of WIFI 5G

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Mode	Tune-up (dBm)	Tune-up (mw)	Highest Reported SAR1-g(W/kg)	Adjusted SAR1-g(W/kg)	SAR test
Head					
802.11a	14.50	28.18	0.476	/	Yes
802.11n-HT20	14.50	28.18	/	0.476	No
802.11n-HT40	13.50	22.39	/	0.378	No
802.11ac 20M	14.50	28.18	/	0.476	No
802.11ac 40M	13.50	22.39	/	0.378	No
802.11ac 80M	12.50	17.78	/	0.300	No
Body worn					
802.11a	19.50	89.13	0.732	/	Yes
802.11n-HT20	19.50	89.13	/	0.732	No
802.11n-HT40	18.50	70.79	/	0.581	No
802.11ac 20M	19.50	89.13	/	0.732	No
802.11ac 40M	18.50	70.79	/	0.581	No
802.11ac 80M	17.50	56.23	/	0.462	No
Hotspot					
802.11a	13.50	22.39	0.642	/	Yes
802.11n-HT20	13.50	22.39	/	0.642	No
802.11n-HT40	12.50	17.78	/	0.510	No
802.11ac 20M	13.50	22.39	/	0.642	No
802.11ac 40M	12.50	17.78	/	0.510	No
802.11ac 80M	11.50	14.13	/	0.405	No

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### 8.3.23 SAR Result of BT

Test position	Test mode	Test Ch./Freq.	Duty Cycle	Duty Cycle Scaled factor	SAR (W/kg)1-g	Power drift(dB)	Conducted power(dBm)	Tune up Limit(dBm)	Scaled factor	Scaled SAR(W/kg)	Liquid Temp.
Head Test data											
Left cheek	DH5	39/2441	77.42%	1.292	0.115	-0.08	11.54	12.00	1.112	<b>0.165</b>	22.0
Left tilted	DH5	39/2441	77.42%	1.292	0.096	-0.01	11.54	12.00	1.112	0.138	22.0
Right cheek	DH5	39/2441	77.42%	1.292	0.057	0.03	11.54	12.00	1.112	0.082	22.0
Right tilted	DH5	39/2441	77.42%	1.292	0.059	-0.05	11.54	12.00	1.112	0.084	22.0
Body worn Test data (Separate 10mm)											
Front side	DH5	39/2441	77.42%	1.292	0.018	-0.05	11.54	12.00	1.112	0.020	22.0
Back side	DH5	39/2441	77.42%	1.292	0.032	-0.03	11.54	12.00	1.112	<b>0.036</b>	22.0
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	77.42%	1.292	0.018	-0.05	11.54	12.00	1.112	0.020	22.0
Back side	DH5	39/2441	77.42%	1.292	0.032	-0.03	11.54	12.00	1.112	<b>0.036</b>	22.0
Right side	DH5	39/2441	77.42%	1.292	0.013	0.09	11.54	12.00	1.112	0.014	22.0
Top side	DH5	39/2441	77.42%	1.292	0.028	-0.06	11.54	12.00	1.112	0.031	22.0

Table 33: SAR of BT

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## 8.4 Multiple Transmitter Evaluation

### 8.4.1 Simultaneous SAR SAR test evaluation

- Simultaneous Transmission Possibilities

WWAN +WLAN		
1	WWAN + WIFI 2.4G chain1	Y
2	WWAN + WIFI 2.4G chain2	Y
3	WWAN + WIFI 2.4G MIMO	Y
4	WWAN + WIFI 5G chain1	Y
5	WWAN + WIFI 5G chain2	Y
6	WWAN + WIFI 5G MIMO	Y
7	WWAN + BT	Y
8	WWAN + WIFI 2.4G chain2 + BT	Y
9	WWAN + WIFI 5G chain1 + BT	Y
10	WWAN + WIFI 5G chain2 + BT	Y
11	WWAN + WIFI 5G MIMO + BT	Y
WLAN		
1	WIFI 2.4G chain2 + BT	Y
2	WIFI 5G chain1 + BT	Y
3	WIFI 5G chain2 + BT	Y
4	WIFI 5G MIMO + BT	Y

**Note:**

- 1) The device does not support DTM function.

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### 8.4.2 Simultaneous Transmission SAR Summation Scenario

#### EN-DC SAR:

**Head:**

LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n2	EN_DC Summed SAR
					Ant1	
Band 5	Left Touch	/	0.428	/	0.038	0.466
	Left Tilt	/	0.258	/	0.022	0.280
	Right Touch	/	0.687	/	0.029	0.716
	Right Tilt	/	0.638	/	0.021	0.659
Band 12	Left Touch	/	0.277	/	0.038	0.315
	Left Tilt	/	0.222	/	0.022	0.244
	Right Touch	/	0.523	/	0.029	0.552
	Right Tilt	/	0.472	/	0.021	0.493
Band 13	Left Touch	/	0.358	/	0.038	0.396
	Left Tilt	/	0.307	/	0.022	0.329
	Right Touch	/	0.638	/	0.029	0.667
	Right Tilt	/	0.612	/	0.021	0.633
Band 66	Left Touch	/	/	0.454	0.038	0.492
	Left Tilt	/	/	0.719	0.022	0.741
	Right Touch	/	/	0.367	0.029	0.396
	Right Tilt	/	/	0.626	0.021	0.647
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n5	EN_DC Summed SAR
					Ant6	
Band 2	Left Touch	0.050	/	/	0.382	0.432
	Left Tilt	0.026	/	/	0.348	0.374
	Right Touch	0.027	/	/	0.562	0.589
	Right Tilt	0.024	/	/	0.588	0.612
Band 66	Left Touch	0.017	/	/	0.382	0.399
	Left Tilt	0.016	/	/	0.348	0.364
	Right Touch	0.014	/	/	0.562	0.576
	Right Tilt	0.014	/	/	0.588	0.602
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n25	EN_DC Summed SAR
					Ant1	
Band 12	Left Touch	/	0.277	/	0.043	0.320
	Left Tilt	/	0.222	/	0.017	0.239
	Right Touch	/	0.523	/	0.028	0.551
	Right Tilt	/	0.472	/	0.022	0.494
Band 66	Left Touch	/	/	0.454	0.043	0.497
	Left Tilt	/	/	0.719	0.017	0.736
	Right Touch	/	/	0.367	0.028	0.395
	Right Tilt	/	/	0.626	0.022	0.648
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n41	EN_DC Summed SAR
					Ant3	
Band 2	Left Touch	/	/	0.556	0.021	0.577
	Left Tilt	/	/	0.655	0.014	0.669
	Right Touch	/	/	0.395	0.011	0.406
	Right Tilt	/	/	0.629	0.017	0.646
Band 66	Left Touch	/	/	0.454	0.021	0.475

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	Left Tilt	/	/	0.719	0.014	0.733
	Right Touch	/	/	0.367	0.011	0.378
	Right Tilt	/	/	0.626	0.017	0.643
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n66	EN_DC Summed SAR
					Ant1	
Band 2	Left Touch	/	/	0.556	0.041	0.597
	Left Tilt	/	/	0.655	0.021	0.676
	Right Touch	/	/	0.395	0.031	0.426
	Right Tilt	/	/	0.629	0.018	0.647
Band 5	Left Touch	/	0.428	/	0.041	0.469
	Left Tilt	/	0.258	/	0.021	0.279
	Right Touch	/	0.687	/	0.031	0.718
	Right Tilt	/	0.638	/	0.018	0.656
Band 12	Left Touch	/	0.277	/	0.041	0.318
	Left Tilt	/	0.222	/	0.021	0.243
	Right Touch	/	0.523	/	0.031	0.554
	Right Tilt	/	0.472	/	0.018	0.490
Band 13	Left Touch	/	0.358	/	0.041	0.399
	Left Tilt	/	0.307	/	0.021	0.328
	Right Touch	/	0.638	/	0.031	0.669
	Right Tilt	/	0.612	/	0.018	0.630
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n71	EN_DC Summed SAR
					Ant6	
Band 2	Left Touch	0.050	/	/	0.399	0.449
	Left Tilt	0.026	/	/	0.364	0.390
	Right Touch	0.027	/	/	0.781	0.808
	Right Tilt	0.024	/	/	0.704	0.728
Band 66	Left Touch	0.017	/	/	0.399	0.416
	Left Tilt	0.016	/	/	0.364	0.380
	Right Touch	0.014	/	/	0.781	0.795
	Right Tilt	0.014	/	/	0.704	0.718
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n77	EN_DC Summed SAR
					Ant5	
Band 2	Left Touch	/	/	0.556	0.111	0.667
	Left Tilt	/	/	0.655	0.069	0.724
	Right Touch	/	/	0.395	0.288	0.683
	Right Tilt	/	/	0.629	0.125	0.754
Band 5	Left Touch	/	0.428	/	0.111	0.539
	Left Tilt	/	0.258	/	0.069	0.327
	Right Touch	/	0.687	/	0.288	0.975
	Right Tilt	/	0.638	/	0.125	0.763
Band 12	Left Touch	/	0.277	/	0.111	0.388
	Left Tilt	/	0.222	/	0.069	0.291
	Right Touch	/	0.523	/	0.288	0.811
	Right Tilt	/	0.472	/	0.125	0.597
Band 13	Left Touch	/	0.358	/	0.111	0.469
	Left Tilt	/	0.307	/	0.069	0.376
	Right Touch	/	0.638	/	0.288	0.926
	Right Tilt	/	0.612	/	0.125	0.737
Band 66	Left Touch	/	/	0.454	0.111	0.565

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	Left Tilt	/	/	0.719	0.069	0.788
	Right Touch	/	/	0.367	0.288	0.655
	Right Tilt	/	/	0.626	0.125	0.751

**Body-worn:**

LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n2	EN_DC Summed SAR
					Ant1	
Band 5	Front side	/	0.084	/	0.328	0.412
	Back side	/	0.112	/	0.539	0.651
Band 12	Front side	/	0.028	/	0.328	0.356
	Back side	/	0.071	/	0.539	0.610
Band 13	Front side	/	0.028	/	0.328	0.356
	Back side	/	0.074	/	0.539	0.613
Band 66	Front side	/	/	0.246	0.328	0.574
	Back side	/	/	0.344	0.539	0.883
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n5	EN_DC Summed SAR
					Ant6	
Band 2	Front side	0.213	/	/	0.252	0.465
	Back side	0.309	/	/	0.432	0.741
Band 66	Front side	0.070	/	/	0.252	0.322
	Back side	0.089	/	/	0.432	0.521
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n25	EN_DC Summed SAR
					Ant1	
Band 12	Front side	/	0.028	/	0.306	0.334
	Back side	/	0.071	/	0.314	0.385
Band 66	Front side	/	/	0.246	0.306	0.552
	Back side	/	/	0.344	0.314	0.658
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n41	EN_DC Summed SAR
					Ant3	
Band 2	Front side	/	/	0.192	0.099	0.291
	Back side	/	/	0.227	0.101	0.328
Band 66	Front side	/	/	0.246	0.099	0.345
	Back side	/	/	0.344	0.101	0.445
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n66	EN_DC Summed SAR
					Ant1	
Band 2	Front side	/	/	0.192	0.412	0.604
	Back side	/	/	0.227	0.463	0.690
Band 5	Front side	/	0.084	/	0.412	0.496
	Back side	/	0.112	/	0.463	0.575
Band 12	Front side	/	0.028	/	0.412	0.440
	Back side	/	0.071	/	0.463	0.534
Band 13	Front side	/	0.028	/	0.412	0.440
	Back side	/	0.074	/	0.463	0.537
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n71	EN_DC Summed SAR
					Ant6	
Band 2	Front side	0.213	/	/	0.153	0.366
	Back side	0.309	/	/	0.174	0.483
Band 66	Front side	0.070	/	/	0.153	0.223
	Back side	0.089	/	/	0.174	0.263
LTE Band	Exposure position	Ant1	Ant6	Ant8	n77	EN_DC

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(EN_DC)					Ant5	Summed SAR
Band 2	Front side	/	/	0.192	0.048	0.240
	Back side	/	/	0.227	0.068	0.295
Band 5	Front side	/	0.084	/	0.048	0.132
	Back side	/	0.112	/	0.068	0.180
Band 12	Front side	/	0.028	/	0.048	0.076
	Back side	/	0.071	/	0.068	0.139
Band 13	Front side	/	0.028	/	0.048	0.076
	Back side	/	0.074	/	0.068	0.142
Band 66	Front side	/	/	0.246	0.048	0.294
	Back side	/	/	0.344	0.068	0.412

## Hotspot:

LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n2	EN_DC Summed SAR
					Ant1	
Band 5	Front side	/	0.084	/	0.328	0.412
	Back side	/	0.112	/	0.539	0.651
	Left side	/	0.062	/	0.018	0.080
	Right side	/	0.022	/	0.065	0.087
	Top	/	0.104	/	0.000	0.104
	Bottom side	/	0.000	/	0.778	0.778
Band 12	Front side	/	0.028	/	0.328	0.356
	Back side	/	0.071	/	0.539	0.610
	Left side	/	0.072	/	0.018	0.090
	Right side	/	0.019	/	0.065	0.084
	Top	/	0.041	/	0.000	0.041
	Bottom side	/	0.000	/	0.778	0.778
Band 13	Front side	/	0.028	/	0.328	0.356
	Back side	/	0.074	/	0.539	0.613
	Left side	/	0.063	/	0.018	0.081
	Right side	/	0.017	/	0.065	0.082
	Top	/	0.066	/	0.000	0.066
	Bottom side	/	0.000	/	0.778	0.778
Band 66	Front side	/	/	0.246	0.328	0.574
	Back side	/	/	0.344	0.539	0.883
	Left side	/	/	0.085	0.018	0.103
	Right side	/	/	0.240	0.065	0.305
	Top	/	/	0.382	0.000	0.382
	Bottom side	/	/	0.000	0.778	0.778
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n5	EN_DC Summed SAR
					Ant6	
Band 2	Front side	0.213	/	/	0.252	0.465
	Back side	0.309	/	/	0.432	0.741
	Left side	0.015	/	/	0.229	0.244
	Right side	0.019	/	/	0.093	0.112
	Top	0.000	/	/	0.336	0.336
	Bottom side	0.474	/	/	0.000	0.474
Band 66	Front side	0.070	/	/	0.252	0.322
	Back side	0.098	/	/	0.432	0.530
	Left side	0.010	/	/	0.229	0.239

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	Right side	0.005	/	/	0.093	0.098
	Top	0.000	/	/	0.336	0.336
	Bottom side	0.170	/	/	0.000	0.170
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n25 Ant1	EN_DC Summed SAR
	Front side	/	0.028	/	0.306	0.334
Band 12	Back side	/	0.071	/	0.314	0.385
	Left side	/	0.072	/	0.024	0.096
	Right side	/	0.019	/	0.077	0.096
	Top	/	0.041	/	0.000	0.041
	Bottom side	/	0.000	/	0.705	0.705
	Front side	/	/	0.246	0.306	0.552
Band 66	Back side	/	/	0.344	0.314	0.658
	Left side	/	/	0.085	0.024	0.109
	Right side	/	/	0.240	0.077	0.317
	Top	/	/	0.382	0.000	0.382
	Bottom side	/	/	0.000	0.705	0.705
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n41 Ant3	EN_DC Summed SAR
Band 2	Front side	/	/	0.192	0.099	0.291
	Back side	/	/	0.227	0.101	0.328
	Left side	/	/	0.026	0.060	0.086
	Right side	/	/	0.231	0.016	0.247
	Top	/	/	0.410	0.000	0.410
	Bottom side	/	/	0.000	0.099	0.099
Band 66	Front side	/	/	0.246	0.099	0.345
	Back side	/	/	0.344	0.101	0.445
	Left side	/	/	0.085	0.060	0.145
	Right side	/	/	0.240	0.016	0.256
	Top	/	/	0.382	0.000	0.382
	Bottom side	/	/	0.000	0.099	0.099
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n66 Ant1	EN_DC Summed SAR
Band 2	Front side	/	/	0.192	0.412	0.604
	Back side	/	/	0.227	0.463	0.690
	Left side	/	/	0.026	0.029	0.055
	Right side	/	/	0.231	0.074	0.305
	Top	/	/	0.410	0.000	0.410
	Bottom side	/	/	0.000	0.796	0.796
Band 5	Front side	/	0.084	/	0.412	0.496
	Back side	/	0.112	/	0.463	0.575
	Left side	/	0.062	/	0.029	0.091
	Right side	/	0.022	/	0.074	0.096
	Top	/	0.104	/	0.000	0.104
	Bottom side	/	0.000	/	0.796	0.796
Band 12	Front side	/	0.028	/	0.412	0.440
	Back side	/	0.071	/	0.463	0.534
	Left side	/	0.072	/	0.029	0.101
	Right side	/	0.019	/	0.074	0.093
	Top	/	0.041	/	0.000	0.041

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	Bottom side	/	0.000	/	0.796	0.796
Band 13	Front side	/	0.028	/	0.412	0.440
	Back side	/	0.074	/	0.463	0.537
	Left side	/	0.063	/	0.029	0.092
	Right side	/	0.017	/	0.074	0.091
	Top	/	0.066	/	0.000	0.066
	Bottom side	/	0.000	/	0.796	0.796
	Exposure position	Ant1	Ant6	Ant8	n71 Ant6	EN_DC Summed SAR
Band 2	Front side	0.213	/	/	0.153	0.366
	Back side	0.309	/	/	0.174	0.483
	Left side	0.015	/	/	0.391	0.406
	Right side	0.019	/	/	0.147	0.166
	Top	0.000	/	/	0.191	0.191
	Bottom side	0.474	/	/	0.000	0.474
Band 66	Front side	0.070	/	/	0.153	0.223
	Back side	0.098	/	/	0.174	0.272
	Left side	0.010	/	/	0.391	0.401
	Right side	0.005	/	/	0.147	0.152
	Top	0.000	/	/	0.191	0.191
	Bottom side	0.170	/	/	0.000	0.170
LTE Band (EN_DC)	Exposure position	Ant1	Ant6	Ant8	n77 Ant5	EN_DC Summed SAR
Band 2	Front side	/	/	0.192	0.048	0.240
	Back side	/	/	0.227	0.068	0.295
	Left side	/	/	0.026	0.071	0.097
	Right side	/	/	0.231	0.000	0.231
	Top	/	/	0.410	0.012	0.422
	Bottom side	/	/	0.000	0.000	0.000
Band 5	Front side	/	0.084	/	0.048	0.132
	Back side	/	0.112	/	0.068	0.180
	Left side	/	0.062	/	0.071	0.133
	Right side	/	0.022	/	0.000	0.022
	Top	/	0.104	/	0.012	0.116
	Bottom side	/	0.000	/	0.000	0.000
Band 12	Front side	/	0.028	/	0.048	0.076
	Back side	/	0.071	/	0.068	0.139
	Left side	/	0.072	/	0.071	0.143
	Right side	/	0.019	/	0.000	0.019
	Top	/	0.041	/	0.012	0.053
	Bottom side	/	0.000	/	0.000	0.000
Band 13	Front side	/	0.028	/	0.048	0.076
	Back side	/	0.074	/	0.068	0.142
	Left side	/	0.063	/	0.071	0.134
	Right side	/	0.017	/	0.000	0.017
	Top	/	0.066	/	0.012	0.078
	Bottom side	/	0.000	/	0.000	0.000
Band 66	Front side	/	/	0.246	0.048	0.294
	Back side	/	/	0.344	0.068	0.412
	Left side	/	/	0.085	0.071	0.156

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	Right side	/	/	0.240	0.000	0.240
	Top	/	/	0.382	0.012	0.394
	Bottom side	/	/	0.000	0.000	0.000

## Inter-band UL CA SAR: Head:

Inter-band UL CA	Exposure position	Ant6	Ant8	Band 2	Summed SAR
				Ant8	
Band 4	Left Touch	/	0.441	0.441	0.882
	Left Tilt	/	0.477	0.520	0.997
	Right Touch	/	0.509	0.314	0.823
	Right Tilt	/	0.482	0.500	0.982
Band 5	Left Touch	0.303	/	0.441	0.744
	Left Tilt	0.182	/	0.520	0.702
	Right Touch	0.486	/	0.314	0.800
	Right Tilt	0.451	/	0.500	0.951
Band 12	Left Touch	0.220	/	0.441	0.661
	Left Tilt	0.176	/	0.520	0.696
	Right Touch	0.415	/	0.314	0.729
	Right Tilt	0.375	/	0.500	0.875
Band 13	Left Touch	0.285	/	0.441	0.726
	Left Tilt	0.244	/	0.520	0.764
	Right Touch	0.507	/	0.314	0.821
	Right Tilt	0.487	/	0.500	0.987
Band 66	Left Touch	/	0.361	0.441	0.802
	Left Tilt	/	0.571	0.520	1.091
	Right Touch	/	0.292	0.314	0.606
	Right Tilt	/	0.498	0.500	0.998
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 4	Summed SAR
				Ant8	
Band 5	Left Touch	0.303	/	0.441	0.744
	Left Tilt	0.182	/	0.477	0.659
	Right Touch	0.486	/	0.509	0.995
	Right Tilt	0.451	/	0.482	0.933
Band 12	Left Touch	0.220	/	0.441	0.661
	Left Tilt	0.176	/	0.477	0.653
	Right Touch	0.415	/	0.509	0.924
	Right Tilt	0.375	/	0.482	0.857
Band 13	Left Touch	0.285	/	0.441	0.726
	Left Tilt	0.244	/	0.477	0.721
	Right Touch	0.507	/	0.509	1.016
	Right Tilt	0.487	/	0.482	0.969
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 66	Summed SAR
				Ant8	
Band 5	Left Touch	0.303	/	0.361	0.664
	Left Tilt	0.182	/	0.571	0.753
	Right Touch	0.486	/	0.292	0.778
	Right Tilt	0.451	/	0.498	0.949
Band 12	Left Touch	0.220	/	0.361	0.581
	Left Tilt	0.176	/	0.571	0.747
	Right Touch	0.415	/	0.292	0.707

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	Right Tilt	0.375	/	0.498	0.873
	Left Touch	0.285	/	0.361	0.646
	Left Tilt	0.244	/	0.571	0.815
	Right Touch	0.507	/	0.292	0.799
	Right Tilt	0.487	/	0.498	0.985

## Body-worn:

Inter-band UL CA	Exposure position	Ant6	Ant8	Band 2	Summed SAR
				Ant8	
Band 4	Front side	/	0.322	0.241	0.563
	Back side	/	0.416	0.286	0.702
Band 5	Front side	0.422	/	0.241	0.663
	Back side	0.521	/	0.286	0.807
Band 12	Front side	0.137	/	0.241	0.378
	Back side	0.358	/	0.286	0.644
Band 13	Front side	0.138	/	0.241	0.379
	Back side	0.370	/	0.286	0.656
Band 66	Front side	/	0.309	0.241	0.550
	Back side	/	0.433	0.286	0.719
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 4	Summed SAR
				Ant8	
Band 5	Front side	0.422	/	0.322	0.744
	Back side	0.521	/	0.416	0.937
Band 12	Front side	0.137	/	0.322	0.459
	Back side	0.358	/	0.416	0.774
Band 13	Front side	0.138	/	0.322	0.460
	Back side	0.370	/	0.416	0.786
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 66	Summed SAR
				Ant8	
Band 5	Front side	0.422	/	0.309	0.731
	Back side	0.521	/	0.433	0.954
Band 12	Front side	0.137	/	0.309	0.446
	Back side	0.358	/	0.433	0.791
Band 13	Front side	0.138	/	0.309	0.447
	Back side	0.370	/	0.433	0.803

## Hotspot:

Inter-band UL CA	Exposure position	Ant6	Ant8	Band 2	Summed SAR
				Ant8	
Band 4	Front side	/	0.322	0.241	0.563
	Back side	/	0.416	0.286	0.702
	Left side	/	0.063	0.032	0.095
	Right side	/	0.000	0.000	0.000
	Top	/	0.563	0.517	1.080
	Bottom side	/	0.000	0.000	0.000
Band 5	Front side	0.422	/	0.241	0.663
	Back side	0.521	/	0.286	0.807
	Left side	0.301	/	0.032	0.333
	Right side	0.108	/	0.000	0.108
	Top	0.414	/	0.517	0.931
	Bottom side	0.000	/	0.000	0.000
Band 12	Front side	0.137	/	0.241	0.378

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	Back side	0.358	/	0.286	0.644
	Left side	0.350	/	0.032	0.382
	Right side	0.091	/	0.000	0.091
	Top	0.205	/	0.517	0.722
	Bottom side	0.000	/	0.000	0.000
Band 13	Front side	0.138	/	0.241	0.379
	Back side	0.370	/	0.286	0.656
	Left side	0.318	/	0.032	0.350
	Right side	0.087	/	0.000	0.087
	Top	0.331	/	0.517	0.848
	Bottom side	0.000	/	0.000	0.000
Band 66	Front side	/	0.309	0.241	0.550
	Back side	/	0.433	0.286	0.719
	Left side	/	0.107	0.032	0.139
	Right side	/	0.000	0.000	0.000
	Top	/	0.488	0.517	1.005
	Bottom side	/	0.000	0.000	0.000
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 4	Summed SAR
				Ant8	
Band 5	Front side	0.422	/	0.322	0.744
	Back side	0.521	/	0.416	0.937
	Left side	0.301	/	0.063	0.364
	Right side	0.108	/	0.000	0.108
	Top	0.414	/	0.563	0.977
	Bottom side	0.000	/	0.000	0.000
Band 12	Front side	0.137	/	0.322	0.459
	Back side	0.358	/	0.416	0.774
	Left side	0.350	/	0.063	0.413
	Right side	0.091	/	0.000	0.091
	Top	0.205	/	0.563	0.768
	Bottom side	0.000	/	0.000	0.000
Band 13	Front side	0.138	/	0.322	0.460
	Back side	0.370	/	0.416	0.786
	Left side	0.318	/	0.063	0.381
	Right side	0.087	/	0.000	0.087
	Top	0.331	/	0.563	0.894
	Bottom side	0.000	/	0.000	0.000
Inter-band UL CA	Exposure position	Ant6	Ant8	Band 66	Summed SAR
				Ant8	
Band 5	Front side	0.422	/	0.309	0.731
	Back side	0.521	/	0.433	0.954
	Left side	0.301	/	0.107	0.408
	Right side	0.108	/	0.000	0.108
	Top	0.414	/	0.488	0.902
	Bottom side	0.000	/	0.000	0.000
Band 12	Front side	0.137	/	0.309	0.446
	Back side	0.358	/	0.433	0.791
	Left side	0.350	/	0.107	0.457
	Right side	0.091	/	0.000	0.091
	Top	0.205	/	0.488	0.693
	Bottom side	0.000	/	0.000	0.000
Band 13	Front side	0.138	/	0.309	0.447

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	Back side	0.370	/	0.433	0.803
	Left side	0.318	/	0.107	0.425
	Right side	0.087	/	0.000	0.087
	Top	0.331	/	0.488	0.819
	Bottom side	0.000	/	0.000	0.000

## Simultaneous Transmission SAR Summation Scenario:

### Head:

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant3	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT															
LTE Band 41	Left Touch	0.151	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.385	0.481	0.445	0.627	0.375	0.433	0.316	0.495	0.641	0.389	0.447	0.646	0.792	0.540	0.598
	Left Tilt	0.036	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.195	0.333	0.298	0.372	0.334	0.271	0.174	0.435	0.474	0.436	0.373	0.471	0.510	0.472	0.409
	Right Touch	0.114	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.213	0.264	0.267	0.358	0.372	0.197	0.196	0.232	0.326	0.340	0.165	0.346	0.440	0.454	0.279
	Right Tilt	0.075	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.188	0.236	0.265	0.343	0.484	0.188	0.159	0.245	0.352	0.493	0.197	0.320	0.427	0.568	0.272

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant6	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT															
GSM850	Left Touch	0.459	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.693	0.789	0.753	0.935	0.683	0.741	0.624	0.495	0.641	0.389	0.447	0.954	1.100	0.848	0.906
	Left Tilt	0.507	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.666	0.804	0.769	0.843	0.805	0.742	0.645	0.435	0.474	0.436	0.373	0.942	0.981	0.943	0.880
	Right Touch	0.705	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.804	0.855	0.858	0.949	0.963	0.788	0.787	0.232	0.326	0.340	0.165	0.937	1.031	1.045	0.870
	Right Tilt	0.642	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.755	0.803	0.832	0.910	1.051	0.755	0.726	0.245	0.352	0.493	0.197	0.887	0.994	1.135	0.839
WCAMA Band V	Left Touch	0.499	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.733	0.829	0.793	0.975	0.723	0.781	0.664	0.495	0.641	0.389	0.447	0.994	1.140	0.888	0.946
	Left Tilt	0.495	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.654	0.792	0.757	0.831	0.793	0.730	0.633	0.435	0.474	0.436	0.373	0.930	0.969	0.931	0.868
	Right Touch	0.741	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.840	0.891	0.894	0.985	0.999	0.824	0.823	0.232	0.326	0.340	0.165	0.973	1.067	1.081	0.906
	Right Tilt	0.736	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.849	0.897	0.926	1.004	1.145	0.849	0.820	0.245	0.352	0.493	0.197	0.981	1.088	1.229	0.933
LTE Band 5	Left Touch	0.428	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.662	0.758	0.722	0.904	0.652	0.710	0.593	0.495	0.641	0.389	0.447	0.994	1.140	0.888	0.946
	Left Tilt	0.258	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.417	0.555	0.520	0.594	0.556	0.493	0.396	0.435	0.474	0.436	0.373	0.693	0.732	0.694	0.631
	Right Touch	0.687	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.786	0.837	0.840	0.931	0.945	0.770	0.769	0.232	0.326	0.340	0.165	0.919	1.013	1.027	0.852
	Right Tilt	0.638	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.751	0.799	0.828	0.906	1.047	0.751	0.722	0.245	0.352	0.493	0.197	0.883	0.990	1.131	0.835
LTE Band 12	Left Touch	0.277	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.511	0.607	0.571	0.753	0.501	0.559	0.442	0.495	0.641	0.389	0.447	0.772	0.918	0.666	0.724
	Left Tilt	0.222	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.381	0.519	0.484	0.558	0.520	0.457	0.360	0.435	0.474	0.436	0.373	0.657	0.696	0.658	0.595
	Right Touch	0.523	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.622	0.673	0.676	0.781	0.606	0.605	0.232	0.326	0.340	0.165	0.755	0.849	0.863	0.688	
	Right Tilt	0.472	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.585	0.633	0.662	0.740	0.881	0.585	0.556	0.245	0.352	0.493	0.197	0.717	0.824	0.965	0.669
LTE Band 13	Left Touch	0.358	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.592	0.688	0.652	0.834	0.582	0.640	0.523	0.495	0.641	0.389	0.447	0.853	0.999	0.747	0.805
	Left Tilt	0.307	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.466	0.604	0.569	0.643	0.605	0.542	0.445	0.435	0.474	0.436	0.373	0.742	0.781	0.743	0.680
	Right Touch	0.638	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.737	0.788	0.791	0.882	0.896	0.721	0.720	0.232	0.326	0.340	0.165	0.870	0.964	0.978	0.803
	Right Tilt	0.612	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.725	0.773	0.802	0.880	1.021	0.725	0.696	0.245	0.352	0.493	0.197	0.857	0.964	1.105	0.809
LTE Band 71	Left Touch	0.408	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.642	0.738	0.702	0.884	0.632	0.690	0.573	0.495	0.641	0.389	0.447	0.903	1.049	0.797	0.855
	Left Tilt	0.350	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.509	0.647	0.612	0.686	0.648	0.585	0.488	0.435	0.474	0.436	0.373	0.785	0.824	0.786	0.723
	Right Touch	0.786	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.885	0.936	0.939	1.030	1.044	0.869	0.868	0.232	0.326	0.340	0.165	1.018	1.112	1.126	0.951
	Right Tilt	0.640	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.753	0.801	0.830	0.908	1.049	0.753	0.724	0.245	0.352	0.493	0.197	0.885	0.992	1.133	0.837



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Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant8	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8
GSM1900	Left Touch	0.826	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.060	1.156	1.120	1.302	1.050	1.108	0.991	0.495	0.641	0.389	0.447	1.321	1.467	1.215	1.273
	Left Tilt	0.982	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.141	1.279	1.244	1.318	1.280	1.217	1.120	0.435	0.474	0.436	0.373	1.417	1.456	1.418	1.355
	Right Touch	0.615	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.714	0.765	0.768	0.859	0.873	0.698	0.697	0.232	0.326	0.340	0.165	0.847	0.941	0.955	0.780
	Right Tilt	0.907	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.020	1.068	1.097	1.175	1.316	1.020	0.991	0.245	0.352	0.493	0.197	1.152	1.259	1.400	1.104
WCAMA Band II	Left Touch	0.820	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.054	1.150	1.114	1.296	1.044	1.102	0.985	0.495	0.641	0.389	0.447	1.315	1.461	1.209	1.267
	Left Tilt	0.953	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.112	1.250	1.215	1.289	1.251	1.188	1.091	0.435	0.474	0.436	0.373	1.388	1.427	1.389	1.326
	Right Touch	0.594	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.693	0.744	0.747	0.838	0.852	0.677	0.676	0.232	0.326	0.340	0.165	0.826	0.920	0.934	0.759
	Right Tilt	0.801	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.914	0.962	0.991	1.069	1.210	0.914	0.885	0.245	0.352	0.493	0.197	1.046	1.153	1.294	0.998
WCAMA Band IV	Left Touch	0.920	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.154	1.250	1.214	1.396	1.144	1.202	1.085	0.495	0.641	0.389	0.447	1.415	1.561	1.309	1.367
	Left Tilt	0.911	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.070	1.208	1.173	1.247	1.209	1.146	1.049	0.435	0.474	0.436	0.373	1.346	1.385	1.347	1.284
	Right Touch	0.690	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.789	0.840	0.843	0.934	0.948	0.773	0.772	0.232	0.326	0.340	0.165	0.922	1.016	1.030	0.855
	Right Tilt	0.874	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.987	1.035	1.064	1.142	1.283	0.987	0.958	0.245	0.352	0.493	0.197	1.119	1.226	1.367	1.071
LTE Band 2	Left Touch	0.785	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.019	1.115	1.079	1.261	1.009	1.067	0.950	0.495	0.641	0.389	0.447	1.280	1.426	1.174	1.232
	Left Tilt	0.925	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.084	1.222	1.187	1.261	1.223	1.160	1.063	0.435	0.474	0.436	0.373	1.360	1.399	1.361	1.298
	Right Touch	0.559	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.658	0.709	0.712	0.803	0.817	0.642	0.641	0.232	0.326	0.340	0.165	0.791	0.885	0.899	0.724
	Right Tilt	0.889	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.002	1.050	1.079	1.157	1.298	1.002	0.973	0.245	0.352	0.493	0.197	1.134	1.241	1.382	1.086
LTE Band 4	Left Touch	0.880	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.114	1.210	1.174	1.356	1.104	1.162	1.045	0.495	0.641	0.389	0.447	1.375	1.521	1.269	1.327
	Left Tilt	0.952	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.111	1.249	1.214	1.288	1.250	1.187	1.090	0.435	0.474	0.436	0.373	1.387	1.426	1.388	1.325
	Right Touch	1.016	0.099	0.150	0.153	0.244	0.258	0.083	0.082	1.115	1.166	1.169	1.260	1.274	1.099	1.098	0.232	0.326	0.340	0.165	1.248	1.342	1.356	1.181
	Right Tilt	0.967	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.080	1.128	1.157	1.235	1.376	1.080	1.051	0.245	0.352	0.493	0.197	1.212	1.319	1.460	1.164
LTE Band 66	Left Touch	0.642	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.876	0.972	0.936	1.118	0.866	0.924	0.807	0.495	0.641	0.389	0.447	1.137	1.283	1.031	1.089
	Left Tilt	1.015	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.174	1.312	1.277	1.351	1.313	1.250	1.153	0.435	0.474	0.436	0.373	1.450	1.489	1.451	1.388
	Right Touch	0.519	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.618	0.669	0.672	0.763	0.777	0.602	0.601	0.232	0.326	0.340	0.165	0.751	0.845	0.859	0.684
	Right Tilt	0.885	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.998	1.046	1.075	1.153	1.294	0.998	0.969	0.245	0.352	0.493	0.197	1.130	1.237	1.378	1.082

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant8	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT															
DC_5A_N2A	Left Touch	0.466	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.700	0.796	0.760	0.942	0.690	0.748	0.631	0.495	0.641	0.389	0.447	0.961	1.107	0.855	0.913
	Left Tilt	0.280	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.439	0.577	0.542	0.616	0.578	0.515	0.418	0.435	0.474	0.436	0.373	0.715	0.754	0.716	0.653
	Right Touch	0.716	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.815	0.866	0.869	0.960	0.974	0.798	0.232	0.326	0.340	0.165	0.948	1.042	1.056	0.881	
	Right Tilt	0.659	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.772	0.820	0.849	0.927	1.068	0.772	0.743	0.245	0.352	0.493	0.197	0.904	1.011	1.152	0.856
DC_12A_n2A	Left Touch	0.315	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.549	0.645	0.609	0.791	0.539	0.597	0.480	0.495	0.641	0.389	0.447	0.810	0.956	0.704	0.762
	Left Tilt	0.244	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.403	0.541	0.506	0.580	0.542	0.479	0.382	0.435	0.474	0.436	0.373	0.679	0.718	0.680	0.617
	Right Touch	0.552	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.651	0.702	0.705	0.796	0.810	0.635	0.634	0.232	0.326	0.340	0.165	0.784	0.878	0.892	0.717
	Right Tilt	0.493	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.746	0.794	0.823	0.901	1.042	0.746	0.717	0.245	0.352	0.493	0.197	0.738	0.845	0.9	



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DC_66A_n5A	Left Touch	0.399	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.633	0.729	0.693	0.875	0.623	0.681	0.564	0.495	0.641	0.389	0.447	0.894	1.040	0.788	0.846
	Left Tilt	0.364	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.523	0.661	0.626	0.700	0.662	0.599	0.502	0.435	0.474	0.436	0.373	0.799	0.838	0.800	0.737
	Right Touch	0.576	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.675	0.726	0.729	0.820	0.834	0.659	0.658	0.232	0.326	0.340	0.165	0.808	0.902	0.916	0.741
	Right Tilt	0.602	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.715	0.763	0.792	0.870	1.011	0.715	0.686	0.245	0.352	0.493	0.197	0.847	0.954	1.095	0.799
DC_12A_n25A	Left Touch	0.320	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.554	0.650	0.614	0.796	0.544	0.602	0.485	0.495	0.641	0.389	0.447	0.815	0.961	0.709	0.767
	Left Tilt	0.239	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.398	0.536	0.501	0.575	0.537	0.474	0.377	0.435	0.474	0.436	0.373	0.674	0.713	0.675	0.612
	Right Touch	0.551	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.650	0.701	0.704	0.795	0.809	0.634	0.633	0.232	0.326	0.340	0.165	0.783	0.877	0.891	0.716
	Right Tilt	0.494	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.607	0.655	0.684	0.762	0.903	0.607	0.578	0.245	0.352	0.493	0.197	0.739	0.846	0.987	0.691
DC_66A_n25A	Left Touch	0.497	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.731	0.827	0.791	0.973	0.721	0.779	0.662	0.495	0.641	0.389	0.447	0.992	1.138	0.886	0.944
	Left Tilt	0.736	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.895	1.033	0.998	1.072	1.034	0.971	0.874	0.435	0.474	0.436	0.373	1.171	1.210	1.172	1.109
	Right Touch	0.395	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.494	0.545	0.548	0.639	0.653	0.478	0.477	0.232	0.326	0.340	0.165	0.627	0.721	0.735	0.560
	Right Tilt	0.648	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.761	0.809	0.838	0.916	1.057	0.761	0.732	0.245	0.352	0.493	0.197	0.893	1.000	1.141	0.845
DC_2A_n41A	Left Touch	0.806	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.040	1.136	1.100	1.282	1.030	1.088	0.971	0.495	0.641	0.389	0.447	1.301	1.447	1.195	1.253
	Left Tilt	0.939	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.098	1.236	1.201	1.275	1.237	1.174	1.077	0.435	0.474	0.436	0.373	1.374	1.413	1.375	1.312
	Right Touch	0.570	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.669	0.720	0.723	0.814	0.828	0.653	0.652	0.232	0.326	0.340	0.165	0.802	0.896	0.910	0.735
	Right Tilt	0.906	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.019	1.067	1.096	1.174	1.315	1.019	0.990	0.245	0.352	0.493	0.197	1.151	1.258	1.399	1.103
DC_66A_n41A	Left Touch	0.475	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.709	0.805	0.769	0.951	0.699	0.757	0.640	0.495	0.641	0.389	0.447	0.970	1.116	0.864	0.922
	Left Tilt	0.733	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.892	1.030	0.995	1.069	1.031	0.968	0.871	0.435	0.474	0.436	0.373	1.168	1.207	1.169	1.106
	Right Touch	0.378	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.477	0.528	0.531	0.622	0.636	0.461	0.460	0.232	0.326	0.340	0.165	0.610	0.704	0.718	0.543
	Right Tilt	0.643	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.756	0.804	0.833	0.911	1.052	0.756	0.727	0.245	0.352	0.493	0.197	0.888	0.995	1.136	0.840
DC_2A_n66A	Left Touch	0.826	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.060	1.156	1.120	1.302	1.050	1.108	0.991	0.495	0.641	0.389	0.447	1.321	1.467	1.215	1.273
	Left Tilt	0.946	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.105	1.243	1.208	1.282	1.244	1.181	1.084	0.435	0.474	0.436	0.373	1.381	1.420	1.382	1.319
	Right Touch	0.590	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.689	0.740	0.743	0.834	0.848	0.673	0.672	0.232	0.326	0.340	0.165	0.822	0.916	0.930	0.755
	Right Tilt	0.907	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.020	1.068	1.097	1.175	1.316	1.020	0.991	0.245	0.352	0.493	0.197	1.152	1.259	1.400	1.104
DC_5A_n66A	Left Touch	0.469	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.703	0.799	0.763	0.945	0.693	0.751	0.634	0.495	0.641	0.389	0.447	0.964	1.110	0.858	0.916
	Left Tilt	0.279	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.438	0.576	0.541	0.615	0.577	0.514	0.417	0.435	0.474	0.436	0.373	0.714	0.753	0.715	0.652
	Right Touch	0.718	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.817	0.868	0.871	0.962	0.976	0.801	0.800	0.232	0.326	0.340	0.165	0.950	1.044	1.058	0.883
	Right Tilt	0.656	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.769	0.817	0.846	0.924	1.065	0.769	0.740	0.245	0.352	0.493	0.197	0.901	1.008	1.149	0.853
DC_12A_n66A	Left Touch	0.318	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.552	0.648	0.612	0.794	0.542	0.600	0.483	0.495	0.641	0.389	0.447	0.813	0.959	0.707	0.765
	Left Tilt	0.243	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.402	0.540	0.505	0.579	0.541	0.478	0.381	0.435	0.474	0.436	0.373	0.678	0.717	0.679	0.616
	Right Touch	0.554	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.653	0.704	0.707	0.798	0.812	0.637	0.636	0.232	0.326	0.340	0.165	0.786	0.880	0.894	0.719
	Right Tilt	0.490	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.603	0.651	0.680	0.758	0.899	0.603	0.574	0.245	0.352	0.493	0.197	0.735	0.842	0.983	0.687
DC_13A_n66A	Left Touch	0.399	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.633	0.729	0.693	0.875	0.623	0.681	0.564	0.495	0.641	0.389	0.447	0.894	1.040	0.788	0.846
	Left Tilt	0.328	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.487	0.625	0.590	0.664	0.626	0.563	0.466	0.435	0.474	0.436	0.373	0.763	0.802	0.764	0.701
	Right Touch	0.669	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.768	0.819	0.822	0.913	0.927	0.752	0.751	0.232	0.326	0.340	0.165	0.901	0.995	1.009	0.834
	Right Tilt	0.630	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.743	0.791	0.820	0.898	1.039	0.743	0.714	0.245	0.352	0.493	0.197	0.875	0.982	1.123	0.827
DC_2A_n71A	Left Touch	0.449	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.683	0.779	0.743	0.925	0.673	0.731	0.614	0.495	0.641	0.389	0.447	0.944	1.090	0.838	0.896
	Left Tilt	0.390	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.549	0.687	0.652	0.726	0.688	0.625	0.528	0.435	0.474	0.436	0.373	0.825	0.864	0.826	0.763
	Right Touch	0.808	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.907	0.958	0.961	1.052	1.066	0.891	0.890	0.232	0.326	0.340	0.165	1.040	1.134	1.148	0.973
	Right Tilt	0.728	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.841	0.889	0.918	0.996	1.137	0.841	0.812	0.245	0.352	0.493	0.197	0.973	1.080	1.221	0.925
DC_66A_n71A	Left Touch	0.416	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.650	0.746	0.710	0.892	0.640	0.698	0.581	0.495	0.641	0.389	0.447	0.894	1.040	0.788	0.846
	Left Tilt	0.380	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.539	0.677	0.642	0.716											



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DC_12A_n77A	Left Touch	0.388	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.622	0.718	0.682	0.864	0.612	0.670	0.553	0.495	0.641	0.389	0.447	0.883	1.029	0.777	0.835
	Left Tilt	0.291	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.450	0.588	0.553	0.627	0.589	0.526	0.429	0.435	0.474	0.436	0.373	0.726	0.765	0.727	0.664
	Right Touch	0.811	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.910	0.961	0.964	1.055	1.069	0.894	0.893	0.232	0.326	0.340	0.165	1.043	1.137	1.151	0.976
	Right Tilt	0.597	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.710	0.758	0.787	0.865	1.006	0.710	0.681	0.245	0.352	0.493	0.197	0.842	0.949	1.090	0.794
DC_13A_n77A	Left Touch	0.469	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.703	0.799	0.763	0.945	0.693	0.751	0.634	0.495	0.641	0.389	0.447	0.964	1.110	0.858	0.916
	Left Tilt	0.376	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.535	0.673	0.638	0.712	0.674	0.611	0.514	0.435	0.474	0.436	0.373	0.811	0.850	0.812	0.749
	Right Touch	0.926	0.099	0.150	0.153	0.244	0.258	0.083	0.082	1.025	1.076	1.079	1.170	1.184	1.009	1.008	0.232	0.326	0.340	0.165	1.158	1.252	1.266	1.091
	Right Tilt	0.737	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.850	0.898	0.927	1.005	1.146	0.850	0.821	0.245	0.352	0.493	0.197	0.982	1.089	1.230	0.934
DC_66A_n77A	Left Touch	0.565	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.799	0.895	0.859	1.041	0.789	0.847	0.730	0.495	0.641	0.389	0.447	1.060	1.206	0.954	1.012
	Left Tilt	0.788	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.947	1.085	1.050	1.124	1.086	1.023	0.926	0.435	0.474	0.436	0.373	1.223	1.262	1.224	1.161
	Right Touch	0.655	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.754	0.805	0.808	0.899	0.913	0.738	0.737	0.232	0.326	0.340	0.165	0.887	0.981	0.995	0.820
	Right Tilt	0.751	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.864	0.912	0.941	1.019	1.160	0.864	0.835	0.245	0.352	0.493	0.197	0.996	1.103	1.244	0.948

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Inter-band WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 5G Chain1	WiFi 5G Chain2	MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8		
CA_2A-4A	Left Touch	0.882	0.234	0.330	0.294	0.476	0.224	0.282	0.165	1.116	1.212	1.176	1.358	1.106	1.164	1.047	0.495	0.641	0.389	0.447	1.377	1.523	1.271	1.329
	Left Tilt	0.997	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.156	1.294	1.259	1.333	1.295	1.232	1.135	0.435	0.474	0.436	0.373	1.432	1.471	1.433	1.370
	Right Touch	0.823	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.922	0.973	0.976	1.067	1.081	0.906	0.905	0.232	0.326	0.340	0.165	1.055	1.149	1.163	0.988
	Right Tilt	0.982	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.095	1.143	1.172	1.250	1.391	1.095	1.066	0.245	0.352	0.493	0.197	1.227	1.334	1.475	1.179
CA_2A-5A	Left Touch	0.744	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.978	1.074	1.038	1.220	1.068	1.026	0.909	0.495	0.641	0.389	0.447	1.239	1.385	1.133	1.191
	Left Tilt	0.702	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.861	0.999	0.964	1.038	1.000	0.937	0.840	0.435	0.474	0.436	0.373	1.137	1.176	1.138	1.075
	Right Touch	0.800	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.899	0.950	0.953	1.044	1.058	0.883	0.882	0.232	0.326	0.340	0.165	1.032	1.126	1.140	0.965
	Right Tilt	0.951	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.064	1.112	1.141	1.219	1.360	1.064	1.035	0.245	0.352	0.493	0.197	1.196	1.303	1.444	1.148
CA_2A-12A	Left Touch	0.661	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.895	0.991	0.955	1.137	1.085	0.943	0.826	0.495	0.641	0.389	0.447	1.156	1.302	1.050	1.108
	Left Tilt	0.696	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.855	0.993	0.958	1.032	0.994	0.931	0.834	0.435	0.474	0.436	0.373	1.131	1.170	1.132	1.069
	Right Touch	0.729	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.828	0.879	0.882	0.973	0.987	0.812	0.811	0.232	0.326	0.340	0.165	0.961	1.055	1.069	0.894
	Right Tilt	0.875	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.988	1.036	1.065	1.143	1.284	0.988	0.959	0.245	0.352	0.493	0.197	1.120	1.227	1.368	1.072
CA_2A-13A	Left Touch	0.726	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.960	1.056	1.020	1.202	1.050	1.008	0.891	0.495	0.641	0.389	0.447	1.221	1.367	1.115	1.173
	Left Tilt	0.764	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.923	1.061	1.026	1.100	1.062	0.999	0.902	0.435	0.474	0.436	0.373	1.199	1.238	1.200	1.137
	Right Touch	0.821	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.920	0.971	0.974	1.065	1.079	0.904	0.903	0.232	0.326	0.340	0.165	1.053	1.147	1.161	0.986
	Right Tilt	0.987	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.060	1.112	1.148	1.255	1.396	1.100	1.071	0.245	0.352	0.493	0.197	1.232	1.339	1.480	1.184
CA_2A-66A	Left Touch	0.802	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.960	1.056	1.036	1.132	1.096	1.026	0.908	0.495	0.641	0.389	0.447	1.297	1.443	1.191	1.249
	Left Tilt	1.091	0.159	0.297	0.262	0.336	0.298	0.235	0.138	1.250	1.388	1.353	1.427	1.389	1.326	1.229	0.435	0.474	0.436	0.373	1.526	1.565	1.527	1.464
	Right Touch	0.606	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.705	0.756	0.759	0.850	0.864	0.689	0.688	0.232	0.326	0.340	0.165	0.838	0.932	0.946	0.771
	Right Tilt	0.998	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.111	1.159	1.188	1.266	1.407	1.111	1.082	0.245	0.352	0.493	0.197	1.243	1.350	1.491	1.195
CA_4A-5A	Left Touch	0.744	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.978	1.074	1.038	1.220	1.068	1.026	0.909	0.495	0.641	0.389	0.447	1.239	1.385	1.133	1.191
	Left Tilt	0.659	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.818	0.956	0.921	0.995	0.957	0.894	0.797	0.435	0.474	0.436	0.373	1.094	1.133	1.095	1.032
	Right Touch	0.995	0.099	0.150	0.153	0.244	0.258	0.083	0.082	1.094	1.145	1.148	1.239	1.253	1.078	1.077	0.232	0.326	0.340	0.165	1.227	1.321	1.335	1.160
	Right Tilt	0.933	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.046	1.094	1.123	1.201	1.342	1.046	1.017	0.245	0.352	0.493	0.197	1.178			



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	Right Tilt	0.949	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.062	1.110	1.139	1.217	1.358	1.062	1.033	0.245	0.352	0.493	0.197	1.194	1.301	1.442	1.146
CA_12A-66A	Left Touch	0.581	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.815	0.911	0.875	1.057	0.805	0.863	0.746	0.495	0.641	0.389	0.447	1.076	1.222	0.970	1.028
	Left Tilt	0.747	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.906	1.044	1.009	1.083	1.045	0.982	0.885	0.435	0.474	0.436	0.373	1.182	1.221	1.183	1.120
	Right Touch	0.707	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.806	0.857	0.860	0.951	0.965	0.790	0.789	0.232	0.326	0.340	0.165	0.939	1.033	1.047	0.872
	Right Tilt	0.873	0.113	0.161	0.190	0.268	0.409	0.113	0.084	0.986	1.034	1.063	1.141	1.282	0.986	0.957	0.245	0.352	0.493	0.197	1.118	1.225	1.366	1.070
CA_13A-66A	Left Touch	0.646	0.234	0.330	0.294	0.476	0.224	0.282	0.165	0.880	0.976	0.940	1.122	0.870	0.928	0.811	0.495	0.641	0.389	0.447	1.141	1.287	1.035	1.093
	Left Tilt	0.815	0.159	0.297	0.262	0.336	0.298	0.235	0.138	0.974	1.112	1.077	1.151	1.113	1.050	0.953	0.435	0.474	0.436	0.373	1.250	1.289	1.251	1.188
	Right Touch	0.799	0.099	0.150	0.153	0.244	0.258	0.083	0.082	0.898	0.949	0.952	1.043	1.057	0.882	0.881	0.232	0.326	0.340	0.165	1.031	1.125	1.139	0.964
	Right Tilt	0.985	0.113	0.161	0.190	0.268	0.409	0.113	0.084	1.098	1.146	1.175	1.253	1.394	1.098	1.069	0.245	0.352	0.493	0.197	1.230	1.337	1.478	1.182

## Body worn:

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant3 WiFi 2.4G Chain1 MIMO	WiFi 2.4G Chain2 MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8		
LTE Band 41	Front side	0.372	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.513	0.419	0.533	0.503	0.386	0.431	0.392	0.067	0.151	0.034	0.079	0.439	0.523	0.406	0.451
	Back side	0.506	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.659	0.659	0.725	0.766	1.097	0.721	0.542	0.189	0.296	0.627	0.251	0.695	0.802	1.133	0.757

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant6 WiFi 2.4G Chain1 MIMO	WiFi 2.4G Chain2 MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8		
GSM850	Front side	0.349	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.490	0.396	0.510	0.480	0.363	0.408	0.369	0.067	0.151	0.034	0.079	0.416	0.500	0.383	0.428
	Back side	0.497	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.650	0.650	0.716	0.757	1.088	0.712	0.533	0.189	0.296	0.627	0.251	0.686	0.793	1.124	0.748
WCAMA Band V	Front side	0.429	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.570	0.476	0.590	0.560	0.443	0.488	0.449	0.067	0.151	0.034	0.079	0.496	0.580	0.463	0.508
LTE Band 5	Front side	0.422	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.563	0.469	0.583	0.553	0.436	0.481	0.442	0.067	0.151	0.034	0.079	0.489	0.573	0.456	0.501
	Back side	0.521	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.674	0.674	0.740	0.781	1.112	0.736	0.557	0.189	0.296	0.627	0.251	0.710	0.817	1.148	0.772
LTE Band 12	Front side	0.137	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.278	0.184	0.298	0.268	0.151	0.196	0.157	0.067	0.151	0.034	0.079	0.204	0.288	0.171	0.216
	Back side	0.358	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.511	0.511	0.577	0.618	0.949	0.573	0.394	0.189	0.296	0.627	0.251	0.547	0.654	0.985	0.609
LTE Band 13	Front side	0.138	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.279	0.185	0.299	0.269	0.152	0.197	0.158	0.067	0.151	0.034	0.079	0.205	0.289	0.172	0.217
	Back side	0.370	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.523	0.523	0.589	0.630	0.961	0.585	0.406	0.189	0.296	0.627	0.251	0.559	0.666	0.997	0.621
LTE Band 71	Front side	0.144	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.285	0.191	0.305	0.275	0.158	0.203	0.164	0.067	0.151	0.034	0.079	0.211	0.295	0.178	0.223
	Back side	0.202	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.355	0.355	0.421	0.462	0.793	0.417	0.238	0.189	0.296	0.627	0.251	0.391	0.498	0.829	0.453

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant8 WiFi 2.4G Chain1 MIMO	WiFi 2.4G Chain2 MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8		
GSM1900	Front side	0.370	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.511	0.417	0.531	0.501	0.384	0.429	0.390	0.067	0.151	0.034	0.079	0.437	0.521	0.404	0.449
	Back side	0.533	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.686	0.686	0.752	0.793	1.124	0.748	0.569	0.189	0.296	0.627	0.251	0.722	0.829	1.160	0.784
WCAMA Band II	Front side	0.653	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.794	0.700	0.814	0.784	0.667	0.712	0.673	0.067	0.151	0.034	0.079	0.720	0.804	0.687	0.732
	Back side	0.703	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.856	0.856	0.922	0.963	1.294	0.918</td									



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Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		ENDC	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	BT	1+2															
DC_5A_N2A	Front side	0.412	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.553	0.459	0.573	0.543	0.426	0.471	0.432	0.067	0.151	0.034	0.079	0.479	0.563	0.446	0.491
	Back side	0.651	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.804	0.804	0.870	0.911	1.242	0.866	0.687	0.189	0.296	0.627	0.251	0.840	0.947	1.278	0.902
DC_12A_n2A	Front side	0.356	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.497	0.403	0.517	0.487	0.370	0.415	0.376	0.067	0.151	0.034	0.079	0.423	0.507	0.390	0.435
	Back side	0.610	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.763	0.763	0.829	0.870	1.201	0.825	0.646	0.189	0.296	0.627	0.251	0.799	0.906	1.237	0.861
DC_13A_n2a	Front side	0.356	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.497	0.403	0.517	0.487	0.370	0.415	0.376	0.067	0.151	0.034	0.079	0.423	0.507	0.390	0.435
	Back side	0.613	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.766	0.766	0.832	0.873	1.204	0.828	0.649	0.189	0.296	0.627	0.251	0.802	0.909	1.240	0.864
DC_66A_n2A	Front side	0.574	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.715	0.621	0.735	0.705	0.588	0.633	0.594	0.067	0.151	0.034	0.079	0.641	0.725	0.608	0.653
	Back side	0.883	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.036	1.036	1.102	1.143	1.474	1.098	0.919	0.189	0.296	0.627	0.251	1.072	1.179	1.510	1.134
DC_2A_n5A	Front side	0.465	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.606	0.512	0.626	0.596	0.479	0.524	0.485	0.067	0.151	0.034	0.079	0.532	0.616	0.499	0.544
	Back side	0.741	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.894	0.894	0.960	1.001	1.332	0.956	0.777	0.189	0.296	0.627	0.251	0.930	1.037	1.368	0.992
DC_66A_n5A	Front side	0.322	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.463	0.369	0.483	0.453	0.336	0.381	0.342	0.067	0.151	0.034	0.079	0.389	0.473	0.356	0.401
	Back side	0.521	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.674	0.674	0.740	0.781	1.112	0.736	0.557	0.189	0.296	0.627	0.251	0.710	0.817	1.148	0.772
DC_12A_n25A	Front side	0.334	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.475	0.381	0.495	0.465	0.348	0.393	0.354	0.067	0.151	0.034	0.079	0.401	0.485	0.368	0.413
	Back side	0.385	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.538	0.538	0.604	0.645	0.976	0.600	0.421	0.189	0.296	0.627	0.251	0.574	0.681	1.012	0.636
DC_66A_n25A	Front side	0.552	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.693	0.599	0.713	0.683	0.566	0.611	0.572	0.067	0.151	0.034	0.079	0.619	0.703	0.586	0.631
	Back side	0.658	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.811	0.811	0.877	0.918	1.249	0.873	0.694	0.189	0.296	0.627	0.251	0.847	0.954	1.285	0.909
DC_2A_n41A	Front side	0.291	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.432	0.338	0.452	0.422	0.305	0.350	0.311	0.067	0.151	0.034	0.079	0.358	0.442	0.325	0.370
	Back side	0.328	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.481	0.481	0.547	0.588	0.919	0.543	0.364	0.189	0.296	0.627	0.251	0.517	0.624	0.955	0.579
DC_66A_n41A	Front side	0.345	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.486	0.392	0.506	0.476	0.359	0.404	0.365	0.067	0.151	0.034	0.079	0.412	0.496	0.379	0.424
	Back side	0.445	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.598	0.598	0.664	0.705	1.036	0.660	0.481	0.189	0.296	0.627	0.251	0.634	0.741	1.072	0.696
DC_2A_n66A	Front side	0.604	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.745	0.651	0.765	0.735	0.618	0.663	0.624	0.067	0.151	0.034	0.079	0.671	0.755	0.638	0.683
	Back side	0.690	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.843	0.843	0.909	0.950	1.281	0.905	0.726	0.189	0.296	0.627	0.251	0.879	0.986	1.317	0.941
DC_5A_n66A	Front side	0.496	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.637	0.543	0.657	0.627	0.510	0.555	0.516	0.067	0.151	0.034	0.079	0.563	0.647	0.530	0.575
	Back side	0.575	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.728	0.728	0.794	0.835	1.166	0.790	0.611	0.189	0.296	0.627	0.251	0.764	0.871	1.202	0.826
DC_12A_n66A	Front side	0.440	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.581	0.487	0.601	0.571	0.454	0.499	0.460	0.067	0.151	0.034	0.079	0.507	0.591	0.474	0.519
	Back side	0.534	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.687	0.687	0.753	0.794	1.125	0.749	0.570	0.189	0.296	0.627	0.251	0.723	0.830	1.161	0.785
DC_13A_n66A	Front side	0.440	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.581	0.487	0.601	0.571	0.454	0.499	0.460	0.067	0.151	0.034	0.079	0.507	0.591	0.474	0.519
	Back side	0.537	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.690	0.690	0.756	0.797	1.128	0.752	0.573	0.189	0.296	0.627	0.251	0.726	0.833	1.164	0.788
DC_2A_n71A	Front side	0.366	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.507	0.413	0.527	0.497	0.380	0.425	0.386	0.067	0.151	0.034	0.079	0.433	0.517	0.400	0.445
	Back side	0.483	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.636	0.636	0.702	0.743	1.074	0.698	0.519	0.189	0.296	0.627	0.251	0.672	0.779	1.110	0.734
DC_66A_n71A	Front side	0.223	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.364	0.270	0.384	0.354	0.237	0.282	0.243	0.067	0.151	0.034	0.079	0.290	0.374	0.257	0.302
	Back side	0.263	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.416	0.416	0.482	0.523	0.854	0.478	0.299	0.189	0.296	0.627	0.251	0.452	0.559	0.890	0.514
DC_2A_n77A	Front side	0.240	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.381	0.287	0.401	0.371	0.254	0.299	0.260	0.067	0.151	0.034	0.079	0.307	0.391	0.274	0.319
	Back side	0.295	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.448	0.448	0.514	0.555	0.886	0.510	0.331	0.189	0.296	0.627	0.251	0.484	0.591	0.922	0.546
DC_5A_n77A	Front side	0.132	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.273	0.179	0.293	0.263	0.146	0.191	0.152	0.067	0.151	0.034	0.079	0.199	0.283	0.166	0.211
	Back side	0.180	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.333	0.333	0.399	0.440	0.771	0.395	0.216	0.189	0.296	0.627	0.251	0.369	0.476	0.807	0.431
DC_12A_n77A	Front side	0.076	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.217	0.123	0.237	0.207	0.090	0.135	0.096	0.067	0.151	0.034	0.079	0.143	0.227	0.110	0.155
	Back side	0.139	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.292	0.292	0.358	0.399	0.730	0.354	0.175	0.189	0.296	0.627	0.251	0.328	0.435	0.766	0.390
DC																								



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Band	Exposure position	SARmax (W/kg)								Summed SAR															
		1	2	3	4	5	6	7	8																
	Inter-band UL CA	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO		BT		1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8
CA_2A-4A	Front side	0.563	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.704	0.610	0.724	0.694	0.577	0.622	0.583	0.067	0.151	0.034	0.079	0.630	0.714	0.597	0.642	
	Back side	0.702	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.855	0.855	0.921	0.962	1.293	0.917	0.738	0.189	0.296	0.627	0.251	0.891	0.998	1.329	0.953	
CA_2A-5A	Front side	0.663	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.804	0.710	0.824	0.794	0.677	0.722	0.683	0.067	0.151	0.034	0.079	0.730	0.814	0.697	0.742	
	Back side	0.807	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.960	0.960	1.026	1.067	1.398	1.022	0.843	0.189	0.296	0.627	0.251	0.996	1.103	1.434	1.058	
CA_2A-12A	Front side	0.378	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.519	0.425	0.539	0.509	0.392	0.437	0.398	0.067	0.151	0.034	0.079	0.445	0.529	0.412	0.457	
	Back side	0.644	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.797	0.797	0.863	0.904	1.235	0.859	0.680	0.189	0.296	0.627	0.251	0.833	0.940	1.271	0.895	
CA_2A-13A	Front side	0.379	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.520	0.426	0.540	0.510	0.393	0.438	0.399	0.067	0.151	0.034	0.079	0.446	0.530	0.413	0.458	
	Back side	0.656	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.809	0.809	0.875	0.916	1.247	0.871	0.692	0.189	0.296	0.627	0.251	0.845	0.952	1.283	0.907	
CA_2A-66A	Front side	0.550	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.691	0.597	0.711	0.681	0.564	0.609	0.570	0.067	0.151	0.034	0.079	0.617	0.701	0.584	0.629	
	Back side	0.719	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.872	0.872	0.938	0.979	1.310	0.934	0.755	0.189	0.296	0.627	0.251	0.908	1.015	1.346	0.970	
CA_4A-5A	Front side	0.744	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.885	0.791	0.905	0.875	0.758	0.803	0.764	0.067	0.151	0.034	0.079	0.811	0.895	0.778	0.823	
	Back side	0.937	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.090	1.090	1.156	1.197	1.528	1.152	0.973	0.189	0.296	0.627	0.251	1.126	1.233	1.564	1.188	
CA_4A-12A	Front side	0.459	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.600	0.506	0.620	0.590	0.473	0.518	0.479	0.067	0.151	0.034	0.079	0.526	0.610	0.493	0.538	
	Back side	0.774	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.927	0.927	0.993	1.034	1.365	0.989	0.810	0.189	0.296	0.627	0.251	0.963	1.070	1.401	1.025	
CA_4A-13A	Front side	0.460	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.601	0.507	0.621	0.591	0.474	0.519	0.480	0.067	0.151	0.034	0.079	0.527	0.611	0.494	0.539	
	Back side	0.786	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.939	0.939	1.005	1.046	1.377	1.001	0.822	0.189	0.296	0.627	0.251	0.975	1.082	1.413	1.037	
CA_5A-66A	Front side	0.731	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.872	0.778	0.892	0.862	0.745	0.790	0.751	0.067	0.151	0.034	0.079	0.798	0.882	0.765	0.810	
	Back side	0.954	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.107	1.107	1.173	1.214	1.545	1.169	0.990	0.189	0.296	0.627	0.251	1.143	1.250	1.581	1.205	
CA_12A-66A	Front side	0.446	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.587	0.493	0.607	0.577	0.460	0.505	0.466	0.067	0.151	0.034	0.079	0.513	0.597	0.480	0.525	
	Back side	0.791	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.944	0.944	1.010	1.051	1.382	1.006	0.827	0.189	0.296	0.627	0.251	0.980	1.087	1.418	1.042	
CA_13A-66A	Front side	0.447	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.588	0.494	0.608	0.578	0.461	0.506	0.467	0.067	0.151	0.034	0.079	0.514	0.598	0.481	0.526	
	Back side	0.803	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.956	0.956	1.022	1.063	1.394	1.018	0.839	0.189	0.296	0.627	0.251	0.992	1.099	1.430	1.054	

### Hotspot:

Band	Exposure position	SARmax (W/kg)								Summed SAR															
		1	2	3	4	5	6	7	8																
	Ant3	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO		BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8	
LTE Band 41	Front side	0.372	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.513	0.419	0.533	0.478	0.391	0.431	0.392	0.067	0.126	0.039	0.079	0.439	0.498	0.411	0.451	
	Back side	0.506	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.659	0.659	0.725	0.763	1.148	0.948	0.542	0.189	0.293	0.678	0.478	0.695	0.799	1.184	0.984	
	Left side	0.420	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.420	0.420	0.420	0.420	0.420	0.420	0.420	0.000	0.000	0.000	0.000	0.420	0.420	0.420	0.420	
	Right side	0.067	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.181	0.093	0.164	0.385	0.081	0.165	0.165	0.124	0.416	0.112	0.196	0.191	0.483	0.179	0.263	
	Top side	0.000	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.160	0.224	0.160	0.108	0.224	0.160	0.106	0.224	0.108
GSM850	Bottom side	0.654	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.654	0.654	0.654	0.654	0.654	0.654	0.654	0.000	0.000	0.000	0.000	0.654	0.654	0.654	0.654	
	Front side	0.214	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.355	0.261	0.375	0.320	0.233	0.273	0.234	0.067	0.126	0.039	0.079	0.281	0.340	0.253	0.293	
	Back side	0.279	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.432	0.432	0.498	0.536	0.921	0.721	0.315	0.189	0.293	0.678	0.478	0.468	0.572	0.957	0.757	
	Left side	0.283	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.000	0.000	0.000	0.000	0.283	0.283	0.283	0.283	
	Right side	0.082	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.196	0.108	0.179	0.400	0.096	0.180	0.180	0.124	0.416	0.112	0.196	0.206	0.498	0.194	0.278	
WCAMA Band V	Top side	0.460	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.747	0.566	0.706	0.630	0.566	0.514	0.514	0.160	0.224	0.160	0.108	0.224	0.160	0.106	0.224	0.108
	Bottom side	0.000	0.000																						



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	Right side	0.113	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.227	0.139	0.210	0.431	0.127	0.211	0.211	0.124	0.416	0.112	0.196	0.237	0.529	0.225	0.309
	Top side	0.461	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.748	0.567	0.707	0.631	0.567	0.515	0.515	0.160	0.224	0.160	0.108	0.621	0.685	0.621	0.569
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE Band 5	Front side	0.422	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.563	0.469	0.583	0.528	0.441	0.481	0.442	0.067	0.126	0.039	0.079	0.489	0.548	0.461	0.501
	Back side	0.521	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.674	0.674	0.740	0.778	1.163	0.963	0.557	0.189	0.293	0.678	0.478	0.710	0.814	1.199	0.999
	Left side	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.301	0.301	0.301	0.301	0.301	0.301	0.301	0.000	0.000	0.000	0.000	0.301	0.301	0.301	0.301
	Right side	0.108	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.222	0.134	0.205	0.426	0.122	0.206	0.206	0.124	0.416	0.112	0.196	0.232	0.524	0.220	0.304
	Top side	0.414	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.701	0.520	0.660	0.584	0.520	0.468	0.468	0.160	0.224	0.160	0.108	0.574	0.638	0.574	0.522
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE Band 12	Front side	0.137	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.278	0.184	0.298	0.243	0.156	0.196	0.157	0.067	0.126	0.039	0.079	0.204	0.263	0.176	0.216
	Back side	0.358	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.511	0.511	0.577	0.615	1.000	0.800	0.394	0.189	0.293	0.678	0.478	0.547	0.651	1.036	0.836
	Left side	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.000	0.000	0.000	0.000	0.350	0.350	0.350	0.350
	Right side	0.091	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.205	0.117	0.188	0.409	0.105	0.189	0.189	0.124	0.416	0.112	0.196	0.215	0.507	0.203	0.287
	Top side	0.205	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.492	0.311	0.451	0.375	0.311	0.259	0.259	0.160	0.224	0.160	0.108	0.365	0.429	0.365	0.313
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE Band 13	Front side	0.138	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.279	0.185	0.299	0.244	0.157	0.197	0.158	0.067	0.126	0.039	0.079	0.205	0.264	0.177	0.217
	Back side	0.370	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.523	0.523	0.589	0.627	1.012	0.812	0.406	0.189	0.293	0.678	0.478	0.559	0.663	1.048	0.848
	Left side	0.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.318	0.318	0.318	0.318	0.318	0.318	0.318	0.000	0.000	0.000	0.000	0.318	0.318	0.318	0.318
	Right side	0.087	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.201	0.113	0.184	0.405	0.101	0.185	0.185	0.124	0.416	0.112	0.196	0.211	0.503	0.199	0.283
	Top side	0.331	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.618	0.437	0.577	0.501	0.437	0.385	0.385	0.160	0.224	0.160	0.108	0.491	0.555	0.491	0.439
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LTE Band 71	Front side	0.144	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.285	0.191	0.305	0.250	0.163	0.203	0.164	0.067	0.126	0.039	0.079	0.211	0.270	0.183	0.223
	Back side	0.202	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.355	0.355	0.421	0.459	0.844	0.644	0.238	0.189	0.293	0.678	0.478	0.391	0.495	0.880	0.680
	Left side	0.435	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.435	0.435	0.435	0.435	0.435	0.435	0.435	0.000	0.000	0.000	0.000	0.435	0.435	0.435	0.435
	Right side	0.161	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.275	0.187	0.258	0.479	0.175	0.259	0.259	0.124	0.416	0.112	0.196	0.285	0.577	0.273	0.357
	Top side	0.188	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.475	0.294	0.434	0.358	0.294	0.242	0.242	0.160	0.224	0.160	0.108	0.348	0.412	0.348	0.296
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		Ant8	WiFi 2.4G Chain1	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT																
GSM1900	Front side	0.537	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.678	0.584	0.698	0.643	0.556	0.596	0.557	0.067	0.126	0.039	0.079	0.604	0.663	0.576	0.616
	Back side	0.663	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.816	0.816	0.882	0.920	1.305	1.105	0.699	0.189	0.293	0.678	0.478	0.852	0.956	1.341	1.141
	Left side	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.000	0.000	0.000	0.000	0.058	0.058	0.058	0.058
	Right side	0.588	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.702	0.614	0.685	0.906	0.602	0.686	0.686	0.124	0.416	0.112	0.196	0.712	1.004	0.700	0.784
	Top side	0.317	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.604	0.423	0.563	0.487	0.423	0.371	0.371	0.160	0.224	0.160	0.108	0.477	0.541	0.477	0.425
	Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WCAMA Band II	Front side	0.653	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.794	0.700	0.814	0.759	0.672	0.712	0.673	0.067	0.126	0.039	0.079	0.720	0.779	0.692	0.732
	Back side	0.703	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.856	0.856	0.922	0.960	1.345	1.145	0.739	0.189	0.293	0.678	0.478	0.892	0.996	1.381	1.181
	Left side	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.000	0.000	0.000	0.000	0.100	0.100	0.100	0.100
	Right side	0.843	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.957	0.869	0.940	1.161	0.857	0.941	0.941	0.124	0.416	0.112	0.196	0.967			



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Band	Exposure position	SARmax (W/kg)								Summed SAR														
		1	2	3	4	5	6	7	8															
		ENDC	WiFi 2.4G Chain1	WiFi 2.4G Chain2	WiFi 2.4G MIMO	WiFi 5G Chain1	WiFi 5G Chain2	WiFi 5G MIMO	BT	1+2	1+3	1+4	1+5	1+6	1+7	1+8	3+8	5+8	6+8	7+8	1+3+8	1+5+8	1+6+8	1+7+8
DC_5A_n2A	Front side	0.412	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.553	0.459	0.573	0.518	0.431	0.471	0.432	0.067	0.126	0.039	0.079	0.479	0.538	0.451	0.491
	Back side	0.651	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.804	0.804	0.870	0.908	1.293	1.093	0.687	0.189	0.293	0.678	0.478	0.840	0.944	1.329	1.129
	Left side	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080	0.080	0.080	0.080	0.080	0.080	0.000	0.000	0.000	0.000	0.000	0.080	0.080	0.080	0.080
	Right side	0.087	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.201	0.113	0.184	0.405	0.101	0.185	0.185	0.124	0.416	0.112	0.196	0.211	0.503	0.199	0.283
	Top side	0.104	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.391	0.210	0.350	0.274	0.210	0.158	0.158	0.160	0.224	0.160	0.108	0.264	0.328	0.264	0.212
	Bottom side	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.778	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778
DC_12A_n2A	Front side	0.356	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.497	0.403	0.517	0.462	0.375	0.415	0.376	0.067	0.126	0.039	0.079	0.423	0.482	0.395	0.435
	Back side	0.610	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.763	0.763	0.829	0.867	1.252	1.052	0.646	0.189	0.293	0.678	0.478	0.799	0.903	1.288	1.088
	Left side	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.090	0.090	0.090	0.090	0.090	0.090	0.000	0.000	0.000	0.000	0.000	0.090	0.090	0.090	0.090
	Right side	0.084	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.198	0.110	0.181	0.402	0.098	0.182	0.182	0.124	0.416	0.112	0.196	0.208	0.500	0.196	0.280
	Top side	0.041	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.328	0.147	0.287	0.211	0.147	0.095	0.095	0.160	0.224	0.160	0.108	0.201	0.265	0.201	0.149
	Bottom side	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.778	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778
DC_13A_n2a	Front side	0.356	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.497	0.403	0.517	0.462	0.375	0.415	0.376	0.067	0.126	0.039	0.079	0.423	0.482	0.395	0.435
	Back side	0.613	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.766	0.766	0.832	0.870	1.255	1.055	0.649	0.189	0.293	0.678	0.478	0.802	0.906	1.291	1.091
	Left side	0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081	0.081	0.081	0.081	0.081	0.081	0.000	0.000	0.000	0.000	0.000	0.081	0.081	0.081	0.081
	Right side	0.082	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.196	0.108	0.179	0.400	0.096	0.180	0.180	0.124	0.416	0.112	0.196	0.206	0.498	0.194	0.278
	Top side	0.066	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.353	0.172	0.312	0.236	0.172	0.120	0.120	0.160	0.224	0.160	0.108	0.226	0.290	0.226	0.174
	Bottom side	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.778	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778
DC_66A_n2A	Front side	0.574	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.715	0.621	0.735	0.680	0.593	0.633	0.594	0.067	0.126	0.039	0.079	0.641	0.700	0.613	0.653
	Back side	0.883	0.153	0.153	0.219	0.257	0.642	0.442	0.036	1.036	1.036	1.102	1.140	1.525	1.325	0.919	0.189	0.293	0.678	0.478	1.072	1.176	1.561	1.361
	Left side	0.103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.103	0.103	0.103	0.103	0.103	0.103	0.000	0.000	0.000	0.000	0.000	0.103	0.103	0.103	0.103
	Right side	0.305	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.419	0.331	0.402	0.623	0.319	0.403	0.403	0.124	0.416	0.112	0.196	0.429	0.721	0.417	0.501
	Top side	0.382	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.669	0.488	0.628	0.552	0.488	0.436	0.436	0.160	0.224	0.160	0.108	0.542	0.606	0.542	0.490
	Bottom side	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.778	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778
DC_2A_n5A	Front side	0.465	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.606	0.512	0.626	0.571	0.484	0.524	0.485	0.067	0.126	0.039	0.079	0.532	0.591	0.504	0.544
	Back side	0.741	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.894	0.894	0.960	0.998	1.383	1.183	0.777	0.189	0.293	0.678	0.478	0.930	1.034	1.419	1.219
	Left side	0.244	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.244	0.244	0.244	0.244	0.244	0.244	0.000	0.000	0.000	0.000	0.000	0.244	0.244	0.244	0.244
	Right side	0.112	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.226	0.138	0.209	0.430	0.126	0.210	0.210	0.124	0.416	0.112	0.196	0.236	0.528	0.224	0.308
	Top side	0.336	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.623	0.442	0.582	0.506	0.442	0.390	0.390	0.160	0.224	0.160	0.108	0.496	0.560	0.496	0.444
	Bottom side	0.474	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.474	0.474	0.474	0.474	0.474	0.474	0.000	0.000	0.000	0.000	0.000	0.474	0.474	0.474	0.474
DC_66A_n5A	Front side	0.322	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.463	0.369	0.483	0.428	0.341	0.381	0.342	0.067	0.126	0.039	0.079	0.389	0.448	0.361	0.401

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	Back side	0.530	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.683	0.683	0.749	0.787	1.172	0.972	0.566	0.189	0.293	0.678	0.478	0.719	0.823	1.208	1.008
	Left side	0.239	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.000	0.000	0.000	0.000	0.239	0.239	0.239	0.239
	Right side	0.098	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.212	0.124	0.195	0.416	0.112	0.196	0.196	0.124	0.416	0.112	0.196	0.222	0.514	0.210	0.294
	Top side	0.336	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.623	0.442	0.582	0.506	0.442	0.390	0.390	0.160	0.224	0.160	0.108	0.496	0.560	0.496	0.444
	Bottom side	0.170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.000	0.000	0.000	0.000	0.170	0.170	0.170	0.170
DC_12A_n25A	Front side	0.334	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.463	0.369	0.483	0.428	0.341	0.381	0.342	0.067	0.126	0.039	0.079	0.389	0.448	0.361	0.401
	Back side	0.385	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.683	0.683	0.749	0.787	1.172	0.972	0.566	0.189	0.293	0.678	0.478	0.719	0.823	1.208	1.008
	Left side	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.239	0.239	0.239	0.239	0.239	0.239	0.239	0.000	0.000	0.000	0.000	0.239	0.239	0.239	0.239
	Right side	0.096	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.212	0.124	0.195	0.416	0.112	0.196	0.196	0.124	0.416	0.112	0.196	0.222	0.514	0.210	0.294
	Top side	0.041	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.623	0.442	0.582	0.506	0.442	0.390	0.390	0.160	0.224	0.160	0.108	0.496	0.560	0.496	0.444
	Bottom side	0.705	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.000	0.000	0.000	0.000	0.170	0.170	0.170	0.170
DC_66A_n25A	Front side	0.552	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.693	0.599	0.713	0.658	0.571	0.611	0.572	0.067	0.126	0.039	0.079	0.619	0.678	0.591	0.631
	Back side	0.658	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.811	0.811	0.877	0.915	1.300	1.100	0.694	0.189	0.293	0.678	0.478	0.847	0.951	1.336	1.136
	Left side	0.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.000	0.000	0.000	0.000	0.109	0.109	0.109	0.109
	Right side	0.317	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.431	0.343	0.414	0.635	0.331	0.415	0.415	0.124	0.416	0.112	0.196	0.441	0.733	0.429	0.513
	Top side	0.382	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.669	0.488	0.628	0.552	0.488	0.436	0.436	0.160	0.224	0.160	0.108	0.542	0.606	0.542	0.490
	Bottom side	0.705	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.705	0.705	0.705	0.705	0.705	0.705	0.705	0.000	0.000	0.000	0.000	0.705	0.705	0.705	0.705
DC_2A_n41A	Front side	0.291	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.432	0.338	0.452	0.397	0.310	0.350	0.311	0.067	0.126	0.039	0.079	0.358	0.417	0.330	0.370
	Back side	0.328	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.481	0.481	0.547	0.585	0.970	0.770	0.364	0.189	0.293	0.678	0.478	0.517	0.621	1.006	0.806
	Left side	0.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.000	0.000	0.000	0.000	0.086	0.086	0.086	0.086
	Right side	0.247	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.361	0.273	0.344	0.565	0.261	0.345	0.345	0.124	0.416	0.112	0.196	0.371	0.663	0.359	0.443
	Top side	0.410	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.697	0.516	0.656	0.580	0.516	0.464	0.464	0.160	0.224	0.160	0.108	0.570	0.634	0.570	0.518
	Bottom side	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099	0.099	0.099	0.099	0.099	0.099	0.099	0.000	0.000	0.000	0.000	0.099	0.099	0.099	0.099
DC_66A_n41A	Front side	0.345	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.486	0.392	0.506	0.451	0.364	0.404	0.365	0.067	0.126	0.039	0.079	0.412	0.471	0.384	0.424
	Back side	0.445	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.598	0.598	0.664	0.702	1.087	0.887	0.481	0.189	0.293	0.678	0.478	0.634	0.738	1.123	0.923
	Left side	0.145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.145	0.145	0.145	0.145	0.145	0.145	0.145	0.000	0.000	0.000	0.000	0.145	0.145	0.145	0.145
	Right side	0.256	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.370	0.282	0.353	0.574	0.270	0.354	0.354	0.124	0.416	0.112	0.196	0.380	0.672	0.368	0.452
	Top side	0.382	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.669	0.488	0.628	0.552	0.488	0.436	0.436	0.160	0.224	0.160	0.108	0.542	0.606	0.542	0.490
	Bottom side	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.099	0.099	0.099	0.099	0.099	0.099	0.099	0.000	0.000	0.000	0.000	0.099	0.099	0.099	0.099
DC_2A_n66A	Front side	0.604	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.745	0.651	0.765	0.710	0.623	0.663	0.624	0.067	0.126	0.039	0.079	0.671	0.730	0.643	0.683
	Back side	0.690	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.843	0.843	0.909	0.947	1.332	1.132	0.726	0.189	0.293	0.678	0.478	0.879	0.983	1.368	1.168
	Left side	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.000	0.000	0.000	0.000	0.055	0.055	0.055	0.055
	Right side	0.305	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.419	0.331	0.402	0.623	0.319	0.403	0.403	0.124	0.416	0.112	0.196	0.429	0.721	0.417	0.501
	Top side	0.410	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.697	0.516	0.656	0.580	0.516	0.464	0.464	0.160	0.224	0.160	0.108	0.570	0.634	0.570	0.518
	Bottom side	0.796	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.000	0.000	0.000	0.000	0.796	0.796	0.796	0.796
DC_5A_n66A	Front side	0.496	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.637	0.543	0.657	0.602	0.515	0.555	0.516	0.067	0.126	0.039	0.079	0.563	0.622	0.535	0.575
	Back side	0.575	0.153	0.153	0.219	0.257	0.642	0.442	0.036	0.728	0.728	0.794	0.832	1.217	1.017	0.611	0.189	0.293	0.678	0.478	0.764	0.868	1.253	1.053
	Left side	0.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.000	0.000	0.000	0.000	0.091	0.091	0.091	0.091
	Right side	0.096	0.114	0.026	0.097	0.318	0.014	0.098	0.098	0.210	0.122	0.193	0.414	0.110	0.194	0.194	0.124	0.416	0.112	0.196	0.220	0.512	0.208	0.292
	Top side	0.104	0.287	0.106	0.246	0.170	0.106	0.054	0.054	0.391	0.210	0.350	0.274	0.210	0.158	0.158	0.160	0.224	0.160	0.108	0.264	0.328	0.264	0.212
	Bottom side	0.796	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.796	0.796	0.796	0.796	0.796	0.796	0.796	0.000	0.000	0.000	0.000	0.796	0.796	0.796	0.796
DC_12A_n66A	Front side	0.440	0.141	0.047	0.161	0.106	0.019	0.059	0.020	0.637	0.543	0.657	0.602	0.515	0.555	0.516	0.067	0.126	0.039	0.079	0.563	0.622	0.535	0.575



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Shenzhen Branch**

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Band	Exposure position	SARmax (W/kg)								Summed SAR															
		1	2	3	4	5	6	7	8																
CA_2A-4A	Front side	0.563	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.704	0.610	0.724	0.694	0.577	0.622	0.583	0.067	0.151	0.034	0.079	0.630	0.714	0.597	0.642	
	Back side	0.702	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.855	0.855	0.921	0.962	1.293	0.917	0.738	0.189	0.296	0.627	0.251	0.891	0.998	1.329	0.953	
	Left side	0.095	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.236	0.142	0.256	0.226	0.109	0.154	0.115	0.067	0.151	0.034	0.079	0.162	0.246	0.129	0.174	
	Right side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
	Top side	1.080	0.141	0.047	0.161	0.131	0.014	0.059	0.020	1.221	1.127	1.241	1.211	1.094	1.139	1.100	0.067	0.151	0.034	0.079	1.147	1.231	1.114	1.159	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_2A-5A	Front side	0.663	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.804	0.710	0.824	0.794	0.677	0.722	0.683	0.067	0.151	0.034	0.079	0.730	0.814	0.697	0.742	
	Back side	0.807	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.960	0.960	1.026	1.067	1.398	1.022	0.843	0.189	0.296	0.627	0.251	0.996	1.103	1.434	1.058	
	Left side	0.333	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.474	0.380	0.494	0.464	0.347	0.392	0.353	0.067	0.151	0.034	0.079	0.400	0.484	0.367	0.412	
	Right side	0.108	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.261	0.261	0.327	0.368	0.699	0.323	0.144	0.189	0.296	0.627	0.251	0.297	0.404	0.735	0.359	
	Top side	0.931	0.141	0.047	0.161	0.131	0.014	0.059	0.020	1.072	0.978	1.092	1.062	0.945	0.990	0.951	0.067	0.151	0.034	0.079	0.998	1.082	0.965	1.010	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_2A-12A	Front side	0.378	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.519	0.425	0.539	0.509	0.392	0.437	0.398	0.067	0.151	0.034	0.079	0.445	0.529	0.412	0.457	
	Back side	0.644	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.797	0.797	0.863	0.904	1.235	0.859	0.680	0.189	0.296	0.627	0.251	0.833	0.940	1.271	0.895	
	Left side	0.382	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.523	0.429	0.543	0.513	0.396	0.441	0.402	0.067	0.151	0.034	0.079	0.449	0.533	0.416	0.461	
	Right side	0.091	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.244	0.244	0.310	0.351	0.682	0.306	0.127	0.189	0.296	0.627	0.251	0.280	0.387	0.718	0.342	
	Top side	0.722	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.863	0.769	0.883	0.853	0.736	0.781	0.742	0.067	0.151	0.034	0.079	0.789	0.873	0.756	0.801	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_2A-13A	Front side	0.379	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.520	0.426	0.540	0.510	0.393	0.438	0.399	0.067	0.151	0.034	0.079	0.446	0.530	0.413	0.458	
	Back side	0.656	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.809	0.809	0.875	0.916	1.247	0.871	0.692	0.189	0.296	0.627	0.251	0.845	0.952	1.283	0.907	
	Left side	0.350	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.491	0.397	0.511	0.481	0.364	0.409	0.370	0.067	0.151	0.034	0.079	0.417	0.501	0.384	0.429	
	Right side	0.087	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.240	0.240	0.306	0.347	0.678	0.302	0.123	0.189	0.296	0.627	0.251	0.276	0.383	0.714	0.338	
	Top side	0.848	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.989	0.895	1.009	0.979	0.862	0.907	0.868	0.067	0.151	0.034	0.079	0.915	0.999	0.882	0.927	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_2A-66A	Front side	0.550	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.691	0.597	0.711	0.681	0.564	0.609	0.570	0.067	0.151	0.034	0.079	0.617	0.701	0.584	0.629	
	Back side	0.719	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.872	0.872	0.938	0.979	1.310	0.934	0.755	0.189	0.296	0.627	0.251	0.908	1.015	1.346	0.970	
	Left side	0.139	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.280	0.186	0.300	0.270	0.153	0.198	0.159	0.067	0.151	0.034	0.079	0.206	0.290	0.173	0.218	
	Right side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
	Top side	1.005	0.141	0.047	0.161	0.131	0.014	0.059	0.020	1.146	1.052	1.166	1.136	1.019	1.064	1.025	0.067	0.151	0.034	0.079	1.072	1.156	1.039	1.084	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_4A-5A	Front side	0.744	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.885	0.791	0.905	0.875	0.758	0.803	0.764	0.067	0.151	0.034	0.079	0.811	0.895	0.778	0.823	
	Back side	0.937	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.090	1.090	1.156	1.197	1.528	1.152	0.973	0.189	0.296	0.627	0.251	1.233	1.564	1.188		
	Left side	0.364	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.505	0.411	0.525	0.495	0.378	0.423	0.384	0.067	0.151	0.034	0.079	0.431	0.515	0.398	0.443	
	Right side	0.108	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.261	0.261	0.327	0.368	0.699	0.323	0.144	0.189	0.296	0.627	0.251	0.297	0.404	0.735	0.359	
	Top side	0.977	0.141	0.047	0.161	0.131	0.014	0.059	0.020	1.118	1.024	1.138	1.108	0.991	1.036	0.997	0.067	0.151	0.034	0.079	1.044	1.128	1.011	1.056	
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251	
CA_4A-12A	Front side	0.459	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.885	0.791	0.905	0.875	0.758	0.803	0.764	0.067	0.151	0.034	0.079	0.811	0.895	0.778	0.823	
	Back side	0.774	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.090	1.090	1.156	1.197	1.528	1.152	0.973	0.189	0.296	0.627	0.251	1.236	1.564	1.188		
	Left side	0.413	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.505	0.411	0.525	0.495	0.378	0.423	0.384	0.067	0.151	0.034	0.079	0.431	0.515	0.398	0.	



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CA_5A-66A	Front side	0.731	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.872	0.778	0.892	0.862	0.745	0.790	0.751	0.067	0.151	0.034	0.079	0.798	0.882	0.765	0.810
	Back side	0.954	0.153	0.153	0.219	0.260	0.591	0.215	0.036	1.107	1.107	1.173	1.214	1.545	1.169	0.990	0.189	0.296	0.627	0.251	1.143	1.250	1.581	1.205
	Left side	0.408	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.549	0.455	0.569	0.539	0.422	0.467	0.428	0.067	0.151	0.034	0.079	0.475	0.559	0.442	0.487
	Right side	0.108	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.261	0.261	0.327	0.368	0.699	0.323	0.144	0.189	0.296	0.627	0.251	0.297	0.404	0.735	0.359
	Top side	0.902	0.141	0.047	0.161	0.131	0.014	0.059	0.020	1.043	0.949	1.063	1.033	0.916	0.961	0.922	0.067	0.151	0.034	0.079	0.969	1.053	0.936	0.981
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251
CA_12A-66A	Front side	0.446	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.587	0.493	0.607	0.577	0.460	0.505	0.466	0.067	0.151	0.034	0.079	0.513	0.597	0.480	0.525
	Back side	0.791	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.944	0.944	1.010	1.051	1.382	1.006	0.827	0.189	0.296	0.627	0.251	0.980	1.087	1.418	1.042
	Left side	0.457	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.598	0.504	0.618	0.588	0.471	0.516	0.477	0.067	0.151	0.034	0.079	0.524	0.608	0.491	0.536
	Right side	0.091	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.244	0.244	0.310	0.351	0.682	0.306	0.127	0.189	0.296	0.627	0.251	0.280	0.387	0.718	0.342
	Top side	0.693	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.834	0.740	0.854	0.824	0.707	0.752	0.713	0.067	0.151	0.034	0.079	0.760	0.844	0.727	0.772
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251
CA_13A-66A	Front side	0.447	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.588	0.494	0.608	0.578	0.461	0.506	0.467	0.067	0.151	0.034	0.079	0.514	0.598	0.481	0.526
	Back side	0.803	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.956	0.956	1.022	1.063	1.394	1.018	0.839	0.189	0.296	0.627	0.251	0.992	1.099	1.430	1.054
	Left side	0.425	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.566	0.472	0.586	0.556	0.439	0.484	0.445	0.067	0.151	0.034	0.079	0.492	0.576	0.459	0.504
	Right side	0.087	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.240	0.240	0.306	0.347	0.678	0.302	0.123	0.189	0.296	0.627	0.251	0.276	0.383	0.714	0.338
	Top side	0.819	0.141	0.047	0.161	0.131	0.014	0.059	0.020	0.960	0.866	0.980	0.950	0.833	0.878	0.839	0.067	0.151	0.034	0.079	0.886	0.970	0.853	0.898
	Bottom side	0.000	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.153	0.153	0.219	0.260	0.591	0.215	0.036	0.189	0.296	0.627	0.251	0.189	0.296	0.627	0.251

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## 9 Equipment list

Test Platform	SPEAG DASY5 Professional				
Description	SAR Test System (Frequency range 300MHz-6GHz)				
Software Reference	DASY52; SEMCAD				
<b>Hardware Reference</b>					
Equipment	Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
<input checked="" type="checkbox"/> Twin Phantom	SPEAG	SAM	1702	NCR	NCR
<input checked="" type="checkbox"/> Twin Phantom	SPEAG	SAM	1425	NCR	NCR
<input checked="" type="checkbox"/> Twin Phantom	SPEAG	SAM	1824	NCR	NCR
<input checked="" type="checkbox"/> DAE	SPEAG	DAE3	414	2020-12-30	2021-12-29
<input checked="" type="checkbox"/> DAE	SPEAG	DAE4	1327	2020-10-20	2021-10-19
<input checked="" type="checkbox"/> DAE	SPEAG	DAE4	1374	2020-11-06	2021-11-05
<input checked="" type="checkbox"/> E-Field Probe	SPEAG	EX3DV4	3789	2020-06-16	2021-06-15
<input checked="" type="checkbox"/> E-Field Probe	SPEAG	EX3DV4	7620	2021-02-05	2022-02-04
<input checked="" type="checkbox"/> E-Field Probe	SPEAG	EX3DV4	3923	2020-12-18	2021-12-17
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D750V3	1160	2019-05-22	2022-05-21
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D835V2	4d105	2019-12-17	2022-12-16
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D1750V2	1149	2019-05-21	2022-05-20
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D1900V2	5d028	2019-12-17	2022-12-16
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D2450V2	733	2019-12-17	2022-12-16
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D2600V2	1125	2019-05-20	2022-05-19
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D3700V2	1046	2019-09-06	2022-09-05
<input checked="" type="checkbox"/> Validation Kits	SPEAG	D5GHzV2	1165	2019-12-20	2022-12-19
<input checked="" type="checkbox"/> Agilent Network Analyzer	Agilent	E5071C	MY46523591	2021-04-14	2022-04-13
<input checked="" type="checkbox"/> Dielectric Probe Kit	Agilent	85070E	US01440210	NCR	NCR
<input checked="" type="checkbox"/> Universal Radio Communication Tester	R&S	CMW500	124587	2021-04-01	2022-03-31
<input checked="" type="checkbox"/> Radio Communication Analyzer	Anritsu	MT8820C	6201010267	2021-04-01	2022-03-31
<input checked="" type="checkbox"/> Radio Communication Analyzer	Anritsu	MT8821C	6201588561	2020-10-26	2021-10-25
<input checked="" type="checkbox"/> RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR
<input checked="" type="checkbox"/> Signal Generator	Agilent	N5171B	MY53050736	2021-04-14	2022-04-13
<input checked="" type="checkbox"/> Preamplifier	Mini-Circuits	ZHL-42W	15542	NCR	NCR
<input checked="" type="checkbox"/> Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	073501433	NCR	NCR

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<input checked="" type="checkbox"/>	Power Meter	Agilent	E4416A	GB41292095	2021-04-14	2022-04-13
<input checked="" type="checkbox"/>	Power Sensor	Agilent	8481H	MY41091234	2021-04-14	2022-04-13
<input checked="" type="checkbox"/>	Power Sensor	R&S	NRP-Z92	100025	2021-04-14	2022-04-13
<input checked="" type="checkbox"/>	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
<input checked="" type="checkbox"/>	Coaxial low pass filter	Mini-Circuits	VLF-2500(+)	NA	NCR	NCR
<input checked="" type="checkbox"/>	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
<input checked="" type="checkbox"/>	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
<input checked="" type="checkbox"/>	Speed reading thermometer	MingGao	T809	NA	2020-11-06	2021-11-05

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

## 10 Calibration certificate

Please see the Appendix C

## 11 Photographs

Please see the Appendix D

## Appendix A: Detailed System Check Results

## Appendix B: Detailed Test Results

## Appendix C: Calibration certificate

## Appendix D: Photographs

## Appendix E: Conducted RF Output Power Table

---END---

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