



FCC SAR TEST REPORT

Report No: AR/2020/C0002
Applicant: Xiaomi Communications Co., Ltd.
Manufacturer: Xiaomi Communications Co., Ltd.
Product Name: Mobile Phone
Model No.(EUT): M2101K9G
Trade Mark: XIAOMI
FCC ID: 2AFZZK9G
Standards: FCC 47CFR §2.1093
Date of Receipt: 2020-12-17
Date of Test: 2020-12-20 to 2021-01-15
Date of Issue: 2021-02-04
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

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.



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REVISION HISTORY

Report Number	Revision	Description	Issue Date
AR/2020/C000208	01	Original	2021-02-04



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TEST SUMMARY

Frequency Band	Maximum Reported SAR(W/kg)			
	Head	Body-worn	Hotspot	Product specific 10g SAR
GSM850	0.64	0.36	0.53	/
GSM1900	0.86	0.30	0.57	/
WCDMA Band II	0.86	1.06	0.68	2.32
WCDMA Band IV	0.89	0.74	0.71	1.30
WCDMA Band V	0.64	0.44	0.56	/
LTE Band 2	0.54	0.83	0.67	1.53
LTE Band 4	0.86	0.72	0.59	1.01
LTE Band 5	0.69	0.50	0.54	/
LTE Band 7	0.86	0.43	0.36	/
LTE Band 12	0.68	0.28	0.50	/
LTE Band 13	0.66	0.33	0.49	/
LTE Band 17	0.79	0.32	0.39	/
LTE Band 38	1.03	0.42	0.50	/
LTE Band 41	0.78	0.43	0.37	/
LTE Band 66	0.74	0.50	0.72	/
NR Band 5	0.76	0.38	0.51	/
NR Band 7	0.93	0.49	0.61	/
NR Band 38	0.77	0.60	0.52	/
NR Band 41	0.84	0.69	0.44	1.66
NR Band 66	0.94	0.51	0.71	/
NR Band 77	0.79	0.70	0.56	2.26
WiFi 2.4G	0.95	0.26	0.58	/
WiFi 5G	1.03	0.18	0.66	1.00
BT	0.55	0.06	0.12	/
SAR Limited(W/kg)	1.6			4.0
Maximum Simultaneous Transmission SAR (W/kg)				
Scenario	Head	Body-worn	Hotspot	Product specific 10g SAR
Sum SAR	1.59	1.57	1.58	2.76
SPLSR	0.04	N/A	N/A	N/A
SPLSR Limited	0.04			0.1

Note:

The Simultaneous transmission SAR is the same test position of the WWAN antenna + WiFi/BT antenna.

Approved & Released by

Simon Ling

Simon Ling

SAR Manager

Tested by

Jackson Li

Jackson Li

SAR Engineer



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1 General Information

1.1 Details of Client

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

1.2 Test Location

Company: SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch E&E Lab
Address: No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
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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)**

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

• **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• **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:	Mobile Phone		
Model No.(EUT):	M2101K9G		
FCC ID:	2AFZZK9G		
Trade Mark:	XIAOMI		
Product Phase:	Identical Prototype		
IMEI:	861775050088108/861775050087381/861775050077747/ 864376026015007/861775050079784/864376026015007/ 861775050089627/861775050086821/861775050089205		
Hardware Version:	P2		
Software Version:	MIUI12		
Antenna Type:	PIFA Antenna		
Device Operating Configurations :			
Modulation Mode:	GSM: GMSK, 8PSK; WCDMA: QPSK; LTE: QPSK,16QAM,64QAM 5G NR: DFT-s-OFDM (PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM), CP-OFDM (QPSK, 16QAM, 64QAM, 256QAM) WIFI: DSSS, OFDM, OFDMA; BT: GFSK, $\pi/4$ DQPSK,8DPSK		
Device Class:	B		
GPRS Multi-slots Class:	33	EGPRS Multi-slots Class:	33
HSDPA UE Category:	24	HSUPA UE Category	6
DC-HSDPA UE Category:	24		
Power Class	4,tested with power level 5(GSM850)		
	1,tested with power level 0(GSM1900)		
	3, tested with power control “all 1”(WCDMA Band II/IV/V)		
	3, tested with power control Max Power(LTE Band 2/4/5/7/12/13/17/38/41/66)		
Frequency Bands:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824~849	869~894
	GSM1900	1850~1910	1930~1990
	WCDMA Band II	1850~1910	1930~1990
	WCDMA Band IV	1710~1755	2110~2155
	WCDMA Band V	824~849	869~894
	LTE Band 2	1850 ~1910	1930 ~1990
	LTE Band 4	1710~1755	2110~2155
	LTE Band 5	824~849	869~894
	LTE Band 7	2500~2570	2620~2690
	LTE Band 12	699~716	729~746
	LTE Band 13	777~787	746~756
	LTE Band 17	704~716	734~746
	LTE Band 38	2570~2620	2570~2620
	LTE Band 41	2496~2690	2496~2690
	LTE Band 66	1710~1780	2110~2200
	NR Band n5	824~849	869~894



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	NR Band n7	2500~2570	2620~2690
	NR Band n38	2570~2620	2570~2620
	NR Band n41	2496~2690	2496~2690
	NR Band n66	1710~1780	2110~2180
	NR Band n77	3700~3980	3700~3980
	Bluetooth	2400~2483.5	2400~2483.5
	Wi-Fi 2.4G	2400~2483.5	2400~2483.5
	Wi-Fi 5G	5150~5250	5150~5250
		5250~5350	5250~5350
		5470~5725	5470~5725
		5725~5850	5725~5850



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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 171 mm. Per KDB 648474 D04, because the diagonal distance of this device is $\geq 160\text{mm}$, so it is a phablet.
- 2) 3) For WiFi 2.4G/5G Ant7(Chain0) and WiFi 2.4G/5G Ant9(Chain1) only support MIMO/CDD mode together, and it has no SISO antenna mode.



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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	No	Yes	No	Yes
Ant2	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	No	Yes
Ant3	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	No	No
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	No	No	Yes	No
Ant8	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
Ant12	Hotspot/Product specific 10g SAR	Yes	Yes	Yes	No	Yes	No
BT(Ant7)	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
BT(Ant9)	Hotspot/Product specific 10g SAR	Yes	Yes	No	Yes	Yes	No
WIFI MIMO (Ant7+Ant9)	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.

- a) Intra-band carrier aggregation requirements for uplink.
- b) Intra-band and inter-band carrier aggregation requirements for downlink.
- c) The device supports Inter-band uplink LTE CA for CA_4A-7A with two component carriers in the uplink.

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 W/kg, UL CA SAR is also required for all required test channels (PCC based)

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



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1.4.3 Power reduction specification

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

- 1) A fixed level power reduction is applied for some frequency bands when hotspot mode becomes active. When the hotspot is disabled, the power value will be recovered.
- 2) A fixed level power reduction is applied for some frequency bands when simultaneously transmitting with the other antennas in certain simultaneous transmission conditions. The standalone SAR compliance still uses the standalone SAR results tested at the maximum output power level without any power reduction
- 3) 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.
- 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 Section 8 of this report.

Ant1 Power Level(dBm)							
Power Reduction Scenario	WCDMA B5	LTE B4	LTE B5	LTE B7	LTE B66	LTE B4 (ENDC)	LTE B7 (ENDC)
Sensor off	25.0	22.5	25.5	22.5	21.5	23.5	22.5
Sensor on	24.0	21.5	24.0	21.0	20.5	21.5	19.5
Hotspot off	25.0	22.5	25.5	22.5	21.5	23.5	22.5
Hotspot on	24.0	21.5	24.0	21.0	20.5	21.5	19.5

Ant2 Power Level(dBm)									
Power Reduction Scenario	WCDMA B2	WCDMA B4	LTE B2	LTE B4	LTE B7	LTE B38	LTE B41	LTE B66	LTE B7 (ENDC)
Sensor off	25.0	25.0	25.5	25.5	25.5	25.5	25.5	24.0	21.5
Sensor on	21.0	21.5	21.0	22.0	21.0	24.0	23.5	22.5	20.0
Hotspot off	25.0	25.0	25.5	25.5	25.5	25.5	25.5	24.0	21.5
Hotspot on	21.0	21.5	21.0	22.0	21.0	24.0	23.5	22.5	20.0

Ant3 Power Level(dBm)										
Power Reduction Scenario	GSM1900	WCDMA B2	WCDMA B4	LTE B2	LTE B4	LTE B7	LTE B38	LTE B41	LTE B66	LTE B7 (ENDC)
Receiver off	30.5	23.5	24.0	25.0	24.5	21.0	23.0	22.5	24.0	19.5
Receiver on	29.5	20.0	21.5	18.5	20.5	19.0	20.5	20.0	22.0	17.5
Hotspot off	30.5	23.5	24.0	25.0	24.5	21.0	23.0	22.5	24.0	19.5
Hotspot on	29.5	20.0	21.5	18.5	20.5	19.0	20.5	20.0	22.0	17.5



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Ant4 Power Level(dBm)						
Power Reduction Scenario	GSM850	WCDMA B5	LTE B5	LTE B12	LTE B13	LTE B17
Receiver off	33.0	23.5	23.5	24.5	24.5	24.5
Receiver on	30.0	20.5	20.5	20.5	22.0	21.5
Hotspot off	33.0	23.5	23.5	24.5	24.5	24.5
Hotspot on	30.0	20.5	20.5	20.5	22.0	21.5

Ant5 Power Level(dBm)							
Power Reduction Scenario	LTE B4	LTE B7	LTE B38	LTE B41	LTE B66	LTE B4 (ENDC)	LTE B7 (ENDC)
Sensor off	23.5	23.0	23.5	23.5	22.0	24.0	24.0
Sensor on	22.5	19.0	20.5	20.0	21.5	22.5	18.0
Receiver off	23.5	23.0	23.5	23.5	22.0	24.0	24.0
Receiver on	17.5	19.0	20.5	21.0	17.0	18.0	17.0
Hotspot off	23.5	23.0	23.5	23.5	22.0	24.0	24.0
Hotspot on	17.5	19.0	20.5	20.0	17.0	18.0	18.0

5G NR antenna(Ant1) Power Level(dBm)				
Power Reduction Scenario	n5	n7	n38	n41
Sensor off	25.0	24.5	24.5	24.5
Sensor on	24.0	21.5	21.0	22.0
Hotspot off	25.0	24.5	24.5	24.5
Hotspot on	24.0	21.5	21.0	21.5

5G NR antenna(Ant2) Power Level(dBm)				
Power Reduction Scenario	n7	n38	n41	n66
Sensor off	22.5	23.0	23.0	24.0
Sensor on	20.5	21.0	21.0	23.5
Hotspot off	22.5	23.0	23.0	24.0
Hotspot on	20.5	21.0	21.0	22.5

5G NR antenna(Ant3) Power Level(dBm)				
Power Reduction Scenario	n7	n38	n41	n66
Receiver off	19.5	19.5	19.0	23.0
Receiver on	18.0	17.5	16.5	22.0
Hotspot off	19.5	19.5	19.0	23.0
Hotspot on	18.0	17.5	16.5	22.0



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5G NR antenna(Ant4) Power Level(dBm)		
Power Reduction Scenario	n5	n77
Receiver off	24.0	17.0
Receiver on	20.0	14.5
Hotspot off	24.0	17.0
Hotspot on	20.0	14.5

5G NR antenna(Ant5) Power Level(dBm)				
Power Reduction Scenario	n7	n38	n41	n66
Sensor off	25.0	25.0	25.0	/
Sensor on	17.5	18.0	19.0	/
Receiver off	25.0	25.0	25.0	22.5
Receiver on	18.0	17.5	17.0	17.5
Hotspot off	25.0	25.0	25.0	22.5
Hotspot on	17.5	17.5	17.0	17.5

5G NR antenna(Ant6) Power Level(dBm)	
Power Reduction Scenario	n77
Sensor off	24.5
Sensor on	21.5
Receiver off	24.5
Receiver on	17.5
Hotspot off	24.5
Hotspot on	17.5

5G NR antenna(Ant8) Power Level(dBm)	
Power Reduction Scenario	n77
Receiver off	18.5
Receiver on	15.5
Hotspot off	18.5
Hotspot on	15.5

5G NR antenna(Ant12) Power Level(dBm)	
Power Reduction Scenario	n77
Sensor off	25.5
Sensor on	19.0
Receiver off	25.5
Receiver on	21.5
Hotspot off	25.5
Hotspot on	19.0



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WIFI Power Level(dBm)				
Mode	Power Reduction Scenario	Receiver off	Receiver on	Receiver on+WWAN
WIFI 2.4G	802.11b	21.5	19.0	17.0
	802.11g	17.5	16.5	16.5
	802.11n 20M	16.5	16.5	16.5
	802.11n 40M	12.5	12.5	12.5
WIFI 5G 802.11a	U-NII-1	19.5	17.5	14.5
	U-NII-2A	18.5	17.5	14.5
	U-NII-2C	19.5	18.5	15.5
	U-NII-3	19.5	19.5	16.5
WIFI 5G 802.11n 20M	U-NII-1	18.5	17.5	14.5
	U-NII-2A	18.5	17.5	14.5
	U-NII-2C	18.5	18.5	15.5
	U-NII-3	19.5	19.5	16.5
WIFI 5G 802.11n 40M	U-NII-1	14.5	14.5	14.0
	U-NII-2A	14.5	14.5	14.0
	U-NII-2C	14.5	14.5	14.5
	U-NII-3	17.5	17.5	16.0
WIFI 5G 802.11ac 20M	U-NII-1	18.5	17.5	14.5
	U-NII-2A	18.5	17.5	14.5
	U-NII-2C	18.5	18.5	15.5
	U-NII-3	18.5	18.5	15.5
WIFI 5G 802.11ac 40M	U-NII-1	14.5	14.5	14.0
	U-NII-2A	14.5	14.5	14.0
	U-NII-2C	14.5	14.5	14.5
	U-NII-3	17.5	17.5	16.0
WIFI 5G 802.11ac 80M	U-NII-1	13.5	13.5	13.5
	U-NII-2A	13.5	13.5	13.5
	U-NII-2C	13.5	13.5	13.5
	U-NII-3	13.5	13.5	13.5

BT0(Ant7) Power Level(dBm)			
Mode	Power Reduction Scenario	BT only	BT+WWAN/ BT+WWAN+WIFI 5G
BT	GFSK	18.0	15.0
	$\pi/4$ DQPSK	15.0	15.0
	8DPSK	15.0	15.0
BLE 1M	GFSK	9.0	9.0
BLE 2M	GFSK	6.0	6.0



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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
KDB447498 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
Spatial Peak SAR* (Brain*Trunk)	1.60 mW/g	8.00 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g	0.40 mW/g
Spatial Peak SAR*** (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

Notes:

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

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

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

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

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



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2 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
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 σ and ρ are the conductivity and mass density of the tissue-Simulate.

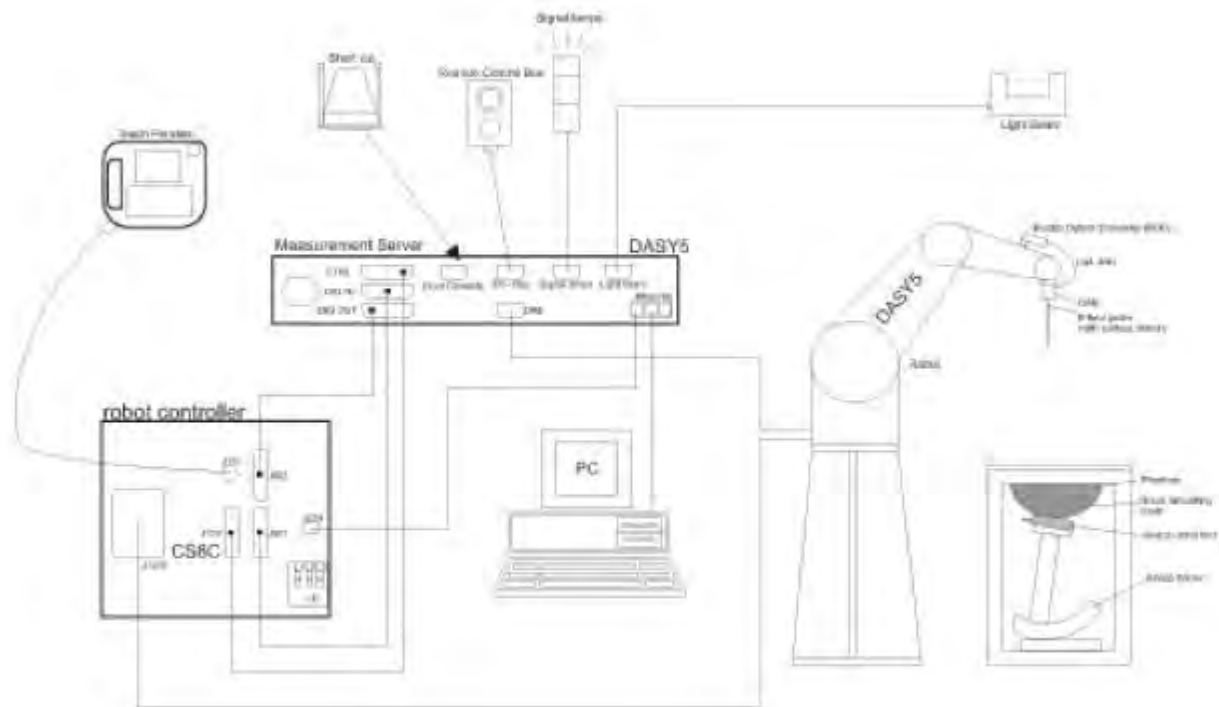
The DASY5 system for performing compliance tests consists of the following items:

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

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

3.2 Isotropic E-field Probe EX3DV4

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

3.3 Data Acquisition Electronics (DAE)

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

3.4 SAM Twin Phantom

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

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

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

3.5 ELI Phantom

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



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

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



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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.



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		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	$\leq 2 \text{ GHz}: \leq 15 \text{ mm}$ $2 - 3 \text{ GHz}: \leq 12 \text{ mm}$		$3 - 4 \text{ GHz}: \leq 12 \text{ mm}$ $4 - 6 \text{ GHz}: \leq 10 \text{ mm}$
	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: $\Delta z_{\text{Zoom}}(n)$		$3 - 4 \text{ GHz}: \leq 4 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 3 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	$3 - 4 \text{ GHz}: \leq 3 \text{ mm}$ $4 - 5 \text{ GHz}: \leq 2.5 \text{ mm}$ $5 - 6 \text{ GHz}: \leq 2 \text{ mm}$
		$\Delta z_{\text{Zoom}}(n>1)$: 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/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

3.7.3 Data Evaluation by SEMCAD

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

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

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

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

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

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

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

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

E-field probes:

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



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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 ($i = x, y, z$)

Normi = 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

σ = conductivity in [mho/m] or [Siemens/m]

ϵ = equivalent tissue density in g/cm³

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

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

with P_{pwe} = equivalent power density of a plane wave in mW/cm²

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 ≥ 0.80 W/kg, repeat that measurement once.
 - 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
 - 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
- The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

4.2 SAR measurement uncertainty

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



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5 Description of Test Position

5.1 Head Exposure Condition

5.1.1 SAM Phantom Shape

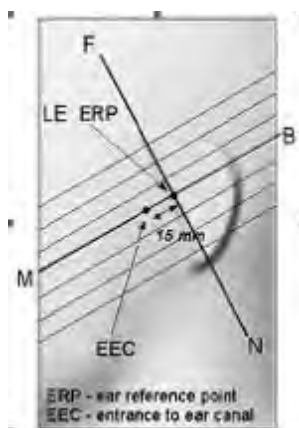


F-3. Front, back, and side views of SAM (model for the phantom shell). Full-head model is for illustration purposes only-procedures in this recommended practice are intended primarily for the phantom setup.

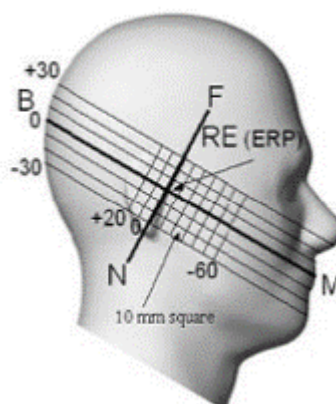
Note: The centre strip including the nose region has a different thickness tolerance.



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

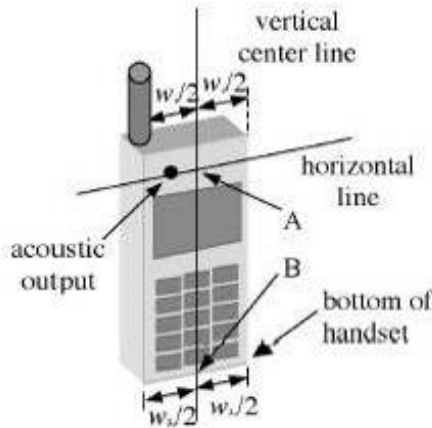


F-5. Close-up side view of phantom, showing the ear region, N-F and B-M lines, and seven cross-sectional plane locations

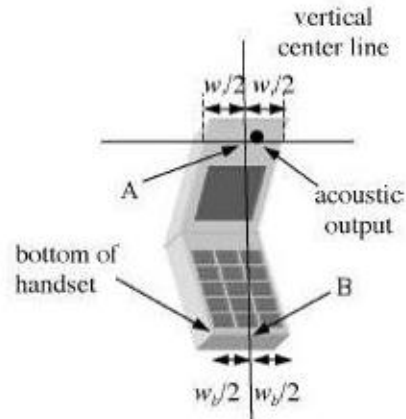


F-6. Side view of the phantom showing relevant markings and seven cross-sectional plane locations

5.1.2 EUT constructions



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



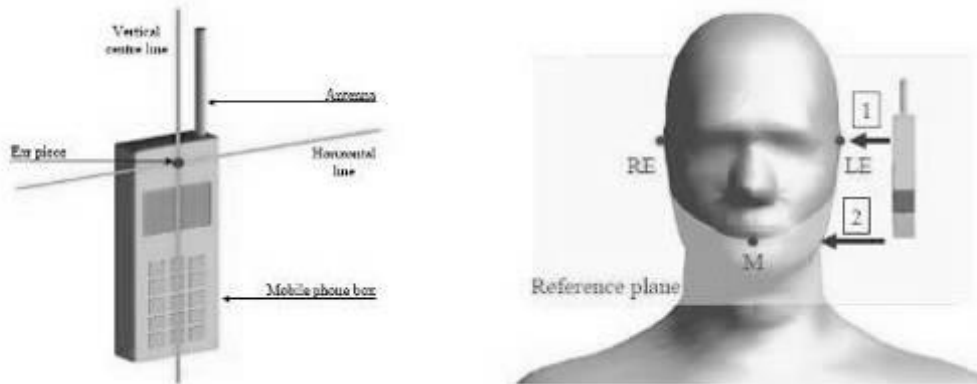
F-8. Handset vertical and horizontal reference lines-"clam-shell case"

5.1.3 Definition of the "cheek" position

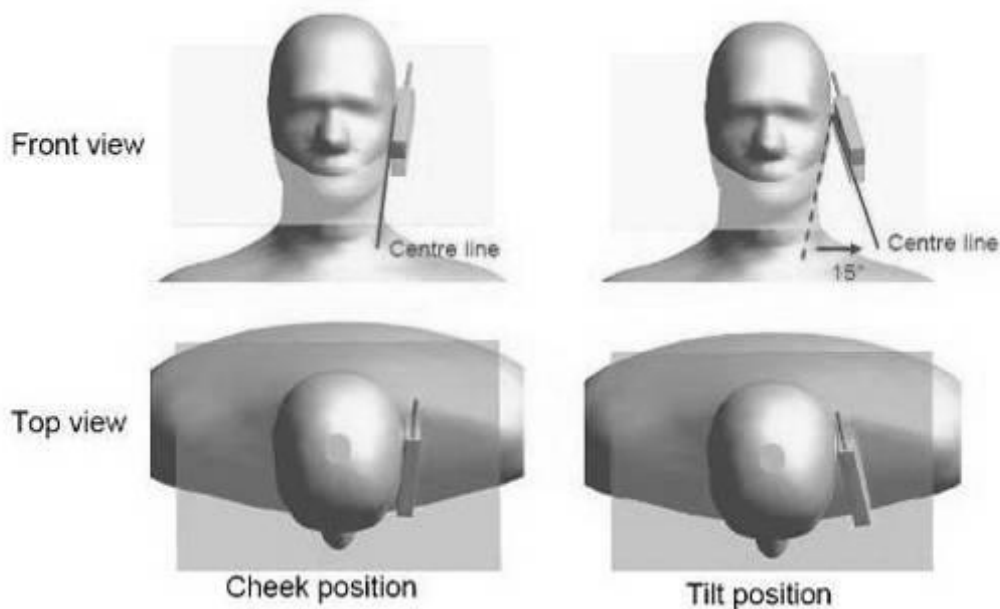
- Position the device with the vertical centre line of the body of the device and the horizontal line crossing the centre of the ear piece in a plane parallel to the sagittal plane of the phantom ("initial position"). While maintaining the device in this plane, align the vertical centre line with the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

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

5.2 Body Exposure Condition

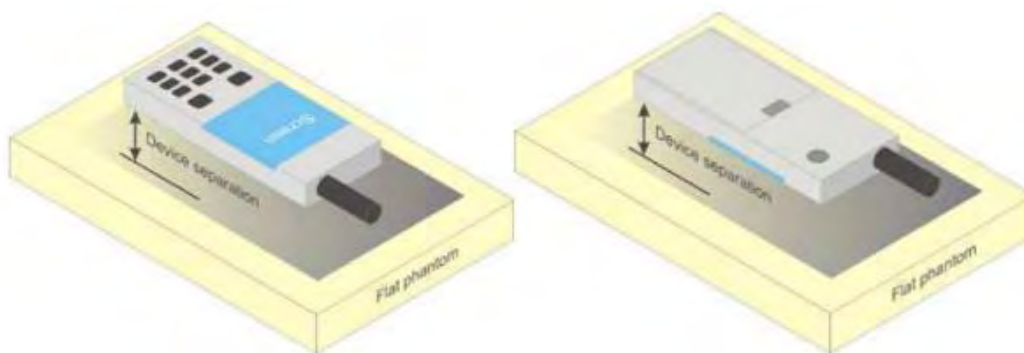
5.2.1 Body-worn accessory exposure conditions

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



5.2.2 Wireless Router exposure conditions

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

5.3 Extremity exposure conditions

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

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

WCDMA Band II(Ant2):

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.265	0.13	20.23	25.00	2.999	0.795	Yes
Back side	RMC	9400/1880	1:1	0.339	0.01	20.23	25.00	2.999	1.017	Yes
Left side	RMC	9400/1880	1:1	0.141	0.12	20.23	25.00	2.999	0.423	Yes
Bottom side	RMC	9400/1880	1:1	0.566	0.10	20.23	25.00	2.999	1.698	No
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Bottom side	RMC	9400/1880	1:1	0.554	0.02	20.23	25.00	2.999	1.662	No

WCDMA Band IV(Ant2):

Test position	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR 1-g (W/kg)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.321	-0.15	20.70	25.00	2.692	0.864	Yes
Back side	RMC	1412/1732.4	1:1	0.416	-0.08	20.70	25.00	2.692	1.120	Yes
Left side	RMC	1412/1732.4	1:1	0.145	0.09	20.70	25.00	2.692	0.390	Yes
Bottom side	RMC	1412/1732.4	1:1	0.590	0.01	20.70	25.00	2.692	1.588	No
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Bottom side	RMC	1412/1732.4	1:1	0.555	-0.15	20.70	25.00	2.692	1.494	No



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LTE Band 2(Ant2):

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR(W/kg)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	19100/1900	1:1	0.261	0.08	20.86	25.50	2.911	0.760	Yes
Back side	20	QPSK 1RB_99	19100/1900	1:1	0.337	0.16	20.86	25.50	2.911	0.981	Yes
Left side	20	QPSK 1RB_99	19100/1900	1:1	0.133	-0.11	20.86	25.50	2.911	0.387	Yes
Bottom side	20	QPSK 1RB_99	19100/1900	1:1	0.446	0.18	20.86	25.50	2.911	1.298	No
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	19100/1900	1:1	0.277	-0.09	20.63	24.50	2.438	0.675	Yes
Back side	20	QPSK 50RB_50	19100/1900	1:1	0.352	0.13	20.63	24.50	2.438	0.858	Yes
Left side	20	QPSK 50RB_50	19100/1900	1:1	0.141	-0.18	20.63	24.50	2.438	0.344	Yes
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	0.614	0.09	20.63	24.50	2.438	1.497	No
Hotspot Test data at the worst case with Battery2# (Separate 10mm 50%RB)											
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	0.600	0.00	20.63	24.50	2.438	1.463	No

LTE Band 4(Ant2):

Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR(W/kg)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20300/1745	1:1	0.325	0.15	21.52	25.50	2.500	0.813	Yes
Back side	20	QPSK 1RB_0	20300/1745	1:1	0.422	-0.08	21.52	25.50	2.500	1.055	Yes
Left side	20	QPSK 1RB_0	20300/1745	1:1	0.139	-0.14	21.52	25.50	2.500	0.348	Yes
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.526	0.01	21.52	25.50	2.500	1.315	No
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.327	0.04	21.19	24.50	2.143	0.701	Yes
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.423	0.02	21.19	24.50	2.143	0.906	Yes
Left side	20	QPSK 50RB_0	20300/1745	1:1	0.140	0.12	21.19	24.50	2.143	0.300	Yes
Bottom side	20	QPSK 50RB_0	20300/1745	1:1	0.432	-0.12	21.19	24.50	2.143	0.926	Yes
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.516	-0.08	21.52	25.50	2.500	1.290	No

5G NR N41(Ant5):

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)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	528000/2640	1:1	0.101	0.09	16.17	25.00	7.638	0.771	Yes
Back side	100	QPSK 1RB_1	528000/2640	1:1	0.188	-0.11	16.17	25.00	7.638	1.436	No
Left side	100	QPSK 1RB_1	528000/2640	1:1	0.047	-0.12	16.17	25.00	7.638	0.359	Yes
Top side	100	QPSK 1RB_1	528000/2640	1:1	0.196	0.16	16.17	25.00	7.638	1.497	No
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_0	528000/2640	1:1	0.073	-0.13	15.98	25.00	7.980	0.583	Yes
Back side	100	QPSK 135RB_0	528000/2640	1:1	0.135	-0.15	15.98	25.00	7.980	1.077	Yes
Left side	100	QPSK 135RB_0	528000/2640	1:1	0.027	-0.09	15.98	25.00	7.980	0.215	Yes
Top side	100	QPSK 135RB_0	528000/2640	1:1	0.132	-0.03	15.98	25.00	7.980	1.053	Yes
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Top side	100	QPSK 1RB_1	528000/2640	1:1	0.176	0.02	16.17	25.00	7.638	1.344	No



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5G NR N77(Ant12):

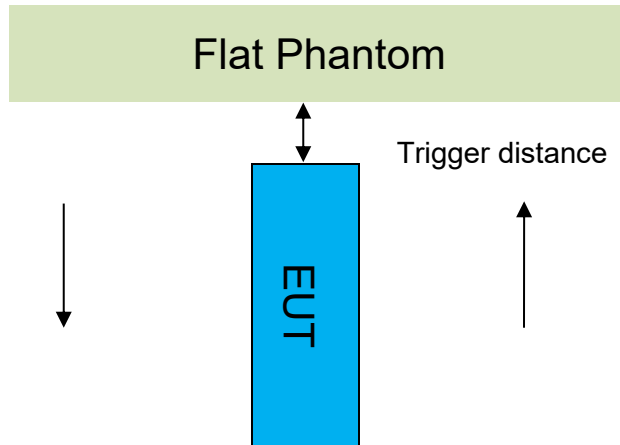
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg)1-g	Power Drift(dB)	Conducted power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR(W/kg)	Product Specific 10-g SAR SAR Exclusion
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_137	662000/3930	1:1	0.070	0.18	17.51	25.50	6.295	0.441	Yes
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.396	0.12	17.51	25.50	6.295	2.493	No
Left side	100	QPSK 1RB_137	662000/3930	1:1	0.075	0.07	17.51	25.50	6.295	0.472	Yes
Top side	100	QPSK 1RB_137	662000/3930	1:1	0.097	-0.03	17.51	25.50	6.295	0.611	Yes
Hotspot Test data (Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	657200/3858	1:1	0.074	0.02	17.47	25.50	6.353	0.470	Yes
Back side	100	QPSK 135RB_69	657200/3858	1:1	0.362	-0.01	17.47	25.50	6.353	2.300	No
Left side	100	QPSK 135RB_69	657200/3858	1:1	0.075	0.07	17.47	25.50	6.353	0.476	Yes
Top side	100	QPSK 135RB_69	657200/3858	1:1	0.092	0.10	17.47	25.50	6.353	0.585	Yes
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.385	0.10	17.51	25.50	6.295	2.424	No



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.



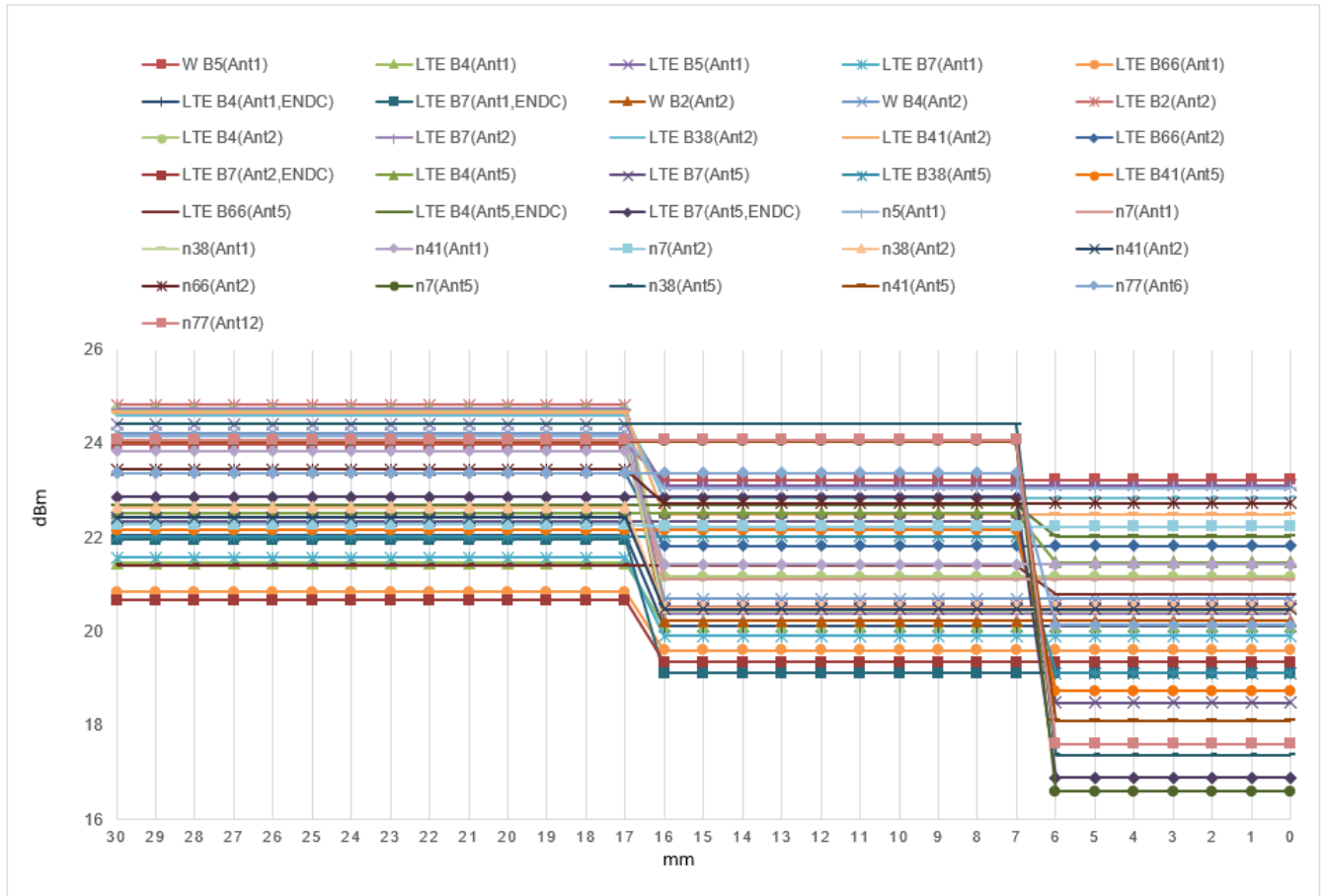
Proximity Sensor Triggering Distance(mm)					
Antenna	Ant1	Ant2	Ant5	Ant6	Ant12
Band	WCDMA B5 LTE B4/5/7/66 LTE B4/7(EN_DC) 5G NR n5/7/38/41	WCDMA B2/4 LTE B2/4/7/38/41/66 LTE B7(EN_DC) 5G NR n7/38/41/66	LTE B4/7/38/41/66 LTE B4/7(EN_DC) 5G NR n7/38/41	n77	n77
Position	Front/Back/Bottom/Right		Front/Back/Top		
Minimum	16		6		
Required SAR Test					

Note:

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



● DUT Moving Toward(Trigger)the Phantom

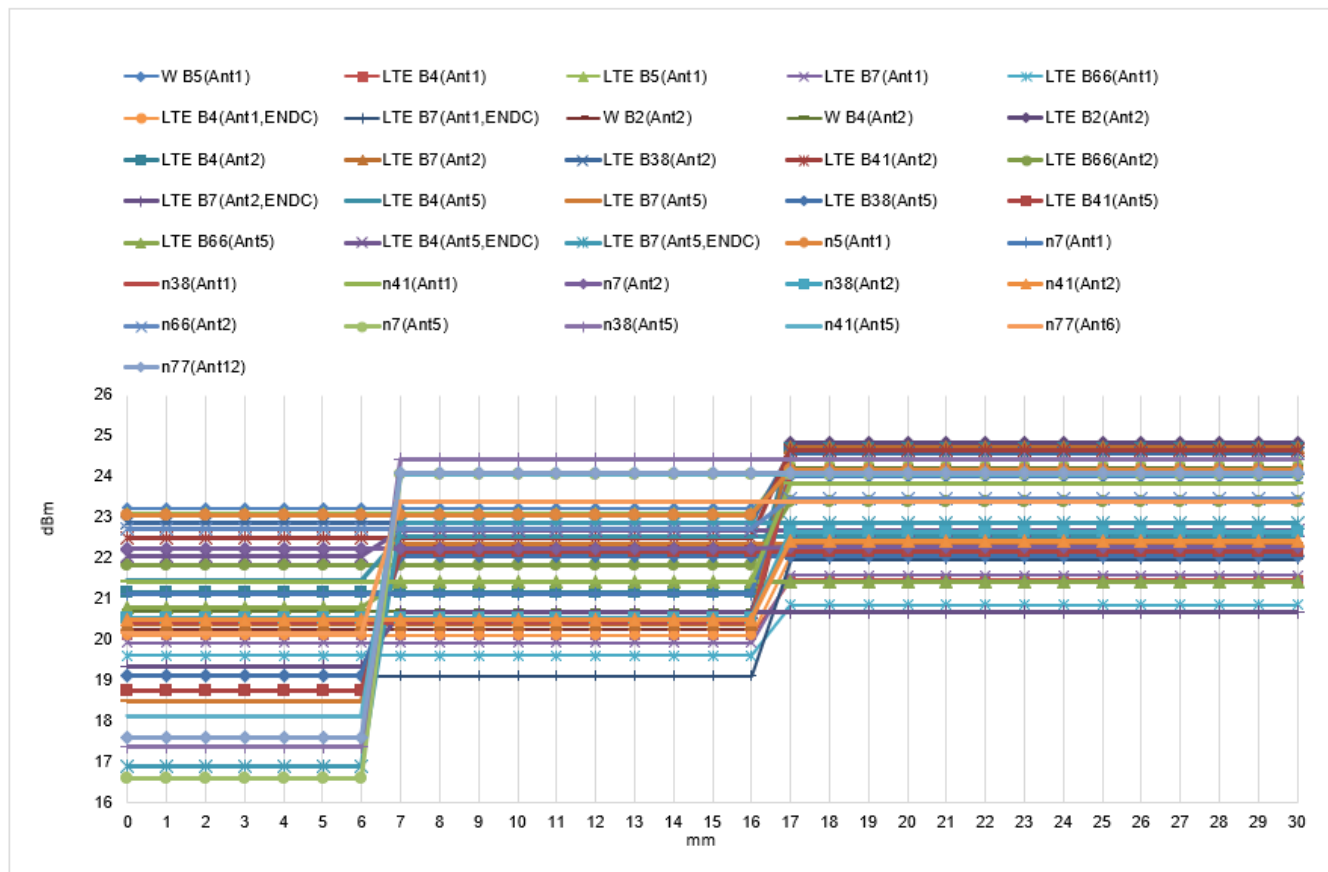


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● DUT Moving Away(Release) from the Phantom



Proximity sensor coverage

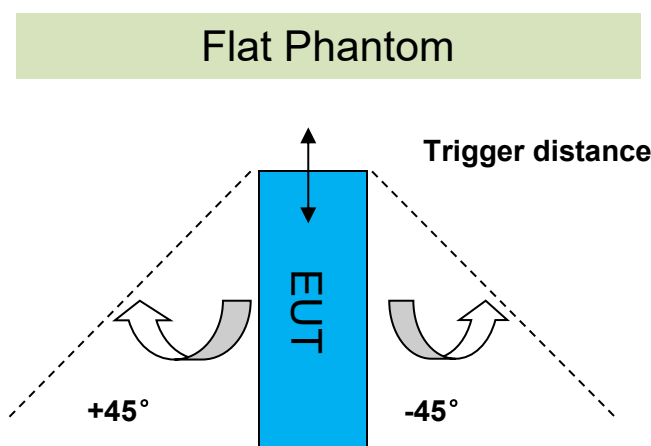
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing,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

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

Device tilt angle influences to proximity sensor triggering

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

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



Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Top Side													
Band (MHz)	Minimum trigger distance Per KDB616217§6.2	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
			-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
Ant1/Ant2	Right side: 16mm Bottom side: 16mm	Right side: 16mm Bottom side: 16mm	on	on	on	on	on	on	on	on	on	on	on
Ant5/Ant6/Ant12	Top side: 6mm	Top side: 6mm	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 following tables give the recipes for tissue simulating liquids to be used in different frequency bands:

Ingredients (% by weight)	Frequency (MHz)				
	450	700-900	1750-2000	2300-2500	2500-2700
Water	38.56	40.30	55.24	55.00	54.92
Salt (NaCl)	3.95	1.38	0.31	0.2	0.23
Sucrose	56.32	57.90	0	0	0
HEC	0.98	0.24	0	0	0
Bactericide	0.19	0.18	0	0	0
Tween	0	0	44.45	44.80	44.85
Salt: 99+% Pure Sodium Chloride Water: De-ionized, 16 MΩ+ resistivity Tween: Polyoxyethylene (20) sorbitan monolaurate			Sucrose: 98+% Pure Sucrose HEC: Hydroxyethyl Cellulose		
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 (σ) and Permittivity (ρ) are listed in bellow table. For the SAR measurement given in this report. The temperature variation of the Tissue Simulate Liquids was $22 \pm 2^\circ\text{C}$.

Tissue Type	Measured Frequency (MHz)	Target Tissue ($\pm 5\%$)		Measured Tissue		Liquid Temp.($^\circ\text{C}$)	Measured Date
		ϵ_r	$\sigma(\text{S/m})$	ϵ_r	$\sigma(\text{S/m})$		
750 Head	750	41.9 (39.81~44)	0.89 (0.85~0.94)	40.799	0.883	22.1	2020/12/21
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.372	0.936	22.1	2020/12/20
835 Head	835	41.5 (39.43~43.58)	0.90 (0.86~0.95)	42.369	0.935	22.1	2021/1/15
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.566	1.389	22.2	2020/12/23
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.697	1.332	22.2	2020/12/26
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.442	1.317	22.2	2021/1/2
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.238	1.338	22.2	2021/1/3
1750 Head	1750	40.1 (38.10~42.11)	1.37 (1.30~1.44)	40.441	1.317	22.2	2021/1/9
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.468	1.415	22.3	2020/12/24
1900 Head	1900	40.0 (38.00~42.00)	1.40 (1.33~1.47)	40.160	1.464	22.3	2020/12/25
2450 Head	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	40.738	1.784	22.0	2021/1/10
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	37.735	1.969	22.1	2020/12/27
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.589	1.977	22.1	2020/12/28
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.658	1.987	22.1	2020/12/30
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.949	2.028	22.1	2021/1/4
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	37.449	2.026	22.1	2021/1/5
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	38.658	1.982	22.1	2021/1/6
2600 Head	2600	39.0 (37.05~40.95)	1.96 (1.86~2.06)	40.535	1.983	22.1	2021/1/7
3700 Head	3700	37.7 (35.82~39.59)	3.12 (2.96~3.28)	37.205	3.070	22.3	2021/1/8
3900 Head	3900	37.5 (35.63~39.38)	3.32 (3.15~3.49)	36.495	3.283	22.3	2021/1/12
5250Head	5250	35.9 (34.11~37.70)	4.71 (4.47~4.95)	36.010	4.767	22.2	2021/1/13
5600 Head	5600	35.5 (33.73~37.28)	5.07 (4.82~5.32)	35.060	5.157	22.2	2021/1/13
5750 Head	5750	35.4 (33.63~37.17)	5.22 (4.96~5.48)	34.700	5.329	22.2	2021/1/13

Table 4: Measurement result of Tissue electric parameters

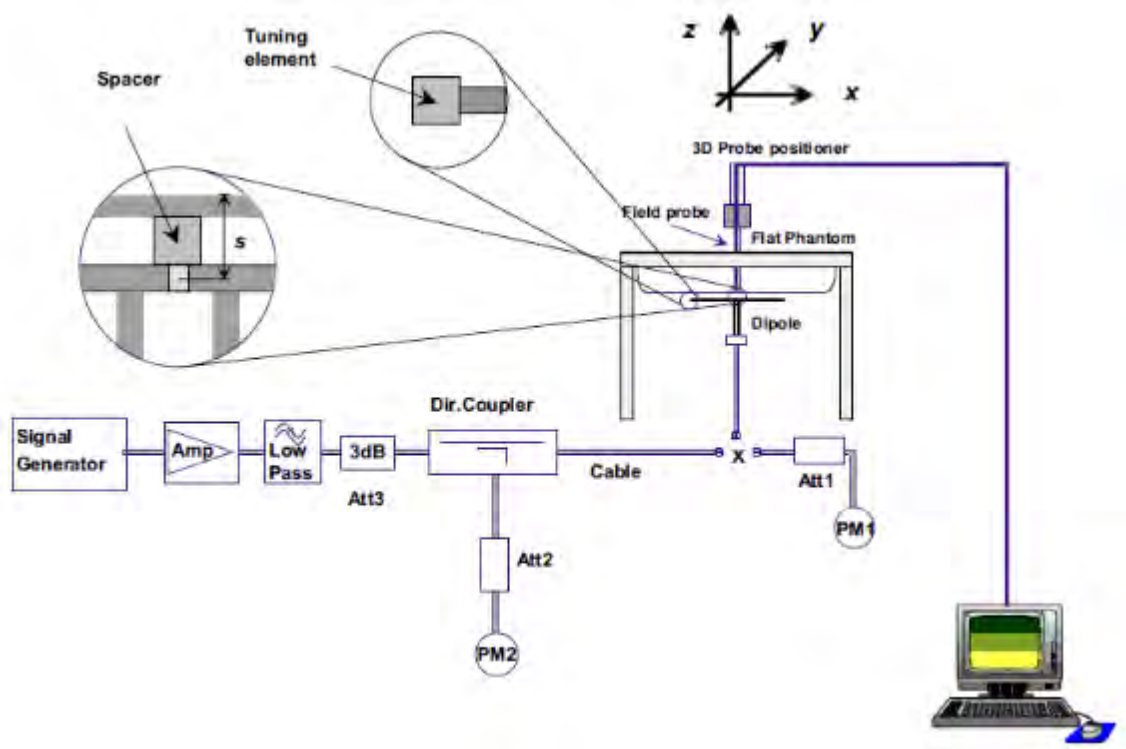


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6.2 SAR System Check

The microwave circuit arrangement for system Check is sketched in F-12. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within $\pm 10\%$ 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 $22\pm 2^{\circ}\text{C}$, the relative humidity was in the range 60% and the liquid depth above the ear reference points was above 15 ± 0.5 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.



F-12. the microwave circuit arrangement used for SAR system check



6.2.1 Justification for Extended SAR Dipole Calibrations

1) Referring to KDB865664 D01 requirements for dipole calibration, instead of the typical annual calibration recommended by measurement standards, longer calibration intervals of up to three years may be considered when it is demonstrated that the SAR target, impedance and return loss of a dipole have remain stable according to the following requirements. Each measured dipole is expected to evaluate with the following criteria at least on annual interval in Appendix C.

- a) There is no physical damage on the dipole;
- b) System check with specific dipole is within 10% of calibrated value;
- c) Return-loss is within 10% of calibrated measurement;
- d) Impedance is within 5Ω from the previous measurement.

2) Network analyzer probe calibration against air, distilled water and a shorting block performed before measuring liquid parameters.



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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) (±10%)	Target SAR (normalized to 1W) (±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)		
D750V3	Head	2.14	1.38	8.56	5.52	8.39 (7.55~9.23)	5.63 (5.07~6.19)	22.1	2020/12/21
D835V2	Head	2.46	1.61	9.84	6.44	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2020/12/20
D835V2	Head	2.45	1.61	9.80	6.44	9.64 (8.68~10.60)	6.29 (5.66~6.92)	22.1	2021/1/15
D1750V2	Head	9.65	5.14	38.60	20.56	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2020/12/23
D1750V2	Head	9.27	4.93	37.08	19.72	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2020/12/26
D1750V2	Head	9.18	4.88	36.72	19.52	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021/1/2
D1750V2	Head	8.86	4.69	35.44	18.76	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021/1/3
D1750V2	Head	9.40	4.99	37.60	19.96	36.3 (32.67~39.93)	19.2 (17.28~21.12)	22.2	2021/1/9
D1900V2	Head	10.00	5.26	40.00	21.04	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2020/12/24
D1900V2	Head	10.50	5.49	42.00	21.96	39.3 (35.37~43.23)	20.2 (18.18~22.22)	22.3	2020/12/25
D2450V2	Head	13.00	5.98	52.00	23.92	51.9 (46.71~57.09)	23.8 (21.42~26.18)	22.0	2021/1/10
D2600V2	Head	13.90	6.23	55.60	24.92	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2020/12/27
D2600V2	Head	14.00	6.29	56.00	25.16	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2020/12/28
D2600V2	Head	13.30	5.97	53.20	23.88	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2020/12/30
D2600V2	Head	14.10	6.27	56.40	25.08	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2021/1/4
D2600V2	Head	14.50	6.48	58.00	25.92	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2021/1/5
D2600V2	Head	14.60	6.55	58.40	26.20	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2021/1/6
D2600V2	Head	14.20	6.34	56.80	25.36	56.8 (51.12~62.48)	24.9 (22.41~27.39)	22.1	2021/1/7
Validation Kit		Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W) (±10%)	Target SAR (normalized to 1W) (±10%)	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	6.24	2.31	62.40	23.10	67.8 (61.02~74.58)	24.7 (22.23~27.17)	22.3	2021/1/8
D3900V2	Head	7.02	2.52	70.20	25.20	71.1 (63.99~78.21)	24.6 (22.14~27.06)	22.3	2021/1/12
D5GHzV2	Head (5.25GHz)	8.06	2.32	80.60	23.20	75.2 (67.68~82.72)	21.5 (19.35~23.65)	22.2	2021/1/13
	Head (5.6GHz)	8.58	2.45	85.80	24.50	80 (72~88)	22.7 (20.43~24.97)	22.2	2021/1/13
	Head (5.75GHz)	7.96	2.27	79.60	22.70	78.7 (70.83~86.57)	22.3 (20.07~24.53)	22.2	2021/1/13

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 ≤ 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 33 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 33 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 (DPCCH, DPDCHn and spreading codes, HSDPA, HSPA) are required in the SAR report. All configurations that are not supported by the handset or cannot be measured due to technical or equipment limitations must be clearly identified.

2) . Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure

3) . Body SAR

SAR for body configurations is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding 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 ≤ 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(β_c , β_d), and HS-DPCCH power offset parameters (Δ_{ACK} , Δ_{NACK} , Δ_{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	βc	Bd	$\beta d(SF)$	$\beta c/\beta d$	β_{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: ΔACK , $\Delta NACK$ 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, ΔACK 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 ¹	β_c ²	β_d ³	β_d (SF) ⁴	β_c/β_d ⁵	β_{hs} ⁽¹⁾	β_{ec} ⁶	β_{ed} ⁷	β_c (SF) ⁸	β_{ed} (code) ⁹	CM ⁽²⁾ (dB) ¹⁰	MP R ¹¹ (dB) ^c	AG ⁽⁴⁾ Inde x ¹²	E-TFC I ¹³
1 ¹	11/15 ⁽³⁾	15/15 ⁽³⁾	64 ⁴	11/15 ⁽³⁾	22/15 ^c	209/225 ^c	1039/225 ^c	4 ⁸	1 ⁹	1.0 ^c	0.0 ^c	20 ^c	75 ^c
2 ¹	6/15 ^c	15/15 ^c	64 ⁴	6/15 ^c	12/15 ^c	12/15 ^c	94/75 ^c	4 ⁸	1 ⁹	3.0 ^c	2.0 ^c	12 ^c	67 ^c
3 ¹	15/15 ^c	9/15 ^c	64 ⁴	15/9 ^c	30/15 ^c	30/15 ^c	$\beta_{ed1}:47/15c$ $\beta_{ed2}:47/15c$	4 ⁸	2 ⁹	2.0 ^c	1.0 ^c	15 ^c	92 ^c
4 ¹	2/15 ^c	15/15 ^c	64 ⁴	2/15 ^c	4/15 ^c	2/15 ^c	56/75 ^c	4 ⁸	1 ⁹	3.0 ^c	2.0 ^c	17 ^c	71 ^c
5 ¹	15/15 ⁽⁴⁾	15/15 ⁽⁴⁾	64 ⁴	15/15 ⁽⁴⁾	30/15 ^c	24/15 ^c	134/15 ^c	4 ⁸	1 ⁹	1.0 ^c	0.0 ^c	21 ^c	81 ^c
Note 1: ΔACK, $\Delta NACK$ 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, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference^c Note 3 : For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$^c Note 4 : For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 14/15$ and $\beta_d = 15/15$^c 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^c Note 6: β_{ed} can not be set directly; it is set by Absolute Grant Value.^c													

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	11484	5.76
	4	4	2	4	20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF	22996	?
	4	4	10	4	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
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

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

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

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

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

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

Note:

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

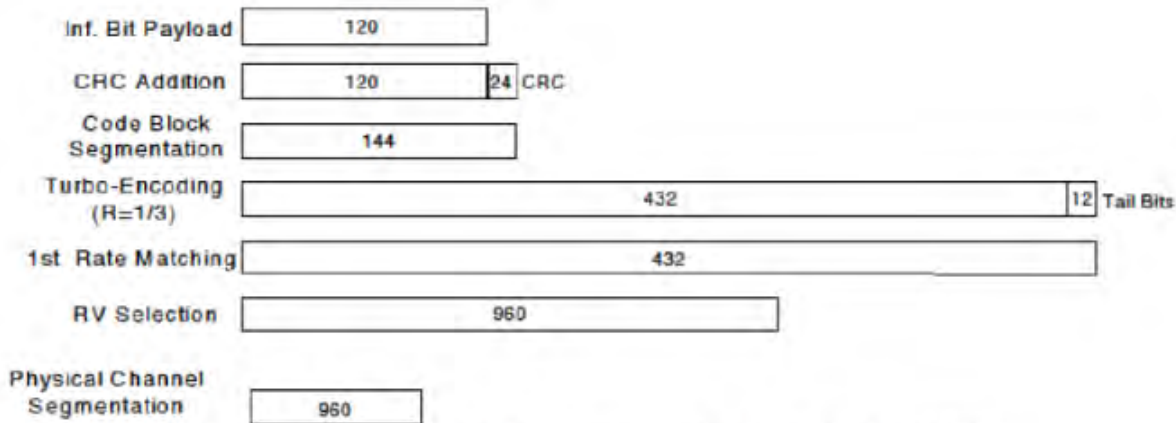


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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

Sub-test ^o	β_c ^o	β_d ^o	β_d ·(SF) ^o	β_c/β_d ^o	$\beta_{hs}(1)$ ^o	CM(dB)(2) ^o	MPR·(dB) ^o
1 ^o	2/15 ^o	15/15 ^o	64 ^o	2/15 ^o	4/15 ^o	0.0 ^o	0 ^o
2 ^o	12/15(3) ^o	15/15(3) ^o	64 ^o	12/15(3) ^o	24/15 ^o	1.0 ^o	0 ^o
3 ^o	15/15 ^o	8/15 ^o	64 ^o	15/8 ^o	30/15 ^o	1.5 ^o	0.5 ^o
4 ^o	15/15 ^o	4/15 ^o	64 ^o	15/4 ^o	30/15 ^o	1.5 ^o	0.5 ^o

Note 1: Δ ACK, Δ NACK and Δ CQI=8 $A_{hs}=\beta_{hs}/\beta_c=30/15$ $\beta_{hs}=30/15 \cdot \beta_c$
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 β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c=11/15$ 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.

d) HSPA+

Per KDB941225D01, SAR is required for Rel. 7 HSPA+ when SAR is required for Rel. 6 HSPA; otherwise, the 3G SAR test reduction procedure is applied to (uplink) HSPA+ with 12.2 kbps RMC as the primary mode. Power is measured for HSPA+ that supports uplink 16 QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

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

Sub-test	β_c (Note 3)	β_d	β_{HS} (Note 1)	β_{ec}	β_{ed1} (2xSF2) (Note 4)	β_{ed3} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105
Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{ht} = 30/15 * \beta_c$. Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0). Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default. Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value. Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.											



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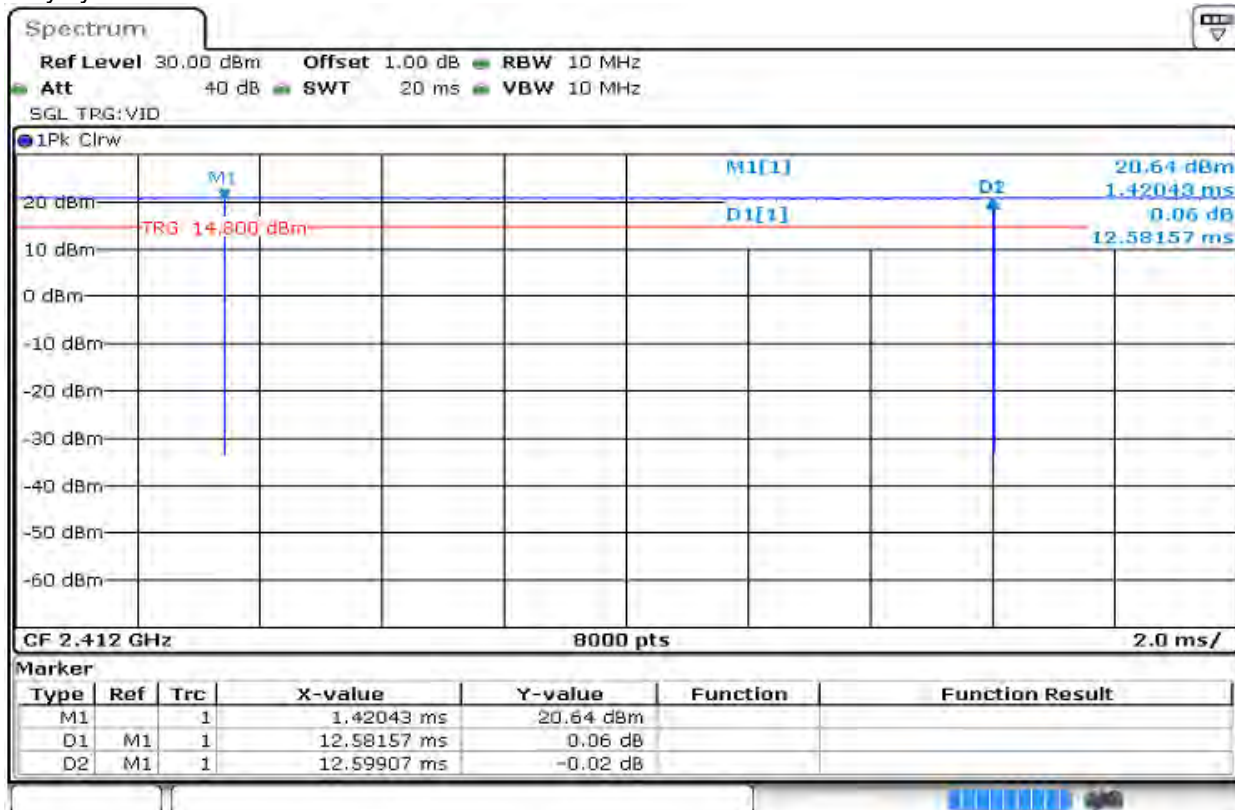
7.2.3 WiFi Test Configuration

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.

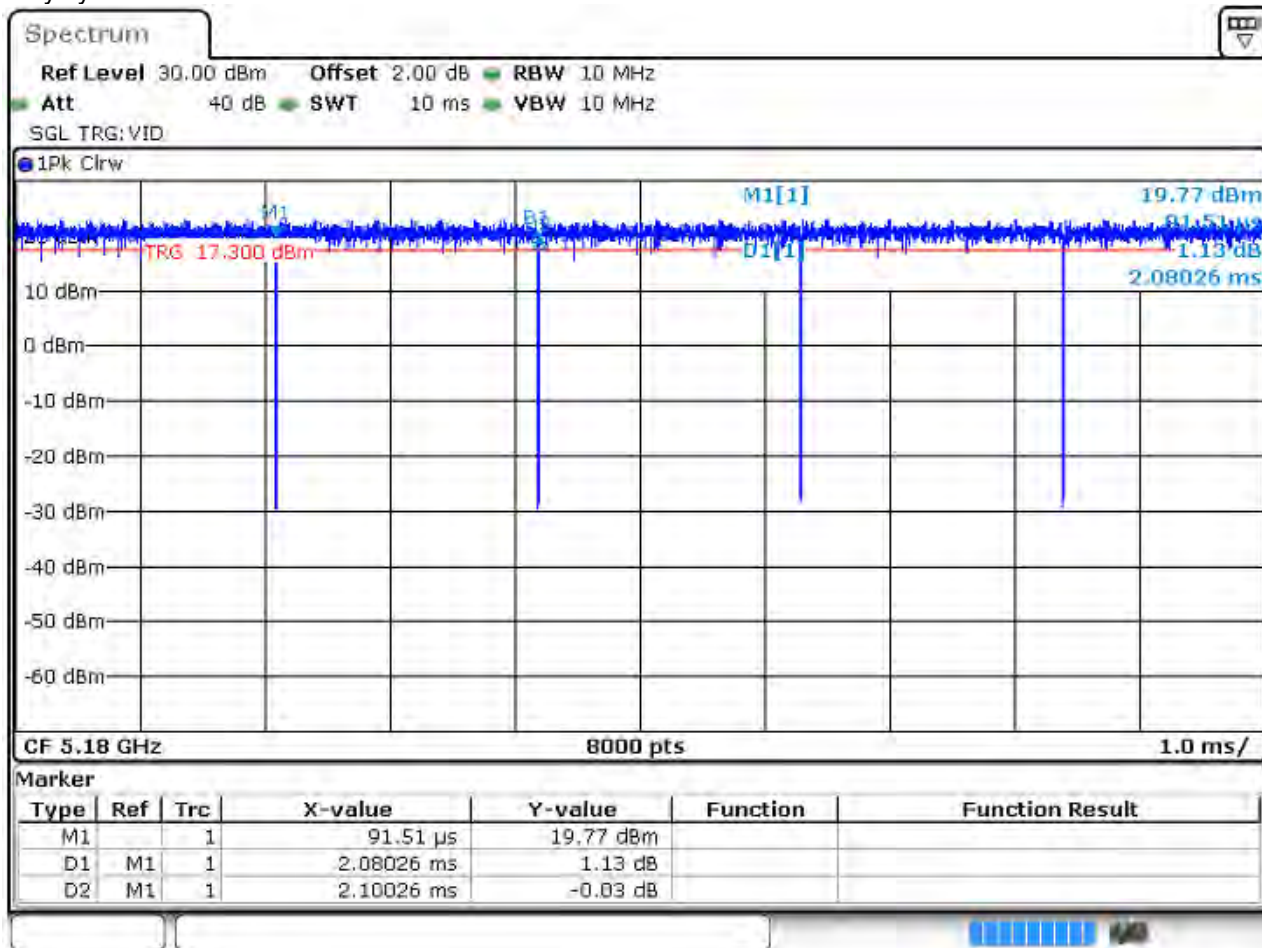
7.2.3.1 Duty cycle

1) Wi-Fi 2.4GHz 802.11b:

Duty cycle=12.58157/12.59907=99.86%



2) Wi-Fi 5GHz 802.11a:
Duty cycle=2.08026/2.10026=99.05%





7.2.3.2 Initial Test Position SAR Test Reduction Procedure

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

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

7.2.3.3 Initial Test Configuration Procedures

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

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

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

7.2.3.4 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 ≤ 1.2 W/kg, SAR is not required for that subsequent test configuration.
- 3) . The number of channels in the initial test configuration and subsequent test configuration can be different due to differences in channel bandwidth. When SAR measurement is required for a subsequent test configuration and the channel bandwidth is smaller than that in the initial test configuration, all channels in the subsequent test configuration that overlap with the larger bandwidth channel tested in the initial test configuration should be used to determine the highest maximum output power channel. This step requires additional power measurement to identify the highest maximum output power channel in the subsequent test configuration to determine SAR test reduction.
 - a) SAR should first be measured for the channel with highest measured output power in the subsequent test configuration.
 - b) SAR for subsequent highest measured maximum output power channels in the subsequent test configuration is required only when the *reported* SAR of the preceding higher maximum output power channel(s) in the subsequent test configuration is > 1.2 W/kg or until all required channels are tested. i) For channels with the same measured maximum output power, SAR should be measured using the channel closest to the center frequency of the larger channel bandwidth channel in the initial test configuration.
- 4) . SAR measurements for the remaining highest specified maximum output power OFDM transmission mode configurations that have not been tested in the initial test configuration (highest maximum output) or subsequent test configuration(s) (subsequent next highest maximum output power) is determined by recursively applying the subsequent test configuration procedures in this section to the remaining configurations according to the following:
 - a) replace "subsequent test configuration" with "next subsequent test configuration" (i.e., subsequent next highest specified maximum output power configuration)
 - b) replace "initial test configuration" with "all tested higher output power configurations"



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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 ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) . When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

- **2.4 GHz 802.11g/n OFDM SAR Test Exclusion Requirements**

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3, including sub-sections). SAR is not required for the following 2.4 GHz OFDM conditions.

- 1) . When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
- 2) . When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

- **SAR Test Requirements for OFDM configurations**

When SAR measurement is required for 802.11 g/n OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.



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

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

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

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



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• **OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements**

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

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

• **SAR Test Requirements for OFDM configurations**

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

7.2.4 LTE Test Configuration

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.

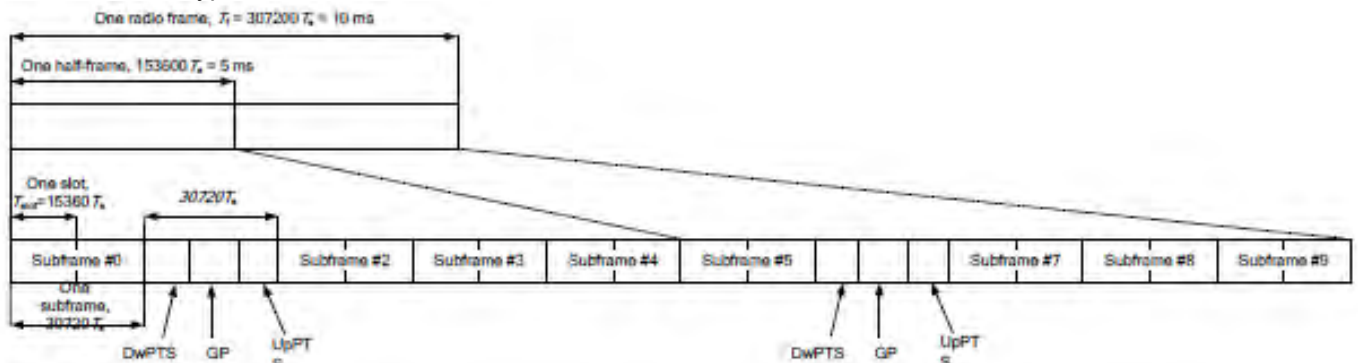
TDD LTE test consideration

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:





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

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

Uplink-downlink configurations.

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

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

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



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

C) A-MPR

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

D) Largest channel bandwidth standalone SAR test requirements

1) QPSK with 1 RB allocation

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

2) QPSK with 50% RB allocation

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

3) QPSK with 100% RB allocation

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

4) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is $> \frac{1}{2}$ 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 $> \frac{1}{2}$ 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. NR Band n5/n7/n38/n41/n66/n77 support SA mode and n5/n7/n66 support NSA mode. LTE+NR Band n5/n7/n66 operations are possible only with LTE under EN-DC mode and the operations are possible as following table:

Band/Antenna		n5		n7		n66	
		Ant1	Ant4	Ant1	Ant5	Ant2	Ant3
LTE B2	Ant2			v	v		
	Ant3			v	v		
LTE B7	Ant1		v			v	v
	Ant2	v	v				
	Ant3	v	v				
	Ant5	v	v			v	v
LTE B66	Ant2			v	v		
	Ant3			v	v		

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

Band		n5	n7	n38	n41	n66	n77
NR mode	SA	Yes	Yes	Yes	Yes	Yes	Yes
	NSA	Yes	Yes	N/A	N/A	Yes	N/A
Modulation	DFT-s-OFDM	PI/2 BPSK	Yes	Yes	Yes	Yes	Yes
		QPSK	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes
	CP-OFDM	QPSK	Yes	Yes	Yes	Yes	Yes
		16QAM	Yes	Yes	Yes	Yes	Yes
		64QAM	Yes	Yes	Yes	Yes	Yes
		256QAM	Yes	Yes	Yes	Yes	Yes
	Duty Cycle		100%	100%	100%	100%	100%

Band	SCS	Bandwidth												
		5Mhz	10Mhz	15Mhz	20Mhz	25Mhz	30Mhz	40Mhz	50Mhz	60Mhz	70Mhz	80Mhz	90Mhz	100Mhz
n5	15KHZ	Yes	Yes	Yes	Yes	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n7	15KHZ	Yes	Yes	Yes	Yes	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n38	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	N/A
	30KHZ	N/A	N/A	N/A	Yes	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	N/A
	30KHZ	N/A	N/A	N/A	Yes	N/A	Yes	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	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	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	N/A
	30KHZ	N/A	N/A	N/A	Yes	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



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



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4. MPR

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

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	PI/2 BPSK	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 ²
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
CP-OFDM	256 QAM	≤ 4.5		
	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 $\leq$ 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 x log (Burst-averaged power mW x 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 & Downlink 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 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_7C, CA_38C with a maximum of two 20MHz component carriers.
- 2) The device supports Inter-band uplink LTE CA for CA_4A-7A with two component carriers in the uplink.
- 3) 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.
- 4) 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.
- 5) 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 ¼ dB higher than the maximum output power measured when downlink carrier aggregation is 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

In applying the existing power measurement procedures for DL CA SAR test exclusion, the configurations that require power measurements are highlighted in the table as below:

1 Band / 2CC	2 Bands / 2CC	2 Bands / 3CC	2 Bands / 4CC	3 Bands / 3CC	3 Bands / 4CC
CA_7A-7A		CA_5A-7A-7A			
CA_7C		CA_4A-7C			
CA_38C					
CA_41A-41A					
CA_41C					
	CA_2A-4A			CA_2A-4A-5A	
	CA_2A-5A			CA_2A-4A-5A	
	CA_2A-7A	CA_2A-7A-7A			
	CA_4A-5A			CA_2A-4A-5A	
	CA_5A-7A			CA_5A-7A-66A	CA_5A-7A-66A-66A
CA_66A-66A		CA_5A-66A-66A			CA_5A-7A-66A-66A
	CA_5A-66A	CA_5A-66A-66A			CA_5A-7A-66A-66A
CA_2C					
	CA_4A-7A			CA_2A-4A-7A	
	CA_2A-17A				
	CA_4A-12A			CA_2A-4A-12A	
	CA_4A-17A				
	CA_12A-66A				
	CA_2A-12A			CA_2A-4A-12A	
		CA_5A-7C			CA_5A-7C-66A
		CA_2A-7C			CA_2A-4A-7C
	CA_7A-66A	CA_7A-66A-66A			CA_5A-7A-66A-66A
		CA_7C-66A	CA_7C-66A-66A		

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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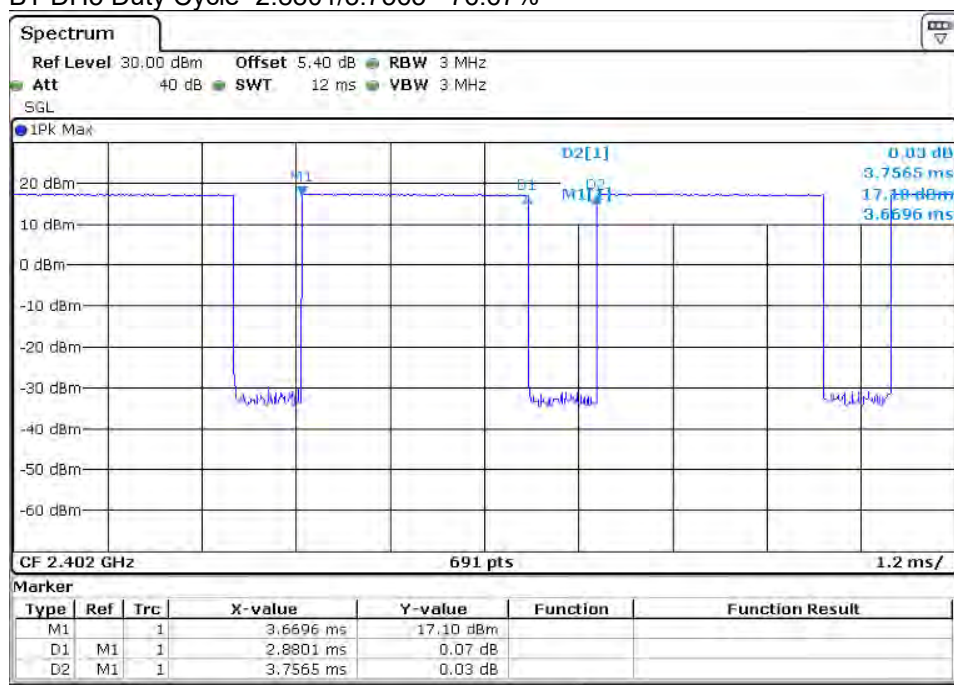
8.1.5 Conducted Power of WIFI

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.

8.1.6 Conducted Power of BT

BT DH5 Duty Cycle=2.8801/3.7565 =76.67%



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 2.4G	2.472	Head	19.0	79.43	5	24.98	3	N
		Body-worn	21.5	141.25	15	14.81	3	N
		Hotspot	21.5	141.25	10	22.21	3	N
Wi-Fi 5G	5.850	Head	19.5	79.43	5	43.11	3	N
		Body-worn	19.5	79.43	15	14.37	3	N
		Hotspot	19.5	79.43	10	21.56	3	N
Bluetooth	2.48	Head	18.0	63.10	5	19.87	3	N
		Body-worn	18.0	63.10	15	6.62	3	N
		Hotspot	18.0	63.10	10	9.94	3	N

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

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt[3]{f(\text{GHz})}] \leq 3.0$$
for 1-g SAR and ≤ 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 ≤ 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

8.3.1 SAR Result of GSM850

Ant1 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	0.222	0.03	32.34	34.00	1.466	0.325	22.1
Left tilted	GSM	190/836.6	1:8.3	0.129	0.02	32.34	34.00	1.466	0.189	22.1
Right cheek	GSM	190/836.6	1:8.3	0.281	0.04	32.34	34.00	1.466	0.412	22.1
Right tilted	GSM	190/836.6	1:8.3	0.158	0.07	32.34	34.00	1.466	0.232	22.1
Head Test Data at the worst case with Battery2#										
Right cheek	GSM	190/836.6	1:8.3	0.260	-0.04	32.34	34.00	1.466	0.381	22.1
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.219	-0.09	32.34	34.00	1.466	0.321	22.1
Back side	GSM	190/836.6	1:8.3	0.244	-0.04	32.34	34.00	1.466	0.358	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	GSM	190/836.6	1:8.3	0.223	0.03	32.34	34.00	1.466	0.327	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.375	-0.05	26.72	28.00	1.343	0.504	22.1
Back side	GPRS 4TS	190/836.6	1:2.075	0.398	0.01	26.72	28.00	1.343	0.534	22.1
Right side	GPRS 4TS	190/836.6	1:2.075	0.292	-0.03	26.72	28.00	1.343	0.392	22.1
Bottom side	GPRS 4TS	190/836.6	1:2.075	0.201	-0.02	26.72	28.00	1.343	0.270	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Back side	GPRS 4TS	190/836.6	1:2.075	0.381	0.02	26.72	28.00	1.343	0.512	22.1
Ant4 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	0.377	0.07	29.34	30.00	1.164	0.439	22.1
Left tilted	GSM	190/836.6	1:8.3	0.200	0.02	29.34	30.00	1.164	0.233	22.1
Right cheek	GSM	190/836.6	1:8.3	0.548	0.09	29.34	30.00	1.164	0.638	22.1
Right tilted	GSM	190/836.6	1:8.3	0.431	0.01	29.34	30.00	1.164	0.502	22.1
Head Test Data at the worst case with Battery2#										
Right cheek	GSM	190/836.6	1:8.3	0.532	0.06	29.34	30.00	1.164	0.619	22.1
Body worn Test data(Separate 15mm)										
Front side	GSM	190/836.6	1:8.3	0.188	0.08	32.34	33.00	1.164	0.219	22.1
Back side	GSM	190/836.6	1:8.3	0.234	-0.07	32.34	33.00	1.164	0.272	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	GSM	190/836.6	1:8.3	0.218	0.11	32.34	33.00	1.164	0.254	22.1
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	190/836.6	1:2.075	0.167	-0.08	23.42	24.00	1.143	0.191	22.1
Back side	GPRS 4TS	190/836.6	1:2.075	0.194	0.00	23.42	24.00	1.143	0.222	22.1
Left side	GPRS 4TS	190/836.6	1:2.075	0.203	-0.02	23.42	24.00	1.143	0.232	22.1
Top side	GPRS 4TS	190/836.6	1:2.075	0.094	-0.09	23.42	24.00	1.143	0.107	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Left side	GPRS 4TS	190/836.6	1:2.075	0.191	0.07	23.42	24.00	1.143	0.218	22.1

Table 11: SAR of GSM850 for Head and Body

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 W/kg for 10-g respectively, when the transmission band is $\leq 100\text{ MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.2 SAR Result of GSM1900

Ant2 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	0.092	0.04	30.58	31.00	1.102	0.102	22.3
Left tilted	GSM	661/1880	1:8.3	0.059	0.13	30.58	31.00	1.102	0.065	22.3
Right cheek	GSM	661/1880	1:8.3	0.100	0.03	30.58	31.00	1.102	0.110	22.3
Right tilted	GSM	661/1880	1:8.3	0.060	0.10	30.58	31.00	1.102	0.066	22.3
Head Test data at the worst case with Battery2#										
Right cheek	GSM	661/1880	1:8.3	0.095	0.03	30.58	31.00	1.102	0.105	22.3
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.214	-0.03	30.58	31.00	1.102	0.236	22.3
Back side	GSM	661/1880	1:8.3	0.269	-0.11	30.58	31.00	1.102	0.296	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	GSM	661/1880	1:8.3	0.247	0.09	30.58	31.00	1.102	0.272	22.3
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.356	-0.01	24.13	25.00	1.222	0.435	22.3
Back side	GPRS 4TS	661/1880	1:2.075	0.442	-0.07	24.13	25.00	1.222	0.540	22.3
Left side	GPRS 4TS	661/1880	1:2.075	0.124	0.03	24.13	25.00	1.222	0.152	22.3
Bottom side	GPRS 4TS	661/1880	1:2.075	0.465	-0.01	24.13	25.00	1.222	0.568	22.3
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Bottom side	GPRS 4TS	661/1880	1:2.075	0.460	0.07	24.13	25.00	1.222	0.562	22.3
Ant3 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	0.760	0.02	28.99	29.50	1.125	0.855	22.3
Left cheek	GSM	512/1850.2	1:8.3	0.582	0.01	28.51	29.50	1.256	0.731	22.3
Left cheek	GSM	810/1909.8	1:8.3	0.669	0.14	28.59	29.50	1.233	0.825	22.3
Left tilted	GSM	661/1880	1:8.3	0.063	0.14	28.99	29.50	1.125	0.071	22.3
Right cheek	GSM	661/1880	1:8.3	0.506	-0.12	28.99	29.50	1.125	0.569	22.3
Right tilted	GSM	661/1880	1:8.3	0.117	0.07	28.99	29.50	1.125	0.132	22.3
Head Test data at the worst case with Battery2#										
Left cheek	GSM	661/1880	1:8.3	0.732	0.07	28.99	29.50	1.125	0.823	22.3
Body worn Test data(Separate 15mm)										
Front side	GSM	661/1880	1:8.3	0.097	0.02	29.60	30.50	1.230	0.120	22.3
Back side	GSM	661/1880	1:8.3	0.105	-0.02	29.60	30.50	1.230	0.129	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	GSM	661/1880	1:8.3	0.100	0.07	29.60	30.50	1.230	0.123	22.3
Hotspot Test data(Separate 10mm)										
Front side	GPRS 4TS	661/1880	1:2.075	0.129	-0.03	22.41	23.50	1.285	0.166	22.3
Back side	GPRS 4TS	661/1880	1:2.075	0.146	0.09	22.41	23.50	1.285	0.188	22.3
Left side	GPRS 4TS	661/1880	1:2.075	0.271	-0.05	22.41	23.50	1.285	0.348	22.3
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Left side	GPRS 4TS	661/1880	1:2.075	0.253	0.11	22.41	23.50	1.285	0.325	22.3

Table 12: SAR of GSM1900 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.3 SAR Result of WCDMA Band II

Ant2 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	0.252	-0.01	24.15	25.00	1.216	0.306	22.3
Left tilted	RMC	9400/1880	1:1	0.151	-0.01	24.15	25.00	1.216	0.184	22.3
Right cheek	RMC	9400/1880	1:1	0.257	0.00	24.15	25.00	1.216	0.313	22.3
Right tilted	RMC	9400/1880	1:1	0.183	0.00	24.15	25.00	1.216	0.223	22.3
Head Test data at the worst case with Battery2#										
Right cheek	RMC	9400/1880	1:1	0.250	0.03	24.15	25.00	1.216	0.304	22.3
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.609	-0.06	24.15	25.00	1.216	0.741	22.3
Back side	RMC	9400/1880	1:1	0.873	0.05	24.15	25.00	1.216	1.062	22.3
Back side-Repeated	RMC	9400/1880	1:1	0.812	0.09	24.15	25.00	1.216	0.988	22.3
Back side	RMC	9262/1852.4	1:1	0.629	-0.10	24.08	25.00	1.236	0.777	22.3
Back side	RMC	9538/1907.6	1:1	0.775	-0.03	24.17	25.00	1.211	0.938	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	9400/1880	1:1	0.851	0.01	24.15	25.00	1.216	1.035	22.3
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.265	0.13	20.23	21.00	1.194	0.316	22.3
Back side	RMC	9400/1880	1:1	0.339	0.01	20.23	21.00	1.194	0.405	22.3
Left side	RMC	9400/1880	1:1	0.141	0.12	20.23	21.00	1.194	0.168	22.3
Bottom side	RMC	9400/1880	1:1	0.566	0.10	20.23	21.00	1.194	0.676	22.3
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Bottom side	RMC	9400/1880	1:1	0.554	0.02	20.23	21.00	1.194	0.661	22.3
Test position	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp
Product specific 10g SAR Test data(Separate 0mm sensor on)										
Bottom side	RMC	9400/1880	1:1	1.940	0.03	20.23	21.00	1.194	2.316	22.2
Bottom side	RMC	9262/1852.4	1:1	1.850	0.01	20.21	21.00	1.199	2.219	22.2
Bottom side	RMC	9538/1907.6	1:1	1.830	-0.02	20.18	21.00	1.208	2.210	22.2
Product specific 10g SAR Test data(sensor off)										
Bottom side 15mm	RMC	9400/1880	1:1	0.301	0.04	24.15	25.00	1.216	0.366	22.2
Product specific 10g SAR Test data at the worst case with Battery2#(Separate 0mm sensor on)										
Bottom side	RMC	9400/1880	1:1	1.880	0.01	20.23	21.00	1.194	2.245	22.2
Ant3 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	0.687	0.03	19.05	20.00	1.245	0.855	22.3
Left cheek	RMC	9262/1852.4	1:1	0.657	-0.13	19.04	20.00	1.247	0.820	22.3
Left cheek	RMC	9538/1907.6	1:1	0.679	0.14	19.02	20.00	1.253	0.851	22.3
Left tilted	RMC	9400/1880	1:1	0.059	-0.07	19.05	20.00	1.245	0.073	22.3
Right cheek	RMC	9400/1880	1:1	0.466	0.00	19.05	20.00	1.245	0.580	22.3
Right tilted	RMC	9400/1880	1:1	0.107	0.15	19.05	20.00	1.245	0.133	22.3





Head Test data at the worst case with Battery2#										
Left cheek	RMC	9400/1880	1:1	0.647	-0.02	19.05	20.00	1.245	0.805	22.3
Body worn Test data(Separate 15mm)										
Front side	RMC	9400/1880	1:1	0.154	0.01	22.69	23.50	1.205	0.186	22.3
Back side	RMC	9400/1880	1:1	0.234	-0.11	22.69	23.50	1.205	0.282	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	9400/1880	1:1	0.225	0.04	22.69	23.50	1.205	0.271	22.3
Hotspot Test data(Separate 10mm)										
Front side	RMC	9400/1880	1:1	0.144	0.12	19.05	20.00	1.245	0.179	22.3
Back side	RMC	9400/1880	1:1	0.165	0.17	19.05	20.00	1.245	0.205	22.3
Left side	RMC	9400/1880	1:1	0.308	-0.03	19.05	20.00	1.245	0.383	22.3
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Left side	RMC	9400/1880	1:1	0.301	0.08	19.05	20.00	1.245	0.375	22.3

Table 13: SAR of WCDMA Band II for Head and Body and Product specific 10g SAR.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.

Test Position	Channel/ Frequency	Measured SAR (1g)	1 st Repeated	Ratio	2 nd Repeated	3 rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Back Side	9400/1880	0.873	0.812	1.075	N/A	N/A

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

2) A second repeated measurement was performed 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 $\geq 1.45\text{ W/kg}$ ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was $\geq 1.5\text{ W/kg}$ 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 $< 0.80\text{ W/kg}$



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8.3.4 SAR Result of WCDMA Band IV

Ant2 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	0.280	0.06	24.23	25.00	1.194	0.334	22.2
Left tilted	RMC	1412/1732.4	1:1	0.177	-0.08	24.23	25.00	1.194	0.211	22.2
Right cheek	RMC	1412/1732.4	1:1	0.242	-0.03	24.23	25.00	1.194	0.289	22.2
Right tilted	RMC	1412/1732.4	1:1	0.175	-0.06	24.23	25.00	1.194	0.209	22.2
Head Test data at the worst case with Battery2#										
Left cheek	RMC	1412/1732.4	1:1	0.274	0.00	24.23	25.00	1.194	0.327	22.2
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.459	-0.07	24.23	25.00	1.194	0.548	22.2
Back side	RMC	1412/1732.4	1:1	0.617	-0.13	24.23	25.00	1.194	0.737	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	1412/1732.4	1:1	0.601	0.11	24.23	25.00	1.194	0.718	22.2
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.321	-0.15	20.70	21.50	1.202	0.386	22.2
Back side	RMC	1412/1732.4	1:1	0.416	-0.08	20.70	21.50	1.202	0.500	22.2
Left side	RMC	1412/1732.4	1:1	0.145	0.09	20.70	21.50	1.202	0.174	22.2
Bottom side	RMC	1412/1732.4	1:1	0.590	0.01	20.70	21.50	1.202	0.709	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Bottom side	RMC	1412/1732.4	1:1	0.555	-0.15	20.70	21.50	1.202	0.667	22.2
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
Product specific 10g SAR Test data(Separate 0mm)										
Bottom side	RMC	1412/1732.4	1:1	1.080	0.09	20.70	21.50	1.202	1.298	22.2
Product specific 10g SAR Test data(sensor off)										
Bottom side 15mm	RMC	1412/1732.4	1:1	0.326	0.11	24.23	25.00	1.194	0.389	22.2
Product specific 10g SAR Test data at the worst case with Battery2#(Separate 0mm)										
Bottom side	RMC	1412/1732.4	1:1	1.000	-0.02	20.70	21.50	1.202	1.202	22.2
Ant3 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	0.650	0.11	20.12	21.50	1.374	0.893	22.2
Left cheek	RMC	1312/1712.4	1:1	0.625	0.05	20.05	21.50	1.396	0.873	22.2
Left cheek	RMC	1513/1752.6	1:1	0.639	-0.16	20.20	21.50	1.349	0.862	22.2
Left tilted	RMC	1412/1732.4	1:1	0.055	0.17	20.12	21.50	1.374	0.076	22.2
Right cheek	RMC	1412/1732.4	1:1	0.453	0.07	20.12	21.50	1.374	0.622	22.2
Right tilted	RMC	1412/1732.4	1:1	0.087	0.03	20.12	21.50	1.374	0.120	22.2
Head Test data at the worst case with Battery2#										
Left cheek	RMC	1412/1732.4	1:1	0.633	0.01	20.12	21.50	1.374	0.870	22.2
Body worn Test data(Separate 15mm)										
Front side	RMC	1412/1732.4	1:1	0.124	-0.11	22.58	24.00	1.387	0.172	22.2





Back side	RMC	1412/1732.4	1:1	0.151	-0.16	22.58	24.00	1.387	0.209	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	1412/1732.4	1:1	0.142	0.00	22.58	24.00	1.387	0.197	22.2
Hotspot Test data(Separate 10mm)										
Front side	RMC	1412/1732.4	1:1	0.143	0.15	20.12	21.50	1.374	0.196	22.2
Back side	RMC	1412/1732.4	1:1	0.160	0.12	20.12	21.50	1.374	0.220	22.2
Left side	RMC	1412/1732.4	1:1	0.249	-0.04	20.12	21.50	1.374	0.342	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Left side	RMC	1412/1732.4	1:1	0.222	0.02	20.12	21.50	1.374	0.305	22.2

Table 14: SAR of WCDMA Band IV for Head and Body and Product specific 10g SAR.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.5 SAR Result of WCDMA Band V

Ant1 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	0.276	0.04	23.98	25.00	1.265	0.349	22.1
Left tilted	RMC	4182/836.4	1:1	0.134	0.13	23.98	25.00	1.265	0.169	22.1
Right cheek	RMC	4182/836.4	1:1	0.300	0.04	23.98	25.00	1.265	0.379	22.1
Right tilted	RMC	4182/836.4	1:1	0.156	0.19	23.98	25.00	1.265	0.197	22.1
Head Test data at the worst case with Battery2#										
Right cheek	RMC	4182/836.4	1:1	0.288	0.05	23.98	25.00	1.265	0.364	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.310	0.03	23.98	25.00	1.265	0.392	22.1
Back side	RMC	4182/836.4	1:1	0.351	0.10	23.98	25.00	1.265	0.444	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	4182/836.4	1:1	0.333	-0.19	23.98	25.00	1.265	0.421	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.338	0.19	23.23	24.00	1.194	0.404	22.1
Back side	RMC	4182/836.4	1:1	0.467	0.01	23.23	24.00	1.194	0.558	22.1
Right side	RMC	4182/836.4	1:1	0.158	-0.05	23.23	24.00	1.194	0.189	22.1
Bottom side	RMC	4182/836.4	1:1	0.134	0.06	23.23	24.00	1.194	0.160	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Back side	RMC	4182/836.4	1:1	0.421	0.16	23.23	24.00	1.194	0.503	22.1
Ant4 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	0.304	0.09	19.87	20.50	1.156	0.351	22.1
Left tilted	RMC	4182/836.4	1:1	0.220	0.06	19.87	20.50	1.156	0.254	22.1
Right cheek	RMC	4182/836.4	1:1	0.552	-0.03	19.87	20.50	1.156	0.638	22.1
Right tilted	RMC	4182/836.4	1:1	0.441	-0.04	19.87	20.50	1.156	0.510	22.1
Head Test data at the worst case with Battery2#										
Right cheek	RMC	4182/836.4	1:1	0.513	0.08	19.87	20.50	1.156	0.593	22.1
Body worn Test data(Separate 15mm)										
Front side	RMC	4182/836.4	1:1	0.139	0.02	22.28	23.50	1.324	0.184	22.1
Back side	RMC	4182/836.4	1:1	0.188	0.08	22.28	23.50	1.324	0.249	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm)										
Back side	RMC	4182/836.4	1:1	0.152	0.06	22.28	23.50	1.324	0.201	22.1
Hotspot Test data(Separate 10mm)										
Front side	RMC	4182/836.4	1:1	0.159	0.02	19.87	20.00	1.030	0.164	22.1
Back side	RMC	4182/836.4	1:1	0.202	-0.17	19.87	20.00	1.030	0.208	22.1
Left side	RMC	4182/836.4	1:1	0.187	0.03	19.87	20.00	1.030	0.193	22.1
Top side	RMC	4182/836.4	1:1	0.067	0.09	19.87	20.00	1.030	0.069	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm)										
Back side	RMC	4182/836.4	1:1	0.199	0.13	19.87	20.00	1.030	0.205	22.1

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

Note:

- The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- Per KDB447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8W/kg for 1-g or 2.0W/kg for 10-g respectively, when the transmission band is ≤ 100MHz.
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz.



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8.3.6 SAR Result of LTE Band 2

Ant2 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	18700/1860	1:1	0.260	0.00	24.96	25.50	1.132	0.294	22.3
Left tilted	20	QPSK 1RB_0	18700/1860	1:1	0.134	-0.16	24.96	25.50	1.132	0.152	22.3
Right cheek	20	QPSK 1RB_0	18700/1860	1:1	0.239	0.01	24.96	25.50	1.132	0.271	22.3
Right tilted	20	QPSK 1RB_0	18700/1860	1:1	0.137	-0.03	24.96	25.50	1.132	0.155	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	18700/1860	1:1	0.200	0.01	23.81	24.50	1.172	0.234	22.3
Left tilted	20	QPSK 50RB_50	18700/1860	1:1	0.129	-0.02	23.81	24.50	1.172	0.151	22.3
Right cheek	20	QPSK 50RB_50	18700/1860	1:1	0.207	-0.18	23.81	24.50	1.172	0.243	22.3
Right tilted	20	QPSK 50RB_50	18700/1860	1:1	0.122	-0.16	23.81	24.50	1.172	0.143	22.3
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_0	18700/1860	1:1	0.255	0.11	24.96	25.50	1.132	0.289	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	18700/1860	1:1	0.610	-0.02	24.99	25.50	1.125	0.686	22.3
Back side	20	QPSK 1RB_0	18700/1860	1:1	0.717	0.00	24.99	25.50	1.125	0.806	22.3
Back side	20	QPSK 1RB_50	18900/1880	1:1	0.728	-0.06	24.95	25.50	1.135	0.826	22.3
Back side	20	QPSK 1RB_0	19100/1900	1:1	0.722	-0.02	24.92	25.50	1.143	0.825	22.3
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	18700/1860	1:1	0.554	-0.14	23.81	24.50	1.172	0.649	22.3
Back side	20	QPSK 50RB_50	18700/1860	1:1	0.646	-0.05	23.81	24.50	1.172	0.757	22.3
Body worn Test data (Separate 15mm 100%RB)											
Back side	20	QPSK 100RB_0	18700/1860	1:1	0.538	-0.16	23.82	24.50	1.169	0.629	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_50	18900/1880	1:1	0.705	-0.03	24.95	25.50	1.135	0.800	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	19100/1900	1:1	0.261	0.08	20.86	21.00	1.033	0.270	22.3
Back side	20	QPSK 1RB_99	19100/1900	1:1	0.337	0.16	20.86	21.00	1.033	0.348	22.3
Left side	20	QPSK 1RB_99	19100/1900	1:1	0.133	-0.11	20.86	21.00	1.033	0.137	22.3
Bottom side	20	QPSK 1RB_99	19100/1900	1:1	0.446	0.18	20.86	21.00	1.033	0.461	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	19100/1900	1:1	0.277	-0.09	20.63	21.00	1.089	0.302	22.3
Back side	20	QPSK 50RB_50	19100/1900	1:1	0.352	0.13	20.63	21.00	1.089	0.383	22.3
Left side	20	QPSK 50RB_50	19100/1900	1:1	0.141	-0.18	20.63	21.00	1.089	0.154	22.3
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	0.614	0.09	20.63	21.00	1.089	0.669	22.3
Hotspot Test data at the worst case with Battery2# (Separate 10mm 50%RB)											
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	0.600	0.00	20.63	21.00	1.089	0.653	22.3
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
Product specific 10g SAR Test data(Separate 0mm 1RB sensor on)											
Bottom side	20	QPSK 1RB_99	19100/1900	1:1	1.340	-0.07	20.86	21.00	1.033	1.384	22.3
Product specific 10g SAR Test data(Separate 0mm 50%RB sensor on)											
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	1.400	-0.04	20.63	21.00	1.089	1.525	22.3
Product specific 10g SAR Test data(1RB sensor off)											
Bottom side 15mm	20	QPSK 1RB_99	19100/1900	1:1	0.397	0.01	24.69	25.50	1.205	0.478	22.3



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Product specific 10g SAR Test data(50%RB sensor off)											
Bottom side 15mm	20	QPSK 50RB_50	19100/1900	1:1	0.337	-0.14	23.81	24.50	1.172	0.395	22.3
Product specific 10g SAR Test data at the worst case with Battery2#(Separate 0mm 50%RB sensor on)											
Bottom side	20	QPSK 50RB_50	19100/1900	1:1	1.360	0.06	20.63	21.00	1.089	1.481	22.3
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_0	18900/1880	1:1	0.301	0.15	17.87	18.50	1.156	0.348	22.3
Left tilted	20	QPSK 1RB_0	18900/1880	1:1	0.040	-0.09	17.87	18.50	1.156	0.046	22.3
Right cheek	20	QPSK 1RB_0	18900/1880	1:1	0.285	-0.19	17.87	18.50	1.156	0.329	22.3
Right tilted	20	QPSK 1RB_0	18900/1880	1:1	0.066	0.15	17.87	18.50	1.156	0.076	22.3
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	19100/1900	1:1	0.458	0.03	17.78	18.50	1.180	0.541	22.3
Left tilted	20	QPSK 50RB_50	19100/1900	1:1	0.046	-0.06	17.78	18.50	1.180	0.054	22.3
Right cheek	20	QPSK 50RB_50	19100/1900	1:1	0.346	0.00	17.78	18.50	1.180	0.408	22.3
Right tilted	20	QPSK 50RB_50	19100/1900	1:1	0.082	-0.17	17.78	18.50	1.180	0.097	22.3
Head Test data at the worst case with Battery2#(50%RB)											
Left cheek	20	QPSK 50RB_50	19100/1900	1:1	0.444	0.00	17.78	18.50	1.180	0.524	22.3
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	18900/1880	1:1	0.299	0.14	23.88	25.00	1.294	0.387	22.3
Back side	20	QPSK 1RB_99	18900/1880	1:1	0.335	-0.02	23.88	25.00	1.294	0.434	22.3
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	19100/1900	1:1	0.260	-0.03	23.09	24.00	1.233	0.321	22.3
Back side	20	QPSK 50RB_50	19100/1900	1:1	0.252	-0.06	23.09	24.00	1.233	0.311	22.3
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_99	18900/1880	1:1	0.311	-0.09	23.88	25.00	1.294	0.402	22.3
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	18900/1880	1:1	0.090	0.17	17.87	18.50	1.156	0.104	22.3
Back side	20	QPSK 1RB_0	18900/1880	1:1	0.106	-0.13	17.87	18.50	1.156	0.123	22.3
Left side	20	QPSK 1RB_0	18900/1880	1:1	0.150	-0.07	17.87	18.50	1.156	0.173	22.3
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	19100/1900	1:1	0.111	0.11	17.78	18.50	1.180	0.131	22.3
Back side	20	QPSK 50RB_50	19100/1900	1:1	0.126	0.15	17.78	18.50	1.180	0.149	22.3
Left side	20	QPSK 50RB_50	19100/1900	1:1	0.235	-0.02	17.78	18.50	1.180	0.277	22.3
Hotspot Test data at the worst case with Battery2# (Separate 10mm 50%RB)											
Left side	20	QPSK 50RB_50	19100/1900	1:1	0.220	-0.18	17.78	18.50	1.180	0.260	22.3

Table 16: SAR of LTE Band 2 for Head and Body and Product specific 10g SAR.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.7 SAR Result of LTE Band 4

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_0	20175/1732.5	1:1	0.043	0.09	21.46	22.50	1.271	0.055	22.2
Left tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.031	0.19	21.46	22.50	1.271	0.039	22.2
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.084	0.16	21.46	22.50	1.271	0.107	22.2
Right tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.034	-0.03	21.46	22.50	1.271	0.044	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20050/1720	1:1	0.034	0.00	20.25	21.50	1.334	0.046	22.2
Left tilted	20	QPSK 50RB_0	20050/1720	1:1	0.024	0.02	20.25	21.50	1.334	0.032	22.2
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.069	0.17	20.25	21.50	1.334	0.092	22.2
Right tilted	20	QPSK 50RB_0	20050/1720	1:1	0.026	-0.10	20.25	21.50	1.334	0.035	22.2
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.074	0.02	21.46	22.50	1.271	0.094	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.152	0.09	21.46	22.50	1.271	0.193	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.190	-0.12	21.46	22.50	1.271	0.241	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	20050/1720	1:1	0.135	-0.04	20.25	21.50	1.334	0.180	22.2
Back side	20	QPSK 50RB_0	20050/1720	1:1	0.162	-0.04	20.25	21.50	1.334	0.216	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.160	0.04	21.46	22.50	1.271	0.203	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20300/1745	1:1	0.268	-0.04	20.23	21.50	1.340	0.359	22.2
Back side	20	QPSK 1RB_0	20300/1745	1:1	0.331	-0.10	20.23	21.50	1.340	0.443	22.2
Right side	20	QPSK 1RB_0	20300/1745	1:1	0.124	-0.07	20.23	21.50	1.340	0.166	22.2
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.106	-0.05	20.23	21.50	1.340	0.142	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20175/1732.5	1:1	0.269	-0.04	20.14	21.50	1.368	0.368	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.337	0.03	20.14	21.50	1.368	0.461	22.2
Right side	20	QPSK 50RB_0	20175/1732.5	1:1	0.136	-0.15	20.14	21.50	1.368	0.186	22.2
Bottom side	20	QPSK 50RB_0	20175/1732.5	1:1	0.094	-0.06	20.14	21.50	1.368	0.128	22.2
Hotspot Test data at the worst case with Battery2# (Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.321	-0.06	20.14	21.50	1.368	0.439	22.2
Ant2 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	20300/1745	1:1	0.272	-0.07	24.69	25.50	1.205	0.328	22.2
Left tilted	20	QPSK 1RB_0	20300/1745	1:1	0.132	-0.05	24.69	25.50	1.205	0.159	22.2
Right cheek	20	QPSK 1RB_0	20300/1745	1:1	0.183	0.00	24.69	25.50	1.205	0.221	22.2
Right tilted	20	QPSK 1RB_0	20300/1745	1:1	0.147	-0.17	24.69	25.50	1.205	0.177	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	20175/1732.5	1:1	0.241	0.07	23.85	24.50	1.161	0.280	22.2
Left tilted	20	QPSK 50RB_25	20175/1732.5	1:1	0.117	-0.03	23.85	24.50	1.161	0.136	22.2
Right cheek	20	QPSK 50RB_25	20175/1732.5	1:1	0.145	-0.07	23.85	24.50	1.161	0.168	22.2
Right tilted	20	QPSK 50RB_25	20175/1732.5	1:1	0.145	-0.17	23.85	24.50	1.161	0.168	22.2
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_0	20300/1745	1:1	0.255	0.08	24.69	25.50	1.205	0.307	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20300/1745	1:1	0.478	-0.10	24.69	25.50	1.205	0.576	22.2
Back side	20	QPSK 1RB_0	20300/1745	1:1	0.593	-0.14	24.69	25.50	1.205	0.715	22.2
Body worn Test data (Separate 15mm 50%RB)											



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Front side	20	QPSK 50RB_25	20175/1732.5	1:1	0.389	-0.07	23.85	24.50	1.161	0.452	22.2
Back side	20	QPSK 50RB_25	20175/1732.5	1:1	0.491	-0.02	23.85	24.50	1.161	0.570	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20300/1745	1:1	0.549	-0.04	24.69	25.50	1.205	0.662	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20300/1745	1:1	0.325	0.15	21.52	22.00	1.117	0.363	22.2
Back side	20	QPSK 1RB_0	20300/1745	1:1	0.422	-0.08	21.52	22.00	1.117	0.471	22.2
Left side	20	QPSK 1RB_0	20300/1745	1:1	0.139	-0.14	21.52	22.00	1.117	0.155	22.2
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.526	0.01	21.52	22.00	1.117	0.587	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.327	0.04	21.19	22.00	1.205	0.394	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.423	0.02	21.19	22.00	1.205	0.510	22.2
Left side	20	QPSK 50RB_0	20300/1745	1:1	0.140	0.12	21.19	22.00	1.205	0.169	22.2
Bottom side	20	QPSK 50RB_0	20300/1745	1:1	0.432	-0.12	21.19	22.00	1.205	0.521	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.516	-0.08	21.52	22.00	1.117	0.576	22.2
Test position	BW.	Test mode	Test Ch./Freq.	Duty Cycle	SAR (W/kg) 1-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp
Product specific 10g SAR Test data(Separate 0mm 1RB sensor on)											
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.902	-0.11	21.52	22.00	1.117	1.007	22.2
Product specific 10g SAR Test data(Separate 0mm 50%RB sensor on)											
Bottom side	20	QPSK 50RB_0	20300/1745	1:1	0.791	0.03	21.19	22.00	1.205	0.953	22.2
Product specific 10g SAR Test data(1RB sensor off)											
Bottom side 15mm	20	QPSK 1RB_0	20300/1745	1:1	0.296	-0.17	24.69	25.50	1.205	0.357	22.2
Product specific 10g SAR Test data(50%RB sensor off)											
Bottom side 15mm	20	QPSK 50RB_25	20175/1732.5	1:1	0.245	0.08	23.85	24.50	1.161	0.285	22.2
Product specific 10g SAR Test data at the worst case with Battery2#(Separate 0mm 1RB sensor on)											
Bottom side	20	QPSK 1RB_0	20300/1745	1:1	0.899	0.01	21.52	22.00	1.117	1.004	22.2
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_0	20175/1732.5	1:1	0.492	0.07	20.01	20.50	1.119	0.551	22.2
Left tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.049	0.16	20.01	20.50	1.119	0.055	22.2
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.386	0.11	20.01	20.50	1.119	0.432	22.2
Right tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.083	-0.04	20.01	20.50	1.119	0.093	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	20300/1745	1:1	0.384	0.01	19.82	20.50	1.169	0.449	22.2
Left tilted	20	QPSK 50RB_50	20300/1745	1:1	0.045	0.04	19.82	20.50	1.169	0.053	22.2
Right cheek	20	QPSK 50RB_50	20300/1745	1:1	0.356	0.11	19.82	20.50	1.169	0.416	22.2
Right tilted	20	QPSK 50RB_50	20300/1745	1:1	0.068	0.13	19.82	20.50	1.169	0.080	22.2
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.421	0.03	20.01	20.50	1.119	0.471	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.205	-0.02	23.73	24.50	1.194	0.245	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.235	-0.04	23.73	24.50	1.194	0.281	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	20300/1745	1:1	0.160	-0.09	22.77	23.50	1.183	0.189	22.2
Back side	20	QPSK 50RB_50	20300/1745	1:1	0.191	-0.04	22.77	23.50	1.183	0.226	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.221	0.06	23.73	24.50	1.194	0.264	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.126	0.19	20.01	20.50	1.119	0.141	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.148	0.19	20.01	20.50	1.119	0.166	22.2
Left side	20	QPSK 1RB_0	20175/1732.5	1:1	0.264	-0.11	20.01	20.50	1.119	0.296	22.2



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Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	20300/1745	1:1	0.109	-0.01	19.82	20.50	1.169	0.127	22.2
Back side	20	QPSK 50RB_50	20300/1745	1:1	0.122	0.02	19.82	20.50	1.169	0.143	22.2
Left side	20	QPSK 50RB_50	20300/1745	1:1	0.177	-0.13	19.82	20.50	1.169	0.207	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Left side	20	QPSK 1RB_0	20175/1732.5	1:1	0.239	0.16	20.01	20.50	1.119	0.268	22.2
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	20	QPSK 1RB_0	20175/1732.5	1:1	0.355	0-0.11	17.15	17.50	1.084	0.385	22.2
Left tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.400	0.03	17.15	17.50	1.084	0.434	22.2
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.638	-0.08	17.15	17.50	1.084	0.692	22.2
Right tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.570	-0.03	17.15	17.50	1.084	0.618	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20300/1745	1:1	0.370	0.09	17.01	17.50	1.119	0.414	22.2
Left tilted	20	QPSK 50RB_0	20300/1745	1:1	0.463	0.03	17.01	17.50	1.119	0.518	22.2
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	0.765	-0.09	17.01	17.50	1.119	0.856	22.2
Right tilted	20	QPSK 50RB_0	20300/1745	1:1	0.653	-0.03	17.01	17.50	1.119	0.731	22.2
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.469	0.09	16.98	17.50	1.127	0.529	22.2
Right cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.574	-0.18	16.97	17.50	1.130	0.649	22.2
Head Test data(100%RB)											
Right cheek	20	QPSK 100RB_0	20050/1720	1:1	0.670	0.09	16.91	17.50	1.146	0.767	22.2
Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	0.759	0.05	17.01	17.50	1.119	0.850	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	20300/1745	1:1	0.372	0.02	22.54	23.50	1.247	0.464	22.2
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.528	-0.05	22.54	23.50	1.247	0.659	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.267	0.07	21.65	22.50	1.216	0.325	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.399	0.00	21.65	22.50	1.216	0.485	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_99	20300/1745	1:1	0.516	0.08	22.54	23.50	1.247	0.644	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.126	-0.09	17.15	17.50	1.084	0.137	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.197	0.08	17.15	17.50	1.084	0.214	22.2
Left side	20	QPSK 1RB_0	20175/1732.5	1:1	0.043	0.06	17.15	17.50	1.084	0.047	22.2
Top side	20	QPSK 1RB_0	20175/1732.5	1:1	0.193	-0.15	17.15	17.50	1.084	0.209	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.152	-0.06	17.01	17.50	1.119	0.170	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.232	0.07	17.01	17.50	1.119	0.260	22.2
Left side	20	QPSK 50RB_0	20300/1745	1:1	0.064	0.00	17.01	17.50	1.119	0.071	22.2
Top side	20	QPSK 50RB_0	20300/1745	1:1	0.220	-0.15	17.01	17.50	1.119	0.246	22.2
Hotspot Test data at the worst case with Battery2# (Separate 10mm 50%RB)											
Top side	20	QPSK 50RB_0	20300/1745	1:1	0.205	0.03	17.01	17.50	1.119	0.229	22.2



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Ant1(ENDC) 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	20175/1732.5	1:1	0.012	0.04	22.05	23.50	1.396	0.016	22.2
Left tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.006	0.05	22.05	23.50	1.396	0.008	22.2
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.026	0.08	22.05	23.50	1.396	0.037	22.2
Right tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.009	0.08	22.05	23.50	1.396	0.013	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20050/1720	1:1	0.009	0.06	21.09	23.50	1.742	0.015	22.2
Left tilted	20	QPSK 50RB_0	20050/1720	1:1	0.006	0.03	21.09	23.50	1.742	0.010	22.2
Right cheek	20	QPSK 50RB_0	20050/1720	1:1	0.018	-0.02	21.09	23.50	1.742	0.031	22.2
Right tilted	20	QPSK 50RB_0	20050/1720	1:1	0.006	0.01	21.09	23.50	1.742	0.010	22.2
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.022	0.00	22.05	23.50	1.396	0.031	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.033	0.11	22.05	23.50	1.396	0.046	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.042	0.01	22.05	23.50	1.396	0.058	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.026	0.05	21.09	23.50	1.742	0.045	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.032	0.09	21.09	23.50	1.742	0.056	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.039	-0.07	22.05	23.50	1.396	0.054	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.067	-0.06	20.17	21.50	1.358	0.091	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.067	0.02	20.17	21.50	1.358	0.091	22.2
Right side	20	QPSK 1RB_0	20175/1732.5	1:1	0.003	0.03	20.17	21.50	1.358	0.004	22.2
Bottom side	20	QPSK 1RB_0	20175/1732.5	1:1	0.065	0.08	20.17	21.50	1.358	0.088	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20300/1745	1:1	0.062	-0.05	19.25	20.50	1.334	0.083	22.2
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.070	0.02	19.25	20.50	1.334	0.093	22.2
Right side	20	QPSK 50RB_0	20300/1745	1:1	0.002	0.10	19.25	20.50	1.334	0.003	22.2
Bottom side	20	QPSK 50RB_0	20300/1745	1:1	0.066	0.02	19.25	20.50	1.334	0.088	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_0	20300/1745	1:1	0.065	0.05	19.25	20.50	1.334	0.087	22.2
Ant5(ENDC) 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	20175/1732.5	1:1	0.360	0.01	17.03	18.00	1.250	0.450	22.2
Left tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.439	0.06	17.03	18.00	1.250	0.549	22.2
Right cheek	20	QPSK 1RB_0	20175/1732.5	1:1	0.769	-0.11	17.03	18.00	1.250	0.961	22.2
Right cheek	20	QPSK 1RB_0	20300/1745	1:1	0.754	0.02	16.99	18.00	1.262	0.951	22.2
Right cheek	20	QPSK 1RB_0	20050/1720	1:1	0.690	-0.07	17.02	18.00	1.253	0.865	22.2
Right tilted	20	QPSK 1RB_0	20175/1732.5	1:1	0.782	0.16	17.03	18.00	1.250	0.978	22.2
Right tilted	20	QPSK 1RB_0	20300/1745	1:1	0.774	0.14	16.99	18.00	1.262	0.977	22.2
Right tilted	20	QPSK 1RB_0	20050/1720	1:1	0.725	-0.16	17.02	18.00	1.253	0.909	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.361	-0.05	17.27	18.00	1.183	0.427	22.2
Left tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.438	0.01	17.27	18.00	1.183	0.518	22.2
Right cheek	20	QPSK 50RB_0	20175/1732.5	1:1	0.757	0.18	17.27	18.00	1.183	0.896	22.2
Right cheek	20	QPSK 50RB_0	20300/1745	1:1	0.751	-0.02	17.18	18.00	1.208	0.907	22.2
Right cheek	20	QPSK 50RB_25	20050/1720	1:1	0.732	0.07	17.03	18.00	1.250	0.915	22.2
Right tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.836	-0.08	17.27	18.00	1.183	0.989	22.2
Right tilted-Repeat	20	QPSK 50RB_0	20175/1732.5	1:1	0.806	0.02	17.27	18.00	1.183	0.954	22.2
Right tilted	20	QPSK 50RB_0	20300/1745	1:1	0.784	0.17	17.18	18.00	1.208	0.947	22.2
Right tilted	20	QPSK 50RB_25	20050/1720	1:1	0.790	-0.08	17.03	18.00	1.250	0.988	22.2



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Head Test data(100%RB)											
Right cheek	20	QPSK 100RB_0	20175/1732.5	1:1	0.741	0.09	17.02	18.00	1.253	0.929	22.2
Right tilted	20	QPSK 100RB_0	20175/1732.5	1:1	0.779	-0.05	17.02	18.00	1.253	0.976	22.2
Head Test data at the worst case with Battery2#(50%RB)											
Right tilted	20	QPSK 50RB_0	20175/1732.5	1:1	0.829	0.02	17.27	18.00	1.183	0.981	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.243	0.00	22.79	24.00	1.321	0.321	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.455	-0.11	22.79	24.00	1.321	0.601	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	20175/1732.5	1:1	0.217	0.15	22.04	23.00	1.247	0.271	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.318	-0.07	22.04	23.00	1.247	0.397	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.447	0.02	22.79	24.00	1.321	0.591	22.2
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20175/1732.5	1:1	0.162	-0.08	17.03	18.00	1.250	0.203	22.2
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.278	0.10	17.03	18.00	1.250	0.348	22.2
Left side	20	QPSK 1RB_0	20175/1732.5	1:1	0.072	0.02	17.03	18.00	1.250	0.090	22.2
Top side	20	QPSK 1RB_0	20175/1732.5	1:1	0.256	0.16	17.03	18.00	1.250	0.320	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	20175/1732.5	1:1	0.161	-0.04	17.27	18.00	1.183	0.190	22.2
Back side	20	QPSK 50RB_0	20175/1732.5	1:1	0.258	0.01	17.27	18.00	1.183	0.305	22.2
Left side	20	QPSK 50RB_0	20175/1732.5	1:1	0.076	0.00	17.27	18.00	1.183	0.090	22.2
Top side	20	QPSK 50RB_0	20175/1732.5	1:1	0.253	0.09	17.27	18.00	1.183	0.299	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	20	QPSK 1RB_0	20175/1732.5	1:1	0.274	-0.02	17.03	18.00	1.250	0.343	22.2

Table 17: SAR of LTE Band 4 for Head and Body and Product specific 10g SAR.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.8 SAR Result of LTE Band 5

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	10	QPSK 1RB_0	20600/844	1:1	0.327	0.01	24.48	25.50	1.265	0.414	22.1
Left tilted	10	QPSK 1RB_0	20600/844	1:1	0.172	0.06	24.48	25.50	1.265	0.218	22.1
Right cheek	10	QPSK 1RB_0	20600/844	1:1	0.365	0.03	24.48	25.50	1.265	0.462	22.1
Right tilted	10	QPSK 1RB_0	20600/844	1:1	0.180	0.02	24.48	25.50	1.265	0.228	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_13	20450/829	1:1	0.252	0.08	23.63	24.50	1.222	0.308	22.1
Left tilted	10	QPSK 25RB_13	20450/829	1:1	0.129	0.02	23.63	24.50	1.222	0.158	22.1
Right cheek	10	QPSK 25RB_13	20450/829	1:1	0.268	0.15	23.63	24.50	1.222	0.327	22.1
Right tilted	10	QPSK 25RB_13	20450/829	1:1	0.127	0.03	23.63	24.50	1.222	0.155	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	10	QPSK 1RB_0	20600/844	1:1	0.354	0.08	24.48	25.50	1.265	0.448	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB_0	20600/844	1:1	0.388	-0.08	24.48	25.50	1.265	0.491	22.1
Back side	10	QPSK 1RB_0	20600/844	1:1	0.393	-0.02	24.48	25.50	1.265	0.497	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	10	QPSK 25RB_13	20450/829	1:1	0.322	0.05	23.63	24.50	1.222	0.393	22.1
Back side	10	QPSK 25RB_13	20450/829	1:1	0.328	0.03	23.63	24.50	1.222	0.401	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	10	QPSK 1RB_0	20600/844	1:1	0.359	-0.07	24.48	25.50	1.265	0.454	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_0	20525/836.5	1:1	0.402	-0.03	23.29	24.00	1.178	0.473	22.1
Back side	10	QPSK 1RB_0	20525/836.5	1:1	0.458	-0.01	23.29	24.00	1.178	0.539	22.1
Right side	10	QPSK 1RB_0	20525/836.5	1:1	0.281	-0.03	23.29	24.00	1.178	0.331	22.1
Bottom side	10	QPSK 1RB_0	20525/836.5	1:1	0.207	-0.07	23.29	24.00	1.178	0.244	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_13	20600/844	1:1	0.421	-0.07	23.38	24.00	1.153	0.486	22.1
Back side	10	QPSK 25RB_13	20600/844	1:1	0.472	-0.08	23.38	24.00	1.153	0.544	22.1
Right side	10	QPSK 25RB_13	20600/844	1:1	0.305	-0.09	23.38	24.00	1.153	0.352	22.1
Bottom side	10	QPSK 25RB_13	20600/844	1:1	0.219	0.05	23.38	24.00	1.153	0.253	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	10	QPSK 25RB_13	20600/844	1:1	0.436	-0.14	23.38	24.00	1.153	0.503	22.1
Ant4 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_0	20525/836.5	1:1	0.311	-0.07	19.91	20.50	1.146	0.356	22.1
Left tilted	10	QPSK 1RB_0	20525/836.5	1:1	0.233	-0.09	19.91	20.50	1.146	0.267	22.1
Right cheek	10	QPSK 1RB_0	20525/836.5	1:1	0.535	-0.03	19.91	20.50	1.146	0.613	22.1
Right tilted	10	QPSK 1RB_0	20525/836.5	1:1	0.434	0.03	19.91	20.50	1.146	0.497	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_13	20450/829	1:1	0.279	-0.03	19.69	20.50	1.205	0.336	22.1
Left tilted	10	QPSK 25RB_13	20450/829	1:1	0.197	0.19	19.69	20.50	1.205	0.237	22.1
Right cheek	10	QPSK 25RB_13	20450/829	1:1	0.570	-0.06	19.69	20.50	1.205	0.687	22.1
Right tilted	10	QPSK 25RB_13	20450/829	1:1	0.390	-0.01	19.69	20.50	1.205	0.470	22.1



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Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	10	QPSK 25RB_13	20450/829	1:1	0.546	0.13	19.69	20.50	1.205	0.658	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB_49	20450/829	1:1	0.121	0.00	22.93	23.50	1.140	0.138	22.1
Back side	10	QPSK 1RB_49	20450/829	1:1	0.148	-0.01	22.93	23.50	1.140	0.169	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	10	QPSK 25RB_25	20525/836.5	1:1	0.139	0.13	22.68	23.50	1.208	0.168	22.1
Back side	10	QPSK 25RB_25	20525/836.5	1:1	0.175	0.01	22.68	23.50	1.208	0.211	22.1
Body worn Test data at the worst case with Battery2# (Separate 15mm 50%RB)											
Back side	10	QPSK 25RB_25	20525/836.5	1:1	0.166	0.16	22.68	23.50	1.208	0.200	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_0	20525/836.5	1:1	0.157	0.11	19.91	20.50	1.146	0.180	22.1
Back side	10	QPSK 1RB_0	20525/836.5	1:1	0.200	0.01	19.91	20.50	1.146	0.229	22.1
Left side	10	QPSK 1RB_0	20525/836.5	1:1	0.216	0.13	19.91	20.50	1.146	0.247	22.1
Top side	10	QPSK 1RB_0	20525/836.5	1:1	0.080	0.08	19.91	20.50	1.146	0.091	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_13	20450/829	1:1	0.154	-0.15	19.69	20.50	1.205	0.186	22.1
Back side	10	QPSK 25RB_13	20450/829	1:1	0.194	0.14	19.69	20.50	1.205	0.234	22.1
Left side	10	QPSK 25RB_13	20450/829	1:1	0.210	0.11	19.69	20.50	1.205	0.253	22.1
Top side	10	QPSK 25RB_13	20450/829	1:1	0.077	0.05	19.69	20.50	1.205	0.092	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	10	QPSK 25RB_13	20450/829	1:1	0.200	0.02	19.69	20.50	1.205	0.241	22.1

Table 18: SAR of LTE Band 5 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.9 SAR Result of LTE Band 7

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_50	20850/2510	1:1	0.120	0.14	21.67	22.50	1.211	0.145	22.1
Left tilted	20	QPSK 1RB_50	20850/2510	1:1	0.076	0.01	21.67	22.50	1.211	0.092	22.1
Right cheek	20	QPSK 1RB_50	20850/2510	1:1	0.245	0.16	21.67	22.50	1.211	0.297	22.1
Right tilted	20	QPSK 1RB_50	20850/2510	1:1	0.051	-0.12	21.67	22.50	1.211	0.062	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	20850/2510	1:1	0.100	-0.07	20.87	21.50	1.156	0.116	22.1
Left tilted	20	QPSK 50RB_50	20850/2510	1:1	0.065	-0.17	20.87	21.50	1.156	0.075	22.1
Right cheek	20	QPSK 50RB_50	20850/2510	1:1	0.204	0.18	20.87	21.50	1.156	0.236	22.1
Right tilted	20	QPSK 50RB_50	20850/2510	1:1	0.002	0.04	20.87	21.50	1.156	0.002	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_50	20850/2510	1:1	0.239	0.08	21.67	22.50	1.211	0.289	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_50	20850/2510	1:1	0.171	-0.08	21.67	22.50	1.211	0.207	22.1
Back side	20	QPSK 1RB_50	20850/2510	1:1	0.102	0.19	21.67	22.50	1.211	0.123	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	20850/2510	1:1	0.138	-0.06	20.87	21.50	1.156	0.160	22.1
Back side	20	QPSK 50RB_50	20850/2510	1:1	0.078	-0.18	20.87	21.50	1.156	0.090	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_50	20850/2510	1:1	0.164	0.01	21.67	22.50	1.211	0.199	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.306	-0.04	20.32	21.00	1.169	0.358	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.232	0.02	20.32	21.00	1.169	0.271	22.1
Right side	20	QPSK 1RB_99	20850/2510	1:1	0.093	0.03	20.32	21.00	1.169	0.109	22.1
Bottom side	20	QPSK 1RB_99	20850/2510	1:1	0.052	0.08	20.32	21.00	1.169	0.061	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	20850/2510	1:1	0.317	-0.04	19.61	20.00	1.094	0.347	22.1
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.258	0.06	19.61	20.00	1.094	0.282	22.1
Right side	20	QPSK 50RB_25	20850/2510	1:1	0.102	0.18	19.61	20.00	1.094	0.112	22.1
Bottom side	20	QPSK 50RB_25	20850/2510	1:1	0.060	0.14	19.61	20.00	1.094	0.066	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.300	-0.12	20.32	21.00	1.169	0.351	22.1
Ant2 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	20850/2510	1:1	0.290	0.18	24.73	25.50	1.194	0.346	22.1
Left cheek	20	PCC QPSK 1_99	20850/2510	1:1	0.261	0.13	24.60	25.50	1.230	0.321	22.1
		SCC QPSK 1_0	21048/2529.8								
Left tilted	20	QPSK 1RB_0	20850/2510	1:1	0.065	0.05	24.73	25.50	1.194	0.078	22.1
Right cheek	20	QPSK 1RB_0	20850/2510	1:1	0.127	0.16	24.73	25.50	1.194	0.152	22.1
Right tilted	20	QPSK 1RB_0	20850/2510	1:1	0.110	0.14	24.73	25.50	1.194	0.131	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	20850/2510	1:1	0.250	-0.03	23.84	24.50	1.164	0.291	22.1
Left tilted	20	QPSK 50RB_25	20850/2510	1:1	0.064	0.17	23.84	24.50	1.164	0.075	22.1
Right cheek	20	QPSK 50RB_25	20850/2510	1:1	0.114	0.12	23.84	24.50	1.164	0.133	22.1
Right tilted	20	QPSK 50RB_25	20850/2510	1:1	0.087	-0.05	23.84	24.50	1.164	0.101	22.1
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_0	20850/2510	1:1	0.255	0.12	24.73	25.50	1.194	0.304	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	20850/2510	1:1	0.234	0.11	24.73	25.50	1.194	0.279	22.1



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Back side	20	QPSK 1RB_0	20850/2510	1:1	0.359	0.01	24.73	25.50	1.194	0.429	22.1
Back side	20	PCC QPSK 1_99	20850/2510	1:1	0.265	0.17	24.60	25.50	1.230	0.326	22.1
		SCC QPSK 1_0	21048/2529.8								
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	20850/2510	1:1	0.200	-0.19	23.84	24.50	1.164	0.233	22.1
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.244	0.12	23.84	24.50	1.164	0.284	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	20850/2510	1:1	0.300	-0.13	24.73	25.50	1.194	0.358	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20850/2510	1:1	0.163	-0.17	20.59	21.00	1.099	0.179	22.1
Back side	20	QPSK 1RB_0	20850/2510	1:1	0.194	0.05	20.59	21.00	1.099	0.213	22.1
Left side	20	QPSK 1RB_0	20850/2510	1:1	0.095	0.02	20.59	21.00	1.099	0.104	22.1
Bottom side	20	QPSK 1RB_0	20850/2510	1:1	0.172	-0.13	20.59	21.00	1.099	0.189	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	20850/2510	1:1	0.172	0.16	20.58	21.00	1.102	0.189	22.1
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.265	-0.09	20.58	21.00	1.102	0.292	22.1
Back side	20	PCC QPSK 1_99	20850/2510	1:1	0.194	-0.06	20.47	21.00	1.130	0.219	22.1
		SCC QPSK 1_0	21048/2529.8								
Left side	20	QPSK 50RB_25	20850/2510	1:1	0.096	-0.05	20.58	21.00	1.102	0.106	22.1
Bottom side	20	QPSK 50RB_25	20850/2510	1:1	0.170	-0.16	20.58	21.00	1.102	0.187	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.212	0.06	20.58	21.00	1.102	0.234	22.1
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	20850/2510	1:1	0.569	0.09	17.91	19.00	1.285	0.731	22.1
Left tilted	20	QPSK 1RB_99	20850/2510	1:1	0.074	0.01	17.91	19.00	1.285	0.095	22.1
Right cheek	20	QPSK 1RB_99	20850/2510	1:1	0.606	-0.14	17.91	19.00	1.285	0.779	22.1
Right tilted	20	QPSK 1RB_99	20850/2510	1:1	0.139	0.19	17.91	19.00	1.285	0.179	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	21350/2560	1:1	0.625	-0.03	17.97	19.00	1.268	0.792	22.1
Left tilted	20	QPSK 50RB_50	21350/2560	1:1	0.090	-0.13	17.97	19.00	1.268	0.114	22.1
Right cheek	20	QPSK 50RB_50	21350/2560	1:1	0.666	-0.14	17.97	19.00	1.268	0.844	22.1
Right cheek	20	QPSK 50RB_50	20850/2510	1:1	0.651	0.13	17.77	19.00	1.327	0.864	22.1
Right cheek	20	QPSK 50RB_50	21100/2535.5	1:1	0.628	0.10	17.79	19.00	1.321	0.830	22.1
Right tilted	20	QPSK 50RB_50	21350/2560	1:1	0.173	-0.10	17.97	19.00	1.268	0.219	22.1
Head Test data(100%RB)											
Right cheek	20	QPSK 100RB_0	21350/2560	1:1	0.648	-0.05	17.92	19.00	1.282	0.831	22.1
Head Test data at the worst case with Battery2#(100%RB)											
Right cheek	20	QPSK 50RB_50	20850/2510	1:1	0.633	-0.18	17.77	19.00	1.327	0.840	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	21100/2535.5	1:1	0.138	-0.16	20.21	21.00	1.199	0.166	22.1
Back side	20	QPSK 1RB_99	21100/2535.5	1:1	0.139	0.09	20.21	21.00	1.199	0.167	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	20850/2510	1:1	0.132	0.15	19.84	21.00	1.306	0.172	22.1
Back side	20	QPSK 50RB_50	20850/2510	1:1	0.162	-0.14	19.84	21.00	1.306	0.212	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_50	20850/2510	1:1	0.155	0.05	19.84	21.00	1.306	0.202	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.157	-0.05	17.91	19.00	1.285	0.202	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.177	0.18	17.91	19.00	1.285	0.227	22.1
Left side	20	QPSK 1RB_99	20850/2510	1:1	0.191	0.06	17.91	19.00	1.285	0.245	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	21350/2560	1:1	0.175	0.03	17.97	19.00	1.268	0.222	22.1
Back side	20	QPSK 50RB_50	21350/2560	1:1	0.200	0.15	17.97	19.00	1.268	0.254	22.1
Left side	20	QPSK 50RB_50	21350/2560	1:1	0.213	-0.04	17.97	19.00	1.268	0.270	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											



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Left side	20	QPSK 50RB_50	21350/2560	1:1	0.202	-0.17	17.97	19.00	1.268	0.256	22.1
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	20	QPSK 1RB_99	20850/2510	1:1	0.311	0.15	18.63	19.00	1.089	0.339	22.1
Left tilted	20	QPSK 1RB_99	20850/2510	1:1	0.336	-0.05	18.63	19.00	1.089	0.366	22.1
Right cheek	20	QPSK 1RB_99	20850/2510	1:1	0.558	0.05	18.63	19.00	1.089	0.608	22.1
Right tilted	20	QPSK 1RB_99	20850/2510	1:1	0.666	0.03	18.63	19.00	1.089	0.725	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	21350/2560	1:1	0.355	0.15	18.45	19.00	1.135	0.403	22.1
Left tilted	20	QPSK 50RB_50	21350/2560	1:1	0.413	-0.05	18.45	19.00	1.135	0.469	22.1
Right cheek	20	QPSK 50RB_50	21350/2560	1:1	0.624	0.05	18.45	19.00	1.135	0.708	22.1
Right tilted	20	QPSK 50RB_50	21350/2560	1:1	0.714	0.02	18.45	19.00	1.135	0.810	22.1
Right tilted	20	QPSK 50RB_50	20850/2510	1:1	0.716	-0.13	18.40	19.00	1.148	0.822	22.1
Right tilted	20	QPSK 50RB_50	21100/2535.5	1:1	0.705	0.01	18.35	19.00	1.161	0.819	22.1
Head Test data(100%RB)											
Right tilted	20	QPSK 100RB_0	21350/2560	1:1	0.685	0.15	18.29	19.00	1.178	0.807	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Right tilted	20	QPSK 50RB_50	20850/2510	1:1	0.701	0.03	18.40	19.00	1.148	0.805	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.118	0.15	22.24	23.00	1.191	0.141	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.274	-0.17	22.24	23.00	1.191	0.326	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	20850/2510	1:1	0.095	0.01	21.17	22.00	1.211	0.115	22.1
Back side	20	QPSK 50RB_50	20850/2510	1:1	0.189	0.15	21.17	22.00	1.211	0.229	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.222	0.03	22.24	23.00	1.191	0.264	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.096	0.05	18.63	19.00	1.089	0.105	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.199	-0.10	18.63	19.00	1.089	0.217	22.1
Left side	20	QPSK 1RB_99	20850/2510	1:1	0.052	0.03	18.63	19.00	1.089	0.057	22.1
Top side	20	QPSK 1RB_99	20850/2510	1:1	0.205	0.00	18.63	19.00	1.089	0.223	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	21350/2560	1:1	0.110	-0.14	18.45	19.00	1.135	0.125	22.1
Back side	20	QPSK 50RB_50	21350/2560	1:1	0.219	-0.04	18.45	19.00	1.135	0.249	22.1
Left side	20	QPSK 50RB_50	21350/2560	1:1	0.049	-0.07	18.45	19.00	1.135	0.056	22.1
Top side	20	QPSK 50RB_50	21350/2560	1:1	0.215	-0.03	18.45	19.00	1.135	0.244	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Top side	20	QPSK 50RB_50	21350/2560	1:1	0.203	0.01	18.45	19.00	1.135	0.230	22.1



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Ant1(ENDC) 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	21100/2535.5	1:1	0.167	-0.04	21.87	22.50	1.156	0.193	22.1
Left tilted	20	QPSK 1RB_99	21100/2535.5	1:1	0.106	0.18	21.87	22.50	1.156	0.123	22.1
Right cheek	20	QPSK 1RB_99	21100/2535.5	1:1	0.309	0.09	21.87	22.50	1.156	0.357	22.1
Right tilted	20	QPSK 1RB_99	21100/2535.5	1:1	0.074	-0.03	21.87	22.50	1.156	0.086	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	21100/2535.5	1:1	0.124	-0.04	21.15	21.50	1.084	0.134	22.1
Left tilted	20	QPSK 50RB_50	21100/2535.5	1:1	0.077	0.06	21.15	21.50	1.084	0.083	22.1
Right cheek	20	QPSK 50RB_50	21100/2535.5	1:1	0.263	0.16	21.15	21.50	1.084	0.285	22.1
Right tilted	20	QPSK 50RB_50	21100/2535.5	1:1	0.048	0.07	21.15	21.50	1.084	0.052	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_99	21100/2535.5	1:1	0.300	-0.01	21.87	22.50	1.156	0.347	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	21100/2535.5	1:1	0.387	0.02	21.87	22.50	1.156	0.447	22.1
Back side	20	QPSK 1RB_99	21100/2535.5	1:1	0.109	0.03	21.87	22.50	1.156	0.126	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	21100/2535.5	1:1	0.170	-0.13	21.15	21.50	1.084	0.184	22.1
Back side	20	QPSK 50RB_50	21100/2535.5	1:1	0.080	-0.05	21.15	21.50	1.084	0.087	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	21100/2535.5	1:1	0.378	-0.08	21.87	22.50	1.156	0.437	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	21100/2535.5	1:1	0.219	0.07	19.35	19.50	1.035	0.227	22.1
Back side	20	QPSK 1RB_0	21100/2535.5	1:1	0.202	-0.18	19.35	19.50	1.035	0.209	22.1
Right side	20	QPSK 1RB_0	21100/2535.5	1:1	0.133	-0.03	19.35	19.50	1.035	0.138	22.1
Bottom side	20	QPSK 1RB_0	21100/2535.5	1:1	0.052	-0.03	19.35	19.50	1.035	0.054	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	21350/2560	1:1	0.257	-0.17	19.36	19.50	1.033	0.265	22.1
Back side	20	QPSK 50RB_25	21350/2560	1:1	0.204	0.03	19.36	19.50	1.033	0.211	22.1
Right side	20	QPSK 50RB_25	21350/2560	1:1	0.141	0.09	19.36	19.50	1.033	0.146	22.1
Bottom side	20	QPSK 50RB_25	21350/2560	1:1	0.052	-0.10	19.36	19.50	1.033	0.054	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	21350/2560	1:1	0.249	0.11	19.36	19.50	1.033	0.257	22.1
Ant2(ENDC) 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	21100/2535.5	1:1	0.108	0.05	20.53	21.50	1.250	0.135	22.1
Left tilted	20	QPSK 1RB_99	21100/2535.5	1:1	0.050	0.10	20.53	21.50	1.250	0.063	22.1
Right cheek	20	QPSK 1RB_99	21100/2535.5	1:1	0.079	-0.16	20.53	21.50	1.250	0.099	22.1
Right tilted	20	QPSK 1RB_99	21100/2535.5	1:1	0.072	0.05	20.53	21.50	1.250	0.090	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	21100/2535.5	1:1	0.132	0.04	19.70	20.50	1.202	0.159	22.1
Left tilted	20	QPSK 50RB_25	21100/2535.5	1:1	0.036	0.15	19.70	20.50	1.202	0.043	22.1
Right cheek	20	QPSK 50RB_25	21100/2535.5	1:1	0.059	-0.15	19.70	20.50	1.202	0.071	22.1
Right tilted	20	QPSK 50RB_25	21100/2535.5	1:1	0.055	-0.18	19.70	20.50	1.202	0.066	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Left cheek	20	QPSK 50RB_25	21100/2535.5	1:1	0.128	0.00	19.70	20.50	1.202	0.154	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	21100/2535.5	1:1	0.189	0.08	20.53	21.50	1.250	0.236	22.1
Back side	20	QPSK 1RB_99	21100/2535.5	1:1	0.161	-0.07	20.53	21.50	1.250	0.201	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	21100/2535.5	1:1	0.108	-0.17	19.70	20.50	1.202	0.130	22.1



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Back side	20	QPSK 50RB_25	21100/2535.5	1:1	0.127	0.09	19.70	20.50	1.202	0.153	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	21100/2535.5	1:1	0.182	-0.11	20.53	21.50	1.250	0.228	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.184	0.16	19.49	20.00	1.125	0.207	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.212	-0.02	19.49	20.00	1.125	0.238	22.1
Left side	20	QPSK 1RB_99	20850/2510	1:1	0.118	0.03	19.49	20.00	1.125	0.133	22.1
Bottom side	20	QPSK 1RB_99	20850/2510	1:1	0.137	0.18	19.49	20.00	1.125	0.154	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	21350/2560	1:1	0.214	-0.11	19.51	20.00	1.119	0.240	22.1
Back side	20	QPSK 50RB_50	21350/2560	1:1	0.228	0.05	19.51	20.00	1.119	0.255	22.1
Left side	20	QPSK 50RB_50	21350/2560	1:1	0.129	0.13	19.51	20.00	1.119	0.144	22.1
Bottom side	20	QPSK 50RB_50	21350/2560	1:1	0.178	-0.02	19.51	20.00	1.119	0.199	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_50	21350/2560	1:1	0.212	0.05	19.51	20.00	1.119	0.237	22.1
Ant3(ENDC) 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	20850/2510	1:1	0.187	0.03	17.13	17.50	1.089	0.204	22.1
Left tilted	20	QPSK 1RB_0	20850/2510	1:1	0.038	-0.15	17.13	17.50	1.089	0.041	22.1
Right cheek	20	QPSK 1RB_0	20850/2510	1:1	0.174	-0.11	17.13	17.50	1.089	0.189	22.1
Right tilted	20	QPSK 1RB_0	20850/2510	1:1	0.051	0.02	17.13	17.50	1.089	0.056	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	20850/2510	1:1	0.195	0.14	17.39	17.50	1.026	0.200	22.1
Left tilted	20	QPSK 50RB_25	20850/2510	1:1	0.002	-0.12	17.39	17.50	1.026	0.002	22.1
Right cheek	20	QPSK 50RB_25	20850/2510	1:1	0.281	0.00	17.39	17.50	1.026	0.288	22.1
Right tilted	20	QPSK 50RB_25	20850/2510	1:1	0.054	-0.12	17.39	17.50	1.026	0.055	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	20	QPSK 50RB_25	20850/2510	1:1	0.278	0.12	17.39	17.50	1.026	0.285	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	21100/2535.5	1:1	0.002	-0.17	19.20	19.50	1.072	0.002	22.1
Back side	20	QPSK 1RB_0	21100/2535.5	1:1	0.037	-0.11	19.20	19.50	1.072	0.040	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	20850/2510	1:1	0.003	0.12	19.32	19.50	1.042	0.003	22.1
Back side	20	QPSK 50RB_0	20850/2510	1:1	0.063	-0.18	19.32	19.50	1.042	0.065	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_0	20850/2510	1:1	0.052	-0.05	19.32	19.50	1.042	0.054	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	20850/2510	1:1	0.048	0.18	17.13	17.50	1.089	0.052	22.1
Back side	20	QPSK 1RB_0	20850/2510	1:1	0.054	-0.17	17.13	17.50	1.089	0.059	22.1
Left side	20	QPSK 1RB_0	20850/2510	1:1	0.058	0.07	17.13	17.50	1.089	0.063	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	20850/2510	1:1	0.050	-0.08	17.39	17.50	1.026	0.051	22.1
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.052	0.05	17.39	17.50	1.026	0.053	22.1
Left side	20	QPSK 50RB_25	20850/2510	1:1	0.065	-0.04	17.39	17.50	1.026	0.066	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	20	QPSK 50RB_25	20850/2510	1:1	0.057	0.00	17.39	17.50	1.026	0.058	22.1
Ant5(ENDC) 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	20850/2510	1:1	0.208	0.03	16.32	17.00	1.169	0.243	22.1
Left tilted	20	QPSK 1RB_99	20850/2510	1:1	0.242	0.06	16.32	17.00	1.169	0.283	22.1
Right cheek	20	QPSK 1RB_99	20850/2510	1:1	0.325	0.09	16.32	17.00	1.169	0.380	22.1
Right tilted	20	QPSK 1RB_99	20850/2510	1:1	0.421	-0.07	16.32	17.00	1.169	0.492	22.1



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Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	21350/2560	1:1	0.147	-0.10	16.29	17.00	1.178	0.173	22.1
Left tilted	20	QPSK 50RB_0	21350/2560	1:1	0.201	0.14	16.29	17.00	1.178	0.237	22.1
Right cheek	20	QPSK 50RB_0	21350/2560	1:1	0.324	0.09	16.29	17.00	1.178	0.382	22.1
Right tilted	20	QPSK 50RB_0	21350/2560	1:1	0.391	-0.13	16.29	17.00	1.178	0.460	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right tilted	20	QPSK 1RB_99	20850/2510	1:1	0.414	0.09	16.32	17.00	1.169	0.484	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	21100/2535.5	1:1	0.146	0.08	22.87	24.00	1.297	0.189	22.1
Back side	20	QPSK 1RB_0	21100/2535.5	1:1	0.371	0.02	22.87	24.00	1.297	0.481	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	20850/2510	1:1	0.115	-0.16	22.06	23.00	1.242	0.143	22.1
Back side	20	QPSK 50RB_50	20850/2510	1:1	0.206	-0.03	22.06	23.00	1.242	0.256	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	21100/2535.5	1:1	0.364	-0.13	22.87	24.00	1.297	0.472	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	20850/2510	1:1	0.093	0.19	17.18	18.00	1.208	0.112	22.1
Back side	20	QPSK 1RB_99	20850/2510	1:1	0.192	-0.11	17.18	18.00	1.208	0.232	22.1
Left side	20	QPSK 1RB_99	20850/2510	1:1	0.051	0.09	17.18	18.00	1.208	0.062	22.1
Top side	20	QPSK 1RB_99	20850/2510	1:1	0.191	-0.11	17.18	18.00	1.208	0.231	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	20850/2510	1:1	0.097	0.19	17.12	18.00	1.225	0.119	22.1
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.206	0.14	17.12	18.00	1.225	0.252	22.1
Left side	20	QPSK 50RB_25	20850/2510	1:1	0.052	0.11	17.12	18.00	1.225	0.064	22.1
Top side	20	QPSK 50RB_25	20850/2510	1:1	0.190	-0.04	17.12	18.00	1.225	0.233	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_25	20850/2510	1:1	0.202	0.17	17.12	18.00	1.225	0.247	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.10 SAR Result of LTE Band 12

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	10	QPSK 1RB_49	23130/711	1:1	0.124	0.08	24.52	25.50	1.253	0.155	22.1
Left tilted	10	QPSK 1RB_49	23130/711	1:1	0.058	0.05	24.52	25.50	1.253	0.073	22.1
Right cheek	10	QPSK 1RB_49	23130/711	1:1	0.127	0.10	24.52	25.50	1.253	0.159	22.1
Right tilted	10	QPSK 1RB_49	23130/711	1:1	0.070	0.17	24.52	25.50	1.253	0.088	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_13	23060/704	1:1	0.089	0.10	23.59	24.50	1.233	0.109	22.1
Left tilted	10	QPSK 25RB_13	23060/704	1:1	0.044	0.05	23.59	24.50	1.233	0.055	22.1
Right cheek	10	QPSK 25RB_13	23060/704	1:1	0.082	0.10	23.59	24.50	1.233	0.101	22.1
Right tilted	10	QPSK 25RB_13	23060/704	1:1	0.048	0.05	23.59	24.50	1.233	0.059	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	10	QPSK 1RB_49	23130/711	1:1	0.120	0.13	24.52	25.50	1.253	0.150	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB_49	23130/711	1:1	0.190	0.06	24.52	25.50	1.253	0.238	22.1
Back side	10	QPSK 1RB_49	23130/711	1:1	0.200	0.12	24.52	25.50	1.253	0.251	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	10	QPSK 25RB_13	23060/704	1:1	0.120	0.04	23.59	24.50	1.233	0.148	22.1
Back side	10	QPSK 25RB_13	23060/704	1:1	0.158	0.03	23.59	24.50	1.233	0.195	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	10	QPSK 1RB_49	23130/711	1:1	0.189	0.00	24.52	25.50	1.253	0.237	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_49	23130/711	1:1	0.249	0.08	24.52	25.50	1.253	0.312	22.1
Back side	10	QPSK 1RB_49	23130/711	1:1	0.401	0.02	24.52	25.50	1.253	0.503	22.1
Right side	10	QPSK 1RB_49	23130/711	1:1	0.174	0.07	24.52	25.50	1.253	0.218	22.1
Bottom side	10	QPSK 1RB_49	23130/711	1:1	0.092	0.04	24.52	25.50	1.253	0.115	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_13	23060/704	1:1	0.192	0.07	23.59	24.50	1.233	0.237	22.1
Back side	10	QPSK 25RB_13	23060/704	1:1	0.249	0.04	23.59	24.50	1.233	0.307	22.1
Right side	10	QPSK 25RB_13	23060/704	1:1	0.120	0.05	23.59	24.50	1.233	0.148	22.1
Bottom side	10	QPSK 25RB_13	23060/704	1:1	0.070	0.01	23.59	24.50	1.233	0.087	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	10	QPSK 1RB_49	23130/711	1:1	0.388	0.00	24.52	25.50	1.253	0.486	22.1
Ant4 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	0.297	-0.16	20.30	20.50	1.047	0.311	22.1
Left tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.183	0.05	20.30	20.50	1.047	0.192	22.1
Right cheek	10	QPSK 1RB_25	23095/707.5	1:1	0.607	-0.05	20.30	20.50	1.047	0.636	22.1
Right tilted	10	QPSK 1RB_25	23095/707.5	1:1	0.439	0.13	20.30	20.50	1.047	0.460	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB_25	23060/704	1:1	0.317	0.02	20.19	20.50	1.074	0.340	22.1
Left tilted	10	QPSK 25RB_25	23060/704	1:1	0.232	-0.11	20.19	20.50	1.074	0.249	22.1
Right cheek	10	QPSK 25RB_25	23060/704	1:1	0.629	0.02	20.19	20.50	1.074	0.676	22.1
Right tilted	10	QPSK 25RB_25	23060/704	1:1	0.480	0.01	20.19	20.50	1.074	0.515	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	10	QPSK 25RB_25	23060/704	1:1	0.618	0.04	20.19	20.50	1.074	0.664	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB_49	23095/707.5	1:1	0.147	0.10	23.79	24.50	1.178	0.173	22.1
Back side	10	QPSK 1RB_49	23095/707.5	1:1	0.216	-0.03	23.79	24.50	1.178	0.254	22.1
Body worn Test data (Separate 15mm 50%RB)											



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Front side	10	QPSK 25RB_13	23130/711	1:1	0.205	0.04	22.91	23.50	1.146	0.235	22.1
Back side	10	QPSK 25RB_13	23130/711	1:1	0.247	0.01	22.91	23.50	1.146	0.283	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	10	QPSK 25RB_13	23130/711	1:1	0.239	0.15	22.91	23.50	1.146	0.274	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23095/707.5	1:1	0.152	0.05	20.30	20.50	1.047	0.159	22.1
Back side	10	QPSK 1RB_25	23095/707.5	1:1	0.205	0.08	20.30	20.50	1.047	0.215	22.1
Left side	10	QPSK 1RB_25	23095/707.5	1:1	0.278	0.05	20.30	20.50	1.047	0.291	22.1
Top side	10	QPSK 1RB_25	23095/707.5	1:1	0.084	0.12	20.30	20.50	1.047	0.088	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_25	23060/704	1:1	0.189	0.14	20.19	20.50	1.074	0.203	22.1
Back side	10	QPSK 25RB_25	23060/704	1:1	0.242	-0.02	20.19	20.50	1.074	0.260	22.1
Left side	10	QPSK 25RB_25	23060/704	1:1	0.279	0.04	20.19	20.50	1.074	0.300	22.1
Top side	10	QPSK 25RB_25	23060/704	1:1	0.111	0.07	20.19	20.50	1.074	0.119	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	10	QPSK 25RB_25	23060/704	1:1	0.256	-0.12	20.19	20.50	1.074	0.275	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.11 SAR Result of LTE Band 13

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	10	QPSK 1RB 49	23230/782	1:1	0.157	-0.18	24.22	25.00	1.197	0.188	22.1
Left tilted	10	QPSK 1RB 49	23230/782	1:1	0.091	-0.06	24.22	25.00	1.197	0.109	22.1
Right cheek	10	QPSK 1RB 49	23230/782	1:1	0.202	0.08	24.22	25.00	1.197	0.242	22.1
Right tilted	10	QPSK 1RB 49	23230/782	1:1	0.096	0.01	24.22	25.00	1.197	0.115	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB 13	23230/782	1:1	0.121	0.17	23.19	24.00	1.205	0.146	22.1
Left tilted	10	QPSK 25RB 13	23230/782	1:1	0.067	0.02	23.19	24.00	1.205	0.081	22.1
Right cheek	10	QPSK 25RB 13	23230/782	1:1	0.129	0.18	23.19	24.00	1.205	0.155	22.1
Right tilted	10	QPSK 25RB 13	23230/782	1:1	0.073	0.04	23.19	24.00	1.205	0.088	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	10	QPSK 1RB 49	23230/782	1:1	0.200	0.00	24.22	25.00	1.197	0.239	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB 49	23230/782	1:1	0.188	0.18	24.22	25.00	1.197	0.225	22.1
Back side	10	QPSK 1RB 49	23230/782	1:1	0.272	0.03	24.22	25.00	1.197	0.326	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	10	QPSK 25RB 13	23230/782	1:1	0.146	0.11	23.19	24.00	1.205	0.176	22.1
Back side	10	QPSK 25RB 13	23230/782	1:1	0.183	0.13	23.19	24.00	1.205	0.221	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	10	QPSK 1RB 49	23230/782	1:1	0.261	0.12	24.22	25.00	1.197	0.312	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB 49	23230/782	1:1	0.299	-0.12	24.22	25.00	1.197	0.358	22.1
Back side	10	QPSK 1RB 49	23230/782	1:1	0.413	0.03	24.22	25.00	1.197	0.494	22.1
Right side	10	QPSK 1RB 49	23230/782	1:1	0.200	-0.01	24.22	25.00	1.197	0.239	22.1
Bottom side	10	QPSK 1RB 49	23230/782	1:1	0.117	0.14	24.22	25.00	1.197	0.140	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB 13	23230/782	1:1	0.237	-0.08	23.19	24.00	1.205	0.286	22.1
Back side	10	QPSK 25RB 13	23230/782	1:1	0.289	0.14	23.19	24.00	1.205	0.348	22.1
Right side	10	QPSK 25RB 13	23230/782	1:1	0.162	-0.16	23.19	24.00	1.205	0.195	22.1
Bottom side	10	QPSK 25RB 13	23230/782	1:1	0.091	-0.11	23.19	24.00	1.205	0.110	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	10	QPSK 1RB 49	23230/782	1:1	0.408	0.04	24.22	25.00	1.197	0.488	22.1
Ant4 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	0.239	-0.10	21.07	22.00	1.239	0.296	22.1
Left tilted	10	QPSK 1RB 25	23230/782	1:1	0.192	-0.11	21.07	22.00	1.239	0.238	22.1
Right cheek	10	QPSK 1RB 25	23230/782	1:1	0.533	-0.12	21.07	22.00	1.239	0.660	22.1
Right tilted	10	QPSK 1RB 25	23230/782	1:1	0.423	0.15	21.07	22.00	1.239	0.524	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB 13	23230/782	1:1	0.245	-0.19	20.90	22.00	1.288	0.316	22.1
Left tilted	10	QPSK 25RB 13	23230/782	1:1	0.198	0.07	20.90	22.00	1.288	0.255	22.1
Right cheek	10	QPSK 25RB 13	23230/782	1:1	0.397	-0.09	20.90	22.00	1.288	0.511	22.1
Right tilted	10	QPSK 25RB 13	23230/782	1:1	0.339	-0.13	20.90	22.00	1.288	0.437	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	10	QPSK 1RB 25	23230/782	1:1	0.523	0.00	21.07	22.00	1.239	0.648	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB 49	23230/782	1:1	0.095	-0.16	23.39	24.50	1.291	0.123	22.1
Back side	10	QPSK 1RB 49	23230/782	1:1	0.105	-0.12	23.39	24.50	1.291	0.136	22.1
Body worn Test data (Separate 15mm 50%RB)											



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Front side	10	QPSK 25RB_13	23230/782	1:1	0.089	0.00	22.40	23.50	1.288	0.115	22.1
Back side	10	QPSK 25RB_13	23230/782	1:1	0.111	-0.03	22.40	23.50	1.288	0.143	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	10	QPSK 25RB_13	23230/782	1:1	0.100	0.06	22.40	23.50	1.288	0.129	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23230/782	1:1	0.143	0.12	21.07	22.00	1.239	0.177	22.1
Back side	10	QPSK 1RB_25	23230/782	1:1	0.190	0.11	21.07	22.00	1.239	0.235	22.1
Left side	10	QPSK 1RB_25	23230/782	1:1	0.186	0.00	21.07	22.00	1.239	0.230	22.1
Top side	10	QPSK 1RB_25	23230/782	1:1	0.078	-0.13	21.07	22.00	1.239	0.097	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_13	23230/782	1:1	0.148	-0.18	20.90	22.00	1.288	0.191	22.1
Back side	10	QPSK 25RB_13	23230/782	1:1	0.188	0.02	20.90	22.00	1.288	0.242	22.1
Left side	10	QPSK 25RB_13	23230/782	1:1	0.184	-0.12	20.90	22.00	1.288	0.237	22.1
Top side	10	QPSK 25RB_13	23230/782	1:1	0.080	0.10	20.90	22.00	1.288	0.103	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	10	QPSK 25RB_13	23230/782	1:1	0.171	-0.03	20.90	22.00	1.288	0.220	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.12 SAR Result of LTE Band 17

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	10	QPSK 1RB 49	23800/711	1:1	0.104	0.10	24.45	25.50	1.274	0.132	22.1
Left tilted	10	QPSK 1RB 49	23800/711	1:1	0.053	0.13	24.45	25.50	1.274	0.067	22.1
Right cheek	10	QPSK 1RB 49	23800/711	1:1	0.100	0.06	24.45	25.50	1.274	0.127	22.1
Right tilted	10	QPSK 1RB 49	23800/711	1:1	0.065	0.12	24.45	25.50	1.274	0.083	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB 13	23780/709	1:1	0.091	0.09	23.63	24.50	1.222	0.111	22.1
Left tilted	10	QPSK 25RB 13	23780/709	1:1	0.047	0.06	23.63	24.50	1.222	0.057	22.1
Right cheek	10	QPSK 25RB 13	23780/709	1:1	0.087	0.20	23.63	24.50	1.222	0.106	22.1
Right tilted	10	QPSK 25RB 13	23780/709	1:1	0.053	-0.02	23.63	24.50	1.222	0.065	22.1
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	10	QPSK 1RB 49	23800/711	1:1	0.100	0.00	24.45	25.50	1.274	0.127	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB 49	23800/711	1:1	0.145	0.04	24.45	25.50	1.274	0.185	22.1
Back side	10	QPSK 1RB 49	23800/711	1:1	0.192	0.08	24.45	25.50	1.274	0.245	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	10	QPSK 25RB 13	23780/709	1:1	0.133	-0.03	23.63	24.50	1.222	0.162	22.1
Back side	10	QPSK 25RB 13	23780/709	1:1	0.164	0.03	23.63	24.50	1.222	0.200	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	10	QPSK 1RB 49	23800/711	1:1	0.190	0.03	24.45	25.50	1.274	0.242	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB 49	23800/711	1:1	0.236	0.06	24.45	25.50	1.274	0.301	22.1
Back side	10	QPSK 1RB 49	23800/711	1:1	0.306	0.10	24.45	25.50	1.274	0.390	22.1
Right side	10	QPSK 1RB 49	23800/711	1:1	0.147	0.11	24.45	25.50	1.274	0.187	22.1
Bottom side	10	QPSK 1RB 49	23800/711	1:1	0.110	0.15	24.45	25.50	1.274	0.140	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB 13	23780/709	1:1	0.201	0.06	23.63	24.50	1.222	0.246	22.1
Back side	10	QPSK 25RB 13	23780/709	1:1	0.264	0.15	23.63	24.50	1.222	0.323	22.1
Right side	10	QPSK 25RB 13	23780/709	1:1	0.122	0.08	23.63	24.50	1.222	0.149	22.1
Bottom side	10	QPSK 25RB 13	23780/709	1:1	0.096	0.10	23.63	24.50	1.222	0.117	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	10	QPSK 1RB 49	23800/711	1:1	0.300	0.08	24.45	25.50	1.274	0.382	22.1
Ant4 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	23780/709	1:1	0.303	0.06	21.32	21.50	1.042	0.316	22.1
Left tilted	10	QPSK 1RB 25	23780/709	1:1	0.221	0.13	21.32	21.50	1.042	0.230	22.1
Right cheek	10	QPSK 1RB 25	23780/709	1:1	0.654	0.05	21.32	21.50	1.042	0.682	22.1
Right tilted	10	QPSK 1RB 25	23780/709	1:1	0.454	-0.01	21.32	21.50	1.042	0.473	22.1
Head Test data(50%RB)											
Left cheek	10	QPSK 25RB 25	23800/711	1:1	0.325	0.04	21.15	21.50	1.084	0.352	22.1
Left tilted	10	QPSK 25RB 25	23800/711	1:1	0.244	0.07	21.15	21.50	1.084	0.264	22.1
Right cheek	10	QPSK 25RB 25	23800/711	1:1	0.730	-0.03	21.15	21.50	1.084	0.791	22.1
Right tilted	10	QPSK 25RB 25	23800/711	1:1	0.518	0.04	21.15	21.50	1.084	0.561	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	10	QPSK 25RB 25	23800/711	1:1	0.705	-0.13	21.15	21.50	1.084	0.764	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	10	QPSK 1RB 49	23790/710	1:1	0.179	-0.15	23.82	24.50	1.169	0.209	22.1
Back side	10	QPSK 1RB 49	23790/710	1:1	0.271	-0.12	23.82	24.50	1.169	0.317	22.1
Body worn Test data (Separate 15mm 50%RB)											





Front side	10	QPSK 25RB_25	23800/711	1:1	0.170	0.11	22.93	23.50	1.140	0.194	22.1
Back side	10	QPSK 25RB_25	23800/711	1:1	0.242	0.06	22.93	23.50	1.140	0.276	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	10	QPSK 1RB_49	23790/710	1:1	0.264	-0.16	23.82	24.50	1.169	0.309	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	10	QPSK 1RB_25	23780/709	1:1	0.198	0.14	21.32	21.50	1.042	0.206	22.1
Back side	10	QPSK 1RB_25	23780/709	1:1	0.268	0.05	21.32	21.50	1.042	0.279	22.1
Left side	10	QPSK 1RB_25	23780/709	1:1	0.320	0.00	21.32	21.50	1.042	0.334	22.1
Top side	10	QPSK 1RB_25	23780/709	1:1	0.112	0.10	21.32	21.50	1.042	0.117	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	10	QPSK 25RB_25	23800/711	1:1	0.223	0.08	21.15	21.50	1.084	0.242	22.1
Back side	10	QPSK 25RB_25	23800/711	1:1	0.297	0.03	21.15	21.50	1.084	0.322	22.1
Left side	10	QPSK 25RB_25	23800/711	1:1	0.342	-0.02	21.15	21.50	1.084	0.371	22.1
Top side	10	QPSK 25RB_25	23800/711	1:1	0.129	0.09	21.15	21.50	1.084	0.140	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	10	QPSK 25RB_25	23800/711	1:1	0.336	0.14	21.15	21.50	1.084	0.364	22.1

Table 22: SAR of LTE Band 17 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.13 SAR Result of LTE Band 38

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_0	38150/2610	1:1.58	0.081	-0.19	21.60	23.00	1.380	0.112	22.1
Left tilted	20	QPSK 1RB_0	38150/2610	1:1.58	0.045	0.10	21.60	23.00	1.380	0.062	22.1
Right cheek	20	QPSK 1RB_0	38150/2610	1:1.58	0.168	0.00	21.60	23.00	1.380	0.232	22.1
Right tilted	20	QPSK 1RB_0	38150/2610	1:1.58	0.001	0.14	21.60	23.00	1.380	0.001	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	37850/2580	1:1.58	0.065	0.13	20.79	22.00	1.321	0.086	22.1
Left tilted	20	QPSK 50RB_25	37850/2580	1:1.58	0.001	-0.14	20.79	22.00	1.321	0.001	22.1
Right cheek	20	QPSK 50RB_25	37850/2580	1:1.58	0.138	-0.14	20.79	22.00	1.321	0.182	22.1
Right tilted	20	QPSK 50RB_25	37850/2580	1:1.58	0.001	-0.17	20.79	22.00	1.321	0.001	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_0	38150/2610	1:1.58	0.155	0.12	21.60	23.00	1.380	0.214	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	38150/2610	1:1.58	0.137	-0.08	21.60	23.00	1.380	0.189	22.1
Back side	20	QPSK 1RB_0	38150/2610	1:1.58	0.058	-0.16	21.60	23.00	1.380	0.080	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	37850/2580	1:1.58	0.098	0.01	20.79	22.00	1.321	0.129	22.1
Back side	20	QPSK 50RB_25	37850/2580	1:1.58	0.003	0.19	20.79	22.00	1.321	0.004	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	38150/2610	1:1.58	0.112	0.03	21.60	23.00	1.380	0.155	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	38150/2610	1:1.58	0.301	-0.14	21.60	23.00	1.380	0.415	22.1
Back side	20	QPSK 1RB_0	38150/2610	1:1.58	0.153	0.09	21.60	23.00	1.380	0.211	22.1
Right side	20	QPSK 1RB_0	38150/2610	1:1.58	0.087	-0.15	21.60	23.00	1.380	0.121	22.1
Bottom side	20	QPSK 1RB_0	38150/2610	1:1.58	0.068	-0.03	21.60	23.00	1.380	0.094	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	37850/2580	1:1.58	0.243	0.18	20.79	22.00	1.321	0.321	22.1
Back side	20	QPSK 50RB_25	37850/2580	1:1.58	0.123	0.13	20.79	22.00	1.321	0.163	22.1
Right side	20	QPSK 50RB_25	37850/2580	1:1.58	0.066	0.04	20.79	22.00	1.321	0.087	22.1
Bottom side	20	QPSK 50RB_25	37850/2580	1:1.58	0.044	0.04	20.79	22.00	1.321	0.058	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	38150/2610	1:1.58	0.289	0.05	21.60	23.00	1.380	0.399	22.1
Ant2 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	37850/2580	1:1.58	0.275	0.01	24.59	25.50	1.233	0.339	22.1
Left cheek	20	PCC QPSK 1_99	37850/2580	1:1.58	0.211	0.02	24.44	25.50	1.276	0.269	22.1
		SCC QPSK 1_0	38048/2599.8								
Left tilted	20	QPSK 1RB_50	37850/2580	1:1.58	0.061	-0.05	24.59	25.50	1.233	0.075	22.1
Right cheek	20	QPSK 1RB_50	37850/2580	1:1.58	0.109	-0.19	24.59	25.50	1.233	0.134	22.1
Right tilted	20	QPSK 1RB_50	37850/2580	1:1.58	0.095	0.12	24.59	25.50	1.233	0.117	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	37850/2580	1:1.58	0.220	0.14	23.69	24.50	1.205	0.265	22.1
Left tilted	20	QPSK 50RB_50	37850/2580	1:1.58	0.048	0.11	23.69	24.50	1.205	0.058	22.1
Right cheek	20	QPSK 50RB_50	37850/2580	1:1.58	0.093	0.18	23.69	24.50	1.205	0.112	22.1
Right tilted	20	QPSK 50RB_50	37850/2580	1:1.58	0.084	-0.14	23.69	24.50	1.205	0.101	22.1
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_50	37850/2580	1:1.58	0.259	0.00	24.59	25.50	1.233	0.319	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_50	37850/2580	1:1.58	0.212	0.13	24.59	25.50	1.233	0.261	22.1



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Back side	20	QPSK 1RB_50	37850/2580	1:1.58	0.342	0.13	24.59	25.50	1.233	0.422	22.1
Back side	20	PCC QPSK 1_99	37850/2580	1:1.58	0.258	-0.06	24.44	25.50	1.276	0.329	22.1
		SCC QPSK 1_0	38048/2599.8								
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	37850/2580	1:1.58	0.176	-0.05	23.69	24.50	1.205	0.212	22.1
Back side	20	QPSK 50RB_50	37850/2580	1:1.58	0.198	0.15	23.69	24.50	1.205	0.239	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_50	37850/2580	1:1.58	0.229	0.14	24.59	25.50	1.233	0.282	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	38000/2595	1:1.58	0.259	0.11	22.72	24.00	1.343	0.348	22.1
Back side	20	QPSK 1RB_99	38000/2595	1:1.58	0.298	-0.16	22.72	24.00	1.343	0.400	22.1
Left side	20	QPSK 1RB_99	38000/2595	1:1.58	0.129	-0.05	22.72	24.00	1.343	0.173	22.1
Bottom side	20	QPSK 1RB_99	38000/2595	1:1.58	0.271	0.15	22.72	24.00	1.343	0.364	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	37850/2580	1:1.58	0.285	-0.07	22.66	24.00	1.361	0.388	22.1
Back side	20	QPSK 50RB_50	37850/2580	1:1.58	0.364	-0.15	22.66	24.00	1.361	0.496	22.1
Back side	20	PCC QPSK 1_99	37850/2580	1:1.58	0.297	0.06	22.57	24.00	1.390	0.413	22.1
		SCC QPSK 1_0	38048/2599.8								
Left side	20	QPSK 50RB_50	37850/2580	1:1.58	0.146	-0.04	22.66	24.00	1.361	0.199	22.1
Bottom side	20	QPSK 50RB_50	37850/2580	1:1.58	0.301	-0.03	22.66	24.00	1.361	0.410	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_50	37850/2580	1:1.58	0.321	0.09	22.66	24.00	1.361	0.437	22.1
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_50	38000/2595	1:1.58	0.525	0.12	19.20	20.50	1.349	0.708	22.1
Left tilted	20	QPSK 1RB_50	38000/2595	1:1.58	0.075	0.05	19.20	20.50	1.349	0.101	22.1
Right cheek	20	QPSK 1RB_50	38000/2595	1:1.58	0.498	-0.16	19.20	20.50	1.349	0.672	22.1
Right tilted	20	QPSK 1RB_50	38000/2595	1:1.58	0.141	0.17	19.20	20.50	1.349	0.190	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	38150/2610	1:1.58	0.771	0.19	19.23	20.50	1.340	1.033	22.1
Left cheek	20	QPSK 50RB_25	37850/2580	1:1.58	0.702	0.10	19.14	20.50	1.368	0.960	22.1
Left cheek	20	QPSK 50RB_50	38000/2595	1:1.58	0.699	-0.02	19.16	20.50	1.361	0.952	22.1
Left tilted	20	QPSK 50RB_25	38150/2610	1:1.58	0.097	0.10	19.23	20.50	1.340	0.130	22.1
Right cheek	20	QPSK 50RB_25	38150/2610	1:1.58	0.595	0.06	19.23	20.50	1.340	0.797	22.1
Right tilted	20	QPSK 50RB_25	38150/2610	1:1.58	0.186	0.01	19.23	20.50	1.340	0.249	22.1
Head Test data(100%RB)											
Left cheek	20	QPSK 100RB_0	37850/2580	1:1.58	0.691	0.12	19.13	20.50	1.371	0.947	22.1
Head Test data at the worst case with Battery2#(50%RB)											
Left cheek	20	QPSK 50RB_25	38150/2610	1:1.58	0.763	-0.19	19.23	20.50	1.340	1.022	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	37850/2580	1:1.58	0.143	0.14	21.71	23.00	1.346	0.192	22.1
Back side	20	QPSK 1RB_0	37850/2580	1:1.58	0.151	-0.15	21.71	23.00	1.346	0.203	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	37850/2580	1:1.58	0.153	0.19	21.69	23.00	1.352	0.207	22.1
Back side	20	QPSK 50RB_25	37850/2580	1:1.58	0.167	-0.10	21.69	23.00	1.352	0.226	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_25	37850/2580	1:1.58	0.158	0.05	21.69	23.00	1.352	0.214	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	37850/2580	1:1.58	0.158	0.19	19.20	20.50	1.349	0.213	22.1
Back side	20	QPSK 1RB_0	37850/2580	1:1.58	0.175	-0.16	19.20	20.50	1.349	0.236	22.1
Left side	20	QPSK 1RB_0	37850/2580	1:1.58	0.189	0.04	19.20	20.50	1.349	0.255	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	38150/2610	1:1.58	0.187	0.05	19.23	20.50	1.340	0.251	22.1
Back side	20	QPSK 50RB_25	38150/2610	1:1.58	0.190	-0.06	19.23	20.50	1.340	0.255	22.1
Left side	20	QPSK 50RB_25	38150/2610	1:1.58	0.193	0.01	19.23	20.50	1.340	0.259	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											



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Left side	20	QPSK 50RB_25	38150/2610	1:1.58	0.187	0.15	19.23	20.50	1.340	0.251	22.1
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	20	QPSK 1RB_0	38000/2595	1:1.58	0.270	0.16	18.91	20.50	1.442	0.389	22.1
Left tilted	20	QPSK 1RB_0	38000/2595	1:1.58	0.338	-0.05	18.91	20.50	1.442	0.487	22.1
Right cheek	20	QPSK 1RB_0	38000/2595	1:1.58	0.486	-0.04	18.91	20.50	1.442	0.701	22.1
Right tilted	20	QPSK 1RB_0	38000/2595	1:1.58	0.703	0.07	18.91	20.50	1.442	1.014	22.1
Right tilted	20	QPSK 1RB_0	37850/2580	1:1.58	0.695	0.01	18.88	20.50	1.452	1.009	22.1
Right tilted	20	QPSK 1RB_99	38150/2610	1:1.58	0.689	0.10	18.87	20.50	1.455	1.003	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_0	38000/2595	1:1.58	0.280	0.08	19.12	20.50	1.374	0.385	22.1
Left tilted	20	QPSK 50RB_0	38000/2595	1:1.58	0.350	0.13	19.12	20.50	1.374	0.481	22.1
Right cheek	20	QPSK 50RB_0	38000/2595	1:1.58	0.498	-0.03	19.12	20.50	1.374	0.684	22.1
Right tilted	20	QPSK 50RB_0	38000/2595	1:1.58	0.648	-0.04	19.12	20.50	1.374	0.890	22.1
Right tilted	20	QPSK 50RB_50	37850/2580	1:1.58	0.625	0.12	19.09	20.50	1.384	0.865	22.1
Right tilted	20	QPSK 50RB_25	38150/2610	1:1.58	0.600	0.02	19.05	20.50	1.396	0.838	22.1
Head Test data(100%RB)											
Right tilted	20	QPSK 100RB_0	37850/2580	1:1.58	0.638	0.02	19.03	20.50	1.403	0.895	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right tilted	20	QPSK 1RB_0	38000/2595	1:1.58	0.688	-0.14	18.91	20.50	1.442	0.992	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	37850/2580	1:1.58	0.082	-0.03	22.03	23.50	1.403	0.115	22.1
Back side	20	QPSK 1RB_0	37850/2580	1:1.58	0.158	0.10	22.03	23.50	1.403	0.222	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	37850/2580	1:1.58	0.070	-0.10	21.08	22.50	1.387	0.097	22.1
Back side	20	QPSK 50RB_25	37850/2580	1:1.58	0.137	0.11	21.08	22.50	1.387	0.190	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	37850/2580	1:1.58	0.144	-0.13	22.03	23.50	1.403	0.202	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	38000/2595	1:1.58	0.085	0.15	18.91	20.50	1.442	0.123	22.1
Back side	20	QPSK 1RB_0	38000/2595	1:1.58	0.167	0.07	18.91	20.50	1.442	0.241	22.1
Left side	20	QPSK 1RB_0	38000/2595	1:1.58	0.002	0.02	18.91	20.50	1.442	0.003	22.1
Top side	20	QPSK 1RB_0	38000/2595	1:1.58	0.197	-0.16	18.91	20.50	1.442	0.284	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	38000/2595	1:1.58	0.090	0.02	19.12	20.50	1.374	0.124	22.1
Back side	20	QPSK 50RB_0	38000/2595	1:1.58	0.173	0.16	19.12	20.50	1.374	0.238	22.1
Left side	20	QPSK 50RB_0	38000/2595	1:1.58	0.003	0.07	19.12	20.50	1.374	0.004	22.1
Top side	20	QPSK 50RB_0	38000/2595	1:1.58	0.175	0.10	19.12	20.50	1.374	0.240	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Top side	20	QPSK 1RB_0	38000/2595	1:1.58	0.167	0.01	18.91	20.50	1.442	0.241	22.1

Table 23: SAR of LTE Band 38 for Head and Body.

Note:

- The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.14 SAR Result of LTE Band 41

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_99	40185/2549.5	1:1.58	0.082	0.16	21.84	23.00	1.306	0.107	22.1
Left tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.047	-0.08	21.84	23.00	1.306	0.061	22.1
Right cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.167	-0.07	21.84	23.00	1.306	0.218	22.1
Right tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.001	-0.17	21.84	23.00	1.306	0.001	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.065	-0.08	20.88	22.00	1.294	0.084	22.1
Left tilted	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.001	-0.13	20.88	22.00	1.294	0.001	22.1
Right cheek	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.137	0.14	20.88	22.00	1.294	0.177	22.1
Right tilted	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.001	0.16	20.88	22.00	1.294	0.001	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.161	0.02	21.84	23.00	1.306	0.210	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.126	-0.07	21.84	23.00	1.306	0.165	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.046	0.11	21.84	23.00	1.306	0.060	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.105	0.03	20.88	22.00	1.294	0.136	22.1
Back side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.001	-0.08	20.88	22.00	1.294	0.001	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.122	0.06	21.84	23.00	1.306	0.159	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.236	-0.13	21.84	23.00	1.306	0.308	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.126	-0.16	21.84	23.00	1.306	0.165	22.1
Right side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.081	0.15	21.84	23.00	1.306	0.106	22.1
Bottom side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.056	-0.09	21.84	23.00	1.306	0.073	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.240	-0.07	20.88	22.00	1.294	0.311	22.1
Back side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.118	-0.01	20.88	22.00	1.294	0.153	22.1
Right side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.065	0.18	20.88	22.00	1.294	0.084	22.1
Bottom side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.048	0.14	20.88	22.00	1.294	0.062	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.237	0.02	20.88	22.00	1.294	0.307	22.1
Ant2 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	40185/2549.5	1:1.58	0.287	-0.11	24.66	25.50	1.213	0.348	22.1
Left tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.059	0.12	24.66	25.50	1.213	0.072	22.1
Right cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.114	-0.02	24.66	25.50	1.213	0.138	22.1
Right tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.103	-0.10	24.66	25.50	1.213	0.125	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	39750/2506	1:1.58	0.196	-0.10	23.74	24.50	1.191	0.233	22.1
Left tilted	20	QPSK 50RB_25	39750/2506	1:1.58	0.056	-0.13	23.74	24.50	1.191	0.067	22.1
Right cheek	20	QPSK 50RB_25	39750/2506	1:1.58	0.086	0.18	23.74	24.50	1.191	0.102	22.1
Right tilted	20	QPSK 50RB_25	39750/2506	1:1.58	0.077	-0.15	23.74	24.50	1.191	0.092	22.1
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.262	0.04	24.66	25.50	1.213	0.318	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.214	0.17	24.66	25.50	1.213	0.260	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.353	-0.16	24.66	25.50	1.213	0.428	22.1
Body worn Test data (Separate 15mm 50%RB)											



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Front side	20	QPSK 50RB_25	39750/2506	1:1.58	0.155	0.10	23.74	24.50	1.191	0.185	22.1
Back side	20	QPSK 50RB_25	39750/2506	1:1.58	0.184	0.17	23.74	24.50	1.191	0.219	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.229	0.07	24.66	25.50	1.213	0.278	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.254	-0.17	22.48	23.50	1.265	0.321	22.1
Back side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.294	0.15	22.48	23.50	1.265	0.372	22.1
Left side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.137	0.04	22.48	23.50	1.265	0.173	22.1
Bottom side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.257	-0.17	22.48	23.50	1.265	0.325	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	39750/2506	1:1.58	0.239	0.12	22.34	23.50	1.306	0.312	22.1
Back side	20	QPSK 50RB_50	39750/2506	1:1.58	0.277	-0.13	22.34	23.50	1.306	0.362	22.1
Left side	20	QPSK 50RB_50	39750/2506	1:1.58	0.132	-0.09	22.34	23.50	1.306	0.172	22.1
Bottom side	20	QPSK 50RB_50	39750/2506	1:1.58	0.241	-0.17	22.34	23.50	1.306	0.315	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.287	0.03	22.48	23.50	1.265	0.363	22.1
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	40185/2549.5	1:1.58	0.390	-0.06	18.85	20.00	1.303	0.508	22.1
Left tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.074	0.19	18.85	20.00	1.303	0.096	22.1
Right cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.369	0.08	18.85	20.00	1.303	0.481	22.1
Right tilted	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.145	-0.12	18.85	20.00	1.303	0.189	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	39750/2506	1:1.58	0.364	0.17	18.70	20.00	1.349	0.491	22.1
Left tilted	20	QPSK 50RB_25	39750/2506	1:1.58	0.061	0.17	18.70	20.00	1.349	0.082	22.1
Right cheek	20	QPSK 50RB_25	39750/2506	1:1.58	0.328	-0.17	18.70	20.00	1.349	0.442	22.1
Right tilted	20	QPSK 50RB_25	39750/2506	1:1.58	0.109	0.04	18.70	20.00	1.349	0.147	22.1
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.384	0.01	18.85	20.00	1.303	0.500	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_50	40185/2549.5	1:1.58	0.112	0.12	21.29	22.50	1.321	0.148	22.1
Back side	20	QPSK 1RB_50	40185/2549.5	1:1.58	0.112	-0.19	21.29	22.50	1.321	0.148	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	39750/2506	1:1.58	0.118	-0.12	21.19	22.50	1.352	0.160	22.1
Back side	20	QPSK 50RB_50	39750/2506	1:1.58	0.153	0.02	21.19	22.50	1.352	0.207	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_50	39750/2506	1:1.58	0.149	0.00	21.19	22.50	1.352	0.201	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.125	-0.12	18.85	20.00	1.303	0.163	22.1
Back side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.136	-0.15	18.85	20.00	1.303	0.177	22.1
Left side	20	QPSK 1RB_99	40185/2549.5	1:1.58	0.149	0.04	18.85	20.00	1.303	0.194	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	39750/2506	1:1.58	0.114	0.12	18.70	20.00	1.349	0.154	22.1
Back side	20	QPSK 50RB_25	39750/2506	1:1.58	0.143	-0.14	18.70	20.00	1.349	0.193	22.1
Left side	20	QPSK 50RB_25	39750/2506	1:1.58	0.150	0.00	18.70	20.00	1.349	0.202	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	20	QPSK 50RB_25	39750/2506	1:1.58	0.147	0.08	18.70	20.00	1.349	0.198	22.1
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	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.308	0.17	19.63	21.00	1.371	0.422	22.1
Left tilted	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.371	0.06	19.63	21.00	1.371	0.509	22.1
Right cheek	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.433	0.07	19.63	21.00	1.371	0.594	22.1



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Right tilted	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.571	-0.17	19.63	21.00	1.371	0.783	22.1
Right tilted	20	QPSK 1RB_50	39750/2506	1:1.58	0.550	0.11	19.49	21.00	1.416	0.779	22.1
Right tilted	20	QPSK 1RB_50	40620/2593	1:1.58	0.510	0.03	19.36	21.00	1.459	0.744	22.1
Right tilted	20	QPSK 1RB_0	41055/2636.5	1:1.58	0.490	-0.08	19.62	21.00	1.374	0.673	22.1
Right tilted	20	QPSK 1RB_0	41490/2680	1:1.58	0.540	0.09	19.55	21.00	1.396	0.754	22.1
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.276	-0.18	19.48	21.00	1.419	0.392	22.1
Left tilted	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.321	-0.19	19.48	21.00	1.419	0.456	22.1
Right cheek	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.418	0.14	19.48	21.00	1.419	0.593	22.1
Right tilted	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.523	-0.15	19.48	21.00	1.419	0.742	22.1
Right tilted	20	QPSK 50RB_25	39750/2506	1:1.58	0.502	0.01	19.37	21.00	1.455	0.731	22.1
Right tilted	20	QPSK 50RB_25	40185/2549.5	1:1.58	0.510	0.08	19.40	21.00	1.445	0.737	22.1
Right tilted	20	QPSK 50RB_25	40620/2593	1:1.58	0.480	-0.06	19.32	21.00	1.472	0.707	22.1
Right tilted	20	QPSK 50RB_0	41490/2680	1:1.58	0.500	0.07	19.37	21.00	1.455	0.728	22.1
Head Test data at the worst case with Battery2#(1RB)											
Right tilted	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.565	0.04	19.63	21.00	1.371	0.775	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.083	0.06	22.09	23.50	1.384	0.115	22.1
Back side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.160	-0.13	22.09	23.50	1.384	0.221	22.1
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_0	39750/2506	1:1.58	0.057	-0.02	21.15	22.50	1.365	0.078	22.1
Back side	20	QPSK 50RB_0	39750/2506	1:1.58	0.113	-0.12	21.15	22.50	1.365	0.154	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.155	0.09	22.09	23.50	1.384	0.214	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.075	-0.01	18.63	20.00	1.371	0.103	22.1
Back side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.130	0.06	18.63	20.00	1.371	0.178	22.1
Left side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.002	0.09	18.63	20.00	1.371	0.003	22.1
Top side	20	QPSK 1RB_0	40185/2549.5	1:1.58	0.115	-0.13	18.63	20.00	1.371	0.158	22.1
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.074	-0.19	18.48	20.00	1.419	0.105	22.1
Back side	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.145	-0.07	18.48	20.00	1.419	0.206	22.1
Left side	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.028	0.00	18.48	20.00	1.419	0.040	22.1
Top side	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.126	0.19	18.48	20.00	1.419	0.179	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_25	41055/2636.5	1:1.58	0.140	0.02	18.48	20.00	1.419	0.199	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.15 SAR Result of LTE Band 66

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_0	132322/1745	1:1	0.028	0.04	20.91	21.50	1.146	0.032	22.2
Left tilted	20	QPSK 1RB_0	132322/1745	1:1	0.022	0.07	20.91	21.50	1.146	0.025	22.2
Right cheek	20	QPSK 1RB_0	132322/1745	1:1	0.062	0.02	20.91	21.50	1.146	0.071	22.2
Right tilted	20	QPSK 1RB_0	132322/1745	1:1	0.023	-0.01	20.91	21.50	1.146	0.026	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	132322/1745	1:1	0.023	0.05	19.93	20.50	1.140	0.026	22.2
Left tilted	20	QPSK 50RB_25	132322/1745	1:1	0.018	0.06	19.93	20.50	1.140	0.020	22.2
Right cheek	20	QPSK 50RB_25	132322/1745	1:1	0.048	0.09	19.93	20.50	1.140	0.055	22.2
Right tilted	20	QPSK 50RB_25	132322/1745	1:1	0.019	-0.05	19.93	20.50	1.140	0.021	22.2
Head Test data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_0	132322/1745	1:1	0.055	-0.03	20.91	21.50	1.146	0.063	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	132322/1745	1:1	0.110	-0.11	20.91	21.50	1.146	0.126	22.2
Back side	20	QPSK 1RB_0	132322/1745	1:1	0.140	-0.19	20.91	21.50	1.146	0.160	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_25	132322/1745	1:1	0.093	-0.09	19.93	20.50	1.140	0.106	22.2
Back side	20	QPSK 50RB_25	132322/1745	1:1	0.111	-0.12	19.93	20.50	1.140	0.127	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_0	132322/1745	1:1	0.133	0.06	20.91	21.50	1.146	0.152	22.2
Hotspot Test data (Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	132072/1720	1:1	0.144	0.15	19.48	20.50	1.265	0.182	22.2
Back side	20	QPSK 1RB_0	132072/1720	1:1	0.171	-0.17	19.48	20.50	1.265	0.216	22.2
Right side	20	QPSK 1RB_0	132072/1720	1:1	0.077	0.05	19.48	20.50	1.265	0.097	22.2
Bottom side	20	QPSK 1RB_0	132072/1720	1:1	0.060	0.09	19.48	20.50	1.265	0.076	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_25	132322/1745	1:1	0.138	-0.10	19.40	20.50	1.288	0.178	22.2
Back side	20	QPSK 50RB_25	132322/1745	1:1	0.217	-0.01	19.40	20.50	1.288	0.280	22.2
Right side	20	QPSK 50RB_25	132322/1745	1:1	0.078	-0.16	19.40	20.50	1.288	0.100	22.2
Bottom side	20	QPSK 50RB_25	132322/1745	1:1	0.060	0.01	19.40	20.50	1.288	0.077	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_25	132322/1745	1:1	0.209	0.00	19.40	20.50	1.288	0.269	22.2
Ant2 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	132322/1745	1:1	0.232	0.02	23.38	24.00	1.153	0.268	22.2
Left tilted	20	QPSK 1RB_0	132322/1745	1:1	0.097	0.00	23.38	24.00	1.153	0.112	22.2
Right cheek	20	QPSK 1RB_0	132322/1745	1:1	0.124	0.02	23.38	24.00	1.153	0.143	22.2
Right tilted	20	QPSK 1RB_0	132322/1745	1:1	0.116	-0.18	23.38	24.00	1.153	0.134	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_25	132072/1720	1:1	0.186	0.05	22.45	23.00	1.135	0.211	22.2
Left tilted	20	QPSK 50RB_25	132072/1720	1:1	0.075	-0.02	22.45	23.00	1.135	0.085	22.2
Right cheek	20	QPSK 50RB_25	132072/1720	1:1	0.098	-0.02	22.45	23.00	1.135	0.111	22.2
Right tilted	20	QPSK 50RB_25	132072/1720	1:1	0.093	-0.02	22.45	23.00	1.135	0.105	22.2
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_0	132322/1745	1:1	0.225	-0.01	23.38	24.00	1.153	0.260	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_0	132322/1745	1:1	0.351	-0.07	23.38	24.00	1.153	0.405	22.2
Back side	20	QPSK 1RB_0	132322/1745	1:1	0.431	-0.12	23.38	24.00	1.153	0.497	22.2
Body worn Test data (Separate 15mm 50%RB)											



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Front side	20	QPSK 50RB 25	132072/1720	1:1	0.281	-0.07	22.45	23.00	1.135	0.319	22.2
Back side	20	QPSK 50RB 25	132072/1720	1:1	0.365	-0.14	22.45	23.00	1.135	0.414	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB 0	132322/1745	1:1	0.421	0.02	23.38	24.00	1.153	0.486	22.2
Hotspot Test data (Separate 10mm 1RB)											
Front side	20	QPSK 1RB 0	132322/1745	1:1	0.335	0.19	21.93	22.50	1.140	0.382	22.2
Back side	20	QPSK 1RB 0	132322/1745	1:1	0.359	-0.02	21.93	22.50	1.140	0.409	22.2
Left side	20	QPSK 1RB 0	132322/1745	1:1	0.163	-0.05	21.93	22.50	1.140	0.186	22.2
Bottom side	20	QPSK 1RB 0	132322/1745	1:1	0.515	0.03	21.93	22.50	1.140	0.587	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB 25	132072/1720	1:1	0.331	-0.01	21.87	22.50	1.156	0.383	22.2
Back side	20	QPSK 50RB 25	132072/1720	1:1	0.356	-0.17	21.87	22.50	1.156	0.412	22.2
Left side	20	QPSK 50RB 25	132072/1720	1:1	0.156	0.02	21.87	22.50	1.156	0.180	22.2
Bottom side	20	QPSK 50RB 25	132072/1720	1:1	0.622	-0.05	21.87	22.50	1.156	0.719	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Bottom side	20	QPSK 50RB 25	132072/1720	1:1	0.603	0.05	21.87	22.50	1.156	0.697	22.2
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 50	132072/1720	1:1	0.553	0.02	21.45	22.00	1.135	0.628	22.2
Left tilted	20	QPSK 1RB 50	132072/1720	1:1	0.055	0.08	21.45	22.00	1.135	0.062	22.2
Right cheek	20	QPSK 1RB 50	132072/1720	1:1	0.394	0.06	21.45	22.00	1.135	0.447	22.2
Right tilted	20	QPSK 1RB 50	132072/1720	1:1	0.092	-0.19	21.45	22.00	1.135	0.104	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB 50	132072/1720	1:1	0.430	-0.19	21.43	22.00	1.140	0.490	22.2
Left tilted	20	QPSK 50RB 50	132072/1720	1:1	0.055	-0.01	21.43	22.00	1.140	0.063	22.2
Right cheek	20	QPSK 50RB 50	132072/1720	1:1	0.407	-0.17	21.43	22.00	1.140	0.464	22.2
Right tilted	20	QPSK 50RB 50	132072/1720	1:1	0.079	0.19	21.43	22.00	1.140	0.090	22.2
Head Test data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB 50	132072/1720	1:1	0.455	-0.08	21.45	22.00	1.135	0.516	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB 50	132072/1720	1:1	0.129	-0.05	23.33	24.00	1.167	0.151	22.2
Back side	20	QPSK 1RB 50	132072/1720	1:1	0.143	-0.02	23.33	24.00	1.167	0.167	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB 50	132322/1745	1:1	0.099	-0.13	22.31	23.00	1.172	0.116	22.2
Back side	20	QPSK 50RB 50	132322/1745	1:1	0.114	-0.16	22.31	23.00	1.172	0.134	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB 50	132072/1720	1:1	0.133	0.06	23.33	24.00	1.167	0.155	22.2
Hotspot Test data (Separate 10mm 1RB)											
Front side	20	QPSK 1RB 50	132072/1720	1:1	0.139	-0.11	21.45	22.00	1.135	0.158	22.2
Back side	20	QPSK 1RB 50	132072/1720	1:1	0.163	0.16	21.45	22.00	1.135	0.185	22.2
Left side	20	QPSK 1RB 50	132072/1720	1:1	0.287	-0.01	21.45	22.00	1.135	0.326	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB 50	132072/1720	1:1	0.124	-0.13	21.43	22.00	1.140	0.141	22.2
Back side	20	QPSK 50RB 50	132072/1720	1:1	0.132	0.09	21.43	22.00	1.140	0.151	22.2
Left side	20	QPSK 50RB 50	132072/1720	1:1	0.211	0.07	21.43	22.00	1.140	0.241	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Left side	20	QPSK 1RB 50	132072/1720	1:1	0.277	-0.05	21.45	22.00	1.135	0.314	22.2
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	20	QPSK 1RB 0	132322/1745	1:1	0.315	0.09	16.35	17.00	1.161	0.366	22.2
Left tilted	20	QPSK 1RB 0	132322/1745	1:1	0.393	0.03	16.35	17.00	1.161	0.456	22.2
Right cheek	20	QPSK 1RB 0	132322/1745	1:1	0.539	-0.06	16.35	17.00	1.161	0.626	22.2



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Right tilted	20	QPSK 1RB_0	132322/1745	1:1	0.536	-0.07	16.35	17.00	1.161	0.623	22.2
Head Test data(50%RB)											
Left cheek	20	QPSK 50RB_50	132322/1745	1:1	0.328	0.02	16.27	17.00	1.183	0.388	22.2
Left tilted	20	QPSK 50RB_50	132322/1745	1:1	0.445	0.05	16.27	17.00	1.183	0.526	22.2
Right cheek	20	QPSK 50RB_50	132322/1745	1:1	0.621	-0.03	16.27	17.00	1.183	0.735	22.2
Right tilted	20	QPSK 50RB_50	132322/1745	1:1	0.610	-0.14	16.27	17.00	1.183	0.722	22.2
Head Test data at the worst case with Battery2#(50%RB)											
Right cheek	20	QPSK 50RB_50	132322/1745	1:1	0.616	0.07	16.27	17.00	1.183	0.729	22.2
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_99	132072/1720	1:1	0.198	0.12	21.41	22.00	1.146	0.227	22.2
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.310	0.05	21.41	22.00	1.146	0.355	22.2
Body worn Test data (Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_50	132322/1745	1:1	0.186	0.06	20.31	21.00	1.172	0.218	22.2
Back side	20	QPSK 50RB_50	132322/1745	1:1	0.285	0.14	20.31	21.00	1.172	0.334	22.2
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_99	132072/1720	1:1	0.302	0.00	21.41	22.00	1.146	0.346	22.2
Hotspot Test data (Separate 10mm 1RB)											
Front side	20	QPSK 1RB_0	132322/1745	1:1	0.128	-0.15	16.35	17.00	1.161	0.149	22.2
Back side	20	QPSK 1RB_0	132322/1745	1:1	0.200	0.15	16.35	17.00	1.161	0.232	22.2
Left side	20	QPSK 1RB_0	132322/1745	1:1	0.052	0.01	16.35	17.00	1.161	0.060	22.2
Top side	20	QPSK 1RB_0	132322/1745	1:1	0.190	-0.02	16.35	17.00	1.161	0.221	22.2
Hotspot Test data (Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_50	132322/1745	1:1	0.149	0.02	16.27	17.00	1.183	0.176	22.2
Back side	20	QPSK 50RB_50	132322/1745	1:1	0.229	0.06	16.27	17.00	1.183	0.271	22.2
Left side	20	QPSK 50RB_50	132322/1745	1:1	0.068	0.01	16.27	17.00	1.183	0.080	22.2
Top side	20	QPSK 50RB_50	132322/1745	1:1	0.210	-0.11	16.27	17.00	1.183	0.248	22.2
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_50	132322/1745	1:1	0.222	0.15	16.27	17.00	1.183	0.263	22.2

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.16 SAR Result of 5G NR n5

Ant1 Test Record										
Test position	BW.	Test mode	Test ch./Freq.	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_53	167800/839	0.248	-0.01	24.19	25.00	1.205	0.299	22.1
Left tilted	20	QPSK 1RB_53	167800/839	0.117	-0.19	24.19	25.00	1.205	0.141	22.1
Right cheek	20	QPSK 1RB_53	167800/839	0.227	-0.11	24.19	25.00	1.205	0.274	22.1
Right tilted	20	QPSK 1RB_53	167800/839	0.129	-0.12	24.19	25.00	1.205	0.155	22.1
Head Test Data 50%RB										
Left cheek	20	QPSK 50RB_28	166800/834	0.242	-0.15	24.09	25.00	1.233	0.298	22.1
Left tilted	20	QPSK 50RB_28	166800/834	0.121	0.10	24.09	25.00	1.233	0.149	22.1
Right cheek	20	QPSK 50RB_28	166800/834	0.220	-0.05	24.09	25.00	1.233	0.271	22.1
Right tilted	20	QPSK 50RB_28	166800/834	0.133	0.07	24.09	25.00	1.233	0.164	22.1
Head Test Data at the worst case with Battery2# (1RB)										
Left cheek	20	QPSK 1RB_53	167800/839	0.239	0.02	24.19	25.00	1.205	0.288	22.1
Body worn Test Data (15mm 1RB)										
Front side	20	QPSK 1RB_53	166800/834	0.285	-0.04	24.19	25.00	1.205	0.343	22.1
Back side	20	QPSK 1RB_53	166800/834	0.319	-0.19	24.19	25.00	1.205	0.384	22.1
Body worn Test Data (15mm 50%RB)										
Front side	20	QPSK 50RB_28	166800/834	0.267	0.05	24.09	25.00	1.233	0.329	22.1
Back side	20	QPSK 50RB_28	166800/834	0.310	0.12	24.09	25.00	1.233	0.382	22.1
Body worn Test Data at the worst case with Battery2#(15mm 1RB)										
Back side	20	QPSK 1RB_53	166800/834	0.303	0.12	24.19	25.00	1.205	0.365	22.1
Hotspot Test Data (10mm 1RB)										
Front side	20	QPSK 1RB_53	166800/834	0.380	0.18	23.06	24.00	1.242	0.472	22.1
Back side	20	QPSK 1RB_53	166800/834	0.407	0.03	23.06	24.00	1.242	0.505	22.1
Right side	20	QPSK 1RB_53	166800/834	0.189	-0.09	23.06	24.00	1.242	0.235	22.1
Bottom side	20	QPSK 1RB_53	166800/834	0.110	-0.03	23.06	24.00	1.242	0.137	22.1
Hotspot Test Data (10mm 50%RB)										
Front side	20	QPSK 50RB_28	166800/834	0.374	0.11	22.95	24.00	1.274	0.476	22.1
Back side	20	QPSK 50RB_28	166800/834	0.379	-0.17	22.95	24.00	1.274	0.483	22.1
Right side	20	QPSK 50RB_28	166800/834	0.100	-0.04	22.95	24.00	1.274	0.127	22.1
Bottom side	20	QPSK 50RB_28	166800/834	0.087	-0.06	22.95	24.00	1.274	0.111	22.1
Hotspot Test Data at the worst case with Battery2#(10mm 1RB)										
Back side	20	QPSK 1RB_53	166800/834	0.400	-0.18	23.06	24.00	1.242	0.497	22.1
Ant4 Test Record										
Test position	BW.	Test mode	Test ch./Freq.	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_53	167300/836.5	0.299	0.19	19.52	20.00	1.117	0.334	22.1
Left tilted	20	QPSK 1RB_53	167300/836.5	0.204	-0.04	19.52	20.00	1.117	0.228	22.1
Right cheek	20	QPSK 1RB_53	167300/836.5	0.679	-0.03	19.52	20.00	1.117	0.758	22.1
Right tilted	20	QPSK 1RB_53	167300/836.5	0.431	-0.14	19.52	20.00	1.117	0.481	22.1
Head Test Data 50%RB										
Left cheek	20	QPSK 50RB_28	167800/839	0.270	0.01	19.37	20.00	1.156	0.312	22.1
Left tilted	20	QPSK 50RB_28	167800/839	0.187	-0.03	19.37	20.00	1.156	0.216	22.1
Right cheek	20	QPSK 50RB_28	167800/839	0.585	0.07	19.37	20.00	1.156	0.676	22.1
Right tilted	20	QPSK 50RB_28	167800/839	0.406	-0.01	19.37	20.00	1.156	0.469	22.1
Head Test Data at the worst case with Battery2# (1RB)										
Right cheek	20	QPSK 1RB_53	167300/836.5	0.656	0.19	19.52	20.00	1.117	0.733	22.1
Body worn Test Data (15mm 1RB)										
Front side	20	QPSK 1RB_53	167800/839	0.179	0.18	23.47	24.00	1.130	0.202	22.1
Back side	20	QPSK 1RB_53	167800/839	0.230	-0.06	23.47	24.00	1.130	0.260	22.1
Body worn Test Data (15mm 50%RB)										



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Front side	20	QPSK 50RB_28	167300/836.5	0.180	0.06	23.33	24.00	1.167	0.210	22.1
Back side	20	QPSK 50RB_28	167300/836.5	0.229	0.00	23.33	24.00	1.167	0.267	22.1
Body worn Test Data at the worst case with Battery2#(15mm 50%RB)										
Back side	20	QPSK 50RB_28	167300/836.5	0.213	-0.06	23.33	24.00	1.167	0.249	22.1
Hotspot Test Data (10mm 1RB)										
Front side	20	QPSK 1RB_53	167300/836.5	0.148	0.02	19.52	20.00	1.117	0.165	22.1
Back side	20	QPSK 1RB_53	167300/836.5	0.184	0.10	19.52	20.00	1.117	0.206	22.1
Left side	20	QPSK 1RB_53	167300/836.5	0.165	-0.01	19.52	20.00	1.117	0.184	22.1
Top side	20	QPSK 1RB_53	167300/836.5	0.078	0.06	19.52	20.00	1.117	0.087	22.1
Hotspot Test Data (10mm 50%RB)										
Front side	20	QPSK 50RB_28	167800/839	0.146	-0.11	19.37	20.00	1.156	0.169	22.1
Back side	20	QPSK 50RB_28	167800/839	0.189	0.09	19.37	20.00	1.156	0.219	22.1
Left side	20	QPSK 50RB_28	167800/839	0.160	-0.05	19.37	20.00	1.156	0.185	22.1
Top side	20	QPSK 50RB_28	167800/839	0.070	-0.02	19.37	20.00	1.156	0.081	22.1
Hotspot Test Data at the worst case with Battery2#(10mm 50%RB)										
Back side	20	QPSK 50RB_28	167800/839	0.176	-0.14	19.37	20.00	1.156	0.203	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.17 SAR Result of 5G NR n7

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	512000/2560	1:1	0.197	0.08	24.06	24.50	1.107	0.218	22.1
Left tilted	20	QPSK 1RB_1	512000/2560	1:1	0.132	0.06	24.06	24.50	1.107	0.146	22.1
Right cheek	20	QPSK 1RB_1	512000/2560	1:1	0.371	0.09	24.06	24.50	1.107	0.411	22.1
Right tilted	20	QPSK 1RB_1	512000/2560	1:1	0.093	-0.01	24.06	24.50	1.107	0.103	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	507000/2535	1:1	0.188	0.11	23.89	24.50	1.151	0.216	22.1
Left tilted	20	QPSK 50RB_28	507000/2535	1:1	0.134	0.04	23.89	24.50	1.151	0.154	22.1
Right cheek	20	QPSK 50RB_28	507000/2535	1:1	0.334	-0.01	23.89	24.50	1.151	0.384	22.1
Right tilted	20	QPSK 50RB_28	507000/2535	1:1	0.086	0.19	23.89	24.50	1.151	0.099	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_1	512000/2560	1:1	0.366	0.13	24.06	24.50	1.107	0.405	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_1	512000/2560	1:1	0.312	0.18	24.06	24.50	1.107	0.345	22.1
Back side	20	QPSK 1RB_1	512000/2560	1:1	0.168	0.09	24.06	24.50	1.107	0.186	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	507000/2535	1:1	0.429	0.18	23.89	24.50	1.151	0.494	22.1
Back side	20	QPSK 50RB_28	507000/2535	1:1	0.198	0.15	23.89	24.50	1.151	0.228	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	507000/2535	1:1	0.419	0.03	23.89	24.50	1.151	0.482	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	507000/2535	1:1	0.358	-0.09	21.24	21.50	1.062	0.380	22.1
Back side	20	QPSK 1RB_1	507000/2535	1:1	0.181	0.02	21.24	21.50	1.062	0.192	22.1
Right side	20	QPSK 1RB_1	507000/2535	1:1	0.014	0.01	21.24	21.50	1.062	0.014	22.1
Bottom side	20	QPSK 1RB_1	507000/2535	1:1	0.090	-0.03	21.24	21.50	1.062	0.095	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	512000/2560	1:1	0.360	-0.04	21.21	21.50	1.069	0.385	22.1
Back side	20	QPSK 50RB_0	512000/2560	1:1	0.182	0.02	21.21	21.50	1.069	0.195	22.1
Right side	20	QPSK 50RB_0	512000/2560	1:1	0.140	-0.07	21.21	21.50	1.069	0.150	22.1
Bottom side	20	QPSK 50RB_0	512000/2560	1:1	0.088	0.00	21.21	21.50	1.069	0.095	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	512000/2560	1:1	0.352	0.16	21.21	21.50	1.069	0.376	22.1
Ant2 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_53	507000/2535	1:1	0.160	-0.09	22.28	22.50	1.052	0.168	22.1
Left tilted	20	QPSK 1RB_53	507000/2535	1:1	0.055	0.14	22.28	22.50	1.052	0.058	22.1
Right cheek	20	QPSK 1RB_53	507000/2535	1:1	0.119	-0.16	22.28	22.50	1.052	0.125	22.1
Right tilted	20	QPSK 1RB_53	507000/2535	1:1	0.120	0.18	22.28	22.50	1.052	0.126	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	512000/2560	1:1	0.213	-0.09	22.30	22.50	1.047	0.223	22.1
Left tilted	20	QPSK 50RB_28	512000/2560	1:1	0.134	0.04	22.30	22.50	1.047	0.140	22.1
Right cheek	20	QPSK 50RB_28	512000/2560	1:1	0.128	0.09	22.30	22.50	1.047	0.134	22.1
Right tilted	20	QPSK 50RB_28	512000/2560	1:1	0.125	0.01	22.30	22.50	1.047	0.131	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Left cheek	20	QPSK 50RB_28	512000/2560	1:1	0.206	0.04	22.30	22.50	1.047	0.216	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_53	507000/2535	1:1	0.198	-0.15	22.28	22.50	1.052	0.208	22.1
Back side	20	QPSK 1RB_53	507000/2535	1:1	0.276	-0.11	22.28	22.50	1.052	0.290	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	512000/2560	1:1	0.178	0.19	22.30	22.50	1.047	0.186	22.1
Back side	20	QPSK 50RB_28	512000/2560	1:1	0.254	-0.11	22.30	22.50	1.047	0.266	22.1



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Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_53	507000/2535	1:1	0.269	0.07	22.28	22.50	1.052	0.283	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_104	512000/2560	1:1	0.246	-0.03	20.35	20.50	1.035	0.255	22.1
Back side	20	QPSK 1RB_104	512000/2560	1:1	0.344	0.14	20.35	20.50	1.035	0.356	22.1
Left side	20	QPSK 1RB_104	512000/2560	1:1	0.084	0.09	20.35	20.50	1.035	0.087	22.1
Bottom side	20	QPSK 1RB_104	512000/2560	1:1	0.281	-0.19	20.35	20.50	1.035	0.291	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	507000/2535	1:1	0.230	-0.17	20.30	20.50	1.047	0.241	22.1
Back side	20	QPSK 50RB_0	507000/2535	1:1	0.284	-0.09	20.30	20.50	1.047	0.297	22.1
Left side	20	QPSK 50RB_0	507000/2535	1:1	0.097	-0.02	20.30	20.50	1.047	0.102	22.1
Bottom side	20	QPSK 50RB_0	507000/2535	1:1	0.265	-0.17	20.30	20.50	1.047	0.277	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	20	QPSK 1RB_104	512000/2560	1:1	0.332	0.10	20.35	20.50	1.035	0.344	22.1
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_1	502000/2510	1:1	0.824	-0.01	17.56	18.00	1.107	0.912	22.1
Left tilted	20	QPSK 1RB_1	502000/2510	1:1	0.105	0.11	17.56	18.00	1.107	0.116	22.1
Right cheek	20	QPSK 1RB_1	502000/2510	1:1	0.801	0.07	17.56	18.00	1.107	0.886	22.1
Right tilted	20	QPSK 1RB_1	502000/2510	1:1	0.231	0.16	17.56	18.00	1.107	0.256	22.1
Left cheek	20	QPSK 1RB_1	507000/2535	1:1	0.813	0.03	17.55	18.00	1.109	0.902	22.1
Left cheek	20	QPSK 1RB_53	512000/2560	1:1	0.809	-0.11	17.55	18.00	1.109	0.897	22.1
Right cheek	20	QPSK 1RB_1	507000/2535	1:1	0.789	0.02	17.55	18.00	1.109	0.875	22.1
Right cheek	20	QPSK 1RB_53	512000/2560	1:1	0.756	0.09	17.55	18.00	1.109	0.839	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	512000/2560	1:1	0.861	-0.03	17.65	18.00	1.084	0.933	22.1
Left tilted	20	QPSK 50RB_28	512000/2560	1:1	0.133	0.12	17.65	18.00	1.084	0.144	22.1
Right cheek	20	QPSK 50RB_28	512000/2560	1:1	0.836	-0.02	17.65	18.00	1.084	0.906	22.1
Right tilted	20	QPSK 50RB_28	512000/2560	1:1	0.256	0.10	17.65	18.00	1.084	0.277	22.1
Left cheek	20	QPSK 50RB_28	502000/2510	1:1	0.832	0.03	17.52	18.00	1.117	0.929	22.1
Left cheek	20	QPSK 50RB_28	507000/2535	1:1	0.816	-0.15	17.49	18.00	1.125	0.918	22.1
Right cheek	20	QPSK 50RB_28	502000/2510	1:1	0.806	0.16	17.52	18.00	1.117	0.900	22.1
Right cheek	20	QPSK 50RB_28	507000/2535	1:1	0.810	0.14	17.49	18.00	1.125	0.911	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Left cheek	20	QPSK 50RB_28	512000/2560	1:1	0.853	0.14	17.65	18.00	1.084	0.925	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_104	507000/2535	1:1	0.188	0.07	18.71	19.50	1.199	0.226	22.1
Back side	20	QPSK 1RB_104	507000/2535	1:1	0.189	-0.03	18.71	19.50	1.199	0.227	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	502000/2510	1:1	0.151	0.03	18.71	19.50	1.199	0.181	22.1
Back side	20	QPSK 50RB_28	502000/2510	1:1	0.154	-0.03	18.71	19.50	1.199	0.185	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_104	507000/2535	1:1	0.177	0.12	18.71	19.50	1.199	0.212	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	502000/2510	1:1	0.176	0.10	17.56	18.00	1.107	0.195	22.1
Back side	20	QPSK 1RB_1	502000/2510	1:1	0.200	-0.08	17.56	18.00	1.107	0.221	22.1
Left side	20	QPSK 1RB_1	502000/2510	1:1	0.199	-0.08	17.56	18.00	1.107	0.220	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	512000/2560	1:1	0.204	0.16	17.65	18.00	1.084	0.221	22.1
Back side	20	QPSK 50RB_28	512000/2560	1:1	0.236	-0.03	17.65	18.00	1.084	0.256	22.1
Left side	20	QPSK 50RB_28	512000/2560	1:1	0.216	-0.07	17.65	18.00	1.084	0.234	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_28	512000/2560	1:1	0.228	-0.10	17.65	18.00	1.084	0.247	22.1



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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	20	QPSK 1RB_1	507000/2535	1:1	0.252	-0.04	17.22	18.00	1.197	0.302	22.1
Left tilted	20	QPSK 1RB_1	507000/2535	1:1	0.315	0.13	17.22	18.00	1.197	0.377	22.1
Right cheek	20	QPSK 1RB_1	507000/2535	1:1	0.539	-0.11	17.22	18.00	1.197	0.645	22.1
Right tilted	20	QPSK 1RB_1	507000/2535	1:1	0.581	0.18	17.22	18.00	1.197	0.695	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	507000/2535	1:1	0.244	-0.04	17.09	18.00	1.233	0.301	22.1
Left tilted	20	QPSK 50RB_28	507000/2535	1:1	0.289	0.12	17.09	18.00	1.233	0.356	22.1
Right cheek	20	QPSK 50RB_28	507000/2535	1:1	0.487	0.15	17.09	18.00	1.233	0.601	22.1
Right tilted	20	QPSK 50RB_28	507000/2535	1:1	0.568	-0.02	17.09	18.00	1.233	0.700	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Right tilted	20	QPSK 50RB_28	507000/2535	1:1	0.554	0.15	17.09	18.00	1.233	0.683	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_1	507000/2535	1:1	0.198	0.19	24.05	25.00	1.245	0.246	22.1
Back side	20	QPSK 1RB_1	507000/2535	1:1	0.365	0.06	24.05	25.00	1.245	0.454	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	507000/2535	1:1	0.234	-0.04	24.14	25.00	1.219	0.285	22.1
Back side	20	QPSK 50RB_28	507000/2535	1:1	0.400	-0.09	24.14	25.00	1.219	0.488	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_28	507000/2535	1:1	0.394	0.00	24.14	25.00	1.219	0.480	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_104	507000/2535	1:1	0.279	0.02	16.69	17.50	1.205	0.336	22.1
Back side	20	QPSK 1RB_104	507000/2535	1:1	0.502	0.16	16.69	17.50	0.760	0.382	22.1
Left side	20	QPSK 1RB_104	507000/2535	1:1	0.109	-0.16	16.69	17.50	1.205	0.131	22.1
Top side	20	QPSK 1RB_104	507000/2535	1:1	0.505	-0.05	16.69	17.50	1.205	0.609	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_0	502000/2510	1:1	0.265	0.11	16.62	17.50	1.225	0.325	22.1
Back side	20	QPSK 50RB_0	502000/2510	1:1	0.481	-0.04	16.62	17.50	1.225	0.589	22.1
Left side	20	QPSK 50RB_0	502000/2510	1:1	0.102	0.13	16.62	17.50	1.225	0.125	22.1
Top side	20	QPSK 50RB_0	502000/2510	1:1	0.497	-0.15	16.62	17.50	1.225	0.609	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Top side	20	QPSK 1RB_104	507000/2535	1:1	0.500	-0.18	16.69	17.50	1.205	0.603	22.1

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

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.





8.3.18 SAR Result of 5G NR n38

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	519000/2595	1:1	0.238	-0.05	24.06	24.50	1.107	0.263	22.1
Left tilted	20	QPSK 1RB_1	519000/2595	1:1	0.133	-0.12	24.06	24.50	1.107	0.147	22.1
Right cheek	20	QPSK 1RB_1	519000/2595	1:1	0.469	-0.05	24.06	24.50	1.107	0.519	22.1
Right tilted	20	QPSK 1RB_1	519000/2595	1:1	0.116	-0.01	24.06	24.50	1.107	0.128	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	522000/2610	1:1	0.218	0.07	24.03	24.50	1.114	0.243	22.1
Left tilted	20	QPSK 50RB_28	522000/2610	1:1	0.139	-0.06	24.03	24.50	1.114	0.155	22.1
Right cheek	20	QPSK 50RB_28	522000/2610	1:1	0.464	-0.02	24.03	24.50	1.114	0.517	22.1
Right tilted	20	QPSK 50RB_28	522000/2610	1:1	0.109	-0.04	24.03	24.50	1.114	0.121	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	20	QPSK 1RB_1	519000/2595	1:1	0.451	0.09	24.06	24.50	1.107	0.499	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_1	519000/2595	1:1	0.327	-0.13	24.06	24.50	1.107	0.362	22.1
Back side	20	QPSK 1RB_1	519000/2595	1:1	0.162	-0.05	24.06	24.50	1.107	0.179	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	522000/2610	1:1	0.342	-0.03	24.03	24.50	1.114	0.381	22.1
Back side	20	QPSK 50RB_28	522000/2610	1:1	0.185	-0.04	24.03	24.50	1.114	0.206	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	522000/2610	1:1	0.339	0.18	24.03	24.50	1.114	0.378	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_104	519000/2595	1:1	0.349	-0.04	20.43	21.00	1.140	0.398	22.1
Back side	20	QPSK 1RB_104	519000/2595	1:1	0.190	-0.12	20.43	21.00	1.140	0.217	22.1
Right side	20	QPSK 1RB_104	519000/2595	1:1	0.165	0.09	20.43	21.00	1.140	0.188	22.1
Bottom side	20	QPSK 1RB_104	519000/2595	1:1	0.081	-0.16	20.43	21.00	1.140	0.092	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	516000/2580	1:1	0.403	-0.06	20.33	21.00	1.167	0.470	22.1
Back side	20	QPSK 50RB_28	516000/2580	1:1	0.198	-0.17	20.33	21.00	1.167	0.231	22.1
Right side	20	QPSK 50RB_28	516000/2580	1:1	0.132	-0.01	20.33	21.00	1.167	0.154	22.1
Bottom side	20	QPSK 50RB_28	516000/2580	1:1	0.093	0.14	20.33	21.00	1.167	0.109	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	516000/2580	1:1	0.368	-0.16	20.33	21.00	1.167	0.429	22.1
Ant2 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	522000/2610	1:1	0.176	-0.09	22.64	23.00	1.086	0.191	22.1
Left tilted	20	QPSK 1RB_1	522000/2610	1:1	0.071	-0.13	22.64	23.00	1.086	0.077	22.1
Right cheek	20	QPSK 1RB_1	522000/2610	1:1	0.131	-0.12	22.64	23.00	1.086	0.142	22.1
Right tilted	20	QPSK 1RB_1	522000/2610	1:1	0.130	-0.16	22.64	23.00	1.086	0.141	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	522000/2610	1:1	0.152	0.07	22.55	23.00	1.109	0.169	22.1
Left tilted	20	QPSK 50RB_28	522000/2610	1:1	0.138	0.16	22.55	23.00	1.109	0.153	22.1
Right cheek	20	QPSK 50RB_28	522000/2610	1:1	0.121	-0.19	22.55	23.00	1.109	0.134	22.1
Right tilted	20	QPSK 50RB_28	522000/2610	1:1	0.120	-0.13	22.55	23.00	1.109	0.133	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_1	522000/2610	1:1	0.169	0.01	22.64	23.00	1.086	0.184	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_1	522000/2610	1:1	0.136	-0.05	22.64	23.00	1.086	0.148	22.1
Back side	20	QPSK 1RB_1	522000/2610	1:1	0.174	0.13	22.64	23.00	1.086	0.189	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	522000/2610	1:1	0.165	-0.13	22.55	23.00	1.109	0.183	22.1
Back side	20	QPSK 50RB_28	522000/2610	1:1	0.248	-0.03	22.55	23.00	1.109	0.275	22.1



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Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_28	519000/2595	1:1	0.211	0.10	22.55	23.00	1.109	0.234	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	519000/2595	1:1	0.263	0.08	20.52	21.00	1.117	0.294	22.1
Back side	20	QPSK 1RB_1	519000/2595	1:1	0.357	-0.04	20.52	21.00	1.117	0.399	22.1
Left side	20	QPSK 1RB_1	519000/2595	1:1	0.166	0.06	20.52	21.00	1.117	0.185	22.1
Bottom side	20	QPSK 1RB_1	519000/2595	1:1	0.288	-0.05	20.52	21.00	1.117	0.322	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	516000/2580	1:1	0.252	0.14	20.40	21.00	1.148	0.289	22.1
Back side	20	QPSK 50RB_28	516000/2580	1:1	0.449	-0.02	20.40	21.00	1.148	0.516	22.1
Left side	20	QPSK 50RB_28	516000/2580	1:1	0.207	-0.16	20.40	21.00	1.148	0.238	22.1
Bottom side	20	QPSK 50RB_28	516000/2580	1:1	0.291	-0.06	20.40	21.00	1.148	0.334	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	20	QPSK 50RB_28	516000/2580	1:1	0.386	0.07	20.40	21.00	1.148	0.443	22.1
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_104	516000/2580	1:1	0.760	0.10	17.42	17.50	1.019	0.774	22.1
Left tilted	20	QPSK 1RB_104	516000/2580	1:1	0.102	0.04	17.42	17.50	1.019	0.104	22.1
Right cheek	20	QPSK 1RB_104	516000/2580	1:1	0.693	0.07	17.42	17.50	1.019	0.706	22.1
Right tilted	20	QPSK 1RB_104	516000/2580	1:1	0.207	0.03	17.42	17.50	1.019	0.211	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_28	522000/2610	1:1	0.628	0.16	17.30	17.50	1.047	0.658	22.1
Left tilted	20	QPSK 50RB_28	522000/2610	1:1	0.092	0.03	17.30	17.50	1.047	0.096	22.1
Right cheek	20	QPSK 50RB_28	522000/2610	1:1	0.659	0.06	17.30	17.50	1.047	0.690	22.1
Right tilted	20	QPSK 50RB_28	522000/2610	1:1	0.190	-0.02	17.30	17.50	1.047	0.199	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Left cheek	20	QPSK 1RB_104	516000/2580	1:1	0.751	0.03	17.42	17.50	1.019	0.765	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_1	516000/2580	1:1	0.145	-0.07	19.36	19.50	1.033	0.150	22.1
Back side	20	QPSK 1RB_1	516000/2580	1:1	0.164	-0.03	19.36	19.50	1.033	0.169	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	519000/2595	1:1	0.154	0.05	19.36	19.50	1.033	0.159	22.1
Back side	20	QPSK 50RB_28	519000/2595	1:1	0.156	-0.10	19.36	19.50	1.033	0.161	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	20	QPSK 1RB_1	516000/2580	1:1	0.155	0.01	19.36	19.50	1.033	0.160	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_104	516000/2580	1:1	0.211	0.02	17.42	17.50	1.019	0.215	22.1
Back side	20	QPSK 1RB_104	516000/2580	1:1	0.220	-0.01	17.42	17.50	1.019	0.224	22.1
Left side	20	QPSK 1RB_104	516000/2580	1:1	0.200	0.18	17.42	17.50	1.019	0.204	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_28	522000/2610	1:1	0.203	0.06	17.30	17.50	1.047	0.213	22.1
Back side	20	QPSK 50RB_28	522000/2610	1:1	0.206	-0.05	17.30	17.50	1.047	0.216	22.1
Left side	20	QPSK 50RB_28	522000/2610	1:1	0.211	-0.02	17.30	17.50	1.047	0.221	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	20	QPSK 1RB_104	516000/2580	1:1	0.202	0.07	17.42	17.50	1.019	0.206	22.1
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	20	QPSK 1RB_1	516000/2580	1:1	0.303	-0.06	17.05	17.50	1.109	0.336	22.1
Left tilted	20	QPSK 1RB_1	516000/2580	1:1	0.304	-0.06	17.05	17.50	1.109	0.337	22.1
Right cheek	20	QPSK 1RB_1	516000/2580	1:1	0.592	-0.01	17.05	17.50	1.109	0.657	22.1
Right tilted	20	QPSK 1RB_1	516000/2580	1:1	0.600	-0.05	17.05	17.50	1.109	0.666	22.1
Head Test Data(50%RB)											
Left cheek	20	QPSK 50RB_56	516000/2580	1:1	0.344	0.00	17.11	17.50	1.094	0.376	22.1
Left tilted	20	QPSK 50RB_56	516000/2580	1:1	0.455	0.09	17.11	17.50	1.094	0.498	22.1



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Right cheek	20	QPSK 50RB_56	516000/2580	1:1	0.637	0.02	17.11	17.50	1.094	0.697	22.1
Right tilted	20	QPSK 50RB_56	516000/2580	1:1	0.657	0.11	17.11	17.50	1.094	0.719	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Right tilted	20	QPSK 50RB_56	516000/2580	1:1	0.644	-0.19	17.11	17.50	1.094	0.705	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	20	QPSK 1RB_104	519000/2595	1:1	0.225	-0.04	24.58	25.00	1.102	0.248	22.1
Back side	20	QPSK 1RB_104	519000/2595	1:1	0.428	0.00	24.58	25.00	1.102	0.471	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	20	QPSK 50RB_28	519000/2595	1:1	0.258	0.13	24.30	25.00	1.175	0.303	22.1
Back side	20	QPSK 50RB_28	519000/2595	1:1	0.510	0.03	24.30	25.00	1.175	0.599	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	20	QPSK 50RB_28	519000/2595	1:1	0.461	-0.05	24.30	25.00	1.175	0.542	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	20	QPSK 1RB_1	516000/2580	1:1	0.090	-0.08	17.05	17.50	1.109	0.100	22.1
Back side	20	QPSK 1RB_1	516000/2580	1:1	0.164	0.04	17.05	17.50	1.109	0.182	22.1
Left side	20	QPSK 1RB_1	516000/2580	1:1	0.040	0.19	17.05	17.50	1.109	0.044	22.1
Top side	20	QPSK 1RB_1	516000/2580	1:1	0.135	-0.05	17.05	17.50	1.109	0.150	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	20	QPSK 50RB_56	516000/2580	1:1	0.084	0.09	17.11	17.50	1.094	0.092	22.1
Back side	20	QPSK 50RB_56	516000/2580	1:1	0.165	0.09	17.11	17.50	1.094	0.181	22.1
Left side	20	QPSK 50RB_56	516000/2580	1:1	0.047	-0.06	17.11	17.50	1.094	0.051	22.1
Top side	20	QPSK 50RB_56	516000/2580	1:1	0.165	-0.05	17.11	17.50	1.094	0.181	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	20	QPSK 1RB_1	516000/2580	1:1	0.158	-0.14	17.05	17.50	1.109	0.175	22.1

Table 28: SAR of 5G NR n38 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
- $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
- $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.19 SAR Result of 5G NR n41

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	100	QPSK 1RB_271	523302/2616.51	1:1	0.204	-0.01	24.05	24.50	1.109	0.226	22.1
Left tilted	100	QPSK 1RB_271	523302/2616.51	1:1	0.131	0.07	24.05	24.50	1.109	0.145	22.1
Right cheek	100	QPSK 1RB_271	523302/2616.51	1:1	0.324	-0.09	24.05	24.50	1.109	0.359	22.1
Right tilted	100	QPSK 1RB_271	523302/2616.51	1:1	0.083	0.19	24.05	24.50	1.109	0.092	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_69	523302/2616.51	1:1	0.159	-0.01	23.91	24.50	1.146	0.182	22.1
Left tilted	100	QPSK 135RB_69	523302/2616.51	1:1	0.102	0.07	23.91	24.50	1.146	0.117	22.1
Right cheek	100	QPSK 135RB_69	523302/2616.51	1:1	0.308	-0.13	23.91	24.50	1.146	0.353	22.1
Right tilted	100	QPSK 135RB_69	523302/2616.51	1:1	0.081	0.19	23.91	24.50	1.146	0.093	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	100	QPSK 1RB_271	523302/2616.51	1:1	0.317	0.01	24.05	24.50	1.109	0.352	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_271	523302/2616.51	1:1	0.328	-0.07	24.05	24.50	1.109	0.364	22.1
Back side	100	QPSK 1RB_271	523302/2616.51	1:1	0.183	0.03	24.05	24.50	1.109	0.203	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	523302/2616.51	1:1	0.273	-0.17	23.91	24.50	1.146	0.313	22.1
Back side	100	QPSK 135RB_69	523302/2616.51	1:1	0.128	0.19	23.91	24.50	1.146	0.147	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_271	523302/2616.51	1:1	0.277	0.10	24.05	24.50	1.109	0.307	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	523302/2616.51	1:1	0.265	0.14	20.78	21.50	1.180	0.313	22.1
Back side	100	QPSK 1RB_1	523302/2616.51	1:1	0.179	0.08	20.78	21.50	1.180	0.211	22.1
Right side	100	QPSK 1RB_1	523302/2616.51	1:1	0.095	-0.18	20.78	21.50	1.180	0.112	22.1
Bottom side	100	QPSK 1RB_1	523302/2616.51	1:1	0.062	-0.18	20.78	21.50	1.180	0.073	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	513900/2569.5	1:1	0.365	0.07	20.66	21.50	1.213	0.443	22.1
Back side	100	QPSK 135RB_69	513900/2569.5	1:1	0.175	0.15	20.66	21.50	1.213	0.212	22.1
Right side	100	QPSK 135RB_69	513900/2569.5	1:1	0.123	0.15	20.66	21.50	1.213	0.149	22.1
Bottom side	100	QPSK 135RB_69	513900/2569.5	1:1	0.081	0.08	20.66	21.50	1.213	0.098	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	513900/2569.5	1:1	0.311	0.10	20.66	21.50	1.213	0.377	22.1
Ant2 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	528000/2640	1:1	0.203	-0.15	22.42	23.00	1.143	0.232	22.1
Left tilted	100	QPSK 1RB_1	528000/2640	1:1	0.042	0.16	22.42	23.00	1.143	0.048	22.1
Right cheek	100	QPSK 1RB_1	528000/2640	1:1	0.086	-0.06	22.42	23.00	1.143	0.098	22.1
Right tilted	100	QPSK 1RB_1	528000/2640	1:1	0.086	-0.10	22.42	23.00	1.143	0.098	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_69	518598/2592.99	1:1	0.200	0.03	22.18	23.00	1.208	0.242	22.1
Left tilted	100	QPSK 135RB_69	518598/2592.99	1:1	0.049	0.00	22.18	23.00	1.208	0.059	22.1
Right cheek	100	QPSK 135RB_69	518598/2592.99	1:1	0.091	0.02	22.18	23.00	1.208	0.110	22.1
Right tilted	100	QPSK 135RB_69	518598/2592.99	1:1	0.095	-0.18	22.18	23.00	1.208	0.115	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Left cheek	100	QPSK 135RB_69	518598/2592.99	1:1	0.188	-0.02	22.18	23.00	1.208	0.227	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_1	528000/2640	1:1	0.159	0.18	22.42	23.00	1.143	0.182	22.1
Back side	100	QPSK 1RB_1	528000/2640	1:1	0.175	-0.06	22.42	23.00	1.143	0.200	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	518598/2592.99	1:1	0.159	0.01	22.18	23.00	1.208	0.192	22.1
Back side	100	QPSK 135RB_69	518598/2592.99	1:1	0.170	-0.15	22.18	23.00	1.208	0.205	22.1



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Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	100	QPSK 135RB_69	518598/2592.99	1:1	0.166	-0.01	22.18	23.00	1.208	0.200	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	523302/2616.51	1:1	0.246	0.00	20.59	21.00	1.099	0.270	22.1
Back side	100	QPSK 1RB_1	523302/2616.51	1:1	0.337	-0.04	20.59	21.00	1.099	0.370	22.1
Left side	100	QPSK 1RB_1	523302/2616.51	1:1	0.117	0.05	20.59	21.00	1.099	0.129	22.1
Bottom side	100	QPSK 1RB_1	523302/2616.51	1:1	0.291	-0.09	20.59	21.00	1.099	0.320	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	513900/2569.5	1:1	0.225	-0.03	20.32	21.00	1.169	0.263	22.1
Back side	100	QPSK 135RB_69	513900/2569.5	1:1	0.305	-0.05	20.32	21.00	1.169	0.357	22.1
Left side	100	QPSK 135RB_69	513900/2569.5	1:1	0.153	-0.11	20.32	21.00	1.169	0.179	22.1
Bottom side	100	QPSK 135RB_69	513900/2569.5	1:1	0.278	-0.08	20.32	21.00	1.169	0.325	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	100	QPSK 1RB_1	523302/2616.51	1:1	0.321	0.14	20.59	21.00	1.099	0.353	22.1
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_1	509202/2546.01	1:1	0.777	0.13	16.15	16.50	1.084	0.842	22.1
Left cheek	100	QPSK 1RB_137	513900/2569.5	1:1	0.705	0.04	16.06	16.50	1.107	0.780	22.1
Left cheek	100	QPSK 1RB_1	518598/2592.99	1:1	0.761	0.04	16.15	16.50	1.084	0.825	22.1
Left cheek	100	QPSK 1RB_137	523302/2616.51	1:1	0.764	0.07	16.12	16.50	1.091	0.834	22.1
Left cheek	100	QPSK 1RB_1	528000/2640	1:1	0.727	0.06	15.95	16.50	1.135	0.825	22.1
Left tilted	100	QPSK 1RB_1	509202/2546.01	1:1	0.117	0.10	16.15	16.50	1.084	0.127	22.1
Right cheek	100	QPSK 1RB_1	509202/2546.01	1:1	0.717	0.00	16.15	16.50	1.084	0.777	22.1
Right cheek	100	QPSK 1RB_137	513900/2569.5	1:1	0.521	0.07	16.06	16.50	1.107	0.577	22.1
Right cheek	100	QPSK 1RB_1	518598/2592.99	1:1	0.509	0.06	16.15	16.50	1.084	0.552	22.1
Right cheek	100	QPSK 1RB_137	523302/2616.51	1:1	0.575	0.05	16.12	16.50	1.091	0.628	22.1
Right cheek	100	QPSK 1RB_1	528000/2640	1:1	0.603	0.09	15.95	16.50	1.135	0.684	22.1
Right tilted	100	QPSK 1RB_1	509202/2546.01	1:1	0.218	0.01	16.15	16.50	1.084	0.236	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_0	523302/2616.51	1:1	0.674	-0.01	16.10	16.50	1.096	0.739	22.1
Left cheek	100	QPSK 135RB_0	509202/2546.01	1:1	0.613	0.09	15.99	16.50	1.125	0.689	22.1
Left cheek	100	QPSK 135RB_0	513900/2569.5	1:1	0.074	0.08	15.92	16.50	1.143	0.084	22.1
Left cheek	100	QPSK 135RB_0	518598/2592.99	1:1	0.632	0.02	15.91	16.50	1.146	0.724	22.1
Left cheek	100	QPSK 135RB_0	528000/2640	1:1	0.570	0.05	15.92	16.50	1.143	0.651	22.1
Left tilted	100	QPSK 135RB_0	523302/2616.51	1:1	0.194	0.05	16.10	16.50	1.096	0.213	22.1
Right cheek	100	QPSK 135RB_0	523302/2616.51	1:1	0.661	-0.17	16.10	16.50	1.096	0.725	22.1
Right cheek	100	QPSK 135RB_0	509202/2546.01	1:1	0.483	0.03	15.99	16.50	1.125	0.543	22.1
Right cheek	100	QPSK 135RB_0	513900/2569.5	1:1	0.236	0.01	15.92	16.50	1.143	0.270	22.1
Right cheek	100	QPSK 135RB_0	518598/2592.99	1:1	0.536	0.07	15.91	16.50	1.146	0.614	22.1
Right cheek	100	QPSK 135RB_0	528000/2640	1:1	0.600	-0.11	15.92	16.50	1.143	0.686	22.1
Right tilted	100	QPSK 135RB_0	523302/2616.51	1:1	0.184	-0.08	16.10	16.50	1.096	0.202	22.1
Head Test Data(100%RB)											
Left cheek	100	QPSK 270RB_0	509202/2546.01	1:1	0.381	0.03	15.81	16.50	1.172	0.447	22.1
Right cheek	100	QPSK 270RB_0	509202/2546.01	1:1	0.568	0.08	15.81	16.50	1.172	0.666	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Left cheek	100	QPSK 1RB_1	509202/2546.01	1:1	0.761	-0.09	16.15	16.50	1.084	0.825	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_1	513900/2569.5	1:1	0.185	0.05	18.86	19.00	1.033	0.191	22.1
Back side	100	QPSK 1RB_1	513900/2569.5	1:1	0.187	-0.10	18.86	19.00	1.033	0.193	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_0	513900/2569.5	1:1	0.139	-0.08	18.56	19.00	1.107	0.154	22.1
Back side	100	QPSK 135RB_0	513900/2569.5	1:1	0.163	-0.02	18.56	19.00	1.107	0.180	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	100	QPSK 1RB_1	513900/2569.5	1:1	0.175	-0.02	18.86	19.00	1.033	0.181	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	509202/2546.01	1:1	0.241	-0.01	16.15	16.50	1.084	0.261	22.1
Back side	100	QPSK 1RB_1	509202/2546.01	1:1	0.231	-0.09	16.15	16.50	1.084	0.250	22.1



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Left side	100	QPSK 1RB_1	509202/2546.01	1:1	0.240	0.19	16.15	16.50	1.084	0.260	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_0	523302/2616.51	1:1	0.207	-0.04	16.10	16.50	1.096	0.227	22.1
Back side	100	QPSK 135RB_0	523302/2616.51	1:1	0.224	0.00	16.10	16.50	1.096	0.246	22.1
Left side	100	QPSK 135RB_0	523302/2616.51	1:1	0.244	0.10	16.10	16.50	1.096	0.268	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Left side	100	QPSK 135RB_0	523302/2616.51	1:1	0.235	0.11	16.10	16.50	1.096	0.258	22.1
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	528000/2640	1:1	0.299	0.01	16.17	17.00	1.211	0.362	22.1
Left tilted	100	QPSK 1RB_1	528000/2640	1:1	0.341	0.00	16.17	17.00	1.211	0.413	22.1
Right cheek	100	QPSK 1RB_1	528000/2640	1:1	0.525	0.16	16.17	17.00	1.211	0.636	22.1
Right cheek	100	QPSK 1RB_137	509202/2546.01	1:1	0.449	0.04	15.76	17.00	1.330	0.597	22.1
Right cheek	100	QPSK 1RB_1	513900/2569.5	1:1	0.477	0.01	15.92	17.00	1.282	0.612	22.1
Right cheek	100	QPSK 1RB_137	518598/2592.99	1:1	0.432	0.09	15.88	17.00	1.294	0.559	22.1
Right cheek	100	QPSK 1RB_137	523302/2616.51	1:1	0.424	0.02	15.95	17.00	1.274	0.540	22.1
Right tilted	100	QPSK 1RB_1	528000/2640	1:1	0.511	0.11	16.17	17.00	1.211	0.619	22.1
Right tilted	100	QPSK 1RB_137	509202/2546.01	1:1	0.392	-0.09	15.76	17.00	1.330	0.522	22.1
Right tilted	100	QPSK 1RB_1	513900/2569.5	1:1	0.482	-0.07	15.92	17.00	1.282	0.618	22.1
Right tilted	100	QPSK 1RB_137	518598/2592.99	1:1	0.487	-0.17	15.88	17.00	1.294	0.630	22.1
Right tilted	100	QPSK 1RB_137	523302/2616.51	1:1	0.495	-0.04	15.95	17.00	1.274	0.630	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_0	528000/2640	1:1	0.232	-0.10	15.98	17.00	1.265	0.293	22.1
Left tilted	100	QPSK 135RB_0	528000/2640	1:1	0.282	0.13	15.98	17.00	1.265	0.357	22.1
Right cheek	100	QPSK 135RB_0	528000/2640	1:1	0.429	-0.08	15.98	17.00	1.265	0.543	22.1
Right tilted	100	QPSK 135RB_0	528000/2640	1:1	0.470	-0.08	15.98	17.00	1.265	0.594	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	100	QPSK 1RB_1	528000/2640	1:1	0.511	0.02	16.17	17.00	1.211	0.619	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_137	518598/2592.99	1:1	0.180	0.12	24.05	25.00	1.245	0.224	22.1
Back side	100	QPSK 1RB_137	518598/2592.99	1:1	0.558	0.04	24.05	25.00	1.245	0.694	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	528000/2640	1:1	0.117	-0.03	24.06	25.00	1.242	0.145	22.1
Back side	100	QPSK 135RB_69	528000/2640	1:1	0.222	-0.17	24.06	25.00	1.242	0.276	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	100	QPSK 1RB_137	518598/2592.99	1:1	0.300	0.00	24.05	25.00	1.245	0.373	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_1	528000/2640	1:1	0.101	0.09	16.17	17.00	1.211	0.122	22.1
Back side	100	QPSK 1RB_1	528000/2640	1:1	0.158	-0.11	16.17	17.00	1.211	0.191	22.1
Left side	100	QPSK 1RB_1	528000/2640	1:1	0.047	-0.12	16.17	17.00	1.211	0.057	22.1
Top side	100	QPSK 1RB_1	528000/2640	1:1	0.168	-0.02	16.17	17.00	1.211	0.203	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_0	528000/2640	1:1	0.073	-0.13	15.98	17.00	1.265	0.092	22.1
Back side	100	QPSK 135RB_0	528000/2640	1:1	0.135	-0.15	15.98	17.00	1.265	0.171	22.1
Left side	100	QPSK 135RB_0	528000/2640	1:1	0.027	-0.09	15.98	17.00	1.265	0.034	22.1
Top side	100	QPSK 135RB_0	528000/2640	1:1	0.132	-0.03	15.98	17.00	1.265	0.167	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Top side	100	QPSK 1RB_1	528000/2640	1:1	0.156	0.02	16.17	17.00	1.211	0.189	22.1
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp
Product specific 10g SAR Test data(Separate 0mm 1RB Sensor on)											
Back side	100	QPSK 1RB_137	518598/2592.99	1:1	0.709	0.05	18.62	19.00	1.091	0.774	22.1
Top side	100	QPSK 1RB_137	518598/2592.99	1:1	1.520	-0.12	18.62	19.00	1.091	1.659	22.1
Product specific 10g SAR Test data(Separate 0mm 50%RB Sensor on)											
Back side	100	QPSK 135RB_69	518598/2592.99	1:1	0.770	0.03	18.64	19.00	1.086	0.837	22.1
Top side	100	QPSK 135RB_69	518598/2592.99	1:1	1.490	0.08	18.64	19.00	1.086	1.619	22.1



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Product specific 10g SAR Test data(1RB Sensor off)											
Back side 5mm	100	QPSK 1RB_137	518598/2592.99	1:1	1.190	-0.07	24.05	25.00	1.245	1.481	22.1
Top side 5mm	100	QPSK 1RB_137	518598/2592.99	1:1	1.180	0.09	24.05	25.00	1.245	1.469	22.1
Product specific 10g SAR Test data(50%RB Sensor off)											
Back side 5mm	100	QPSK 135RB_69	528000/2640	1:1	1.310	0.11	24.06	25.00	1.242	1.627	22.1
Top side 5mm	100	QPSK 135RB_69	528000/2640	1:1	1.320	0.13	24.06	25.00	1.242	1.639	22.1
Test data at the worst case with Battery2#(Separate 0mm 1RB Sensor on)											
Top side	100	QPSK 1RB_137	518598/2592.99	1:1	1.480	0.02	18.62	19.00	1.091	1.615	22.1

Table 29: SAR of 5G NR n41 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.20 SAR Result of 5G NR n66

Ant2 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_104	352000/1760	1:1	0.154	-0.15	23.77	24.00	1.054	0.162	22.1
Left tilted	40	QPSK 1RB_104	352000/1760	1:1	0.112	0.13	23.77	24.00	1.054	0.118	22.1
Right cheek	40	QPSK 1RB_104	352000/1760	1:1	0.159	-0.11	23.77	24.00	1.054	0.168	22.1
Right tilted	40	QPSK 1RB_104	352000/1760	1:1	0.096	0.18	23.77	24.00	1.054	0.101	22.1
Head Test Data(50%RB)											
Left cheek	40	QPSK 50RB_28	352000/1760	1:1	0.220	-0.01	23.51	24.00	1.119	0.246	22.1
Left tilted	40	QPSK 50RB_28	352000/1760	1:1	0.119	0.16	23.51	24.00	1.119	0.133	22.1
Right cheek	40	QPSK 50RB_28	352000/1760	1:1	0.155	-0.15	23.51	24.00	1.119	0.174	22.1
Right tilted	40	QPSK 50RB_28	352000/1760	1:1	0.096	-0.11	23.51	24.00	1.119	0.107	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Left cheek	40	QPSK 50RB_28	352000/1760	1:1	0.181	0.01	23.51	24.00	1.119	0.203	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1RB_104	352000/1760	1:1	0.210	-0.09	23.77	24.00	1.054	0.221	22.1
Back side	40	QPSK 1RB_104	352000/1760	1:1	0.252	-0.12	23.77	24.00	1.054	0.266	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50RB_28	352000/1760	1:1	0.307	0.13	23.51	24.00	1.119	0.344	22.1
Back side	40	QPSK 50RB_28	352000/1760	1:1	0.438	-0.05	23.51	24.00	1.119	0.490	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	40	QPSK 50RB_28	352000/1760	1:1	0.366	-0.01	23.51	24.00	1.119	0.410	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1RB_104	346000/1730	1:1	0.395	0.08	21.73	22.50	1.194	0.472	22.1
Back side	40	QPSK 1RB_104	346000/1730	1:1	0.500	-0.19	21.73	22.50	1.194	0.597	22.1
Left side	40	QPSK 1RB_104	346000/1730	1:1	0.175	0.02	21.73	22.50	1.194	0.209	22.1
Bottom side	40	QPSK 1RB_104	346000/1730	1:1	0.596	-0.04	21.73	22.50	1.194	0.712	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50RB_28	349000/1745	1:1	0.399	-0.19	21.62	22.50	1.225	0.489	22.1
Back side	40	QPSK 50RB_28	349000/1745	1:1	0.515	0.13	21.62	22.50	1.225	0.631	22.1
Left side	40	QPSK 50RB_28	349000/1745	1:1	0.177	-0.03	21.62	22.50	1.225	0.217	22.1
Bottom side	40	QPSK 50RB_28	349000/1745	1:1	0.582	-0.19	21.62	22.50	1.225	0.713	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Bottom side	40	QPSK 1RB_104	346000/1730	1:1	0.581	-0.16	21.73	22.50	1.194	0.694	22.1
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	40	QPSK 1RB_104	349000/1745	1:1	0.500	0.15	21.69	22.00	1.074	0.537	22.1
Left tilted	40	QPSK 1RB_104	349000/1745	1:1	0.112	0.11	21.69	22.00	1.074	0.120	22.1
Right cheek	40	QPSK 1RB_104	349000/1745	1:1	0.438	-0.09	21.69	22.00	1.074	0.470	22.1
Right tilted	40	QPSK 1RB_104	349000/1745	1:1	0.127	0.13	21.69	22.00	1.074	0.136	22.1
Head Test Data(50%RB)											
Left cheek	40	QPSK 50RB_56	349000/1745	1:1	0.549	0.04	21.61	22.00	1.094	0.601	22.1
Left tilted	40	QPSK 50RB_56	349000/1745	1:1	0.074	-0.14	21.61	22.00	1.094	0.081	22.1
Right cheek	40	QPSK 50RB_56	349000/1745	1:1	0.414	-0.06	21.61	22.00	1.094	0.453	22.1
Right tilted	40	QPSK 50RB_56	349000/1745	1:1	0.130	0.07	21.61	22.00	1.094	0.142	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Left cheek	40	QPSK 50RB_56	349000/1745	1:1	0.533	-0.16	21.61	22.00	1.094	0.583	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1RB_104	349000/1745	1:1	0.090	0.13	22.80	23.00	1.047	0.094	22.1
Back side	40	QPSK 1RB_104	349000/1745	1:1	0.099	0.02	22.80	23.00	1.047	0.104	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50RB_56	352000/1760	1:1	0.094	0.19	21.88	23.00	1.294	0.122	22.1
Back side	40	QPSK 50RB_56	352000/1760	1:1	0.112	-0.11	21.88	23.00	1.294	0.145	22.1



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Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	40	QPSK 50RB_56	352000/1760	1:1	0.101	0.00	21.88	23.00	1.294	0.131	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1RB_104	349000/1745	1:1	0.196	-0.16	21.69	22.00	1.074	0.211	22.1
Back side	40	QPSK 1RB_104	349000/1745	1:1	0.224	0.19	21.69	22.00	1.074	0.241	22.1
Left side	40	QPSK 1RB_104	349000/1745	1:1	0.298	0.09	21.69	22.00	1.074	0.320	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50RB_56	349000/1745	1:1	0.203	0.19	21.61	22.00	1.094	0.222	22.1
Back side	40	QPSK 50RB_56	349000/1745	1:1	0.235	-0.10	21.61	22.00	1.094	0.257	22.1
Left side	40	QPSK 50RB_56	349000/1745	1:1	0.261	0.07	21.61	22.00	1.094	0.286	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Left side	40	QPSK 1RB_104	349000/1745	1:1	0.279	-0.03	21.69	22.00	1.074	0.300	22.1
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_104	352000/1760	1:1	0.046	-0.07	20.72	21.50	1.197	0.055	22.1
Left tilted	40	QPSK 1RB_104	352000/1760	1:1	0.002	0.17	20.72	21.50	1.197	0.002	22.1
Right cheek	40	QPSK 1RB_104	352000/1760	1:1	0.067	-0.10	20.72	21.50	1.197	0.080	22.1
Right tilted	40	QPSK 1RB_104	352000/1760	1:1	0.040	0.15	20.72	21.50	1.197	0.048	22.1
Head Test Data(50%RB)											
Left cheek	40	QPSK 50RB_28	346000/1730	1:1	0.036	0.05	20.59	21.50	1.233	0.044	22.1
Left tilted	40	QPSK 50RB_28	346000/1730	1:1	0.010	0.03	20.59	21.50	1.233	0.012	22.1
Right cheek	40	QPSK 50RB_28	346000/1730	1:1	0.064	0.02	20.59	21.50	1.233	0.079	22.1
Right tilted	40	QPSK 50RB_28	346000/1730	1:1	0.032	-0.16	20.59	21.50	1.233	0.039	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	40	QPSK 1RB_104	352000/1760	1:1	0.055	0.00	20.72	21.50	1.197	0.066	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1RB_104	352000/1760	1:1	0.101	-0.11	20.72	21.50	1.197	0.121	22.1
Back side	40	QPSK 1RB_104	352000/1760	1:1	0.115	-0.02	20.72	21.50	1.197	0.138	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50RB_28	346000/1730	1:1	0.104	-0.01	20.59	21.50	1.233	0.128	22.1
Back side	40	QPSK 50RB_28	346000/1730	1:1	0.127	0.01	20.59	21.50	1.233	0.157	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	40	QPSK 50RB_28	346000/1730	1:1	0.118	0.02	20.59	21.50	1.233	0.146	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1RB_104	352000/1760	1:1	0.119	0.03	20.72	21.50	1.197	0.142	22.1
Back side	40	QPSK 1RB_104	352000/1760	1:1	0.330	0.05	20.72	21.50	1.197	0.395	22.1
Right side	40	QPSK 1RB_104	352000/1760	1:1	0.161	-0.09	20.72	21.50	1.197	0.193	22.1
Bottom side	40	QPSK 1RB_104	352000/1760	1:1	0.163	0.13	20.72	21.50	1.197	0.195	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50RB_28	346000/1730	1:1	0.104	-0.11	20.59	21.50	1.233	0.128	22.1
Back side	40	QPSK 50RB_28	346000/1730	1:1	0.280	-0.09	20.59	21.50	1.233	0.345	22.1
Right side	40	QPSK 50RB_28	346000/1730	1:1	0.152	-0.11	20.59	21.50	1.233	0.187	22.1
Bottom side	40	QPSK 50RB_28	346000/1730	1:1	0.154	-0.04	20.59	21.50	1.233	0.190	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	40	QPSK 1RB_104	352000/1760	1:1	0.320	-0.01	20.72	21.50	1.197	0.383	22.1
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	40	QPSK 1RB_104	346000/1730	1:1	0.337	-0.05	16.63	17.50	1.222	0.412	22.1
Left tilted	40	QPSK 1RB_104	346000/1730	1:1	0.403	-0.05	16.63	17.50	1.222	0.492	22.1
Right cheek	40	QPSK 1RB_104	346000/1730	1:1	0.633	0.10	16.63	17.50	1.222	0.773	22.1
Right tilted	40	QPSK 1RB_104	346000/1730	1:1	0.770	-0.03	16.63	17.50	1.222	0.941	22.1
Right tilted	40	QPSK 1RB_1	349000/1745	1:1	0.723	0.01	16.54	17.50	1.247	0.902	22.1
Right tilted	40	QPSK 1RB_104	352000/1760	1:1	0.744	0.11	16.58	17.50	1.236	0.920	22.1
Head Test Data(50%RB)											



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Left cheek	40	QPSK 50RB_28	346000/1730	1:1	0.312	-0.13	16.82	17.50	1.169	0.365	22.1
Left tilted	40	QPSK 50RB_28	346000/1730	1:1	0.385	-0.13	16.82	17.50	1.169	0.450	22.1
Right cheek	40	QPSK 50RB_28	346000/1730	1:1	0.612	-0.02	16.82	17.50	1.169	0.716	22.1
Right tilted	40	QPSK 50RB_28	346000/1730	1:1	0.632	-0.07	16.82	17.50	1.169	0.739	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right tilted	40	QPSK 1RB_104	346000/1730	1:1	0.767	0.04	16.63	17.50	1.222	0.937	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	40	QPSK 1RB_1	352000/1760	1:1	0.189	-0.12	21.59	22.50	1.233	0.233	22.1
Back side	40	QPSK 1RB_1	352000/1760	1:1	0.416	0.15	21.59	22.50	1.233	0.513	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	40	QPSK 50RB_28	346000/1730	1:1	0.181	0.02	21.55	21.50	0.989	0.179	22.1
Back side	40	QPSK 50RB_28	346000/1730	1:1	0.328	0.03	21.55	21.50	0.989	0.324	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	40	QPSK 1RB_1	352000/1760	1:1	0.400	0.11	21.59	22.50	1.233	0.493	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	40	QPSK 1RB_104	346000/1730	1:1	0.120	-0.07	16.63	17.50	1.222	0.147	22.1
Back side	40	QPSK 1RB_104	346000/1730	1:1	0.195	0.12	16.63	17.50	1.222	0.238	22.1
Left side	40	QPSK 1RB_104	346000/1730	1:1	0.063	0.01	16.63	17.50	1.222	0.077	22.1
Top side	40	QPSK 1RB_104	346000/1730	1:1	0.222	0.01	16.63	17.50	1.222	0.271	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	40	QPSK 50RB_28	346000/1730	1:1	0.110	-0.10	16.82	17.50	1.169	0.129	22.1
Back side	40	QPSK 50RB_28	346000/1730	1:1	0.185	-0.17	16.82	17.50	1.169	0.216	22.1
Left side	40	QPSK 50RB_28	346000/1730	1:1	0.051	-0.01	16.82	17.50	1.169	0.060	22.1
Top side	40	QPSK 50RB_28	346000/1730	1:1	0.204	-0.16	16.82	17.50	1.169	0.239	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Top side	40	QPSK 1RB_104	346000/1730	1:1	0.201	0.00	16.63	17.50	1.222	0.246	22.1

Table 30: SAR of 5G NR n66 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
- $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
- $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.21 SAR Result of 5G NR n77

Ant4 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_137	657200/3858	1:1	0.129	-0.11	14.34	14.50	1.038	0.134	22.1
Left tilted	100	QPSK 1RB_137	657200/3858	1:1	0.114	-0.03	14.34	14.50	1.038	0.118	22.1
Right cheek	100	QPSK 1RB_137	657200/3858	1:1	0.512	-0.04	14.34	14.50	1.038	0.531	22.1
Right tilted	100	QPSK 1RB_137	657200/3858	1:1	0.185	0.03	14.34	14.50	1.038	0.192	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_138	657200/3858	1:1	0.159	0.01	14.10	14.50	1.096	0.174	22.1
Left tilted	100	QPSK 135RB_138	657200/3858	1:1	0.109	0.19	14.10	14.50	1.096	0.120	22.1
Right cheek	100	QPSK 135RB_138	657200/3858	1:1	0.517	-0.16	14.10	14.50	1.096	0.567	22.1
Right tilted	100	QPSK 135RB_138	657200/3858	1:1	0.201	-0.14	14.10	14.50	1.096	0.220	22.1
Head Test Data at the worst case with Battery2#(50%RB)											
Right cheek	100	QPSK 135RB_138	657200/3858	1:1	0.505	0.02	14.10	14.50	1.096	0.554	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_137	657200/3858	1:1	0.059	0.02	16.71	17.00	1.069	0.063	22.1
Back side	100	QPSK 1RB_137	657200/3858	1:1	0.098	0.11	16.71	17.00	1.069	0.105	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	657200/3858	1:1	0.065	0.01	16.30	17.00	1.175	0.076	22.1
Back side	100	QPSK 135RB_69	657200/3858	1:1	0.105	0.05	16.30	17.00	1.175	0.123	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	100	QPSK 135RB_69	657200/3858	1:1	0.100	0.00	16.30	17.00	1.175	0.117	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_137	657200/3858	1:1	0.087	0.02	14.34	14.50	1.038	0.090	22.1
Back side	100	QPSK 1RB_137	657200/3858	1:1	0.120	-0.06	14.34	14.50	1.038	0.125	22.1
Left side	100	QPSK 1RB_137	657200/3858	1:1	0.192	-0.03	14.34	14.50	1.038	0.199	22.1
Top side	100	QPSK 1RB_137	657200/3858	1:1	0.028	0.13	14.34	14.50	1.038	0.029	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_138	657200/3858	1:1	0.104	0.03	14.10	14.50	1.096	0.114	22.1
Back side	100	QPSK 135RB_138	657200/3858	1:1	0.160	0.02	14.10	14.50	1.096	0.175	22.1
Left side	100	QPSK 135RB_138	657200/3858	1:1	0.217	0.08	14.10	14.50	1.096	0.238	22.1
Top side	100	QPSK 135RB_138	657200/3858	1:1	0.054	0.05	14.10	14.50	1.096	0.059	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Left side	100	QPSK 135RB_138	657200/3858	1:1	0.202	-0.02	14.10	14.50	1.096	0.221	22.1
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	100	QPSK 1RB_137	662000/3930	1:1	0.702	-0.18	17.00	17.50	1.122	0.788	22.1
Left tilted	100	QPSK 1RB_137	662000/3930	1:1	0.684	-0.01	17.00	17.50	1.122	0.767	22.1
Right cheek	100	QPSK 1RB_137	662000/3930	1:1	0.566	0.04	17.00	17.50	1.122	0.635	22.1
Right tilted	100	QPSK 1RB_137	662000/3930	1:1	0.507	0.16	17.00	17.50	1.122	0.569	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_0	650000/3750	1:1	0.441	-0.15	16.80	17.50	1.175	0.518	22.1
Left tilted	100	QPSK 135RB_0	650000/3750	1:1	0.430	0.02	16.80	17.50	1.175	0.505	22.1
Right cheek	100	QPSK 135RB_0	650000/3750	1:1	0.398	-0.05	16.80	17.50	1.175	0.468	22.1
Right tilted	100	QPSK 135RB_0	650000/3750	1:1	0.357	0.18	16.80	17.50	1.175	0.419	22.1
Head Test Data at the worst case with Battery2#(1RB)											



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Left cheek	100	QPSK 1RB_137	662000/3930	1:1	0.695	-0.02	17.00	17.50	1.122	0.780	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_137	657200/3858	1:1	0.294	0.00	23.67	24.50	1.211	0.356	22.1
Back side	100	QPSK 1RB_137	657200/3858	1:1	0.364	0.09	23.67	24.50	1.211	0.441	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_138	657200/3858	1:1	0.241	0.12	23.75	24.50	1.189	0.286	22.1
Back side	100	QPSK 135RB_138	657200/3858	1:1	0.247	0.09	23.75	24.50	1.189	0.294	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	100	QPSK 1RB_137	657200/3858	1:1	0.302	0.02	23.67	24.50	1.211	0.366	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_137	662000/3930	1:1	0.082	-0.07	17.00	17.50	1.122	0.092	22.1
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.097	0.05	17.00	17.50	1.122	0.109	22.1
Top side	100	QPSK 1RB_137	662000/3930	1:1	0.096	0.03	17.00	17.50	1.122	0.108	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_0	650000/3750	1:1	0.073	-0.08	16.80	17.50	1.175	0.085	22.1
Back side	100	QPSK 135RB_0	650000/3750	1:1	0.093	0.12	16.80	17.50	1.175	0.110	22.1
Top side	100	QPSK 135RB_0	650000/3750	1:1	0.100	-0.05	16.80	17.50	1.175	0.117	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Top side	100	QPSK 135RB_0	650000/3750	1:1	0.090	0.00	16.80	17.50	1.175	0.106	22.1
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	100	QPSK 1RB_271	657200/3858	1:1	0.640	0.03	14.91	15.50	1.146	0.733	22.1
Left tilted	100	QPSK 1RB_271	657200/3858	1:1	0.325	0.02	14.91	15.50	1.146	0.372	22.1
Right cheek	100	QPSK 1RB_271	657200/3858	1:1	0.135	-0.05	14.91	15.50	1.146	0.155	22.1
Right tilted	100	QPSK 1RB_271	657200/3858	1:1	0.166	-0.19	14.91	15.50	1.146	0.190	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_96	662000/3930	1:1	0.567	0.06	15.00	15.50	1.122	0.636	22.1
Left tilted	100	QPSK 135RB_96	662000/3930	1:1	0.403	-0.13	15.00	15.50	1.122	0.452	22.1
Right cheek	100	QPSK 135RB_96	662000/3930	1:1	0.202	0.06	15.00	15.50	1.122	0.227	22.1
Right tilted	100	QPSK 135RB_96	662000/3930	1:1	0.160	-0.16	15.00	15.50	1.122	0.180	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Left cheek	100	QPSK 1RB_271	657200/3858	1:1	0.623	-0.05	14.91	15.50	1.146	0.714	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_271	654800/3822	1:1	0.076	-0.19	18.00	18.50	1.122	0.085	22.1
Back side	100	QPSK 1RB_271	654800/3822	1:1	0.125	0.12	18.00	18.50	1.122	0.140	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_138	659600/3894	1:1	0.075	0.15	17.95	18.50	1.135	0.085	22.1
Back side	100	QPSK 135RB_138	659600/3894	1:1	0.141	0.02	17.95	18.50	1.135	0.160	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 50%RB)											
Back side	100	QPSK 135RB_138	659600/3894	1:1	0.122	0.02	17.95	18.50	1.135	0.138	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_271	657200/3858	1:1	0.100	0.19	14.91	15.50	1.146	0.115	22.1
Back side	100	QPSK 1RB_271	657200/3858	1:1	0.127	0.00	14.91	15.50	1.146	0.145	22.1
Right side	100	QPSK 1RB_271	657200/3858	1:1	0.158	-0.10	14.91	15.50	1.146	0.181	22.1
Top side	100	QPSK 1RB_271	657200/3858	1:1	0.126	-0.04	14.91	15.50	1.146	0.144	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_96	662000/3930	1:1	0.091	-0.10	15.00	15.50	1.122	0.102	22.1
Back side	100	QPSK 135RB_96	662000/3930	1:1	0.162	0.03	15.00	15.50	1.122	0.182	22.1
Right side	100	QPSK 135RB_96	662000/3930	1:1	0.160	0.18	15.00	15.50	1.122	0.180	22.1
Top side	100	QPSK 135RB_96	662000/3930	1:1	0.109	0.06	15.00	15.50	1.122	0.122	22.1



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Hotspot Test data at the worst case with Battery2#(Separate 10mm 50%RB)											
Back side	100	QPSK 135RB_96	662000/3930	1:1	0.157	0.00	15.00	15.50	1.122	0.176	22.1
Ant12 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_137	662000/3930	1:1	0.246	-0.05	20.84	21.50	1.164	0.286	22.1
Left tilted	100	QPSK 1RB_137	662000/3930	1:1	0.291	-0.16	20.84	21.50	1.164	0.339	22.1
Right cheek	100	QPSK 1RB_137	662000/3930	1:1	0.431	0.02	20.84	21.50	1.164	0.502	22.1
Right cheek	100	QPSK 1RB_137	650000/3750	1:1	0.390	0.17	20.72	21.50	1.197	0.467	22.1
Right cheek	100	QPSK 1RB_137	652400/3786	1:1	0.410	0.02	20.69	21.50	1.205	0.494	22.1
Right cheek	100	QPSK 1RB_137	654800/3822	1:1	0.330	-0.03	20.80	21.50	1.175	0.388	22.1
Right cheek	100	QPSK 1RB_137	657200/3858	1:1	0.380	-0.04	20.64	21.50	1.219	0.463	22.1
Right cheek	100	QPSK 1RB_137	659600/3894	1:1	0.376	-0.08	20.65	21.50	1.216	0.457	22.1
Right tilted	100	QPSK 1RB_137	662000/3930	1:1	0.395	-0.10	20.84	21.50	1.164	0.460	22.1
Head Test Data(50%RB)											
Left cheek	100	QPSK 135RB_0	657200/3858	1:1	0.254	0.06	20.86	21.50	1.159	0.294	22.1
Left tilted	100	QPSK 135RB_0	657200/3858	1:1	0.288	0.14	20.86	21.50	1.159	0.334	22.1
Right cheek	100	QPSK 135RB_0	657200/3858	1:1	0.402	0.17	20.86	21.50	1.159	0.466	22.1
Right cheek	100	QPSK 135RB_0	650000/3750	1:1	0.312	-0.02	20.73	21.50	1.194	0.373	22.1
Right cheek	100	QPSK 135RB_0	652400/3786	1:1	0.305	-0.15	20.84	21.50	1.164	0.355	22.1
Right cheek	100	QPSK 135RB_0	654800/3822	1:1	0.298	-0.07	20.84	21.50	1.164	0.347	22.1
Right cheek	100	QPSK 135RB_69	659600/3894	1:1	0.371	0.12	20.70	21.50	1.202	0.446	22.1
Right cheek	100	QPSK 135RB_0	662000/3930	1:1	0.365	0.06	20.77	21.50	1.183	0.432	22.1
Right tilted	100	QPSK 135RB_0	657200/3858	1:1	0.338	-0.11	20.86	21.50	1.159	0.392	22.1
Head Test Data at the worst case with Battery2#(1RB)											
Right cheek	100	QPSK 1RB_137	662000/3930	1:1	0.419	-0.05	20.84	21.50	1.164	0.488	22.1
Body worn Test data(Separate 15mm 1RB)											
Front side	100	QPSK 1RB_271	657200/3858	1:1	0.104	0.05	24.08	25.50	1.387	0.144	22.1
Back side	100	QPSK 1RB_271	657200/3858	1:1	0.508	0.07	24.08	25.50	1.387	0.704	22.1
Body worn Test data(Separate 15mm 50%RB)											
Front side	100	QPSK 135RB_69	662000/3930	1:1	0.087	0.02	24.09	25.50	1.384	0.120	22.1
Back side	100	QPSK 135RB_69	662000/3930	1:1	0.451	-0.14	24.09	25.50	1.384	0.624	22.1
Body worn Test data at the worst case with Battery2#(Separate 15mm 1RB)											
Back side	100	QPSK 1RB_271	657200/3858	1:1	0.495	-0.06	24.08	25.50	1.387	0.686	22.1
Hotspot Test data(Separate 10mm 1RB)											
Front side	100	QPSK 1RB_137	662000/3930	1:1	0.070	0.18	17.51	19.00	1.409	0.099	22.1
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.396	0.12	17.51	19.00	1.409	0.558	22.1
Left side	100	QPSK 1RB_137	662000/3930	1:1	0.075	0.07	17.51	19.00	1.409	0.106	22.1
Top side	100	QPSK 1RB_137	662000/3930	1:1	0.097	-0.03	17.51	19.00	1.409	0.137	22.1
Hotspot Test data(Separate 10mm 50%RB)											
Front side	100	QPSK 135RB_69	657200/3858	1:1	0.074	0.02	17.47	19.00	1.422	0.105	22.1
Back side	100	QPSK 135RB_69	657200/3858	1:1	0.362	-0.01	17.47	19.00	1.422	0.515	22.1
Left side	100	QPSK 135RB_69	657200/3858	1:1	0.075	0.07	17.47	19.00	1.422	0.107	22.1
Top side	100	QPSK 135RB_69	657200/3858	1:1	0.092	0.10	17.47	19.00	1.422	0.131	22.1
Hotspot Test data at the worst case with Battery2#(Separate 10mm 1RB)											
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.385	0.10	17.51	19.00	1.409	0.543	22.1
Test position	BW.	Test mode	Test ch./Freq.	Duty Cycle	SAR (W/kg) 10-g	Power Drift (dB)	Conducted Power (dBm)	Tune up Limit (dBm)	Scaled factor	Scaled SAR (W/kg)	Liquid Temp
Product specific 10g SAR Test data(Separate 0mm 1RB Sensor on)											
Back side	100	QPSK 1RB_137	662000/3930	1:1	0.946	0.01	17.51	19.00	1.409	1.333	22.1



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Product specific 10g SAR Test data(Separate 0mm 50%RB Sensor on)											
Back side	100	QPSK 135RB_69	657200/3858	1:1	0.935	-0.14	17.47	19.00	1.422	1.330	22.1
Product specific 10g SAR Test data(1RB Sensor off)											
Back side 5mm	100	QPSK 1RB_271	657200/3858	1:1	1.510	0.02	24.08	25.50	1.387	2.094	22.1
Back side 5mm	100	QPSK 1RB_271	650000/3750	1:1	1.380	0.01	23.78	25.50	1.486	2.051	22.1
Back side 5mm	100	QPSK 1RB_271	652400/3786	1:1	1.420	0.15	23.90	25.50	1.445	2.053	22.1
Back side 5mm	100	QPSK 1RB_271	654800/3822	1:1	1.370	-0.06	24.05	25.50	1.396	1.913	22.1
Back side 5mm	100	QPSK 1RB_271	659600/3894	1:1	1.350	0.08	24.07	25.50	1.390	1.876	22.1
Back side 5mm	100	QPSK 1RB_137	662000/3930	1:1	1.440	0.17	24.03	25.50	1.403	2.020	22.1
Product specific 10g SAR Test data(50%RB Sensor off)											
Back side 5mm	100	QPSK 135RB_69	662000/3930	1:1	1.630	0.09	24.09	25.50	1.384	2.255	22.1
Back side 5mm	100	QPSK 135RB_69	650000/3750	1:1	1.510	0.03	23.84	25.50	1.466	2.213	22.1
Back side 5mm	100	QPSK 135RB_69	652400/3786	1:1	1.420	-0.07	23.72	25.50	1.507	2.139	22.1
Back side 5mm	100	QPSK 135RB_69	654800/3822	1:1	1.500	0.06	23.95	25.50	1.429	2.143	22.1
Back side 5mm	100	QPSK 135RB_69	657200/3858	1:1	1.370	0.15	24.05	25.50	1.396	1.913	22.1
Back side 5mm	100	QPSK 135RB_69	659600/3894	1:1	1.480	0.11	24.03	25.50	1.403	2.076	22.1
Product specific 10g SAR Test data(100%RB Sensor off)											
Back side 5mm	100	QPSK 270RB_0	659600/3894	1:1	1.410	-0.06	23.12	24.50	1.374	1.937	22.1
Product specific 10g SAR Test data at the worst case with Battery2#(50%RB Sensor off)											
Back side 5mm	100	QPSK 135RB_69	662000/3930	1:1	1.580	-0.03	24.09	25.50	1.384	2.186	22.1

Table 31: SAR of 5G NR n77 for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.3.22 SAR Result of WIFI 2.4G

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	1/2412	99.86%	1.001	0.833	-0.01	18.45	19.00	1.135	0.947	22
Left tilted	802.11b	1/2412	99.86%	1.001	0.676	-0.17	18.45	19.00	1.135	0.768	22
Right cheek	802.11b	1/2412	99.86%	1.001	0.231	0.10	18.45	19.00	1.135	0.263	22
Right tilted	802.11b	1/2412	99.86%	1.001	0.258	-0.16	18.45	19.00	1.135	0.293	22
Left cheek	802.11b	6/2437	99.86%	1.001	0.640	0.03	18.29	19.00	1.178	0.755	22
Left cheek	802.11b	11/2462	99.86%	1.001	0.603	0.07	18.14	19.00	1.219	0.736	22
Head Test data at the worst case with Battery2#											
Left cheek	802.11b	1/2412	99.86%	1.001	0.821	0.01	18.45	19.00	1.135	0.933	22
Body worn Test data (Separate 15mm)											
Front side	802.11b	1/2412	99.86%	1.001	0.144	0.01	21.06	21.50	1.107	0.160	22
Back side	802.11b	1/2412	99.86%	1.001	0.235	-0.08	21.06	21.50	1.107	0.260	22
Body worn Test data at the worst case with Battery2# (Separate 15mm)											
Back side	802.11b	1/2412	99.86%	1.001	0.220	0.11	21.06	21.50	1.107	0.244	22
Hotspot Test data (Separate 10mm)											
Front side	802.11b	1/2412	99.86%	1.001	0.287	-0.10	21.06	21.50	1.107	0.318	22
Back side	802.11b	1/2412	99.86%	1.001	0.524	-0.14	21.06	21.50	1.107	0.581	22
Right side	802.11b	1/2412	99.86%	1.001	0.402	0.01	21.06	21.50	1.107	0.445	22
Top side	802.11b	1/2412	99.86%	1.001	0.175	-0.11	21.06	21.50	1.107	0.194	22
Hotspot Test data at the worst case with Battery2# (Separate 10mm)											
Back side	802.11b	1/2412	99.86%	1.001	0.511	0.01	21.06	21.50	1.107	0.566	22
Additional Test data(simultaneous transmission with (WWAN+WIFI 2.4G))											
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	1/2412	99.86%	1.001	0.498	0.01	16.58	17.00	1.102	0.549	22
Left tilted	802.11b	1/2412	99.86%	1.001	0.386	0.11	16.58	17.00	1.102	0.426	22
Right cheek	802.11b	1/2412	99.86%	1.001	0.125	-0.03	16.58	17.00	1.102	0.138	22
Right tilted	802.11b	1/2412	99.86%	1.001	0.148	0.07	16.58	17.00	1.102	0.163	22

Table 32: SAR of WIFI 2.4G for Head and Body.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR test for the other 802.11 modes are not required.



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8.3.23 SAR Result of WIFI 5G

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	99.05%	1.010	0.565	0.17	16.79	17.50	1.178	0.672	22.2
Left tilted	802.11a	64/5320	99.05%	1.010	0.862	0.17	16.79	17.50	1.178	1.025	22.2
Left tilted	802.11a	60/5300	99.05%	1.010	0.795	0.01	16.49	17.50	1.262	1.013	22.2
Right cheek	802.11a	64/5320	99.05%	1.010	0.475	0.07	16.79	17.50	1.178	0.565	22.2
Right tilted	802.11a	64/5320	99.05%	1.010	0.701	0.03	16.79	17.50	1.178	0.833	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	116/5580	99.05%	1.010	0.419	-0.03	18.04	18.50	1.112	0.470	22.2
Left tilted	802.11a	116/5580	99.05%	1.010	0.804	-0.12	18.04	18.50	1.112	0.902	22.2
Left tilted	802.11a	128/5640	99.05%	1.010	0.831	-0.10	18.03	18.50	1.114	0.935	22.2
Right cheek	802.11a	116/5580	99.05%	1.010	0.650	-0.09	18.04	18.50	1.112	0.730	22.2
Right tilted	802.11a	116/5580	99.05%	1.010	0.799	0.06	18.04	18.50	1.112	0.897	22.2
Right tilted	802.11a	128/5640	99.05%	1.010	0.827	0.00	18.03	18.50	1.114	0.930	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	149/5745	99.05%	1.010	0.839	0.01	18.73	19.50	1.194	1.011	22.2
Left cheek	802.11a	157/5785	99.05%	1.010	0.801	0.00	18.52	19.50	1.253	1.013	22.2
Left tilted	802.11a	149/5745	99.05%	1.010	0.787	0.04	18.73	19.50	1.194	0.949	22.2
Left tilted	802.11a	157/5785	99.05%	1.010	0.795	-0.12	18.52	19.50	1.253	1.006	22.2
Right cheek	802.11a	149/5745	99.05%	1.010	0.600	0.15	18.73	19.50	1.194	0.723	22.2
Right tilted	802.11a	149/5745	99.05%	1.010	0.784	0.07	18.73	19.50	1.194	0.945	22.2
Right tilted	802.11a	157/5785	99.05%	1.010	0.793	0.07	18.52	19.50	1.253	1.003	22.2
Head Test data of U-NII-2A at the worst case with Battery2#											
Left tilted	802.11a	64/5320	99.05%	1.010	0.855	-0.14	16.79	17.50	1.178	1.017	22.2
Body worn Test data of U-NII-1(Separate 15mm)											
Front side	802.11a	36/5180	99.05%	1.010	0.059	0.03	18.86	19.50	1.159	0.069	22.2
Back side	802.11a	36/5180	99.05%	1.010	0.154	0.03	18.86	19.50	1.159	0.180	22.2
Body worn Test data of U-NII-2C(Separate 15mm)											
Front side	802.11a	120/5600	99.05%	1.010	0.059	0.09	19.27	19.50	1.054	0.063	22.2
Back side	802.11a	120/5600	99.05%	1.010	0.113	0.09	19.27	19.50	1.054	0.120	22.2
Body worn Test data of U-NII-3(Separate 15mm)											
Front side	802.11a	149/5745	99.05%	1.010	0.115	0.04	18.73	19.50	1.194	0.139	22.2
Back side	802.11a	149/5745	99.05%	1.010	0.121	0.09	18.73	19.50	1.194	0.146	22.2
Body worn Test data of U-NII-1 at the worst case with Battery2#(Separate 15mm)											
Back side	802.11a	36/5180	99.05%	1.010	0.148	0.00	18.86	19.50	1.159	0.173	22.2
Hotspot Test data of U-NII-1(Separate 10mm)											
Front side	802.11a	36/5180	99.05%	1.010	0.135	0.05	18.86	19.50	1.159	0.158	22.2
Back side	802.11a	36/5180	99.05%	1.010	0.241	0.01	18.86	19.50	1.159	0.282	22.2
Right side	802.11a	36/5180	99.05%	1.010	0.168	0.06	18.86	19.50	1.159	0.197	22.2
Hotspot Test data of U-NII-3 (Separate 10mm)											
Front side	802.11a	149/5745	99.05%	1.010	0.177	-0.07	18.73	19.50	1.194	0.213	22.2
Back side	802.11a	149/5745	99.05%	1.010	0.267	0.03	18.73	19.50	1.194	0.322	22.2
Right side	802.11a	149/5745	99.05%	1.010	0.272	0.08	18.73	19.50	1.194	0.328	22.2
Top side	802.11a	149/5745	99.05%	1.010	0.543	0.02	18.73	19.50	1.194	0.655	22.2
Hotspot Test data of U-NII-3 at the worst case with Battery2#(Separate 10mm)											
Top side	802.11a	149/5745	99.05%	1.010	0.533	-0.11	18.73	19.50	1.194	0.643	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(Separate 0mm)											
Front side	802.11a	64/5320	99.05%	1.010	0.291	-0.06	17.77	18.50	1.183	0.348	22.2
Back side	802.11a	64/5320	99.05%	1.010	0.423	0.03	17.77	18.50	1.183	0.505	22.2
Right side	802.11a	64/5320	99.05%	1.010	0.480	0.06	17.77	18.50	1.183	0.573	22.2
Top side	802.11a	64/5320	99.05%	1.010	0.835	0.01	17.77	18.50	1.183	0.997	22.2
Product specific 10g SAR Test data of U-NII-2C(Separate 0mm)											



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Front side	802.11a	120/5600	99.05%	1.010	0.388	0.07	19.27	19.50	1.054	0.413	22.2
Back side	802.11a	120/5600	99.05%	1.010	0.432	0.05	19.27	19.50	1.054	0.460	22.2
Right side	802.11a	120/5600	99.05%	1.010	0.610	0.13	19.27	19.50	1.054	0.649	22.2
Top side	802.11a	120/5600	99.05%	1.010	0.722	-0.08	19.27	19.50	1.054	0.769	22.2
Product specific 10g SAR Test data of U-NII-2A at the worst case with Battery2#(Separate 0mm)											
Top side	802.11a	64/5320	99.05%	1.010	0.824	-0.04	17.77	18.50	1.183	0.984	22.2
Additional Test data(simultaneous transmission with (WWAN+WiFi 5G/WWAN+WiFi 5G+BT/WiFi 5G+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 of U-NII-2A											
Left cheek	802.11a	64/5320	99.05%	1.010	0.212	-0.03	13.86	14.50	1.159	0.248	22.2
Left tilted	802.11a	64/5320	99.05%	1.010	0.411	0.11	13.86	14.50	1.159	0.481	22.2
Right cheek	802.11a	64/5320	99.05%	1.010	0.225	0.06	13.86	14.50	1.159	0.263	22.2
Right tilted	802.11a	64/5320	99.05%	1.010	0.321	0.14	13.86	14.50	1.159	0.376	22.2
Head Test data of U-NII-2C											
Left cheek	802.11a	116/5580	99.05%	1.010	0.201	-0.14	15.09	15.50	1.099	0.223	22.2
Left tilted	802.11a	116/5580	99.05%	1.010	0.389	0.07	15.09	15.50	1.099	0.432	22.2
Right cheek	802.11a	116/5580	99.05%	1.010	0.305	0.16	15.09	15.50	1.099	0.338	22.2
Right tilted	802.11a	116/5580	99.05%	1.010	0.326	0.03	15.09	16.50	1.384	0.455	22.2
Head Test data of U-NII-3											
Left cheek	802.11a	149/5745	99.05%	1.010	0.346	0.13	15.87	16.50	1.156	0.404	22.2
Left tilted	802.11a	149/5745	99.05%	1.010	0.343	-0.05	15.87	16.50	1.156	0.400	22.2
Right cheek	802.11a	149/5745	99.05%	1.010	0.296	0.16	15.87	16.50	1.156	0.345	22.2
Right tilted	802.11a	149/5745	99.05%	1.010	0.384	0.08	15.87	16.50	1.156	0.448	22.2

Table 33: SAR of WIFI 5G for Head, Body and Product specific 10g SAR.

Note:

- 1) The maximum Scaled SAR value is marked in bold. Graph results refer to Appendix B.
- 2) Each channel was tested at the lowest data rate.
- 3) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. As the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration.
- 4) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) bands does not support hotspot function.
- 5) When the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR test for the other 802.11 modes are not required.

Test Position	Channel/ Frequency (MHz)	Measured SAR (1g)	1 st Repeated SAR (1g)	Ratio	2 nd Repeated SAR (1g)	3 rd Repeated SAR (1g)
Left tilted	64/5320	0.862	0.851	1.013	N/A	N/A

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





8.3.24 SAR Result of BT

ANT7 SAR 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	DH5	39/2441	76.67%	1.304	0.369	0.01	17.43	18.00	1.140	0.549	22.0
Left tilted	DH5	39/2441	76.67%	1.304	0.179	0.02	17.43	18.00	1.140	0.266	22.0
Right cheek	DH5	39/2441	76.67%	1.304	0.113	-0.09	17.43	18.00	1.140	0.168	22.0
Right tilted	DH5	39/2441	76.67%	1.304	0.140	-0.02	17.43	18.00	1.140	0.208	22.0
Head Test data at the worst case with Battery2#											
Left cheek	DH5	39/2441	76.67%	1.304	0.355	0.00	17.43	18.00	1.140	0.528	22.0
Body worn Test data (Separate 15mm)											
Front side	DH5	39/2441	76.67%	1.304	0.003	0.10	17.43	18.00	1.140	0.004	22.0
Back side	DH5	39/2441	76.67%	1.304	0.039	-0.05	17.43	18.00	1.140	0.057	22.0
Body worn Test data at the worst case with Battery2#(Separate 15mm)											
Back side	DH5	39/2441	76.67%	1.304	0.030	0.11	17.43	18.00	1.140	0.045	22.0
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	76.67%	1.304	0.005	0.18	17.43	18.00	1.140	0.007	22.0
Back side	DH5	39/2441	76.67%	1.304	0.053	-0.16	17.43	18.00	1.140	0.079	22.0
Right side	DH5	39/2441	76.67%	1.304	0.008	-0.07	17.43	18.00	1.140	0.012	22.0
Top side	DH5	39/2441	76.67%	1.304	0.084	-0.03	17.43	18.00	1.140	0.124	22.0
Hotspot Test data at the worst case with Battery2#(Separate 10mm)											
Top side	DH5	39/2441	76.67%	1.304	0.078	0.13	17.43	18.00	1.140	0.116	22.0
Additional Test data(simultaneous transmission with (WWAN+BT/WWAN+WIFI 5G+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	76.67%	1.304	0.176	0.04	14.52	15.00	1.117	0.256	22.0
Left tilted	DH5	39/2441	76.67%	1.304	0.103	0.06	14.52	15.00	1.117	0.150	22.0
Right cheek	DH5	39/2441	76.67%	1.304	0.067	-0.07	14.52	15.00	1.117	0.098	22.0
Right tilted	DH5	39/2441	76.67%	1.304	0.082	0.13	14.52	15.00	1.117	0.119	22.0
ANT9 SAR 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	DH5	39/2441	76.67%	1.304	0.165	0.00	10.99	11.00	1.002	0.216	22.0
Left tilted	DH5	39/2441	76.67%	1.304	0.002	0.01	10.99	11.00	1.002	0.003	22.0
Right cheek	DH5	39/2441	76.67%	1.304	0.068	0.11	10.99	11.00	1.002	0.089	22.0
Right tilted	DH5	39/2441	76.67%	1.304	0.005	0.04	10.99	11.00	1.002	0.007	22.0
Head Test data at the worst case with Battery2#											
Left cheek	DH5	39/2441	76.67%	1.304	0.154	-0.02	10.99	11.00	1.002	0.201	22.0
Body worn Test data (Separate 15mm)											
Front side	DH5	39/2441	76.67%	1.304	0.013	0.05	10.99	11.00	1.002	0.018	22.0
Back side	DH5	39/2441	76.67%	1.304	0.005	-0.05	10.99	11.00	1.002	0.007	22.0
Body worn Test data (Separate 15mm)											
Front side	DH5	39/2441	76.67%	1.304	0.011	-0.03	10.99	11.00	1.002	0.014	22.0
Hotspot Test data (Separate 10mm)											
Front side	DH5	39/2441	76.67%	1.304	0.021	-0.10	10.99	11.00	1.002	0.027	22.0



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Back side	DH5	39/2441	76.67%	1.304	0.041	0.13	10.99	11.00	1.002	0.054	22.0
Right side	DH5	39/2441	76.67%	1.304	0.051	0.03	10.99	11.00	1.002	0.067	22.0
Top side	DH5	39/2441	76.67%	1.304	0.001	-0.13	10.99	11.00	1.002	0.001	22.0
Hotspot Test data at the worst case with Battery2#(Separate 10mm)											
Right side	DH5	39/2441	76.67%	1.304	0.049	0.00	10.99	11.00	1.002	0.064	22.0

Table 34: SAR of BT for Head and Body.

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 2.0W/kg for 10-g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1-g or 10-g respectively, when the transmission band is $\geq 200\text{ MHz}$.



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8.4 Multiple Transmitter Evaluation

8.4.1 Simultaneous SAR test evaluation

• Simultaneous Transmission Possibilities

NO	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g (0mm)
1	WWAN+BT0(Ant7)	Y	Y	Y	Y
2	WWAN+BT1(Ant9)	Y	Y	Y	Y
3	WWAN+WIFI 2.4G	Y	Y	Y	Y
4	WWAN+WIFI 5G	Y	Y	Y	Y
5	WWAN+BT0(Ant7)+WIFI 5G	Y	Y	Y	Y
6	WWAN+BT1(Ant9)+WIFI 5G	Y	Y	Y	Y
7	BT0(Ant7)+WIFI 5G	Y	Y	Y	Y
8	BT1(Ant9)+WIFI 5G	Y	Y	Y	Y

Note:

- 1) The device does not support DTM function.
- 2) For Wi-Fi 5G, U-NII-2A (5250-5350 MHz) and U-NII-2C (5470-5725 MHz) bands does not support hotspot function.



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8.4.2 Simultaneous Transmission SAR Summation Scenario

EN-DC SAR:

Head:

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant2	
Band 7	Left cheek	0.193	0.243	0.246	0.489
	Left tilted	0.123	0.283	0.133	0.416
	Right cheek	0.357	0.382	0.174	0.556
	Right tilted	0.086	0.492	0.107	0.599

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant3	
Band 7	Left cheek	0.193	0.243	0.601	0.844
	Left tilted	0.123	0.283	0.120	0.403
	Right cheek	0.357	0.382	0.470	0.852
	Right tilted	0.086	0.492	0.142	0.634

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 2	Left cheek	0.294	0.541	0.218	0.759
	Left tilted	0.152	0.054	0.154	0.306
	Right cheek	0.271	0.408	0.411	0.819
	Right tilted	0.155	0.097	0.103	0.258

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 2	Left cheek	0.294	0.541	0.302	0.843
	Left tilted	0.152	0.054	0.377	0.529
	Right cheek	0.271	0.408	0.645	1.053
	Right tilted	0.155	0.097	0.700	0.855

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 66	Left cheek	0.268	0.628	0.218	0.846
	Left tilted	0.112	0.063	0.154	0.266
	Right cheek	0.143	0.464	0.411	0.875
	Right tilted	0.134	0.104	0.103	0.237

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 66	Left cheek	0.268	0.628	0.302	0.930
	Left tilted	0.112	0.063	0.377	0.489
	Right cheek	0.143	0.464	0.645	1.109
	Right tilted	0.134	0.104	0.700	0.834



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LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant1	
Band 7	Left cheek	0.193	0.159	0.204	0.243	0.299	0.542
	Left tilted	0.123	0.063	0.041	0.283	0.149	0.432
	Right cheek	0.357	0.099	0.288	0.382	0.274	0.656
	Right tilted	0.086	0.090	0.056	0.492	0.164	0.656

LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant4	
Band 7	Left cheek	0.193	0.159	0.204	0.243	0.334	0.577
	Left tilted	0.123	0.063	0.041	0.283	0.228	0.511
	Right cheek	0.357	0.099	0.288	0.382	0.758	1.140
	Right tilted	0.086	0.090	0.056	0.492	0.481	0.973

Body-worn:

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant2	
Band 7	Front	0.447	0.189	0.344	0.791
	Back	0.126	0.481	0.490	0.616

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant3	
Band 7	Front	0.447	0.189	0.122	0.569
	Back	0.126	0.481	0.145	0.271

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 2	Front	0.686	0.387	0.494	1.180
	Back	0.826	0.434	0.228	1.054

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 2	Front	0.686	0.387	0.285	0.971
	Back	0.826	0.434	0.488	1.314

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 66	Front	0.405	0.151	0.494	0.899
	Back	0.497	0.167	0.228	0.725

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 66	Front	0.405	0.151	0.285	0.690
	Back	0.497	0.167	0.488	0.985



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LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant1	
Band 7	Front	0.447	0.208	0.065	0.189	0.343	0.790
	Back	0.126	0.290	0.063	0.481	0.384	0.865

LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant4	
Band 7	Left cheek	0.447	0.208	0.065	0.189	0.210	0.657
	Left tilted	0.126	0.290	0.063	0.481	0.267	0.748

Hotspot:

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant2	
Band 7	Front	0.265	0.119	0.489	0.754
	Back	0.211	0.252	0.631	0.883
	Left	/	0.064	0.217	0.281
	Right	0.146	/	/	0.146
	Top	/	0.233	/	0.233
	Bottom	0.054	0.000	0.713	0.767

LTE Band (EN-DC)	Exposure position	Ant1	Ant5	n66	EN-DC Summed SAR
				Ant3	
Band 7	Front	0.265	0.119	0.222	0.487
	Back	0.211	0.252	0.257	0.509
	Left	/	0.064	0.320	0.384
	Right	0.146	/	/	0.146
	Top	0.000	0.233	/	0.233
	Bottom	0.054	/	/	0.054

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 2	Front	0.302	0.131	0.385	0.687
	Back	0.383	0.149	0.195	0.578
	Left	0.154	0.277	0.000	0.277
	Right	/	/	0.150	0.150
	Top	/	/	/	/
	Bottom	0.669	0.000	0.095	0.764

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 2	Front	0.302	0.131	0.336	0.638
	Back	0.383	0.149	0.589	0.972
	Left	0.154	0.277	0.131	0.408
	Right	/	/	/	/
	Top	/	/	0.609	0.609
	Bottom	0.669	/	/	0.669



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LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant1	
Band 66	Front	0.383	0.158	0.385	0.768
	Back	0.412	0.185	0.195	0.607
	Left	0.186	0.326	0.000	0.326
	Right	/	/	0.150	0.150
	Top	/	/	/	/
	Bottom	0.719	/	0.095	0.814

LTE Band (EN-DC)	Exposure position	Ant2	Ant3	n7	EN-DC Summed SAR
				Ant5	
Band 66	Front	0.383	0.158	0.336	0.719
	Back	0.412	0.185	0.589	1.001
	Left	0.186	0.326	0.131	0.457
	Right	/	/	/	/
	Top	/	/	0.609	0.609
	Bottom	0.719	/	/	0.719

LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant1	
Band 7	Front	0.265	0.240	0.052	0.119	0.476	0.741
	Back	0.211	0.255	0.059	0.252	0.505	0.760
	Left	/	0.144	0.066	0.064	/	0.144
	Right	0.146	/	/	/	0.235	0.381
	Top	/	/	/	0.233	/	0.233
	Bottom	0.054	0.199	/	/	0.137	0.336

LTE Band (EN-DC)	Exposure position	Ant1	Ant2	Ant3	Ant5	n5	EN-DC Summed SAR
						Ant4	
Band 7	Front	0.265	0.240	0.052	0.119	0.169	0.434
	Back	0.211	0.255	0.059	0.252	0.219	0.474
	Left	/	0.144	0.066	0.064	0.185	0.329
	Right	0.146	/	/	/	/	0.146
	Top	/	/	/	0.233	0.087	0.320
	Bottom	0.054	0.199	/	/	/	0.199



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Inter-band UL CA SAR:

Head:

Exposure position	LTE B4 Ant2	LTE B7 Ant5	Inter-band SAR
Left Touch	0.328	0.243	0.571
Left Tilt	0.159	0.283	0.442
Right Touch	0.221	0.382	0.603
Right Tilt	0.177	0.492	0.669

Body-worn:

Exposure position	LTE B4 Ant2	LTE B7 Ant5	Inter-band SAR
Front side	0.576	0.189	0.765
Back side	0.715	0.481	1.196

Hotspot:

Exposure position	LTE B4 Ant2	LTE B7 Ant5	Inter-band SAR
Front side	0.394	0.119	0.513
Back side	0.510	0.252	0.762
Left side	0.169	0.064	0.233
Right side	/	/	/
Top side	/	0.233	0.233
Bottom side	0.587	/	0.587

Product specific 10g SAR:

Exposure position	LTE B4 Ant2	LTE B7 Ant5	Inter-band SAR
Front side	/	/	/
Back side	/	/	/
Left side	/	/	/
Right side	/	/	/
Top side	/	/	/
Bottom side	1.007	/	1.007



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Simultaneous Transmission SAR Summation Scenario for WLAN Head:

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
GSM850	Left Touch	0.325	0.549	0.404	0.256	0.216	0.874	0.729	0.581	0.541	0.985	0.945	0.660	0.620
	Left Tilt	0.189	0.426	0.481	0.150	0.003	0.615	0.670	0.339	0.192	0.820	0.673	0.631	0.484
	Right Touch	0.412	0.138	0.345	0.098	0.089	0.550	0.757	0.510	0.501	0.855	0.846	0.443	0.434
	Right Tilt	0.232	0.163	0.455	0.119	0.007	0.395	0.687	0.351	0.239	0.806	0.694	0.574	0.462
WCDMA Band V	Left Touch	0.349	0.549	0.404	0.256	0.216	0.898	0.753	0.605	0.565	1.009	0.969	0.660	0.620
	Left Tilt	0.169	0.426	0.481	0.150	0.003	0.595	0.650	0.319	0.172	0.800	0.653	0.631	0.484
	Right Touch	0.379	0.138	0.345	0.098	0.089	0.517	0.724	0.477	0.468	0.822	0.813	0.443	0.434
	Right Tilt	0.197	0.163	0.455	0.119	0.007	0.360	0.652	0.316	0.204	0.771	0.659	0.574	0.462
LTE Band 4	Left Touch	0.055	0.549	0.404	0.256	0.216	0.604	0.459	0.311	0.271	0.715	0.675	0.660	0.620
	Left Tilt	0.039	0.426	0.481	0.150	0.003	0.465	0.520	0.189	0.042	0.670	0.523	0.631	0.484
	Right Touch	0.107	0.138	0.345	0.098	0.089	0.245	0.452	0.205	0.196	0.550	0.541	0.443	0.434
	Right Tilt	0.044	0.163	0.455	0.119	0.007	0.207	0.499	0.163	0.051	0.618	0.506	0.574	0.462
LTE Band 5	Left Touch	0.414	0.549	0.404	0.256	0.216	0.963	0.818	0.670	0.630	1.074	1.034	0.660	0.620
	Left Tilt	0.218	0.426	0.481	0.150	0.003	0.644	0.699	0.368	0.221	0.849	0.702	0.631	0.484
	Right Touch	0.462	0.138	0.345	0.098	0.089	0.600	0.807	0.560	0.551	0.905	0.896	0.443	0.434
	Right Tilt	0.228	0.163	0.455	0.119	0.007	0.391	0.683	0.347	0.235	0.802	0.690	0.574	0.462
LTE Band 7	Left Touch	0.145	0.549	0.404	0.256	0.216	0.694	0.549	0.401	0.361	0.805	0.765	0.660	0.620
	Left Tilt	0.092	0.426	0.481	0.150	0.003	0.518	0.573	0.242	0.095	0.723	0.576	0.631	0.484
	Right Touch	0.297	0.138	0.345	0.098	0.089	0.435	0.642	0.395	0.386	0.740	0.731	0.443	0.434
	Right Tilt	0.062	0.163	0.455	0.119	0.007	0.225	0.517	0.181	0.069	0.636	0.524	0.574	0.462
LTE Band 12	Left Touch	0.155	0.549	0.404	0.256	0.216	0.704	0.559	0.411	0.371	0.815	0.775	0.660	0.620
	Left Tilt	0.073	0.426	0.481	0.150	0.003	0.499	0.554	0.223	0.076	0.704	0.557	0.631	0.484
	Right Touch	0.159	0.138	0.345	0.098	0.089	0.297	0.504	0.257	0.248	0.602	0.593	0.443	0.434
	Right Tilt	0.088	0.163	0.455	0.119	0.007	0.251	0.543	0.207	0.095	0.662	0.550	0.574	0.462
LTE Band 13	Left Touch	0.188	0.549	0.404	0.256	0.216	0.737	0.592	0.444	0.404	0.848	0.808	0.660	0.620
	Left Tilt	0.109	0.426	0.481	0.150	0.003	0.535	0.590	0.259	0.112	0.740	0.593	0.631	0.484
	Right Touch	0.242	0.138	0.345	0.098	0.089	0.380	0.587	0.340	0.331	0.685	0.676	0.443	0.434
	Right Tilt	0.115	0.163	0.455	0.119	0.007	0.278	0.570	0.234	0.122	0.689	0.577	0.574	0.462
LTE Band 17	Left Touch	0.132	0.549	0.404	0.256	0.216	0.681	0.536	0.388	0.348	0.792	0.752	0.660	0.620
	Left Tilt	0.067	0.426	0.481	0.150	0.003	0.493	0.548	0.217	0.070	0.698	0.551	0.631	0.484
	Right Touch	0.127	0.138	0.345	0.098	0.089	0.265	0.472	0.225	0.216	0.570	0.561	0.443	0.434
	Right Tilt	0.083	0.163	0.455	0.119	0.007	0.246	0.538	0.202	0.090	0.657	0.545	0.574	0.462
LTE Band 38	Left Touch	0.112	0.549	0.404	0.256	0.216	0.661	0.516	0.368	0.328	0.772	0.732	0.660	0.620
	Left Tilt	0.062	0.426	0.481	0.150	0.003	0.488	0.543	0.212	0.065	0.693	0.546	0.631	0.484
	Right Touch	0.232	0.138	0.345	0.098	0.089	0.370	0.577	0.330	0.321	0.675	0.666	0.443	0.434
	Right Tilt	0.001	0.163	0.455	0.119	0.007	0.164	0.456	0.120	0.008	0.575	0.463	0.574	0.462
LTE Band 41	Left Touch	0.107	0.549	0.404	0.256	0.216	0.656	0.511	0.363	0.323	0.767	0.727	0.660	0.620
	Left Tilt	0.061	0.426	0.481	0.150	0.003	0.487	0.542	0.211	0.064	0.692	0.545	0.631	0.484
	Right Touch	0.218	0.138	0.345	0.098	0.089	0.356	0.563	0.316	0.307	0.661	0.652	0.443	0.434
	Right Tilt	0.001	0.163	0.455	0.119	0.007	0.164	0.456	0.120	0.008	0.575	0.463	0.574	0.462
LTE Band 66	Left Touch	0.032	0.549	0.404	0.256	0.216	0.581	0.436	0.288	0.248	0.692	0.652	0.660	0.620
	Left Tilt	0.025	0.426	0.481	0.150	0.003	0.451	0.506	0.175	0.028	0.656	0.509	0.631	0.484
	Right Touch	0.071	0.138	0.345	0.098	0.089	0.209	0.416	0.169	0.160	0.514	0.505	0.443	0.434
	Right Tilt	0.026	0.163	0.455	0.119	0.007	0.189	0.481	0.145	0.033	0.600	0.488	0.574	0.462
ENDC LTE_B4	Left Touch	0.016	0.549	0.404	0.256	0.216	0.565	0.420	0.272	0.232	0.676	0.636	0.660	0.620
	Left Tilt	0.010	0.426	0.481	0.150	0.003	0.436	0.491	0.160	0.013	0.641	0.494	0.631	0.484
	Right Touch	0.037	0.138	0.345	0.098	0.089	0.175	0.382	0.135	0.126	0.480	0.471	0.443	0.434
	Right Tilt	0.013	0.163	0.455	0.119	0.007	0.176	0.468	0.132	0.020	0.587	0.475	0.574	0.462
ENDC LTE_B7	Left Touch	0.193	0.549	0.404	0.256	0.216	0.742	0.597	0.449	0.409	0.853	0.813	0.660	0.620
	Left Tilt	0.123	0.426	0.481	0.150	0.003	0.549	0.604	0.273	0.126	0.754	0.607	0.631	0.484
	Right Touch	0.357	0.138	0.345	0.098	0.089	0.495	0.702	0.455	0.446	0.800	0.791	0.443	0.434
	Right Tilt	0.086	0.163	0.455	0.119	0.007	0.249	0.541	0.205	0.093	0.660	0.548	0.574	0.462



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NR Band 5	Left Touch	0.299	0.549	0.404	0.256	0.216	0.848	0.703	0.555	0.515	0.959	0.919	0.660	0.620
	Left Tilt	0.149	0.426	0.481	0.150	0.003	0.575	0.630	0.299	0.152	0.780	0.633	0.631	0.484
	Right Touch	0.274	0.138	0.345	0.098	0.089	0.412	0.619	0.372	0.363	0.717	0.708	0.443	0.434
	Right Tilt	0.164	0.163	0.455	0.119	0.007	0.327	0.619	0.283	0.171	0.738	0.626	0.574	0.462
NR Band 7	Left Touch	0.218	0.549	0.404	0.256	0.216	0.767	0.622	0.474	0.434	0.878	0.838	0.660	0.620
	Left Tilt	0.154	0.426	0.481	0.150	0.003	0.580	0.635	0.304	0.157	0.785	0.638	0.631	0.484
	Right Touch	0.411	0.138	0.345	0.098	0.089	0.549	0.756	0.509	0.500	0.854	0.845	0.443	0.434
	Right Tilt	0.103	0.163	0.455	0.119	0.007	0.266	0.558	0.222	0.110	0.677	0.565	0.574	0.462
NR Band 38	Left Touch	0.263	0.549	0.404	0.256	0.216	0.812	0.667	0.519	0.479	0.923	0.883	0.660	0.620
	Left Tilt	0.155	0.426	0.481	0.150	0.003	0.581	0.636	0.305	0.158	0.786	0.639	0.631	0.484
	Right Touch	0.519	0.138	0.345	0.098	0.089	0.657	0.864	0.617	0.608	0.962	0.953	0.443	0.434
	Right Tilt	0.128	0.163	0.455	0.119	0.007	0.291	0.583	0.247	0.135	0.702	0.590	0.574	0.462
NR Band 41	Left Touch	0.226	0.549	0.404	0.256	0.216	0.775	0.630	0.482	0.442	0.886	0.846	0.660	0.620
	Left Tilt	0.145	0.426	0.481	0.150	0.003	0.571	0.626	0.295	0.148	0.776	0.629	0.631	0.484
	Right Touch	0.359	0.138	0.345	0.098	0.089	0.497	0.704	0.457	0.448	0.802	0.793	0.443	0.434
	Right Tilt	0.093	0.163	0.455	0.119	0.007	0.256	0.548	0.212	0.100	0.667	0.555	0.574	0.462

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
GSM1900	Left Touch	0.102	0.549	0.404	0.256	0.216	0.651	0.506	0.358	0.318	0.762	0.722	0.660	0.620
	Left Tilt	0.065	0.426	0.481	0.150	0.003	0.491	0.546	0.215	0.068	0.696	0.549	0.631	0.484
	Right Touch	0.110	0.138	0.345	0.098	0.089	0.248	0.455	0.208	0.199	0.553	0.544	0.443	0.434
	Right Tilt	0.066	0.163	0.455	0.119	0.007	0.229	0.521	0.185	0.073	0.640	0.528	0.574	0.462
WCDMA Band II	Left Touch	0.306	0.549	0.404	0.256	0.216	0.855	0.710	0.562	0.522	0.966	0.926	0.660	0.620
	Left Tilt	0.184	0.426	0.481	0.150	0.003	0.610	0.665	0.334	0.187	0.815	0.668	0.631	0.484
	Right Touch	0.313	0.138	0.345	0.098	0.089	0.451	0.658	0.411	0.402	0.756	0.747	0.443	0.434
	Right Tilt	0.223	0.163	0.455	0.119	0.007	0.386	0.678	0.342	0.230	0.797	0.685	0.574	0.462
WCDMA Band IV	Left Touch	0.334	0.549	0.404	0.256	0.216	0.883	0.738	0.590	0.550	0.994	0.954	0.660	0.620
	Left Tilt	0.211	0.426	0.481	0.150	0.003	0.637	0.692	0.361	0.214	0.842	0.695	0.631	0.484
	Right Touch	0.289	0.138	0.345	0.098	0.089	0.427	0.634	0.387	0.378	0.732	0.723	0.443	0.434
	Right Tilt	0.209	0.163	0.455	0.119	0.007	0.372	0.664	0.328	0.216	0.783	0.671	0.574	0.462
LTE Band 2	Left Touch	0.294	0.549	0.404	0.256	0.216	0.843	0.698	0.550	0.510	0.954	0.914	0.660	0.620
	Left Tilt	0.152	0.426	0.481	0.150	0.003	0.578	0.633	0.302	0.155	0.783	0.636	0.631	0.484
	Right Touch	0.271	0.138	0.345	0.098	0.089	0.409	0.616	0.369	0.360	0.714	0.705	0.443	0.434
	Right Tilt	0.155	0.163	0.455	0.119	0.007	0.318	0.610	0.274	0.162	0.729	0.617	0.574	0.462
LTE Band 4	Left Touch	0.328	0.549	0.404	0.256	0.216	0.877	0.732	0.584	0.544	0.988	0.948	0.660	0.620
	Left Tilt	0.159	0.426	0.481	0.150	0.003	0.585	0.640	0.309	0.162	0.790	0.643	0.631	0.484
	Right Touch	0.221	0.138	0.345	0.098	0.089	0.359	0.566	0.319	0.310	0.664	0.655	0.443	0.434
	Right Tilt	0.177	0.163	0.455	0.119	0.007	0.340	0.632	0.296	0.184	0.751	0.639	0.574	0.462
LTE Band 7	Left Touch	0.346	0.549	0.404	0.256	0.216	0.895	0.750	0.602	0.562	1.006	0.966	0.660	0.620
	Left Tilt	0.078	0.426	0.481	0.150	0.003	0.504	0.559	0.228	0.081	0.709	0.562	0.631	0.484
	Right Touch	0.152	0.138	0.345	0.098	0.089	0.290	0.497	0.250	0.241	0.595	0.586	0.443	0.434
	Right Tilt	0.131	0.163	0.455	0.119	0.007	0.294	0.586	0.250	0.138	0.705	0.593	0.574	0.462
LTE Band 38	Left Touch	0.339	0.549	0.404	0.256	0.216	0.888	0.743	0.595	0.555	0.999	0.959	0.660	0.620
	Left Tilt	0.075	0.426	0.481	0.150	0.003	0.501	0.556	0.225	0.078	0.706	0.559	0.631	0.484
	Right Touch	0.134	0.138	0.345	0.098	0.089	0.272	0.479	0.232	0.223	0.577	0.568	0.443	0.434
	Right Tilt	0.117	0.163	0.455	0.119	0.007	0.280	0.572	0.236	0.124	0.691	0.579	0.574	0.462
LTE Band 41	Left Touch	0.348	0.549	0.404	0.256	0.216	0.897	0.752	0.604	0.564	1.008	0.968	0.660	0.620
	Left Tilt	0.072	0.426	0.481	0.150	0.003	0.498	0.553	0.222	0.075	0.703	0.556	0.631	0.484
	Right Touch	0.138	0.138	0.345	0.098	0.089	0.276	0.483	0.236	0.227	0.581	0.572	0.443	0.434
	Right Tilt	0.125	0.163	0.455	0.119	0.007	0.288	0.580	0.244	0.132	0.699	0.587	0.574	0.462
LTE Band 66	Left Touch	0.268	0.549	0.404	0.256	0.216	0.817	0.672	0.524	0.484	0.928	0.888	0.660	0.620
	Left Tilt	0.112	0.426	0.481	0.150	0.003	0.538	0.593	0.262	0.115	0.743	0.596	0.631	0.484
	Right Touch	0.143	0.138	0.345	0.098	0.089	0.281	0.488	0.241	0.232	0.586	0.577	0.443	0.434
	Right Tilt	0.134	0.163	0.455	0.119	0.007	0.297	0.589	0.253	0.141	0.708	0.596	0.574	0.462



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ENDC LTE_B7	Left Touch	0.159	0.549	0.404	0.256	0.216	0.708	0.563	0.415	0.375	0.819	0.779	0.660	0.620
	Left Tilt	0.063	0.426	0.481	0.150	0.003	0.489	0.544	0.213	0.066	0.694	0.547	0.631	0.484
	Right Touch	0.099	0.138	0.345	0.098	0.089	0.237	0.444	0.197	0.188	0.542	0.533	0.443	0.434
	Right Tilt	0.090	0.163	0.455	0.119	0.007	0.253	0.545	0.209	0.097	0.664	0.552	0.574	0.462
NR Band 7	Left Touch	0.223	0.549	0.404	0.256	0.216	0.772	0.627	0.479	0.439	0.883	0.843	0.660	0.620
	Left Tilt	0.140	0.426	0.481	0.150	0.003	0.566	0.621	0.290	0.143	0.771	0.624	0.631	0.484
	Right Touch	0.134	0.138	0.345	0.098	0.089	0.272	0.479	0.232	0.223	0.577	0.568	0.443	0.434
	Right Tilt	0.131	0.163	0.455	0.119	0.007	0.294	0.586	0.250	0.138	0.705	0.593	0.574	0.462
NR Band 38	Left Touch	0.191	0.549	0.404	0.256	0.216	0.740	0.595	0.447	0.407	0.851	0.811	0.660	0.620
	Left Tilt	0.153	0.426	0.481	0.150	0.003	0.579	0.634	0.303	0.156	0.784	0.637	0.631	0.484
	Right Touch	0.142	0.138	0.345	0.098	0.089	0.280	0.487	0.240	0.231	0.585	0.576	0.443	0.434
	Right Tilt	0.141	0.163	0.455	0.119	0.007	0.304	0.596	0.260	0.148	0.715	0.603	0.574	0.462
NR Band 41	Left Touch	0.242	0.549	0.404	0.256	0.216	0.791	0.646	0.498	0.458	0.902	0.862	0.660	0.620
	Left Tilt	0.059	0.426	0.481	0.150	0.003	0.485	0.540	0.209	0.062	0.690	0.543	0.631	0.484
	Right Touch	0.110	0.138	0.345	0.098	0.089	0.248	0.455	0.208	0.199	0.553	0.544	0.443	0.434
	Right Tilt	0.115	0.163	0.455	0.119	0.007	0.278	0.570	0.234	0.122	0.689	0.577	0.574	0.462
NR Band 66	Left Touch	0.246	0.549	0.404	0.256	0.216	0.795	0.650	0.502	0.462	0.906	0.866	0.660	0.620
	Left Tilt	0.133	0.426	0.481	0.150	0.003	0.559	0.614	0.283	0.136	0.764	0.617	0.631	0.484
	Right Touch	0.174	0.138	0.345	0.098	0.089	0.312	0.519	0.272	0.263	0.617	0.608	0.443	0.434
	Right Tilt	0.107	0.163	0.455	0.119	0.007	0.270	0.562	0.226	0.114	0.681	0.569	0.574	0.462



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Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	SPLSR Case No.	Summed SAR (1+3+5)	SPLSR Case No.	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5										
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2										
		Ant3	MIMO	MIMO	Ant7	Ant9										
GSM1900	Left Touch	0.855	0.549	0.404	0.256	0.216	1.404	1.259	1.111	1.071	1.515	/	1.475	/	0.660	0.620
	Left Tilt	0.071	0.426	0.481	0.150	0.003	0.497	0.552	0.221	0.074	0.702	/	0.555	/	0.631	0.484
	Right Touch	0.569	0.138	0.345	0.098	0.089	0.707	0.914	0.667	0.658	1.012	/	1.003	/	0.443	0.434
	Right Tilt	0.132	0.163	0.455	0.119	0.007	0.295	0.587	0.251	0.139	0.706	/	0.594	/	0.574	0.462
WCDMA Band II	Left Touch	0.855	0.549	0.404	0.256	0.216	1.404	1.259	1.111	1.071	1.515	/	1.475	/	0.660	0.620
	Left Tilt	0.073	0.426	0.481	0.150	0.003	0.499	0.554	0.223	0.076	0.704	/	0.557	/	0.631	0.484
	Right Touch	0.580	0.138	0.345	0.098	0.089	0.718	0.925	0.678	0.669	1.023	/	1.014	/	0.443	0.434
	Right Tilt	0.133	0.163	0.455	0.119	0.007	0.296	0.588	0.252	0.140	0.707	/	0.595	/	0.574	0.462
WCDMA Band IV	Left Touch	0.893	0.549	0.404	0.256	0.216	1.442	1.297	1.149	1.109	1.553	/	1.513	/	0.660	0.620
	Left Tilt	0.076	0.426	0.481	0.150	0.003	0.502	0.557	0.226	0.079	0.707	/	0.560	/	0.631	0.484
	Right Touch	0.622	0.138	0.345	0.098	0.089	0.760	0.967	0.720	0.711	1.065	/	1.056	/	0.443	0.434
	Right Tilt	0.120	0.163	0.455	0.119	0.007	0.283	0.575	0.239	0.127	0.694	/	0.582	/	0.574	0.462
LTE Band 2	Left Touch	0.541	0.549	0.404	0.256	0.216	1.090	0.945	0.797	0.757	1.201	/	1.161	/	0.660	0.620
	Left Tilt	0.054	0.426	0.481	0.150	0.003	0.480	0.535	0.204	0.057	0.685	/	0.538	/	0.631	0.484
	Right Touch	0.408	0.138	0.345	0.098	0.089	0.546	0.753	0.506	0.497	0.851	/	0.842	/	0.443	0.434
	Right Tilt	0.097	0.163	0.455	0.119	0.007	0.260	0.552	0.216	0.104	0.671	/	0.559	/	0.574	0.462
LTE Band 4	Left Touch	0.551	0.549	0.404	0.256	0.216	1.100	0.955	0.807	0.767	1.211	/	1.171	/	0.660	0.620
	Left Tilt	0.055	0.426	0.481	0.150	0.003	0.481	0.536	0.205	0.058	0.686	/	0.539	/	0.631	0.484
	Right Touch	0.432	0.138	0.345	0.098	0.089	0.570	0.777	0.530	0.521	0.875	/	0.866	/	0.443	0.434
	Right Tilt	0.093	0.163	0.455	0.119	0.007	0.256	0.548	0.212	0.100	0.667	/	0.555	/	0.574	0.462
LTE Band 7	Left Touch	0.792	0.549	0.404	0.256	0.216	1.341	1.196	1.048	1.008	1.452	/	1.412	/	0.660	0.620
	Left Tilt	0.114	0.426	0.481	0.150	0.003	0.540	0.595	0.264	0.117	0.745	/	0.598	/	0.631	0.484
	Right Touch	0.864	0.138	0.345	0.098	0.089	1.002	1.209	0.962	0.953	1.307	/	1.298	/	0.443	0.434
	Right Tilt	0.219	0.163	0.455	0.119	0.007	0.382	0.674	0.338	0.226	0.793	/	0.681	/	0.574	0.462
LTE Band 38	Left Touch	1.033	0.549	0.404	0.256	0.216	1.582	1.437	1.289	1.249	1.693	1#	1.653	2#	0.660	0.620
	Left Tilt	0.130	0.426	0.481	0.150	0.003	0.556	0.611	0.280	0.133	0.761	/	0.614	/	0.631	0.484
	Right Touch	0.797	0.138	0.345	0.098	0.089	0.935	1.142	0.895	0.886	1.240	/	1.231	/	0.443	0.434
	Right Tilt	0.249	0.163	0.455	0.119	0.007	0.412	0.704	0.368	0.256	0.823	/	0.711	/	0.574	0.462
LTE Band 41	Left Touch	0.508	0.549	0.404	0.256	0.216	1.057	0.912	0.764	0.724	1.168	/	1.128	/	0.660	0.620
	Left Tilt	0.096	0.426	0.481	0.150	0.003	0.522	0.577	0.246	0.099	0.727	/	0.580	/	0.631	0.484
	Right Touch	0.481	0.138	0.345	0.098	0.089	0.619	0.826	0.579	0.570	0.924	/	0.915	/	0.443	0.434
	Right Tilt	0.189	0.163	0.455	0.119	0.007	0.352	0.644	0.308	0.196	0.763	/	0.651	/	0.574	0.462
LTE Band 66	Left Touch	0.628	0.549	0.404	0.256	0.216	1.177	1.032	0.884	0.844	1.288	/	1.248	/	0.660	0.620
	Left Tilt	0.063	0.426	0.481	0.150	0.003	0.489	0.544	0.213	0.066	0.694	/	0.547	/	0.631	0.484
	Right Touch	0.464	0.138	0.345	0.098	0.089	0.602	0.809	0.562	0.553	0.907	/	0.898	/	0.443	0.434
	Right Tilt	0.104	0.163	0.455	0.119	0.007	0.267	0.559	0.223	0.111	0.678	/	0.566	/	0.574	0.462
ENDC LTE_B7	Left Touch	0.204	0.549	0.404	0.256	0.216	0.753	0.608	0.460	0.420	0.864	/	0.824	/	0.660	0.620
	Left Tilt	0.041	0.426	0.481	0.150	0.003	0.467	0.522	0.191	0.044	0.672	/	0.525	/	0.631	0.484
	Right Touch	0.288	0.138	0.345	0.098	0.089	0.426	0.633	0.386	0.377	0.731	/	0.722	/	0.443	0.434
	Right Tilt	0.056	0.163	0.455	0.119	0.007	0.219	0.511	0.175	0.063	0.630	/	0.518	/	0.574	0.462
NR Band 7	Left Touch	0.933	0.549	0.404	0.256	0.216	1.482	1.337	1.189	1.149	1.593	/	1.553	/	0.660	0.620
	Left Tilt	0.144	0.426	0.481	0.150	0.003	0.570	0.625	0.294	0.147	0.775	/	0.628	/	0.631	0.484
	Right Touch	0.906	0.138	0.345	0.098	0.089	1.044	1.251	1.004	0.995	1.349	/	1.340	/	0.443	0.434
	Right Tilt	0.277	0.163	0.455	0.119	0.007	0.440	0.732	0.396	0.284	0.851	/	0.739	/	0.574	0.462
NR Band 38	Left Touch	0.774	0.549	0.404	0.256	0.216	1.323	1.178	1.030	0.990	1.434	/	1.394	/	0.660	0.620
	Left Tilt	0.104	0.426	0.481	0.150	0.003	0.530	0.585	0.254	0.107	0.735	/	0.588	/	0.631	0.484
	Right Touch	0.706	0.138	0.345	0.098	0.089	0.844	1.051	0.804	0.795	1.149	/	1.140	/	0.443	0.434
	Right Tilt	0.211	0.163	0.455	0.119	0.007	0.374	0.666	0.330	0.218	0.785	/	0.673	/	0.574	0.462
NR Band 41	Left Touch	0.842	0.549	0.404	0.256	0.216	1.391	1.246	1.098	1.058	1.502	/	1.462	/	0.660	0.620
	Left Tilt	0.213	0.426	0.481	0.150	0.003	0.639	0.694	0.363	0.216	0.844	/	0.697	/	0.631	0.484
	Right Touch	0.777	0.138	0.345	0.098	0.089	0.915	1.122	0.875	0.866	1.220	/	1.211	/	0.443	0.434
	Right Tilt	0.236	0.163	0.455	0.119	0.007	0.399	0.691	0.355	0.243	0.810	/	0.698	/	0.574	0.462
NR Band 66	Left Touch	0.601	0.549	0.404	0.256	0.216	1.150	1.005	0.857	0.817	1.261	/	1.221	/	0.660	0.620
	Left Tilt	0.120	0.426	0.481	0.150	0.003	0.546	0.601	0.270	0.123	0.751	/	0.604	/	0.631	0.484
	Right Touch	0.470	0.138	0.345	0.098	0.089	0.608	0.815	0.568	0.559	0.913	/	0.904	/	0.443	0.434
	Right Tilt	0.142	0.163	0.455	0.119	0.007	0.305	0.597	0.261	0.149	0.716	/	0.604	/	0.574	0.462



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Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
GSM850	Left Touch	0.439	0.549	0.404	0.256	0.216	0.988	0.843	0.695	0.655	1.099	1.059	0.660	0.620
	Left Tilt	0.233	0.426	0.481	0.150	0.003	0.659	0.714	0.383	0.236	0.864	0.717	0.631	0.484
	Right Touch	0.638	0.138	0.345	0.098	0.089	0.776	0.983	0.736	0.727	1.081	1.072	0.443	0.434
	Right Tilt	0.502	0.163	0.455	0.119	0.007	0.665	0.957	0.621	0.509	1.076	0.964	0.574	0.462
WCDMA Band V	Left Touch	0.351	0.549	0.404	0.256	0.216	0.900	0.755	0.607	0.567	1.011	0.971	0.660	0.620
	Left Tilt	0.254	0.426	0.481	0.150	0.003	0.680	0.735	0.404	0.257	0.885	0.738	0.631	0.484
	Right Touch	0.638	0.138	0.345	0.098	0.089	0.776	0.983	0.736	0.727	1.081	1.072	0.443	0.434
	Right Tilt	0.510	0.163	0.455	0.119	0.007	0.673	0.965	0.629	0.517	1.084	0.972	0.574	0.462
LTE Band 5	Left Touch	0.356	0.549	0.404	0.256	0.216	0.905	0.760	0.612	0.572	1.016	0.976	0.660	0.620
	Left Tilt	0.267	0.426	0.481	0.150	0.003	0.693	0.748	0.417	0.270	0.898	0.751	0.631	0.484
	Right Touch	0.687	0.138	0.345	0.098	0.089	0.825	1.032	0.785	0.776	1.130	1.121	0.443	0.434
	Right Tilt	0.497	0.163	0.455	0.119	0.007	0.660	0.952	0.616	0.504	1.071	0.959	0.574	0.462
LTE Band 12	Left Touch	0.340	0.549	0.404	0.256	0.216	0.889	0.744	0.596	0.556	1.000	0.960	0.660	0.620
	Left Tilt	0.249	0.426	0.481	0.150	0.003	0.675	0.730	0.399	0.252	0.880	0.733	0.631	0.484
	Right Touch	0.676	0.138	0.345	0.098	0.089	0.814	1.021	0.774	0.765	1.119	1.110	0.443	0.434
	Right Tilt	0.515	0.163	0.455	0.119	0.007	0.678	0.970	0.634	0.522	1.089	0.977	0.574	0.462
LTE Band 13	Left Touch	0.316	0.549	0.404	0.256	0.216	0.865	0.720	0.572	0.532	0.976	0.936	0.660	0.620
	Left Tilt	0.255	0.426	0.481	0.150	0.003	0.681	0.736	0.405	0.258	0.886	0.739	0.631	0.484
	Right Touch	0.660	0.138	0.345	0.098	0.089	0.798	1.005	0.758	0.749	1.103	1.094	0.443	0.434
	Right Tilt	0.524	0.163	0.455	0.119	0.007	0.687	0.979	0.643	0.531	1.098	0.986	0.574	0.462
LTE Band 17	Left Touch	0.352	0.549	0.404	0.256	0.216	0.901	0.756	0.608	0.568	1.012	0.972	0.660	0.620
	Left Tilt	0.264	0.426	0.481	0.150	0.003	0.690	0.745	0.414	0.267	0.895	0.748	0.631	0.484
	Right Touch	0.791	0.138	0.345	0.098	0.089	0.929	1.136	0.889	0.880	1.234	1.225	0.443	0.434
	Right Tilt	0.561	0.163	0.455	0.119	0.007	0.724	1.016	0.680	0.568	1.135	1.023	0.574	0.462
NR Band 5	Left Touch	0.334	0.549	0.404	0.256	0.216	0.883	0.738	0.590	0.550	0.994	0.954	0.660	0.620
	Left Tilt	0.228	0.426	0.481	0.150	0.003	0.654	0.709	0.378	0.231	0.859	0.712	0.631	0.484
	Right Touch	0.758	0.138	0.345	0.098	0.089	0.896	1.103	0.856	0.847	1.201	1.192	0.443	0.434
	Right Tilt	0.481	0.163	0.455	0.119	0.007	0.644	0.936	0.600	0.488	1.055	0.943	0.574	0.462

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
LTE Band 4	Left Touch	0.414	0.549	0.404	0.256	0.216	0.963	0.818	0.670	0.630	1.074	1.034	0.660	0.620
	Left Tilt	0.518	0.426	0.481	0.150	0.003	0.944	0.999	0.668	0.521	1.149	1.002	0.631	0.484
	Right Touch	0.856	0.138	0.345	0.098	0.089	0.994	1.201	0.954	0.945	1.299	1.290	0.443	0.434
	Right Tilt	0.731	0.163	0.455	0.119	0.007	0.894	1.186	0.850	0.738	1.305	1.193	0.574	0.462
LTE Band 7	Left Touch	0.403	0.549	0.404	0.256	0.216	0.952	0.807	0.659	0.619	1.063	1.023	0.660	0.620
	Left Tilt	0.469	0.426	0.481	0.150	0.003	0.895	0.950	0.619	0.472	1.100	0.953	0.631	0.484
	Right Touch	0.708	0.138	0.345	0.098	0.089	0.846	1.053	0.806	0.797	1.151	1.142	0.443	0.434
	Right Tilt	0.822	0.163	0.455	0.119	0.007	0.985	1.277	0.941	0.829	1.396	1.284	0.574	0.462
LTE Band 38	Left Touch	0.389	0.549	0.404	0.256	0.216	0.938	0.793	0.645	0.605	1.049	1.009	0.660	0.620
	Left Tilt	0.487	0.426	0.481	0.150	0.003	0.913	0.968	0.637	0.490	1.118	0.971	0.631	0.484
	Right Touch	0.701	0.138	0.345	0.098	0.089	0.839	1.046	0.799	0.790	1.144	1.135	0.443	0.434
	Right Tilt	1.014	0.163	0.455	0.119	0.007	1.177	1.469	1.133	1.021	1.588	1.476	0.574	0.462
LTE Band 41	Left Touch	0.422	0.549	0.404	0.256	0.216	0.971	0.826	0.678	0.638	1.082	1.042	0.660	0.620
	Left Tilt	0.509	0.426	0.481	0.150	0.003	0.935	0.990	0.659	0.512	1.140	0.993	0.631	0.484



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LTE Band 66	Right Touch	0.594	0.138	0.345	0.098	0.089	0.732	0.939	0.692	0.683	1.037	1.028	0.443	0.434
	Right Tilt	0.783	0.163	0.455	0.119	0.007	0.946	1.238	0.902	0.790	1.357	1.245	0.574	0.462
	Left Touch	0.388	0.549	0.404	0.256	0.216	0.937	0.792	0.644	0.604	1.048	1.008	0.660	0.620
	Left Tilt	0.526	0.426	0.481	0.150	0.003	0.952	1.007	0.676	0.529	1.157	1.010	0.631	0.484
	Right Touch	0.735	0.138	0.345	0.098	0.089	0.873	1.080	0.833	0.824	1.178	1.169	0.443	0.434
	Right Tilt	0.722	0.163	0.455	0.119	0.007	0.885	1.177	0.841	0.729	1.296	1.184	0.574	0.462
ENDC LTE_B4	Left Touch	0.450	0.549	0.404	0.256	0.216	0.999	0.854	0.706	0.666	1.110	1.070	0.660	0.620
	Left Tilt	0.549	0.426	0.481	0.150	0.003	0.975	1.030	0.699	0.552	1.180	1.033	0.631	0.484
	Right Touch	0.961	0.138	0.345	0.098	0.089	1.099	1.306	1.059	1.050	1.404	1.395	0.443	0.434
	Right Tilt	0.989	0.163	0.455	0.119	0.007	1.152	1.444	1.108	0.996	1.563	1.451	0.574	0.462
ENDC LTE_B7	Left Touch	0.243	0.549	0.404	0.256	0.216	0.792	0.647	0.499	0.459	0.903	0.863	0.660	0.620
	Left Tilt	0.283	0.426	0.481	0.150	0.003	0.709	0.764	0.433	0.286	0.914	0.767	0.631	0.484
	Right Touch	0.382	0.138	0.345	0.098	0.089	0.520	0.727	0.480	0.471	0.825	0.816	0.443	0.434
	Right Tilt	0.492	0.163	0.455	0.119	0.007	0.655	0.947	0.611	0.499	1.066	0.954	0.574	0.462
NR Band 7	Left Touch	0.302	0.549	0.404	0.256	0.216	0.851	0.706	0.558	0.518	0.962	0.922	0.660	0.620
	Left Tilt	0.377	0.426	0.481	0.150	0.003	0.803	0.858	0.527	0.380	1.008	0.861	0.631	0.484
	Right Touch	0.645	0.138	0.345	0.098	0.089	0.783	0.990	0.743	0.734	1.088	1.079	0.443	0.434
	Right Tilt	0.700	0.163	0.455	0.119	0.007	0.863	1.155	0.819	0.707	1.274	1.162	0.574	0.462
NR Band 38	Left Touch	0.376	0.549	0.404	0.256	0.216	0.925	0.780	0.632	0.592	1.036	0.996	0.660	0.620
	Left Tilt	0.498	0.426	0.481	0.150	0.003	0.924	0.979	0.648	0.501	1.129	0.982	0.631	0.484
	Right Touch	0.697	0.138	0.345	0.098	0.089	0.835	1.042	0.795	0.786	1.140	1.131	0.443	0.434
	Right Tilt	0.719	0.163	0.455	0.119	0.007	0.882	1.174	0.838	0.726	1.293	1.181	0.574	0.462
NR Band 41	Left Touch	0.362	0.549	0.404	0.256	0.216	0.911	0.766	0.618	0.578	1.022	0.982	0.660	0.620
	Left Tilt	0.413	0.426	0.481	0.150	0.003	0.839	0.894	0.563	0.416	1.044	0.897	0.631	0.484
	Right Touch	0.636	0.138	0.345	0.098	0.089	0.774	0.981	0.734	0.725	1.079	1.070	0.443	0.434
	Right Tilt	0.630	0.163	0.455	0.119	0.007	0.793	1.085	0.749	0.637	1.204	1.092	0.574	0.462

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
		/	MIMO	MIMO	Ant7	Ant9								
NR Band 77 Ant4	Left Touch	0.174	0.549	0.404	0.256	0.216	0.723	0.578	0.430	0.390	0.834	0.794	0.660	0.620
	Left Tilt	0.120	0.426	0.481	0.150	0.003	0.546	0.601	0.270	0.123	0.751	0.604	0.631	0.484
	Right Touch	0.567	0.138	0.345	0.098	0.089	0.705	0.912	0.665	0.656	1.010	1.001	0.443	0.434
	Right Tilt	0.220	0.163	0.455	0.119	0.007	0.383	0.675	0.339	0.227	0.794	0.682	0.574	0.462
NR Band 77 Ant6	Left Touch	0.788	0.549	0.404	0.256	0.216	1.337	1.192	1.044	1.004	1.448	1.408	0.660	0.620
	Left Tilt	0.767	0.426	0.481	0.150	0.003	1.193	1.248	0.917	0.770	1.398	1.251	0.631	0.484
	Right Touch	0.635	0.138	0.345	0.098	0.089	0.773	0.980	0.733	0.724	1.078	1.069	0.443	0.434
	Right Tilt	0.569	0.163	0.455	0.119	0.007	0.732	1.024	0.688	0.576	1.143	1.031	0.574	0.462
NR Band 77 Ant8	Left Touch	0.733	0.549	0.404	0.256	0.216	1.282	1.137	0.989	0.949	1.393	1.353	0.660	0.620
	Left Tilt	0.452	0.426	0.481	0.150	0.003	0.878	0.933	0.602	0.455	1.083	0.936	0.631	0.484
	Right Touch	0.227	0.138	0.345	0.098	0.089	0.365	0.572	0.325	0.316	0.670	0.661	0.443	0.434
	Right Tilt	0.190	0.163	0.455	0.119	0.007	0.353	0.645	0.309	0.197	0.764	0.652	0.574	0.462
NR Band 77 Ant12	Left Touch	0.294	0.549	0.404	0.256	0.216	0.843	0.698	0.550	0.510	0.954	0.914	0.660	0.620
	Left Tilt	0.339	0.426	0.481	0.150	0.003	0.765	0.820	0.489	0.342	0.970	0.823	0.631	0.484
	Right Touch	0.502	0.138	0.345	0.098	0.089	0.640	0.847	0.600	0.591	0.945	0.936	0.443	0.434
	Right Tilt	0.460	0.163	0.455	0.119	0.007	0.623	0.915	0.579	0.467	1.034	0.922	0.574	0.462

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
		/	MIMO	MIMO	Ant7	Ant9								
DC_7A_N66a	Left Touch	0.844	0.549	0.404	0.256	0.216	1.393	1.248	1.100	1.060	1.504	1.464	0.660	0.620
	Left Tilt	0.416	0.426	0.481	0.150	0.003	0.842	0.897	0.566	0.419	1.047	0.900	0.631	0.484
	Right Touch	0.852	0.138	0.345	0.098	0.089	0.990	1.197	0.950	0.941	1.295	1.286	0.443	0.434



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	Right Tilt	0.634	0.163	0.455	0.119	0.007	0.797	1.089	0.753	0.641	1.208	1.096	0.574	0.462
DC_2A_n7A	Left Touch	0.843	0.549	0.404	0.256	0.216	1.392	1.247	1.099	1.059	1.503	1.463	0.660	0.620
	Left Tilt	0.529	0.426	0.481	0.150	0.003	0.955	1.010	0.679	0.532	1.160	1.013	0.631	0.484
	Right Touch	1.053	0.138	0.345	0.098	0.089	1.191	1.398	1.151	1.142	1.496	1.487	0.443	0.434
	Right Tilt	0.855	0.163	0.455	0.119	0.007	1.018	1.310	0.974	0.862	1.429	1.317	0.574	0.462
DC_66A-n7A	Left Touch	0.930	0.549	0.404	0.256	0.216	1.479	1.334	1.186	1.146	1.590	1.550	0.660	0.620
	Left Tilt	0.489	0.426	0.481	0.150	0.003	0.915	0.970	0.639	0.492	1.120	0.973	0.631	0.484
	Right Touch	1.109	0.138	0.345	0.098	0.089	1.247	1.454	1.207	1.198	1.552	1.543	0.443	0.434
	Right Tilt	0.834	0.163	0.455	0.119	0.007	0.997	1.289	0.953	0.841	1.408	1.296	0.574	0.462
DC_7A_n5A	Left Touch	0.577	0.549	0.404	0.256	0.216	1.126	0.981	0.833	0.793	1.237	1.197	0.660	0.620
	Left Tilt	0.511	0.426	0.481	0.150	0.003	0.937	0.992	0.661	0.514	1.142	0.995	0.631	0.484
	Right Touch	1.140	0.138	0.345	0.098	0.089	1.278	1.485	1.238	1.229	1.583	1.574	0.443	0.434
	Right Tilt	0.973	0.163	0.455	0.119	0.007	1.136	1.428	1.092	0.980	1.547	1.435	0.574	0.462

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
CA_4A-7A	Left Touch	0.571	0.549	0.404	0.256	0.216	1.120	0.975	0.827	0.787	1.231	1.191	0.660	0.620
	Left Tilt	0.442	0.426	0.481	0.150	0.003	0.868	0.923	0.592	0.445	1.073	0.926	0.631	0.484
	Right Touch	0.603	0.138	0.345	0.098	0.089	0.741	0.948	0.701	0.692	1.046	1.037	0.443	0.434
	Right Tilt	0.669	0.163	0.455	0.119	0.007	0.832	1.124	0.788	0.676	1.243	1.131	0.574	0.462

Simultaneous Transmission SAR Summation Scenario for WLAN Body: Body-worn:

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
GSM850	Front	0.321	0.160	0.139	0.004	0.018	0.481	0.460	0.325	0.339	0.464	0.478	0.143	0.157
	Back	0.358	0.260	0.180	0.057	0.007	0.618	0.538	0.415	0.365	0.595	0.545	0.237	0.187
WCDMA Band V	Front	0.379	0.160	0.139	0.004	0.018	0.539	0.518	0.383	0.397	0.522	0.536	0.143	0.157
	Back	0.197	0.260	0.180	0.057	0.007	0.457	0.377	0.254	0.204	0.434	0.384	0.237	0.187
LTE Band 4	Front	0.392	0.160	0.139	0.004	0.018	0.552	0.531	0.396	0.410	0.535	0.549	0.143	0.157
	Back	0.444	0.260	0.180	0.057	0.007	0.704	0.624	0.501	0.451	0.681	0.631	0.237	0.187
LTE Band 5	Front	0.193	0.160	0.139	0.004	0.018	0.353	0.332	0.197	0.211	0.336	0.350	0.143	0.157
	Back	0.241	0.260	0.180	0.057	0.007	0.501	0.421	0.298	0.248	0.478	0.428	0.237	0.187
LTE Band 7	Front	0.207	0.160	0.139	0.004	0.018	0.367	0.346	0.211	0.225	0.350	0.364	0.143	0.157
	Back	0.123	0.260	0.180	0.057	0.007	0.383	0.303	0.180	0.130	0.360	0.310	0.237	0.187
LTE Band 12	Front	0.238	0.160	0.139	0.004	0.018	0.398	0.377	0.242	0.256	0.381	0.395	0.143	0.157
	Back	0.251	0.260	0.180	0.057	0.007	0.511	0.431	0.308	0.258	0.488	0.438	0.237	0.187
LTE Band 13	Front	0.225	0.160	0.139	0.004	0.018	0.385	0.364	0.229	0.243	0.368	0.382	0.143	0.157
	Back	0.326	0.260	0.180	0.057	0.007	0.586	0.506	0.383	0.333	0.563	0.513	0.237	0.187
LTE Band 17	Front	0.185	0.160	0.139	0.004	0.018	0.345	0.324	0.189	0.203	0.328	0.342	0.143	0.157
	Back	0.245	0.260	0.180	0.057	0.007	0.505	0.425	0.302	0.252	0.482	0.432	0.237	0.187
LTE Band 38	Front	0.189	0.160	0.139	0.004	0.018	0.349	0.328	0.193	0.207	0.332	0.346	0.143	0.157
	Back	0.080	0.260	0.180	0.057	0.007	0.340	0.260	0.137	0.087	0.317	0.267	0.237	0.187
LTE Band 41	Front	0.165	0.160	0.139	0.004	0.018	0.325	0.304	0.169	0.183	0.308	0.322	0.143	0.157
	Back	0.060	0.260	0.180	0.057	0.007	0.320	0.240	0.117	0.067	0.297	0.247	0.237	0.187
LTE Band 66	Front	0.126	0.160	0.139	0.004	0.018	0.286	0.265	0.130	0.144	0.269	0.283	0.143	0.157
	Back	0.160	0.260	0.180	0.057	0.007	0.420	0.340	0.217	0.167	0.397	0.347	0.237	0.187
ENDC LTE_B4	Front	0.046	0.160	0.139	0.004	0.018	0.206	0.185	0.050	0.064	0.189	0.203	0.143	0.157
	Back	0.058	0.260	0.180	0.057	0.007	0.318	0.238	0.115	0.065	0.295	0.245	0.237	0.187
ENDC LTE_B7	Front	0.447	0.160	0.139	0.004	0.018	0.607	0.586	0.451	0.465	0.590	0.604	0.143	0.157
	Back	0.126	0.260	0.180	0.057	0.007	0.386	0.306	0.183	0.133	0.363	0.313	0.237	0.187
NR Band 5	Front	0.343	0.160	0.139	0.004	0.018	0.503	0.482	0.347	0.361	0.486	0.500	0.143	0.157



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LTE Band 41	Back	0.226	0.260	0.180	0.057	0.007	0.486	0.406	0.283	0.233	0.463	0.413	0.237	0.187
	Front	0.160	0.160	0.139	0.004	0.018	0.320	0.299	0.164	0.178	0.303	0.317	0.143	0.157
	Back	0.207	0.260	0.180	0.057	0.007	0.467	0.387	0.264	0.214	0.444	0.394	0.237	0.187
LTE Band 66	Front	0.151	0.160	0.139	0.004	0.018	0.311	0.290	0.155	0.169	0.294	0.308	0.143	0.157
	Back	0.167	0.260	0.180	0.057	0.007	0.427	0.347	0.224	0.174	0.404	0.354	0.237	0.187
ENDC LTE_B7	Front	0.065	0.160	0.139	0.004	0.018	0.225	0.204	0.069	0.083	0.208	0.222	0.143	0.157
	Back	0.063	0.260	0.180	0.057	0.007	0.323	0.243	0.120	0.070	0.300	0.250	0.237	0.187
NR Band 7	Front	0.226	0.160	0.139	0.004	0.018	0.386	0.365	0.230	0.244	0.369	0.383	0.143	0.157
	Back	0.227	0.260	0.180	0.057	0.007	0.487	0.407	0.284	0.234	0.464	0.414	0.237	0.187
NR Band 38	Front	0.159	0.160	0.139	0.004	0.018	0.319	0.298	0.163	0.177	0.302	0.316	0.143	0.157
	Back	0.169	0.260	0.180	0.057	0.007	0.429	0.349	0.226	0.176	0.406	0.356	0.237	0.187
NR Band 41	Front	0.191	0.160	0.139	0.004	0.018	0.351	0.330	0.195	0.209	0.334	0.348	0.143	0.157
	Back	0.193	0.260	0.180	0.057	0.007	0.453	0.373	0.250	0.200	0.430	0.380	0.237	0.187
NR Band 66	Front	0.122	0.160	0.139	0.004	0.018	0.282	0.261	0.126	0.140	0.265	0.279	0.143	0.157
	Back	0.145	0.260	0.180	0.057	0.007	0.405	0.325	0.202	0.152	0.382	0.332	0.237	0.187

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
		Ant4	MIMO	MIMO	Ant7	Ant9								
GSM850	Front	0.219	0.160	0.139	0.004	0.018	0.379	0.358	0.223	0.237	0.362	0.376	0.143	0.157
	Back	0.272	0.260	0.180	0.057	0.007	0.532	0.452	0.329	0.279	0.509	0.459	0.237	0.187
WCDMA Band V	Front	0.184	0.160	0.139	0.004	0.018	0.344	0.323	0.188	0.202	0.327	0.341	0.143	0.157
	Back	0.249	0.260	0.180	0.057	0.007	0.509	0.429	0.306	0.256	0.486	0.436	0.237	0.187
LTE Band 5	Front	0.168	0.160	0.139	0.004	0.018	0.328	0.307	0.172	0.186	0.311	0.325	0.143	0.157
	Back	0.211	0.260	0.180	0.057	0.007	0.471	0.391	0.268	0.218	0.448	0.398	0.237	0.187
LTE Band 12	Front	0.235	0.160	0.139	0.004	0.018	0.395	0.374	0.239	0.253	0.378	0.392	0.143	0.157
	Back	0.283	0.260	0.180	0.057	0.007	0.543	0.463	0.340	0.290	0.520	0.470	0.237	0.187
LTE Band 13	Front	0.123	0.160	0.139	0.004	0.018	0.283	0.262	0.127	0.141	0.266	0.280	0.143	0.157
	Back	0.143	0.260	0.180	0.057	0.007	0.403	0.323	0.200	0.150	0.380	0.330	0.237	0.187
LTE Band 17	Front	0.209	0.160	0.139	0.004	0.018	0.369	0.348	0.213	0.227	0.352	0.366	0.143	0.157
	Back	0.317	0.260	0.180	0.057	0.007	0.577	0.497	0.374	0.324	0.554	0.504	0.237	0.187
NR Band 5	Front	0.210	0.160	0.139	0.004	0.018	0.370	0.349	0.214	0.228	0.353	0.367	0.143	0.157
	Back	0.267	0.260	0.180	0.057	0.007	0.527	0.447	0.324	0.274	0.504	0.454	0.237	0.187

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
		Ant5	MIMO	MIMO	Ant7	Ant9								
LTE Band 4	Front	0.464	0.160	0.139	0.004	0.018	0.624	0.603	0.468	0.482	0.607	0.621	0.143	0.157
	Back	0.659	0.260	0.180	0.057	0.007	0.919	0.839	0.716	0.666	0.896	0.846	0.237	0.187
LTE Band 7	Front	0.141	0.160	0.139	0.004	0.018	0.301	0.280	0.145	0.159	0.284	0.298	0.143	0.157
	Back	0.326	0.260	0.180	0.057	0.007	0.586	0.506	0.383	0.333	0.563	0.513	0.237	0.187
LTE Band 38	Front	0.115	0.160	0.139	0.004	0.018	0.275	0.254	0.119	0.133	0.258	0.272	0.143	0.157
	Back	0.222	0.260	0.180	0.057	0.007	0.482	0.402	0.279	0.229	0.459	0.409	0.237	0.187
LTE Band 41	Front	0.115	0.160	0.139	0.004	0.018	0.275	0.254	0.119	0.133	0.258	0.272	0.143	0.157
	Back	0.221	0.260	0.180	0.057	0.007	0.481	0.401	0.278	0.228	0.458	0.408	0.237	0.187
LTE Band 66	Front	0.227	0.160	0.139	0.004	0.018	0.387	0.366	0.231	0.245	0.370	0.384	0.143	0.157
	Back	0.355	0.260	0.180	0.057	0.007	0.615	0.535	0.412	0.362	0.592	0.542	0.237	0.187
ENDC LTE_B4	Front	0.321	0.160	0.139	0.004	0.018	0.481	0.460	0.325	0.339	0.464	0.478	0.143	0.157
	Back	0.601	0.260	0.180	0.057	0.007	0.861	0.781	0.658	0.608	0.838	0.788	0.237	0.187
ENDC LTE_B7	Front	0.189	0.160	0.139	0.004	0.018	0.349	0.328	0.193	0.207	0.332	0.346	0.143	0.157
	Back	0.481	0.260	0.180	0.057	0.007	0.741	0.661	0.538	0.488	0.718	0.668	0.237	0.187
NR Band 7	Front	0.285	0.160	0.139	0.004	0.018	0.445	0.424	0.289	0.303	0.428	0.442	0.143	0.157
	Back	0.488	0.260	0.180	0.057	0.007	0.748	0.668	0.545	0.495	0.725	0.675	0.237	0.187
NR Band 38	Front	0.303	0.160	0.139	0.004	0.018	0.463	0.442	0.307	0.321	0.446	0.460	0.143	0.157
	Back	0.599	0.260	0.180	0.057	0.007	0.859	0.779	0.656	0.606	0.836	0.786	0.237	0.187
NR Band 41	Front	0.224	0.160	0.139	0.004	0.018	0.384	0.363	0.228	0.242	0.367	0.381	0.143	0.157



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	Back	0.694	0.260	0.180	0.057	0.007	0.954	0.874	0.751	0.701	0.931	0.881	0.237	0.187
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Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
NR Band 77 Ant4	Front	0.076	0.160	0.139	0.004	0.018	0.236	0.215	0.080	0.094	0.219	0.233	0.143	0.157
	Back	0.123	0.260	0.180	0.057	0.007	0.383	0.303	0.180	0.130	0.360	0.310	0.237	0.187
NR Band 77 Ant3	Front	0.356	0.160	0.139	0.004	0.018	0.516	0.495	0.360	0.374	0.499	0.513	0.143	0.157
	Back	0.441	0.260	0.180	0.057	0.007	0.701	0.621	0.498	0.448	0.678	0.628	0.237	0.187
NR Band 77 Ant8	Front	0.085	0.160	0.139	0.004	0.018	0.245	0.224	0.089	0.103	0.228	0.242	0.143	0.157
	Back	0.160	0.260	0.180	0.057	0.007	0.420	0.340	0.217	0.167	0.397	0.347	0.237	0.187
NR Band 77 Ant12	Front	0.144	0.160	0.139	0.004	0.018	0.304	0.283	0.148	0.162	0.287	0.301	0.143	0.157
	Back	0.704	0.260	0.180	0.057	0.007	0.964	0.884	0.761	0.711	0.941	0.891	0.237	0.187

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
DC_7A_N66a	Front	0.791	0.160	0.139	0.004	0.018	0.951	0.930	0.795	0.809	0.934	0.948	0.143	0.157
	Back	0.616	0.260	0.180	0.057	0.007	0.876	0.796	0.673	0.623	0.853	0.803	0.237	0.187
DC_2A_n7A	Front	1.180	0.160	0.139	0.004	0.018	1.340	1.319	1.184	1.198	1.323	1.337	0.143	0.157
	Back	1.314	0.260	0.180	0.057	0.007	1.574	1.494	1.371	1.321	1.551	1.501	0.237	0.187
DC_66A-n7A	Front	0.899	0.160	0.139	0.004	0.018	1.059	1.038	0.903	0.917	1.042	1.056	0.143	0.157
	Back	0.985	0.260	0.180	0.057	0.007	1.245	1.165	1.042	0.992	1.222	1.172	0.237	0.187
DC_7A_n5A	Front	0.790	0.160	0.139	0.004	0.018	0.950	0.929	0.794	0.808	0.933	0.947	0.143	0.157
	Back	0.865	0.260	0.180	0.057	0.007	1.125	1.045	0.922	0.872	1.102	1.052	0.237	0.187

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
CA_4A-7A	Front	0.765	0.160	0.139	0.004	0.018	0.925	0.904	0.769	0.783	0.908	0.922	0.143	0.157
	Back	1.196	0.260	0.180	0.057	0.007	1.456	1.376	1.253	1.203	1.433	1.383	0.237	0.187



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Hotspot:

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2								
GSM850	Front	0.504	0.318	0.213	0.007	0.027	0.822	0.717	0.511	0.531	0.724	0.744	0.220	0.240
	Back	0.534	0.581	0.322	0.079	0.054	1.115	0.856	0.613	0.588	0.935	0.910	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.392	0.445	0.328	0.012	0.067	0.837	0.720	0.404	0.459	0.732	0.787	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.270	/	/	/	/	0.270	0.270	0.270	0.270	0.270	0.270	/	/
WCDMA Band V	Front	0.404	0.318	0.213	0.007	0.027	0.722	0.617	0.411	0.431	0.624	0.644	0.220	0.240
	Back	0.558	0.581	0.322	0.079	0.054	1.139	0.880	0.637	0.612	0.959	0.934	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.189	0.445	0.328	0.012	0.067	0.634	0.517	0.201	0.256	0.529	0.584	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.160	/	/	/	/	0.160	0.160	0.160	0.160	0.160	0.160	/	/
LTE Band 4	Front	0.368	0.318	0.213	0.007	0.027	0.686	0.581	0.375	0.395	0.588	0.608	0.220	0.240
	Back	0.461	0.581	0.322	0.079	0.054	1.042	0.783	0.540	0.515	0.862	0.837	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.186	0.445	0.328	0.012	0.067	0.631	0.514	0.198	0.253	0.526	0.581	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.142	/	/	/	/	0.142	0.142	0.142	0.142	0.142	0.142	/	/
LTE Band 5	Front	0.486	0.318	0.213	0.007	0.027	0.804	0.699	0.493	0.513	0.706	0.726	0.220	0.240
	Back	0.544	0.581	0.322	0.079	0.054	1.125	0.866	0.623	0.598	0.945	0.920	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.352	0.445	0.328	0.012	0.067	0.797	0.680	0.364	0.419	0.692	0.747	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.253	/	/	/	/	0.253	0.253	0.253	0.253	0.253	0.253	/	/
LTE Band 7	Front	0.358	0.318	0.213	0.007	0.027	0.676	0.571	0.365	0.385	0.578	0.598	0.220	0.240
	Back	0.282	0.581	0.322	0.079	0.054	0.863	0.604	0.361	0.336	0.683	0.658	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.112	0.445	0.328	0.012	0.067	0.557	0.440	0.124	0.179	0.452	0.507	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.066	/	/	/	/	0.066	0.066	0.066	0.066	0.066	0.066	/	/
LTE Band 12	Front	0.312	0.318	0.213	0.007	0.027	0.630	0.525	0.319	0.339	0.532	0.552	0.220	0.240
	Back	0.503	0.581	0.322	0.079	0.054	1.084	0.825	0.582	0.557	0.904	0.879	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.218	0.445	0.328	0.012	0.067	0.663	0.546	0.230	0.285	0.558	0.613	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.115	/	/	/	/	0.115	0.115	0.115	0.115	0.115	0.115	/	/
LTE Band 13	Front	0.358	0.318	0.213	0.007	0.027	0.676	0.571	0.365	0.385	0.578	0.598	0.220	0.240
	Back	0.494	0.581	0.322	0.079	0.054	1.075	0.816	0.573	0.548	0.895	0.870	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.239	0.445	0.328	0.012	0.067	0.684	0.567	0.251	0.306	0.579	0.634	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.140	/	/	/	/	0.140	0.140	0.140	0.140	0.140	0.140	/	/
LTE Band 17	Front	0.301	0.318	0.213	0.007	0.027	0.619	0.514	0.308	0.328	0.521	0.541	0.220	0.240
	Back	0.390	0.581	0.322	0.079	0.054	0.971	0.712	0.469	0.444	0.791	0.766	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.187	0.445	0.328	0.012	0.067	0.632	0.515	0.199	0.254	0.527	0.582	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.140	/	/	/	/	0.140	0.140	0.140	0.140	0.140	0.140	/	/
LTE Band 38	Front	0.415	0.318	0.213	0.007	0.027	0.733	0.628	0.422	0.442	0.635	0.655	0.220	0.240
	Back	0.211	0.581	0.322	0.079	0.054	0.792	0.533	0.290	0.265	0.612	0.587	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.121	0.445	0.328	0.012	0.067	0.566	0.449	0.133	0.188	0.461	0.516	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.094	/	/	/	/	0.094	0.094	0.094	0.094	0.094	0.094	/	/



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LTE Band 41	Front	0.311	0.318	0.213	0.007	0.027	0.629	0.524	0.318	0.338	0.531	0.551	0.220	0.240
	Back	0.165	0.581	0.322	0.079	0.054	0.746	0.487	0.244	0.219	0.566	0.541	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.106	0.445	0.328	0.012	0.067	0.551	0.434	0.118	0.173	0.446	0.501	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.073	/	/	/	/	0.073	0.073	0.073	0.073	0.073	0.073	/	/
LTE Band 66	Front	0.182	0.318	0.213	0.007	0.027	0.500	0.395	0.189	0.209	0.402	0.422	0.220	0.240
	Back	0.280	0.581	0.322	0.079	0.054	0.861	0.602	0.359	0.334	0.681	0.656	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.100	0.445	0.328	0.012	0.067	0.545	0.428	0.112	0.167	0.440	0.495	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.077	/	/	/	/	0.077	0.077	0.077	0.077	0.077	0.077	/	/
ENDC LTE_B4	Front	0.091	0.318	0.213	0.007	0.027	0.409	0.304	0.098	0.118	0.311	0.331	0.220	0.240
	Back	0.093	0.581	0.322	0.079	0.054	0.674	0.415	0.172	0.147	0.494	0.469	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.004	0.445	0.328	0.012	0.067	0.449	0.332	0.016	0.071	0.344	0.399	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.088	/	/	/	/	0.088	0.088	0.088	0.088	0.088	0.088	/	/
ENDC LTE_B7	Front	0.265	0.318	0.213	0.007	0.027	0.583	0.478	0.272	0.292	0.485	0.505	0.220	0.240
	Back	0.211	0.581	0.322	0.079	0.054	0.792	0.533	0.290	0.265	0.612	0.587	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.146	0.445	0.328	0.012	0.067	0.591	0.474	0.158	0.213	0.486	0.541	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.054	/	/	/	/	0.054	0.054	0.054	0.054	0.054	0.054	/	/
NR Band 5	Front	0.476	0.318	0.213	0.007	0.027	0.794	0.689	0.483	0.503	0.696	0.716	0.220	0.240
	Back	0.505	0.581	0.322	0.079	0.054	1.086	0.827	0.584	0.559	0.906	0.881	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.235	0.445	0.328	0.012	0.067	0.680	0.563	0.247	0.302	0.575	0.630	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.137	/	/	/	/	0.137	0.137	0.137	0.137	0.137	0.137	/	/
NR Band 7	Front	0.385	0.318	0.213	0.007	0.027	0.703	0.598	0.392	0.412	0.605	0.625	0.220	0.240
	Back	0.195	0.581	0.322	0.079	0.054	0.776	0.517	0.274	0.249	0.596	0.571	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.150	0.445	0.328	0.012	0.067	0.595	0.478	0.162	0.217	0.490	0.545	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.095	/	/	/	/	0.095	0.095	0.095	0.095	0.095	0.095	/	/
NR Band 38	Front	0.470	0.318	0.213	0.007	0.027	0.788	0.683	0.477	0.497	0.690	0.710	0.220	0.240
	Back	0.231	0.581	0.322	0.079	0.054	0.812	0.553	0.310	0.285	0.632	0.607	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.188	0.445	0.328	0.012	0.067	0.633	0.516	0.200	0.255	0.528	0.583	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.109	/	/	/	/	0.109	0.109	0.109	0.109	0.109	0.109	/	/
NR Band 41	Front	0.443	0.318	0.213	0.007	0.027	0.761	0.656	0.450	0.470	0.663	0.683	0.220	0.240
	Back	0.212	0.581	0.322	0.079	0.054	0.793	0.534	0.291	0.266	0.613	0.588	0.401	0.376
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	0.149	0.445	0.328	0.012	0.067	0.594	0.477	0.161	0.216	0.489	0.544	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656	0.779	0.656
	Bottom	0.098	/	/	/	/	0.098	0.098	0.098	0.098	0.098	0.098	/	/

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
GSM1900	Front	0.435	0.318	0.213	0.007	0.027	0.753	0.648	0.442	0.462	0.655	0.675
	Back	0.540	0.581	0.322	0.079	0.054	1.121	0.862	0.619	0.594	0.941	0.916
	Left	0.152	/	/	/	/	0.152	0.152	0.152	0.152	0.152	0.152
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.568	/	/	/	/	0.568	0.568	0.568	0.568	0.568	0.568



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WCDMA Band II	Front	0.316	0.318	0.213	0.007	0.027	0.634	0.529	0.323	0.343	0.536	0.556
	Back	0.405	0.581	0.322	0.079	0.054	0.986	0.727	0.484	0.459	0.806	0.781
	Left	0.168	/	/	/	/	0.168	0.168	0.168	0.168	0.168	0.168
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.676	/	/	/	/	0.676	0.676	0.676	0.676	0.676	0.676
WCDMA Band IV	Front	0.386	0.318	0.213	0.007	0.027	0.704	0.599	0.393	0.413	0.606	0.626
	Back	0.500	0.581	0.322	0.079	0.054	1.081	0.822	0.579	0.554	0.901	0.876
	Left	0.174	/	/	/	/	0.174	0.174	0.174	0.174	0.174	0.174
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.709	/	/	/	/	0.709	0.709	0.709	0.709	0.709	0.709
LTE Band 2	Front	0.302	0.318	0.213	0.007	0.027	0.620	0.515	0.309	0.329	0.522	0.542
	Back	0.383	0.581	0.322	0.079	0.054	0.964	0.705	0.462	0.437	0.784	0.759
	Left	0.154	/	/	/	/	0.154	0.154	0.154	0.154	0.154	0.154
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.669	/	/	/	/	0.669	0.669	0.669	0.669	0.669	0.669
LTE Band 4	Front	0.394	0.318	0.213	0.007	0.027	0.712	0.607	0.401	0.421	0.614	0.634
	Back	0.510	0.581	0.322	0.079	0.054	1.091	0.832	0.589	0.564	0.911	0.886
	Left	0.169	/	/	/	/	0.169	0.169	0.169	0.169	0.169	0.169
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.587	/	/	/	/	0.587	0.587	0.587	0.587	0.587	0.587
LTE Band 7	Front	0.189	0.318	0.213	0.007	0.027	0.507	0.402	0.196	0.216	0.409	0.429
	Back	0.292	0.581	0.322	0.079	0.054	0.873	0.614	0.371	0.346	0.693	0.668
	Left	0.106	/	/	/	/	0.106	0.106	0.106	0.106	0.106	0.106
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.189	/	/	/	/	0.189	0.189	0.189	0.189	0.189	0.189
LTE Band 38	Front	0.388	0.318	0.213	0.007	0.027	0.706	0.601	0.395	0.415	0.608	0.628
	Back	0.496	0.581	0.322	0.079	0.054	1.077	0.818	0.575	0.550	0.897	0.872
	Left	0.199	/	/	/	/	0.199	0.199	0.199	0.199	0.199	0.199
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.410	/	/	/	/	0.410	0.410	0.410	0.410	0.410	0.410
LTE Band 41	Front	0.321	0.318	0.213	0.007	0.027	0.639	0.534	0.328	0.348	0.541	0.561
	Back	0.372	0.581	0.322	0.079	0.054	0.953	0.694	0.451	0.426	0.773	0.748
	Left	0.173	/	/	/	/	0.173	0.173	0.173	0.173	0.173	0.173
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.325	/	/	/	/	0.325	0.325	0.325	0.325	0.325	0.325
LTE Band 66	Front	0.383	0.318	0.213	0.007	0.027	0.701	0.596	0.390	0.410	0.603	0.623
	Back	0.412	0.581	0.322	0.079	0.054	0.993	0.734	0.491	0.466	0.813	0.788
	Left	0.186	/	/	/	/	0.186	0.186	0.186	0.186	0.186	0.186
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.719	/	/	/	/	0.719	0.719	0.719	0.719	0.719	0.719
ENDC LTE_B7	Front	0.240	0.318	0.213	0.007	0.027	0.558	0.453	0.247	0.267	0.460	0.480
	Back	0.255	0.581	0.322	0.079	0.054	0.836	0.577	0.334	0.309	0.656	0.631
	Left	0.144	/	/	/	/	0.144	0.144	0.144	0.144	0.144	0.144
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.199	/	/	/	/	0.199	0.199	0.199	0.199	0.199	0.199
NR Band 7	Front	0.255	0.318	0.213	0.007	0.027	0.573	0.468	0.262	0.282	0.475	0.495
	Back	0.356	0.581	0.322	0.079	0.054	0.937	0.678	0.435	0.410	0.757	0.732
	Left	0.102	/	/	/	/	0.102	0.102	0.102	0.102	0.102	0.102
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.291	/	/	/	/	0.291	0.291	0.291	0.291	0.291	0.291



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NR Band 38	Front	0.294	0.318	0.213	0.007	0.027	0.612	0.507	0.301	0.321	0.514	0.534
	Back	0.516	0.581	0.322	0.079	0.054	1.097	0.838	0.595	0.570	0.917	0.892
	Left	0.238	/	/	/	/	0.238	0.238	0.238	0.238	0.238	0.238
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.334	/	/	/	/	0.334	0.334	0.334	0.334	0.334	0.334
NR Band 41	Front	0.270	0.318	0.213	0.007	0.027	0.588	0.483	0.277	0.297	0.490	0.510
	Back	0.370	0.581	0.322	0.079	0.054	0.951	0.692	0.449	0.424	0.771	0.746
	Left	0.179	/	/	/	/	0.179	0.179	0.179	0.179	0.179	0.179
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.325	/	/	/	/	0.325	0.325	0.325	0.325	0.325	0.325
NR Band 66	Front	0.489	0.318	0.213	0.007	0.027	0.807	0.702	0.496	0.516	0.709	0.729
	Back	0.631	0.581	0.322	0.079	0.054	1.212	0.953	0.710	0.685	1.032	1.007
	Left	0.217	/	/	/	/	0.217	0.217	0.217	0.217	0.217	0.217
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	0.713	/	/	/	/	0.713	0.713	0.713	0.713	0.713	0.713

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
GSM1900	Front	0.166	0.318	0.213	0.007	0.027	0.484	0.379	0.173	0.193	0.386	0.406
	Back	0.188	0.581	0.322	0.079	0.054	0.769	0.510	0.267	0.242	0.589	0.564
	Left	0.348	/	/	/	/	0.348	0.348	0.348	0.348	0.348	0.348
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
WCDMA Band II	Front	0.179	0.318	0.213	0.007	0.027	0.497	0.392	0.186	0.206	0.399	0.419
	Back	0.205	0.581	0.322	0.079	0.054	0.786	0.527	0.284	0.259	0.606	0.581
	Left	0.383	/	/	/	/	0.383	0.383	0.383	0.383	0.383	0.383
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
WCDMA Band IV	Front	0.196	0.318	0.213	0.007	0.027	0.514	0.409	0.203	0.223	0.416	0.436
	Back	0.220	0.581	0.322	0.079	0.054	0.801	0.542	0.299	0.274	0.621	0.596
	Left	0.342	/	/	/	/	0.342	0.342	0.342	0.342	0.342	0.342
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 2	Front	0.131	0.318	0.213	0.007	0.027	0.449	0.344	0.138	0.158	0.351	0.371
	Back	0.149	0.581	0.322	0.079	0.054	0.730	0.471	0.228	0.203	0.550	0.525
	Left	0.277	/	/	/	/	0.277	0.277	0.277	0.277	0.277	0.277
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 4	Front	0.141	0.318	0.213	0.007	0.027	0.459	0.354	0.148	0.168	0.361	0.381
	Back	0.166	0.581	0.322	0.079	0.054	0.747	0.488	0.245	0.220	0.567	0.542
	Left	0.296	/	/	/	/	0.296	0.296	0.296	0.296	0.296	0.296
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 7	Front	0.222	0.318	0.213	0.007	0.027	0.540	0.435	0.229	0.249	0.442	0.462
	Back	0.254	0.581	0.322	0.079	0.054	0.835	0.576	0.333	0.308	0.655	0.630
	Left	0.270	/	/	/	/	0.270	0.270	0.270	0.270	0.270	0.270
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/



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LTE Band 38	Front	0.251	0.318	0.213	0.007	0.027	0.569	0.464	0.258	0.278	0.471	0.491
	Back	0.255	0.581	0.322	0.079	0.054	0.836	0.577	0.334	0.309	0.656	0.631
	Left	0.259	/	/	/	/	0.259	0.259	0.259	0.259	0.259	0.259
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 41	Front	0.163	0.318	0.213	0.007	0.027	0.481	0.376	0.170	0.190	0.383	0.403
	Back	0.193	0.581	0.322	0.079	0.054	0.774	0.515	0.272	0.247	0.594	0.569
	Left	0.202	/	/	/	/	0.202	0.202	0.202	0.202	0.202	0.202
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 66	Front	0.158	0.318	0.213	0.007	0.027	0.476	0.371	0.165	0.185	0.378	0.398
	Back	0.185	0.581	0.322	0.079	0.054	0.766	0.507	0.264	0.239	0.586	0.561
	Left	0.326	/	/	/	/	0.326	0.326	0.326	0.326	0.326	0.326
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
ENDC LTE_B7	Front	0.052	0.318	0.213	0.007	0.027	0.370	0.265	0.059	0.079	0.272	0.292
	Back	0.059	0.581	0.322	0.079	0.054	0.640	0.381	0.138	0.113	0.460	0.435
	Left	0.066	/	/	/	/	0.066	0.066	0.066	0.066	0.066	0.066
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 7	Front	0.221	0.318	0.213	0.007	0.027	0.539	0.434	0.228	0.248	0.441	0.461
	Back	0.256	0.581	0.322	0.079	0.054	0.837	0.578	0.335	0.310	0.657	0.632
	Left	0.234	/	/	/	/	0.234	0.234	0.234	0.234	0.234	0.234
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 38	Front	0.215	0.318	0.213	0.007	0.027	0.533	0.428	0.222	0.242	0.435	0.455
	Back	0.224	0.581	0.322	0.079	0.054	0.805	0.546	0.303	0.278	0.625	0.600
	Left	0.221	/	/	/	/	0.221	0.221	0.221	0.221	0.221	0.221
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 41	Front	0.261	0.318	0.213	0.007	0.027	0.579	0.474	0.268	0.288	0.481	0.501
	Back	0.250	0.581	0.322	0.079	0.054	0.831	0.572	0.329	0.304	0.651	0.626
	Left	0.268	/	/	/	/	0.268	0.268	0.268	0.268	0.268	0.268
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 66	Front	0.222	0.318	0.213	0.007	0.027	0.540	0.435	0.229	0.249	0.442	0.462
	Back	0.257	0.581	0.322	0.079	0.054	0.838	0.579	0.336	0.311	0.658	0.633
	Left	0.320	/	/	/	/	0.320	0.320	0.320	0.320	0.320	0.320
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	/	0.194	0.655	0.124	0.001	0.194	0.655	0.124	0.001	0.779	0.656
	Bottom	/	/	/	/	/	/	/	/	/	/	/

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
GSM850	Front	0.191	0.318	0.213	0.007	0.027	0.509	0.404	0.198	0.218	0.411	0.431
	Back	0.222	0.581	0.322	0.079	0.054	0.803	0.544	0.301	0.276	0.623	0.598
	Left	0.232	/	/	/	/	0.232	0.232	0.232	0.232	0.232	0.232
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.107	0.194	0.655	0.124	0.001	0.301	0.762	0.231	0.108	0.886	0.763
	Bottom	/	/	/	/	/	/	/	/	/	/	/



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WCDMA Band V	Front	0.164	0.318	0.213	0.007	0.027	0.482	0.377	0.171	0.191	0.384	0.404
	Back	0.208	0.581	0.322	0.079	0.054	0.789	0.530	0.287	0.262	0.609	0.584
	Left	0.193	/	/	/	/	0.193	0.193	0.193	0.193	0.193	0.193
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.069	0.194	0.655	0.124	0.001	0.263	0.724	0.193	0.070	0.848	0.725
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 5	Front	0.186	0.318	0.213	0.007	0.027	0.504	0.399	0.193	0.213	0.406	0.426
	Back	0.234	0.581	0.322	0.079	0.054	0.815	0.556	0.313	0.288	0.635	0.610
	Left	0.253	/	/	/	/	0.253	0.253	0.253	0.253	0.253	0.253
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.092	0.194	0.655	0.124	0.001	0.286	0.747	0.216	0.093	0.871	0.748
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 12	Front	0.203	0.318	0.213	0.007	0.027	0.521	0.416	0.210	0.230	0.423	0.443
	Back	0.260	0.581	0.322	0.079	0.054	0.841	0.582	0.339	0.314	0.661	0.636
	Left	0.300	/	/	/	/	0.300	0.300	0.300	0.300	0.300	0.300
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.119	0.194	0.655	0.124	0.001	0.313	0.774	0.243	0.120	0.898	0.775
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 13	Front	0.191	0.318	0.213	0.007	0.027	0.509	0.404	0.198	0.218	0.411	0.431
	Back	0.242	0.581	0.322	0.079	0.054	0.823	0.564	0.321	0.296	0.643	0.618
	Left	0.237	/	/	/	/	0.237	0.237	0.237	0.237	0.237	0.237
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.103	0.194	0.655	0.124	0.001	0.297	0.758	0.227	0.104	0.882	0.759
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 17	Front	0.242	0.318	0.213	0.007	0.027	0.560	0.455	0.249	0.269	0.462	0.482
	Back	0.322	0.581	0.322	0.079	0.054	0.903	0.644	0.401	0.376	0.723	0.698
	Left	0.371	/	/	/	/	0.371	0.371	0.371	0.371	0.371	0.371
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.140	0.194	0.655	0.124	0.001	0.334	0.795	0.264	0.141	0.919	0.796
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 5	Front	0.169	0.318	0.213	0.007	0.027	0.487	0.382	0.176	0.196	0.389	0.409
	Back	0.219	0.581	0.322	0.079	0.054	0.800	0.541	0.298	0.273	0.620	0.595
	Left	0.185	/	/	/	/	0.185	0.185	0.185	0.185	0.185	0.185
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.087	0.194	0.655	0.124	0.001	0.281	0.742	0.211	0.088	0.866	0.743
	Bottom	/	/	/	/	/	/	/	/	/	/	/

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
LTE Band 4	Ant5	MIMO	MIMO	Ant7	Ant9							
	Front	0.170	0.318	0.213	0.007	0.027	0.488	0.383	0.177	0.197	0.390	0.410
	Back	0.260	0.581	0.322	0.079	0.054	0.841	0.582	0.339	0.314	0.661	0.636
	Left	0.071	/	/	/	/	0.071	0.071	0.071	0.071	0.071	0.071
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.246	0.194	0.655	0.124	0.001	0.440	0.901	0.370	0.247	1.025	0.902
LTE Band 7	Bottom	/	/	/	/	/	/	/	/	/	/	/
	Front	0.125	0.318	0.213	0.007	0.027	0.443	0.338	0.132	0.152	0.345	0.365
	Back	0.249	0.581	0.322	0.079	0.054	0.830	0.571	0.328	0.303	0.650	0.625
	Left	0.057	/	/	/	/	0.057	0.057	0.057	0.057	0.057	0.057
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.244	0.194	0.655	0.124	0.001	0.438	0.899	0.368	0.245	1.023	0.900
LTE Band 38	Bottom	/	/	/	/	/	/	/	/	/	/	/
	Front	0.124	0.318	0.213	0.007	0.027	0.442	0.337	0.131	0.151	0.344	0.364
	Back	0.241	0.581	0.322	0.079	0.054	0.822	0.563	0.320	0.295	0.642	0.617
	Left	0.004	/	/	/	/	0.004	0.004	0.004	0.004	0.004	0.004
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.284	0.194	0.655	0.124	0.001	0.478	0.939	0.408	0.285	1.063	0.940
LTE Band 38	Bottom	/	/	/	/	/	/	/	/	/	/	/



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LTE Band 41	Front	0.105	0.318	0.213	0.007	0.027	0.423	0.318	0.112	0.132	0.325	0.345
	Back	0.206	0.581	0.322	0.079	0.054	0.787	0.528	0.285	0.260	0.607	0.582
	Left	0.040	/	/	/	/	0.040	0.040	0.040	0.040	0.040	0.040
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.179	0.194	0.655	0.124	0.001	0.373	0.834	0.303	0.180	0.958	0.835
	Bottom	/	/	/	/	/	/	/	/	/	/	/
LTE Band 66	Front	0.176	0.318	0.213	0.007	0.027	0.494	0.389	0.183	0.203	0.396	0.416
	Back	0.271	0.581	0.322	0.079	0.054	0.852	0.593	0.350	0.325	0.672	0.647
	Left	0.080	/	/	/	/	0.080	0.080	0.080	0.080	0.080	0.080
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.248	0.194	0.655	0.124	0.001	0.442	0.903	0.372	0.249	1.027	0.904
	Bottom	/	/	/	/	/	/	/	/	/	/	/
ENDC LTE_B4	Front	0.203	0.318	0.213	0.007	0.027	0.521	0.416	0.210	0.230	0.423	0.443
	Back	0.348	0.581	0.322	0.079	0.054	0.929	0.670	0.427	0.402	0.749	0.724
	Left	0.090	/	/	/	/	0.090	0.090	0.090	0.090	0.090	0.090
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.320	0.194	0.655	0.124	0.001	0.514	0.975	0.444	0.321	1.099	0.976
	Bottom	/	/	/	/	/	/	/	/	/	/	/
ENDC LTE_B7	Front	0.119	0.318	0.213	0.007	0.027	0.437	0.332	0.126	0.146	0.339	0.359
	Back	0.252	0.581	0.322	0.079	0.054	0.833	0.574	0.331	0.306	0.653	0.628
	Left	0.064	/	/	/	/	0.064	0.064	0.064	0.064	0.064	0.064
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.233	0.194	0.655	0.124	0.001	0.427	0.888	0.357	0.234	1.012	0.889
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 7	Front	0.336	0.318	0.213	0.007	0.027	0.654	0.549	0.343	0.363	0.556	0.576
	Back	0.589	0.581	0.322	0.079	0.054	1.170	0.911	0.668	0.643	0.990	0.965
	Left	0.131	/	/	/	/	0.131	0.131	0.131	0.131	0.131	0.131
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.609	0.194	0.655	0.124	0.001	0.803	1.264	0.733	0.610	1.388	1.265
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 38	Front	0.100	0.318	0.213	0.007	0.027	0.418	0.313	0.107	0.127	0.320	0.340
	Back	0.182	0.581	0.322	0.079	0.054	0.763	0.504	0.261	0.236	0.583	0.558
	Left	0.051	/	/	/	/	0.051	0.051	0.051	0.051	0.051	0.051
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.181	0.194	0.655	0.124	0.001	0.375	0.836	0.305	0.182	0.960	0.837
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 41	Front	0.122	0.318	0.213	0.007	0.027	0.440	0.335	0.129	0.149	0.342	0.362
	Back	0.191	0.581	0.322	0.079	0.054	0.772	0.513	0.270	0.245	0.592	0.567
	Left	0.057	/	/	/	/	0.057	0.057	0.057	0.057	0.057	0.057
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.203	0.194	0.655	0.124	0.001	0.397	0.858	0.327	0.204	0.982	0.859
	Bottom	/	/	/	/	/	/	/	/	/	/	/

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
NR Band 77 Ant4	Front	0.114	0.318	0.213	0.007	0.027	0.432	0.327	0.121	0.141	0.334	0.354
	Back	0.175	0.581	0.322	0.079	0.054	0.756	0.497	0.254	0.229	0.576	0.551
	Left	0.238	/	/	/	/	0.238	0.238	0.238	0.238	0.238	0.238
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.059	0.194	0.655	0.124	0.001	0.253	0.714	0.183	0.060	0.838	0.715
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 77 Ant6	Front	0.092	0.318	0.213	0.007	0.027	0.410	0.305	0.099	0.119	0.312	0.332
	Back	0.110	0.581	0.322	0.079	0.054	0.691	0.432	0.189	0.164	0.511	0.486
	Left	/	/	/	/	/	/	/	/	/	/	/
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.117	0.194	0.655	0.124	0.001	0.311	0.772	0.241	0.118	0.896	0.773
	Bottom	/	/	/	/	/	/	/	/	/	/	/



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NR Band 77 Ant8	Front	0.115	0.318	0.213	0.007	0.027	0.433	0.328	0.122	0.142	0.335	0.355
	Back	0.182	0.581	0.322	0.079	0.054	0.763	0.504	0.261	0.236	0.583	0.558
	Left	/	/	/	/	/	/	/	/	/	/	/
	Right	0.181	0.445	0.328	0.012	0.067	0.626	0.509	0.193	0.248	0.521	0.576
	Top	0.144	0.194	0.655	0.124	0.001	0.338	0.799	0.268	0.145	0.923	0.800
	Bottom	/	/	/	/	/	/	/	/	/	/	/
NR Band 77 Ant12	Front	0.105	0.318	0.213	0.007	0.027	0.423	0.318	0.112	0.132	0.325	0.345
	Back	0.558	0.581	0.322	0.079	0.054	1.139	0.880	0.637	0.612	0.959	0.934
	Left	0.107	/	/	/	/	0.107	0.107	0.107	0.107	0.107	0.107
	Right	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Top	0.137	0.194	0.655	0.124	0.001	0.331	0.792	0.261	0.138	0.916	0.793
	Bottom	/	/	/	/	/	/	/	/	/	/	/

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
DC_7A_N66a	Front	/	MIMO	MIMO	Ant7	Ant9	1.072	0.967	0.761	0.781	0.974	0.994
	Back	0.754	0.318	0.213	0.007	0.027	1.072	0.967	0.761	0.781	0.974	0.994
	Left	0.883	0.581	0.322	0.079	0.054	1.464	1.205	0.962	0.937	1.284	1.259
	Right	0.384	/	/	/	/	0.384	0.384	0.384	0.384	0.384	0.384
	Top	0.146	0.445	0.328	0.012	0.067	0.591	0.474	0.158	0.213	0.486	0.541
	Bottom	0.233	0.194	0.655	0.124	0.001	0.427	0.888	0.357	0.234	1.012	0.889
DC_2A_n7A	Front	0.767	/	/	/	/	0.767	0.767	0.767	0.767	0.767	0.767
	Back	0.687	0.318	0.213	0.007	0.027	1.005	0.900	0.694	0.714	0.907	0.927
	Left	0.972	0.581	0.322	0.079	0.054	1.553	1.294	1.051	1.026	1.373	1.348
	Right	0.408	/	/	/	/	0.408	0.408	0.408	0.408	0.408	0.408
	Top	0.150	0.445	0.328	0.012	0.067	0.595	0.478	0.162	0.217	0.490	0.545
	Bottom	0.609	0.194	0.655	0.124	0.001	0.803	1.264	0.733	0.610	1.388	1.265
DC_66A-n7A	Front	0.764	/	/	/	/	0.764	0.764	0.764	0.764	0.764	0.764
	Back	0.768	0.318	0.213	0.007	0.027	1.086	0.981	0.775	0.795	0.988	1.008
	Left	1.001	0.581	0.322	0.079	0.054	1.582	1.323	1.080	1.055	1.402	1.377
	Right	0.457	/	/	/	/	0.457	0.457	0.457	0.457	0.457	0.457
	Top	0.150	0.445	0.328	0.012	0.067	0.595	0.478	0.162	0.217	0.490	0.545
	Bottom	0.609	0.194	0.655	0.124	0.001	0.803	1.264	0.733	0.610	1.388	1.265
DC_7A_n5A	Front	0.814	/	/	/	/	0.814	0.814	0.814	0.814	0.814	0.814
	Back	0.741	0.318	0.213	0.007	0.027	1.059	0.954	0.748	0.768	0.961	0.981
	Left	0.760	0.581	0.322	0.079	0.054	1.341	1.082	0.839	0.814	1.161	1.136
	Right	0.329	/	/	/	/	0.329	0.329	0.329	0.329	0.329	0.329
	Top	0.381	0.445	0.328	0.012	0.067	0.826	0.709	0.393	0.448	0.721	0.776
	Bottom	0.320	0.194	0.655	0.124	0.001	0.514	0.975	0.444	0.321	1.099	0.976

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)
		1	2	3	4	5						
		Main	WiFi 2.4G	WiFi 5G	BT1	BT2						
CA_4A-7A	Front	/	MIMO	MIMO	Ant7	Ant9	0.831	0.726	0.520	0.540	0.733	0.753
	Back	0.513	0.318	0.213	0.007	0.027	0.831	0.726	0.520	0.540	0.733	0.753
	Left	0.762	0.581	0.322	0.079	0.054	1.343	1.084	0.841	0.816	1.163	1.138
	Right	0.233	/	/	/	/	0.233	0.233	0.233	0.233	0.233	0.233
	Top	/	0.445	0.328	0.012	0.067	0.445	0.328	0.012	0.067	0.340	0.395
	Bottom	0.233	0.194	0.655	0.124	0.001	0.427	0.888	0.357	0.234	1.012	0.889



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Product specific 10g SAR:

Band	Exposure position	SARmax (W/kg)					Summed SAR (1+2)	Summed SAR (1+3)	Summed SAR (1+4)	Summed SAR (1+5)	Summed SAR (1+3+4)	Summed SAR (1+3+5)	Summed SAR (3+4)	Summed SAR (3+5)
		1	2	3	4	5								
		Main Ant	WiFi 2.4G MIMO	WiFi 5G MIMO	BT1 Ant7	BT2 Ant9								
WCDMA Band II (Ant2)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	/	/	0.505	/	/	/	0.505	/	/	0.505	0.505	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	2.316	/	/	/	/	2.316	2.316	2.316	2.316	2.316	2.316	/	/
WCDMA Band IV (Ant2)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	/	/	0.505	/	/	/	0.505	/	/	0.505	0.505	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	1.298	/	/	/	/	1.298	1.298	1.298	1.298	1.298	1.298	/	/
LTE Band 2 (Ant2)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	/	/	0.505	/	/	/	0.505	/	/	0.505	0.505	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	1.525	/	/	/	/	1.525	1.525	1.525	1.525	1.525	1.525	/	/
LTE Band4 (Ant2)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	/	/	0.505	/	/	/	0.505	/	/	0.505	0.505	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	1.007	/	/	/	/	1.007	1.007	1.007	1.007	1.007	1.007	/	/
5G NR N41 (Ant5)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	1.627	/	0.505	/	/	1.627	2.132	1.627	1.627	2.132	2.132	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	1.659	/	0.997	/	/	1.659	2.656	1.659	1.659	2.656	2.656	0.997	0.997
	Bottom	/	/	/	/	/	/	/	/	/	/	/	/	/
5G NR N77 (Ant12)	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	2.255	/	0.505	/	/	2.255	2.760	2.255	2.255	2.760	2.760	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	/	/	/	/	/	/	/	/	/	/	/	/	/
CA_4A-7A	Front	/	/	0.413	/	/	/	0.413	/	/	0.413	0.413	0.413	0.413
	Back	/	/	0.505	/	/	/	0.505	/	/	0.505	0.505	0.505	0.505
	Left	/	/	/	/	/	/	/	/	/	/	/	/	/
	Right	/	/	0.649	/	/	/	0.649	/	/	0.649	0.649	0.649	0.649
	Top	/	/	0.997	/	/	/	0.997	/	/	0.997	0.997	0.997	0.997
	Bottom	1.007	/	/	/	/	/	1.007	1.007	1.007	1.007	1.007	/	/





8.4.3 SPLSR Evaluation Analysis

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

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

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

$$\text{SPLS Ratio} = (\text{SAR}_1 + \text{SAR}_2)^{1.5} / R_i$$

Case No.	Position	Band	SAR (W/kg)	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
1#	Left cheek	LTE B38	1.033	68.00	1.437	0.025	Not Required
		Wi-Fi 5G	0.404				
		LTE B38	1.033	83.60	1.289	0.018	Not Required
		BT1	0.256				
		Wi-Fi 5G	0.404	34.80	0.660	0.015	Not Required
		BT1	0.256				
Case No.	Position	Band	SAR (W/kg)	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
2#	Left cheek	LTE B38	1.033	68.00	1.437	0.025	Not Required
		Wi-Fi 5G	0.404				
		LTE B38	1.033	76.00	1.249	0.018	Not Required
		BT2	0.216				
		Wi-Fi 5G	0.404	12.40	0.620	0.039	Not Required
		BT2	0.216				



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9 Equipment list

Test Platform		SPEAG DASY5 Professional				
Description		SAR Test System (Frequency range 300MHz-6GHz)				
Software Reference		DASY52; SEMCAD				
Hardware Reference						
Equipment		Manufacturer	Model	Serial Number	Calibration Date	Due date of calibration
☒	Twin Phantom	SPEAG	SAM 7	1027	NCR	NCR
☒	Twin Phantom	SPEAG	SAM 10	1563	NCR	NCR
☒	DAE	SPEAG	DAE4	1428	2020-03-03	2021-03-02
☒	DAE	SPEAG	DAE4	1267	2020-06-12	2021-06-11
☒	E-Field Probe	SPEAG	EX3DV4	3962	2020-04-01	2021-03-31
☒	E-Field Probe	SPEAG	EX3DV4	3793	2020-05-09	2021-05-08
☒	E-Field Probe	SPEAG	EX3DV4	3748	2020-07-29	2021-07-28
☒	E-Field Probe	SPEAG	EX3DV4	3982	2020-10-28	2021-10-27
☒	Validation Kits	SPEAG	D750V3	1160	2019-05-22	2022-05-21
☒	Validation Kits	SPEAG	D835V2	4d105	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D1750V2	1149	2019-05-21	2022-05-20
☒	Validation Kits	SPEAG	D1900V2	5d028	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D2450V2	733	2019-12-17	2022-12-16
☒	Validation Kits	SPEAG	D2600V2	1125	2019-05-20	2022-05-19
☒	Validation Kits	SPEAG	D3700V2	1046	2019-09-06	2022-09-05
☒	Validation Kits	SPEAG	D3900V2	1026	2019-09-03	2022-09-02
☒	Validation Kits	SPEAG	D5GHzV2	1165	2019-12-20	2022-12-19
☒	Agilent Network Analyzer	Agilent	E5071C	MY46523591	2020-04-16	2021-04-15
☒	Dielectric Probe Kit	Agilent	85070E	US01440210	NCR	NCR
☒	Universal Radio Communication Tester	R&S	CMW500	111637	2020-04-16	2021-04-15
☒	Radio Communication Analyzer	Anritsu	MT8821C	6201502984	2020-06-11	2021-06-10
☒	RF Bi-Directional Coupler	Agilent	86205-60001	MY31400031	NCR	NCR
☒	Signal Generator	Agilent	N5171B	MY53050736	2020-04-15	2021-04-14
☒	Preamplifier	Mini-Circuits	ZHL-42W	15542	NCR	NCR
☒	Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	073501433	NCR	NCR
☒	Power Meter	Agilent	E4416A	GB41292095	2020-04-15	2021-04-14



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☒	Power Sensor	Agilent	8481H	MY41091234	2020-04-15	2021-04-14
☒	Power Sensor	R&S	NRP-Z92	100025	2020-04-16	2021-04-15
☒	Attenuator	SHX	TS2-3dB	30704	NCR	NCR
☒	Coaxial low pass filter	Mini-Circuits	VLF-2500(+)	NA	NCR	NCR
☒	Coaxial low pass filter	Microlab Fxr	LA-F13	NA	NCR	NCR
☒	50 Ω coaxial load	Mini-Circuits	KARN-50+	00850	NCR	NCR
☒	DC POWER SUPPLY	SAKO	SK1730SL5A	NA	NCR	NCR
☒	Speed reading thermometer	MingGao	T809	NA	2020-04-21	2021-04-20
☒	Humidity and Temperature Indicator	KIMTOKA	KIMTOKA	NA	2020-04-21	2021-04-20

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

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