

TEST REPORT

Applicant: TECNO MOBILE LIMITED
Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL
CENTRE 19-25 SHAN MEI STREET FOTAN NT
HONGKONG
Equipment Type: Mobile Phone
Model Name: TECNO
Brand Name: LK7k
FCC ID: 2ADYY-LK7K
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1g@0mm): 0.89 W/kg
Body-worn (1g@10mm): 0.41 W/kg
Hotspot (1g@10mm): 1.24 W/kg
Specific (10g@0mm): 1.50 W/kg
Sample Arrival Date: Dec.12, 2025
Test Date: Jan. 01, 2026 - Jan. 14, 2026
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ISSUED BY:

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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Jan.16, 2026</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jan.21, 2026</u>	<u>Update P42, P43, P44, P52 Data; Update transmitted simultaneously mode; Update BL-SH25B1277-AP; BL- SH25B1277-AST; The original report is invalid.</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	5
1.1	Test Laboratory	5
1.2	Test Location	5
1.3	Test Environment Condition	5
2	PRODUCT INFORMATION	6
2.1	Applicant Information	6
2.2	Manufacturer Information	6
2.3	General Description for Equipment under Test (EUT)	6
2.4	Ancillary Equipment	6
2.5	Technical Information	7
3	SUMMARY OF TEST RESULT	9
3.1	Test Standards	9
3.2	Device Category and SAR Limit	10
3.3	Test Result Summary	11
3.4	Test Uncertainty	13
4	MEASUREMENT SYSTEM	16
4.1	Specific Absorption Rate (SAR) Definition	16
4.2	DASY SAR System	17
5	SYSTEM VERIFICATION	24
5.1	Purpose of System Check	24
5.2	System Check Setup	24
6	TEST POSITION CONFIGURATIONS	25

6.1	Head Exposure Conditions	25
6.2	Body-worn Position Conditions	27
6.3	Hotspot Mode Exposure Position Conditions	28
6.4	Product Specific 10g Exposure Consideration	28
7	MEASUREMENT PROCEDURE	29
7.1	Measurement Process Diagram.....	29
7.2	SAR Scan General Requirement.....	30
7.3	Measurement Procedure	31
7.4	Area & Zoom Scan Procedure	31
8	CONDUCTED RF OUPUT POWER	32
8.1	GSM	32
8.2	WCDMA	32
8.3	LTE	32
8.4	WIFI.....	33
8.5	Bluetooth.....	36
9	TEST EXCLUSION CONSIDERATION	38
10	TEST RESULT	40
10.1	GSM 850	40
10.2	GSM 1900	40
10.3	WCDMA Band 2	41
10.4	WCDMA Band 4	41
10.5	WCDMA Band 5	41
10.6	LTE Band 2.....	42
10.7	LTE Band 4.....	43
10.8	LTE Band 5.....	44
10.9	LTE Band 7	45
10.10	LTE Band 12.....	46
10.11	LTE Band 13.....	46
10.12	LTE Band 17.....	47
10.13	LTE Band 66.....	48

10.14	LTE Band 38.....	49
10.15	LTE Band 41.....	50
10.16	LTE Band 42.....	51
10.17	NR n5.....	52
10.18	NR n7.....	53
10.19	NR n12.....	54
10.20	NR n66.....	54
10.21	NR n38.....	55
10.22	NR n41.....	55
10.23	NR n77(3450 ~ 3550 MHz).....	56
10.24	NR n77(3700 ~ 3980 MHz).....	57
10.25	NR n78(3450 ~ 3550 MHz).....	58
10.26	NR n78(3700 ~ 3800 MHz).....	59
10.27	Bluetooth.....	60
10.28	WIFI 2.4GHz.....	60
10.29	WIFI 5GHz.....	61
10.30	NFC.....	62
11	SAR Measurement Variability	64
12	SIMULTANEOUS TRANSMISSION	65
12.1	Simultaneous Transmission Mode Consider.....	65
12.2	Sum SAR of Simultaneous Transmission.....	65
12.3	Highest Total Exposure Ratio of Simultaneous Transmission.....	65
13	TEST EQUIPMENTS LIST	66
ANNEX A	SIMULATING LIQUID VERIFICATION RESULT	67
ANNEX B	SYSTEM CHECK RESULT	68
ANNEX C	TEST DATA	70
ANNEX D	EUT EXTERNAL PHOTOS	70
ANNEX E	SAR TEST SETUP PHOTOS	70
ANNEX F	CALIBRATION REPORT	70

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 29671.

1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	TECNO MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.2 Manufacturer Information

Manufacturer	TECNO MOBILE LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	LK7k
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	PHILIPS
	Model No.	AB 1600FWMT
	Serial No.	N/A
	Capacity	1600mAh
	Rated Voltage	3.7V
	Limit Charge Voltage	4.2

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/12/13/17/66 LTE TDD Band 38/41/42 UL CA:CA_5B,CA_7C,CA_38C,CA_41C,CA_66C 5G Network SA :n5/n7/n12/n38/n41/n66/n77/n78 ENDC:DC_2A_n7A,DC_2A_n66A,DC_2A_n78A,DC_4A_n7A,DC_4A_n38A,DC_4A_n41A,DC_4A_n78A,DC_5A_n38A,DC_5A_n41A,DC_5A_n7A,DC_5A_n66A,DC_5A_n77A,DC_5A_n78A,DC_7A_n66A,DC_7A_n77A,DC_7A_n78A,DC_38A_n78A,DC_41A_n77A,DC_41A_n78A,DC_66A_n7A,DC_66A_n38A,DC_66A_n41A,DC_66A_n77A,DC_66A_n78A Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n HT20 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) 5.8G SRD, GPS, GLONASS, BDS, Galileo, SBAS,FM receiver, NFC
Note: The EUT is a mobile phone, which supports dual SIM card under the same transceiver. Each SIM supports GSM, WCDMA and LTE, and both SIM share the same transmitting electro circuit, NV parameters, so only SIM1 was tested in this report.	

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	GSM, WCDMA, LTE, WIFI, Bluetooth		
Frequency Range	GSM 850	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	GSM 1900	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	WCDMA Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	WCDMA Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 2	TX: 1850 ~ 1910 MHz	RX: 1930 ~ 1990 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz	RX: 2110 ~ 2155 MHz
	LTE Band 5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	LTE Band 7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	LTE Band 12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	LTE Band 13	TX: 777 ~ 787 MHz	RX: 746 ~ 756 MHz
	LTE Band 17	TX: 704 ~ 716 MHz	RX: 734 ~ 746 MHz
	LTE Band 38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	LTE Band 41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	LTE Band 42	TX: 3450 ~ 3550 MHz	RX: 3450 ~ 3550 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	NR n5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz

	NR n7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz
	NR n12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	NR n38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	NR n41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	NR n66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 MHz
	NR n77	TX: 3450 ~ 3550 MHz	RX: 3450 ~ 3550 MHz
		TX: 3700 ~ 3980 MHz	RX: 3700 ~ 3980 MHz
	NR n78	TX: 3450 ~ 3550 MHz	RX: 3450 ~ 3550 MHz
		TX: 3700 ~ 3800 MHz	RX: 3700 ~ 3800 MHz
	2.4G WIFI	2412 ~ 2462 MHz	
	5G WIFI	5150 ~ 5250 MHz	
		5250 ~ 5350 MHz	
		5470 ~ 5725 MHz	
5725 ~ 5850 MHz			
Bluetooth	2402 ~ 2480 MHz		
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna		
DTM	N/A		
Hotspot Function	Support		
Power Reduction	Support		
Exposure Category	General Population/Uncontrolled exposure		
Product Type	Portable Device		
EUT Type	☒ Production unit	☐ Identical prototype	

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	IEEE Std. 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
5	KDB 941225 D01 v03r01	3G SAR MEAUREMENT PROCEDURES
6	KDB 941225 D05 v02r05	SAR Evaluation Considerations for LTE Devices
7	KDB 941225 D05A v01r02	REL. 10 LTE SAR TEST GUIDANCE AND KDB INQUIRIES
7	KDB 941225 D06 v02r01	SAR EVALUATION PROCEDURES FOR PORTABLE DEVICES WITH WIRELESS ROUTER CAPABILITIES
8	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
9	KDB 865664 D02 v01r02	RF Exposure Reporting
10	KDB 648474 D04 v01r03	SAR EVALUATION CONSIDERATIONS FOR WIRELESS HANDSETS
11	KDB 248227 D01 v02r02	SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

3.3 Test Result Summary

3.3.1 Highest SAR Values

Equipment Class	Frequency Band	Maximum Scaled SAR				Maximum Report SAR (W/kg)			
		1 g(W/kg)			10 g(W/kg)	1 g(W/kg)			10 g(W/kg)
		Head	Body-worn	Hotspot	Specific	Head	Body-worn	Hotspot	Specific
		(Separation 0 mm)	(Separation 10 mm)	(Separation 10 mm)	(Separation 0 mm)	(Separation 0 mm)	(Separation 10 mm)	(Separation 10 mm)	(Separation 0 mm)
PCE	GSM 850	0.26	0.23	0.32	/	0.89	0.41	1.24	1.50
	GSM 1900	0.59	0.40	0.40	/				
	WCDMA B2	0.60	0.14	0.17	/				
	WCDMA B4	0.41	0.11	0.12	/				
	WCDMA B5	0.45	0.23	0.43	/				
	LTE B2	0.44	0.41	0.97	/				
	LTE B4	0.51	0.40	0.96	/				
	LTE B5	0.38	0.21	0.46	/				
	LTE B7	0.33	0.40	1.24	/				
	LTE B12	0.69	0.40	0.70	/				
	LTE B13	0.36	0.30	0.47	/				
	LTE B17	0.52	0.40	0.65	/				
	LTE B66	0.40	0.36	1.09	/				
	LTE B38	0.15	0.06	0.10	/				
	LTE B41	0.32	0.20	0.52	/				
	LTE B42	0.46	0.10	0.17	/				
	NR n5	0.52	0.28	0.64	/				
	NR n7	0.31	0.04	0.13	/				
	NR n12	0.62	0.36	0.67	/				
	NR n66	0.16	0.09	0.11	/				
	NR n38	0.17	0.06	0.07	/				
	NR n41	0.24	0.08	0.08	/				
	NR n77	0.74	0.16	0.24	/				
NR n78	0.89	0.13	0.16	/					
DTS	2.4G WIFI	0.53	0.16	0.17	/	0.89	0.41	1.24	1.50
U-NII	5.2G WIFI	/	/	0.29	/				
	5.3G WIFI	0.59	0.28	/	1.03				
	5.6G WIFI	0.49	0.34	/	1.50				
	5.8G WIFI	0.50	0.40	0.53	/				
DSS	Bluetooth	0.23	0.08	0.08	/	0.89	0.41	1.24	1.50
Limits (W/kg)		1.6			4				
Test Verdict		Pass							

3.3.2 Highest Simultaneous Transmission SAR Values

Equipment Class	Maximum Scaled SAR (W/kg)			
	Head 1g (0mm)	Body-worn 1g (10mm)	Hotspot 1g (10mm)	Specific 10g (0mm)
PCE	1.59	1.04	1.48	/
Limit (W/Kg)	1.60	1.60	1.60	4.00
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 12				

3.4 Test Uncertainty

3.4.1 Measurement uncertainty evaluation for SAR test

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in IEC/IEEE 62209-1528. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

1) System Measurement Uncertainty (Frequency range from 300 MHz to 3 GHz)

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 3 GHz range)								
Symbol	Error Description	Uncert. value	Prob Dist.	Div	(c) 1g	(c) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	$\pm 12.0\%$	N	2	1	1	$\pm 6.0\%$	$\pm 6.0\%$
CF _{drift}	Probe Calibration Drift	$\pm 1.0\%$	N	1	1	1	$\pm 1.0\%$	$\pm 1.0\%$
LIN	Probe Linearity	$\pm 4.7\%$	R	$\sqrt{3}$	1	1	$\pm 2.7\%$	$\pm 2.7\%$
BBS	Broadband Signal	$\pm 3.0\%$	N	2	1	1	$\pm 1.5\%$	$\pm 1.5\%$
ISO	Probe Isotropy	$\pm 7.6\%$	R	$\sqrt{3}$	1	1	$\pm 4.4\%$	$\pm 4.4\%$
DAE	Data Acquisition	$\pm 0.3\%$	N	1	1	1	$\pm 0.3\%$	$\pm 0.3\%$
AMB	RF Ambient	$\pm 1.8\%$	N	1	1	1	$\pm 1.8\%$	$\pm 1.8\%$
Δ_{sys}	Probe Positioning	$\pm 0.2\%$	N	1	0.1 4	0.14	$\pm 0\%$	$\pm 0\%$
DAT	Data Processing	$\pm 1.2\%$	N	1	1	1	$\pm 1.2\%$	$\pm 1.2\%$
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	$\pm 2.5\%$	N	1	0.7 8	0.71	$\pm 2.0\%$	$\pm 1.8\%$
LIQ(T_{σ})	Conductivity (temp.) ^{BB}	$\pm 3.3\%$	R	$\sqrt{3}$	0.7 8	0.71	$\pm 1.5\%$	$\pm 1.4\%$
EPS	Phantom Permittivity	$\pm 14.0\%$	R	$\sqrt{3}$	0	0	$\pm 0\%$	$\pm 0\%$
DAS	Distance DUT - TSL	$\pm 2.1\%$	N	1	2	2	$\pm 4.2\%$	$\pm 4.2\%$
H	Device Holder	$\pm 3.8\%$	N	1	1	1	$\pm 3.8\%$	$\pm 3.8\%$
MOD	DUT Modulation ^m	$\pm 2.4\%$	R	$\sqrt{3}$	1	1	$\pm 1.4\%$	$\pm 1.4\%$
TAS	Time-average SAR	$\pm 2.6\%$	R	$\sqrt{3}$	1	1	$\pm 1.5\%$	$\pm 1.5\%$
RF _{drift}	DUT drift	$\pm 5.0\%$	R	$\sqrt{3}$	1	1	$\pm 2.9\%$	$\pm 2.9\%$
Correction to the SAR results								
C(ϵ, σ)	Deviation to Target	$\pm 1.9\%$	N	1	1	0.84	$\pm 1.9\%$	$\pm 1.6\%$
C(R)	SAR scaling ^p	$\pm 0\%$	R	$\sqrt{3}$	1	1	$\pm 0\%$	$\pm 0\%$
u(ΔSAR)	Combined Uncertainty						$\pm 11.2\%$	$\pm 11.0\%$
U	Expanded Uncertainty						$\pm 22.3\%$	$\pm 22.2\%$

2) System Measurement Uncertainty (Frequency range from 3 GHz to 6 GHz)

DASY5 Uncertainty Budget (Frequency band: 3 GHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div	(c) 1g	(c) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±3.0%	N	2	1	1	±1.5%	±1.5%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.3 3	0.33	±0.1%	±0.1%
DAT	Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.7 8	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.4%	R	√3	0.7 8	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.2 5	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±2.1%	N	1	2	2	±4.2%	±4.2%
H	Device Holder	±3.8%	N	1	1	1	±3.8%	±3.8%
MOD	DUT Modulation ^m	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±2.6%	R	√3	1	1	±1.5%	±1.5%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling ^p	±0%	R	√3	1	1	±0%	±0%
u(ΔSAR)	Combined Uncertainty	/	/	/	/	/	±12.1%	±12.0%
U	Expanded Uncertainty	/	/	/	/	/	±24.2%	±24.0%

3.4.2 Measurement uncertainty evaluation for system check

This measurement uncertainty budget is suggested by IEC/IEEE 62209-1528. The breakdown of the individual uncertainties is as follows:

DASY5 Uncertainty Budget (Frequency band: 300 MHz - 6 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(c _i) 1g	(c _i) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors								
CF	Probe Calibration	±14.0%	N	2	1	1	±7.0%	±7.0%
CF _{drift}	Probe Calibration Drift	±1.0%	N	1	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±0.0%	N	2	1	1	±0.0%	±0.0%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Data Acquisition	±0.3%	N	1	1	1	±0.3%	±0.3%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.2%	N	1	0.33	0.33	±0%	±0%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) ^{DAK}	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(T _σ)	Conductivity (temp.) ^{BB}	±3.4%	R	√3	0.78	0.71	±1.5%	±1.4%
EPS	Phantom Permittivity	±14.0%	R	√3	0.25	0.25	±2.0%	±2.0%
DAS	Distance DUT - TSL	±1.0%	N	1	2	2	±2.0%	±2.0%
VAL	Validation antenna	±0.0%	R	√3	1	1	±0.0%	±0.0%
P _{in}	Accepted power	±1.2%	N	1	1	1	±1.2%	±1.2%
RF _{drift}	DUT drift	±5.0%	R	√3	1	1	±2.9%	±2.9%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
u(ΔSAR)	Combined Uncertainty	/	/	/	/	/	±10.4%	±10.3%
U	Expanded Uncertainty	/	/	/	/	/	±20.7%	±20.5%

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$\text{SAR} = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

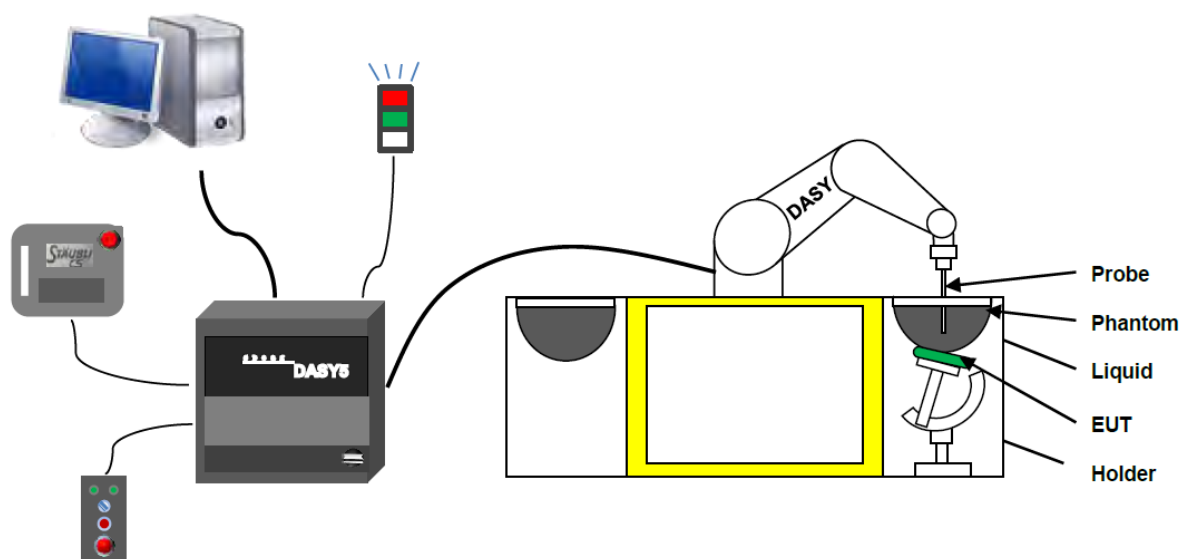
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram

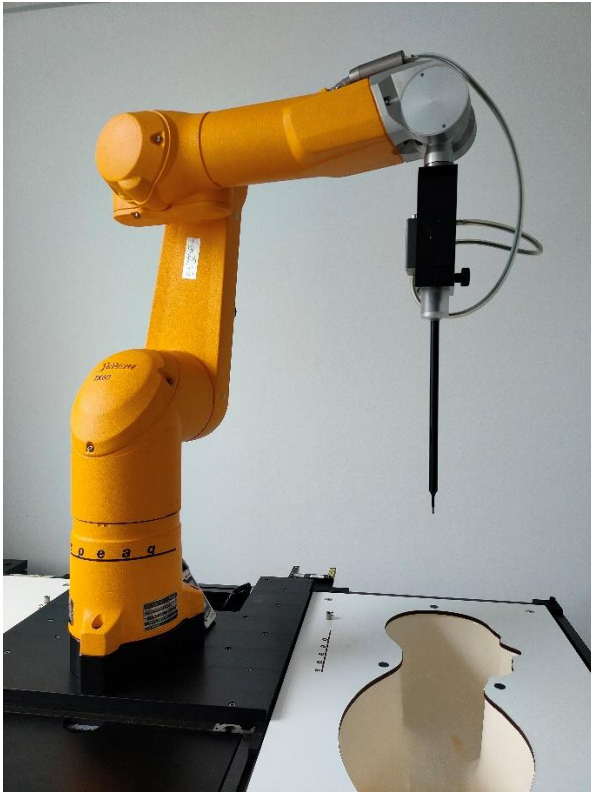


The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. 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.
3. A data acquisition electronic (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.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision
(repeatability ± 0.02 mm)
- High reliability
(industrial design)
- Low maintenance costs
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
(brush less synchron motors; no stepper motors)
- Low ELF interference
(motor control _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

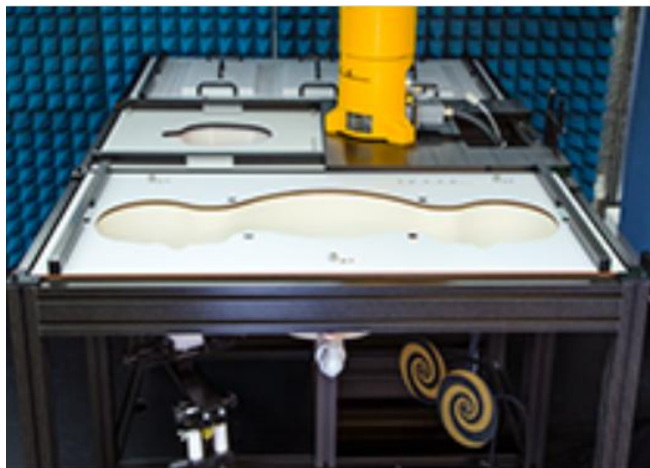
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M Ω m
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

4.2.5 Phantoms

For the measurements the Specific Anthropomorphic Mannequin (SAM) defined by the IEEE SCC-34/SC2 group is used. The phantom is a polyurethane shell integrated in a wooden table. The thickness of the phantom amounts to 2mm +/- 0.2mm. It enables the dosimetric evaluation of left and right phone usage and includes an additional flat phantom part for the simplified performance check. The phantom set-up includes a cover, which prevents the evaporation of the liquid.



- Left head
- Right head
- Flat phantom

Photo of Phantom SN1857&1473



Serial Number	Material	Length	Height
SN 1857&1473SAM1	Vinylester, glass fiber reinforced	1000	500

4.2.6 Device Holder

The DASY5 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used. Larger DUT's (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.

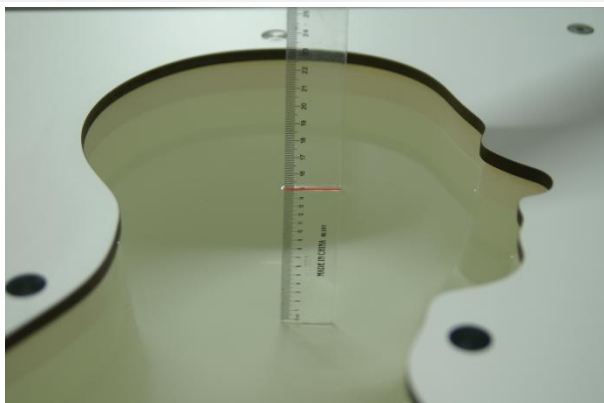


The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

4.2.7 Simulating Liquid

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5%.

Head Liquid Depth



Body Liquid Depth



The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

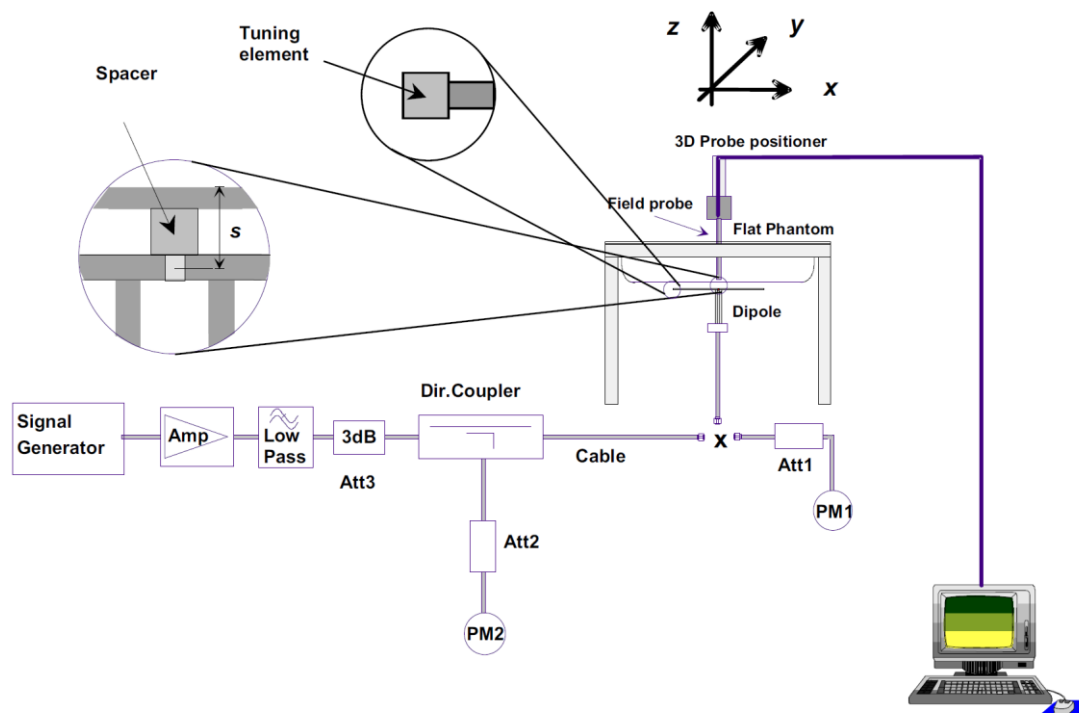
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

5.2 System Check Setup

In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

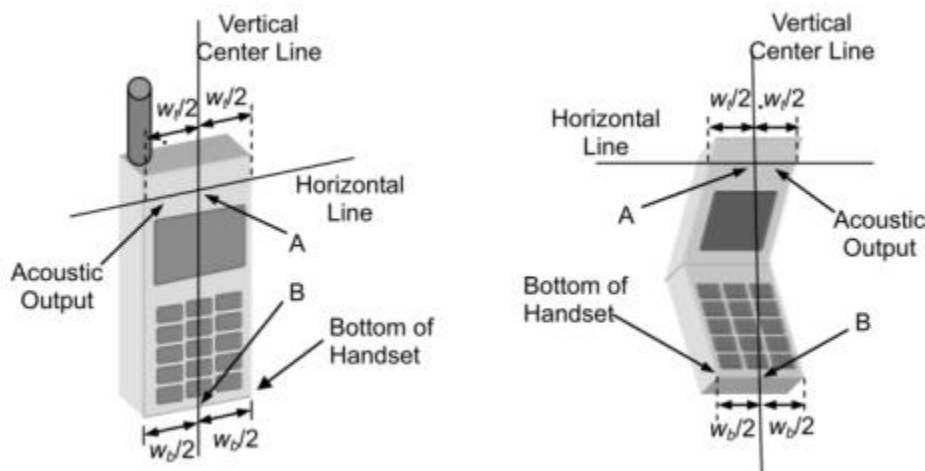
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

6.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE Std 1528-2013 using the SAM phantom illustrated as below.

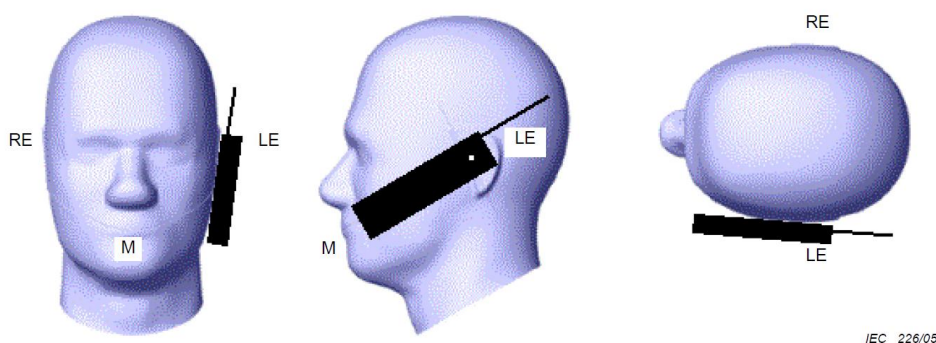
6.1.1 Two Imaginary Lines on the Handset

- The vertical center line passes through two points on the front side of the handset - the midpoint of the width w_t of the handset at the level of the acoustic output, and the midpoint of the width w_b of the bottom of the handset.
- The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
- The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical center line is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



6.1.2 Cheek Position

- (a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- (b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost.



6.1.3 Tilted Position

- (a) To position the device in the “cheek” position described above.
- (b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost.

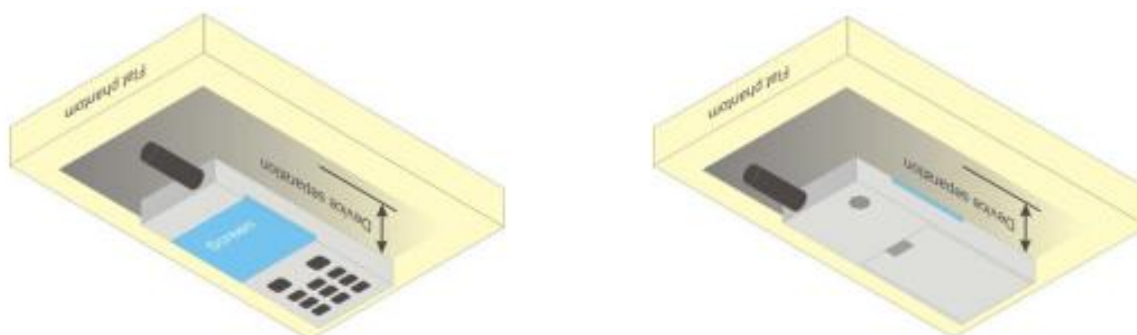


6.2 Body-worn Position Conditions

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 KDB 447498 are 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 the reported SAR for a body-worn accessory.

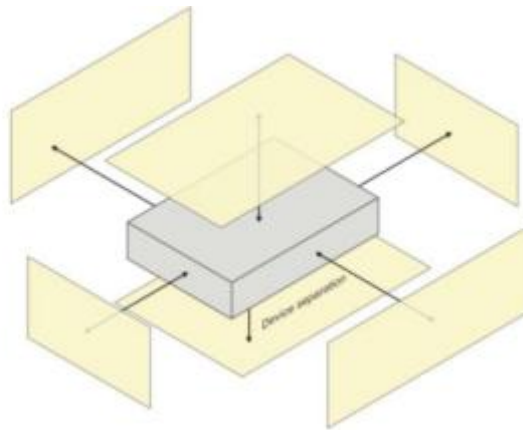
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required. A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance ≤ 5 mm to support compliance.



6.3 Hotspot Mode Exposure Position Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



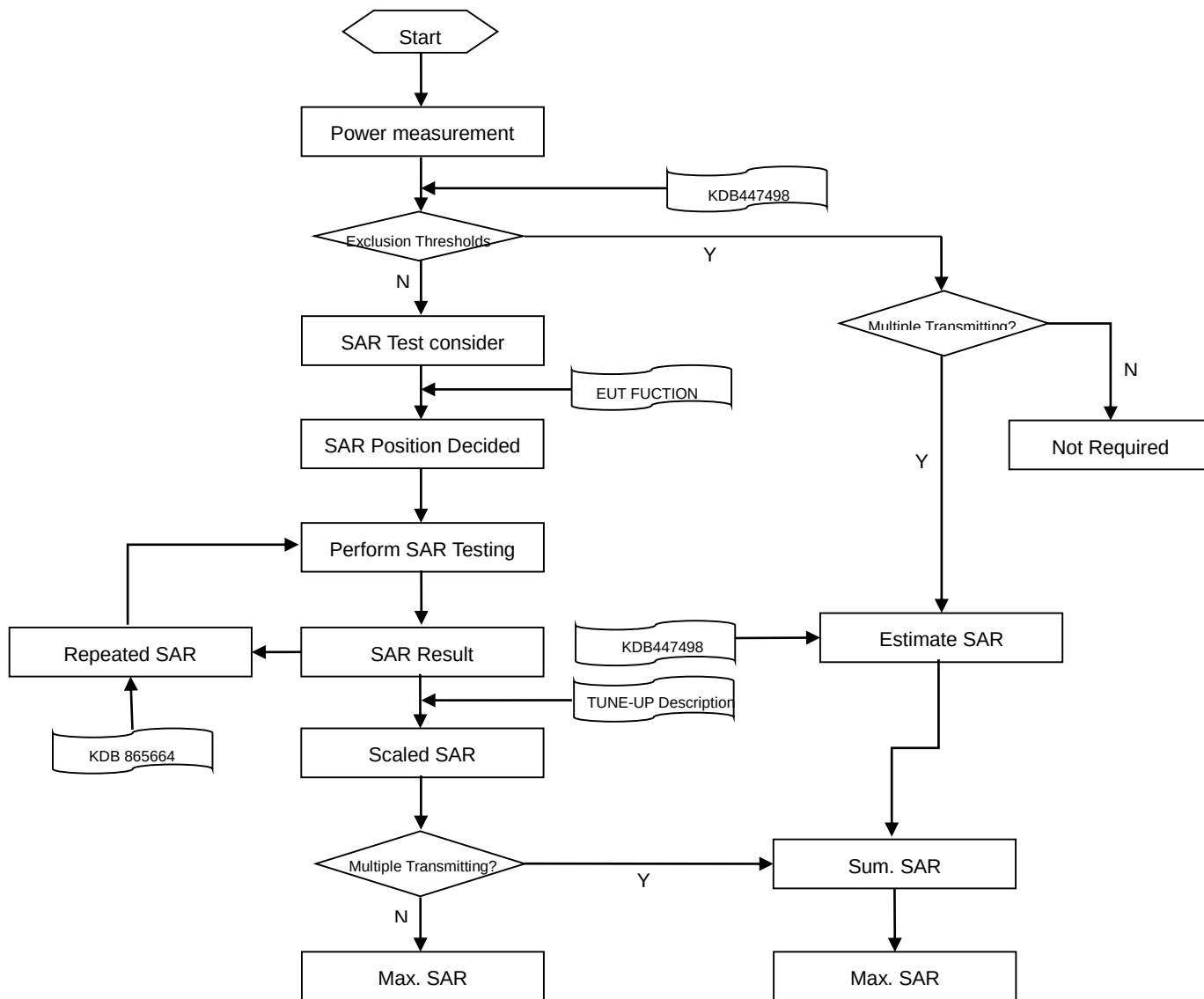
6.4 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

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 10-g extremity 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, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

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.

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

Note:

1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
2. * When zoom scan is required and the reported SAR from the area scan based 1 g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

7.3 Measurement Procedure

The following steps are used for each test position

- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
- d. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

7.4 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

8 CONDUCTED RF OUPUT POWER

8.1 GSM

Please refer the document “BL-SH25B1277-AP.pdf”.

8.2 WCDMA

Please refer the document “BL-SH25B1277-AP.pdf”.

8.3 LTE

Please refer the document “BL-SH25B1277-AP.pdf”.

8.4 WIFI

8.4.1 2.4G WIFI

Ant12 Output Power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.66	16.50	NO
		6	2437	16.17	17.00	Yes
		11	2462	15.82	17.00	NO
	802.11g	1	2412	13.49	14.50	NO
		6	2437	13.79	15.00	NO
		11	2462	13.73	14.50	NO
	802.11n(HT20)	1	2412	14.26	15.50	NO
		6	2437	14.62	15.50	NO
		11	2462	14.75	16.00	NO

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n) have the same maximum tune-up output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.
- 3) According KDB 247228, 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, OFDM SAR test is not required.
Adjusted SAR = $0.530 \times (39.81\text{mW}/50.12\text{mW}) = 0.42$ W/kg, so 2.4G OFDM SAR test is not required.

Ant13 Output Power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	16.87	18.00	NO
		6	2437	16.99	18.00	Yes
		11	2462	16.83	18.00	NO
	802.11g	1	2412	16.17	17.00	NO
		6	2437	16.41	17.50	NO
		11	2462	16.33	17.50	NO
	802.11n(HT20)	1	2412	17.01	18.00	NO
		6	2437	17.16	18.00	NO
		11	2462	17.03	18.00	NO

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

- 1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.
- 2) When multiple transmission modes (802.11b/g/n) have the same maximum tune-up output power, largest channel

bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11b is chosen over 802.11g, and 802.11g chosen over 802.11n.

8.4.2 5G WIFI

Ant0 Output Power

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	12.89	14.00	NO
		44	5220	13.20	14.00	NO
		48	5240	13.47	14.50	NO
	802.11n(HT20)	36	5180	14.64	15.50	NO
		44	5220	14.87	16.00	Yes
		48	5240	14.66	15.50	NO
	802.11n(HT40)	38	5190	12.62	13.50	NO
		46	5230	12.92	14.00	NO
	802.11ac(VHT20)	36	5180	13.64	14.50	NO
		44	5220	14.18	15.00	NO
		48	5240	14.09	15.00	NO
	802.11ac(VHT40)	38	5190	13.77	15.00	NO
		46	5230	14.29	15.50	NO
802.11ac(VHT80)	42	5210	11.00	12.00	NO	
5.3 (5.25~5.35)	802.11a	52	5260	13.49	14.50	NO
		60	5300	12.90	14.00	NO
		64	5320	13.13	14.00	NO
	802.11n(HT20)	52	5260	15.10	16.00	NO
		60	5300	15.28	16.50	Yes
		64	5320	15.04	16.00	NO
	802.11n(HT40)	54	5270	15.33	16.50	NO
		62	5310	12.07	13.00	NO
	802.11ac(VHT20)	52	5260	14.37	15.50	NO
		60	5300	13.95	15.00	NO
		64	5320	13.83	15.00	NO
	802.11ac(VHT40)	54	5270	14.06	15.00	NO
		62	5310	14.00	15.00	NO
802.11ac(VHT80)	58	5290	10.73	11.50	NO	
5.6 (5.47~5.725)	802.11a	100	5500	12.48	13.50	NO
		116	5580	13.15	14.00	NO
		140	5700	13.04	14.00	NO
	802.11n(HT20)	100	5500	13.41	14.50	NO

		116	5580	14.06	15.00	NO
		140	5700	13.93	15.00	NO
	802.11n(HT40)	102	5510	12.56	13.50	NO
		118	5590	12.98	14.00	NO
		134	5670	12.99	14.00	NO
	802.11ac(VHT20)	100	5500	13.72	14.50	NO
		116	5580	14.06	15.00	NO
		140	5700	13.72	14.50	NO
	802.11ac(VHT40)	102	5510	13.46	14.50	NO
		118	5590	14.30	15.50	Yes
		134	5670	14.16	15.00	NO
	802.11ac(VHT80)	106	5530	10.78	12.00	NO
		122	5690	12.67	13.50	NO
5.8 (5.725~5.850)	802.11a	149	5745	13.53	14.50	NO
		157	5785	13.16	14.00	NO
		165	5825	13.06	14.00	NO
	802.11n(HT20)	149	5745	15.14	16.00	NO
		157	5785	15.40	16.50	Yes
		165	5825	15.00	16.00	NO
	802.11n(HT40)	151	5755	15.09	16.00	NO
		159	5795	15.10	16.00	NO
	802.11ac(VHT20)	149	5745	14.13	15.00	NO
		157	5785	14.18	15.00	NO
		165	5825	14.31	15.50	NO
	802.11ac(VHT40)	151	5755	14.12	15.00	NO
		159	5795	14.14	15.00	NO
	802.11ac(VHT80)	155	5775	14.02	15.00	NO
Note: 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, each band is tested independently for SAR.						

8.5 Bluetooth

Ant12 Output Power

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	13.46	14.11	14.07	13.55	13.37	13.84
Tune-Up Limit (dBm)	14.50	15.00	15.00	14.50	14.50	14.50
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	13.56	12.95	14.00	/	/	/
Tune-Up Limit (dBm)	14.50	14.00	15.00	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	-3.48	-2.46	-1.94	-3.26	-2.40	-1.72
Tune-Up Limit (dBm)	-2.50	-1.50	-1.00	-2.00	-1.50	-0.5
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

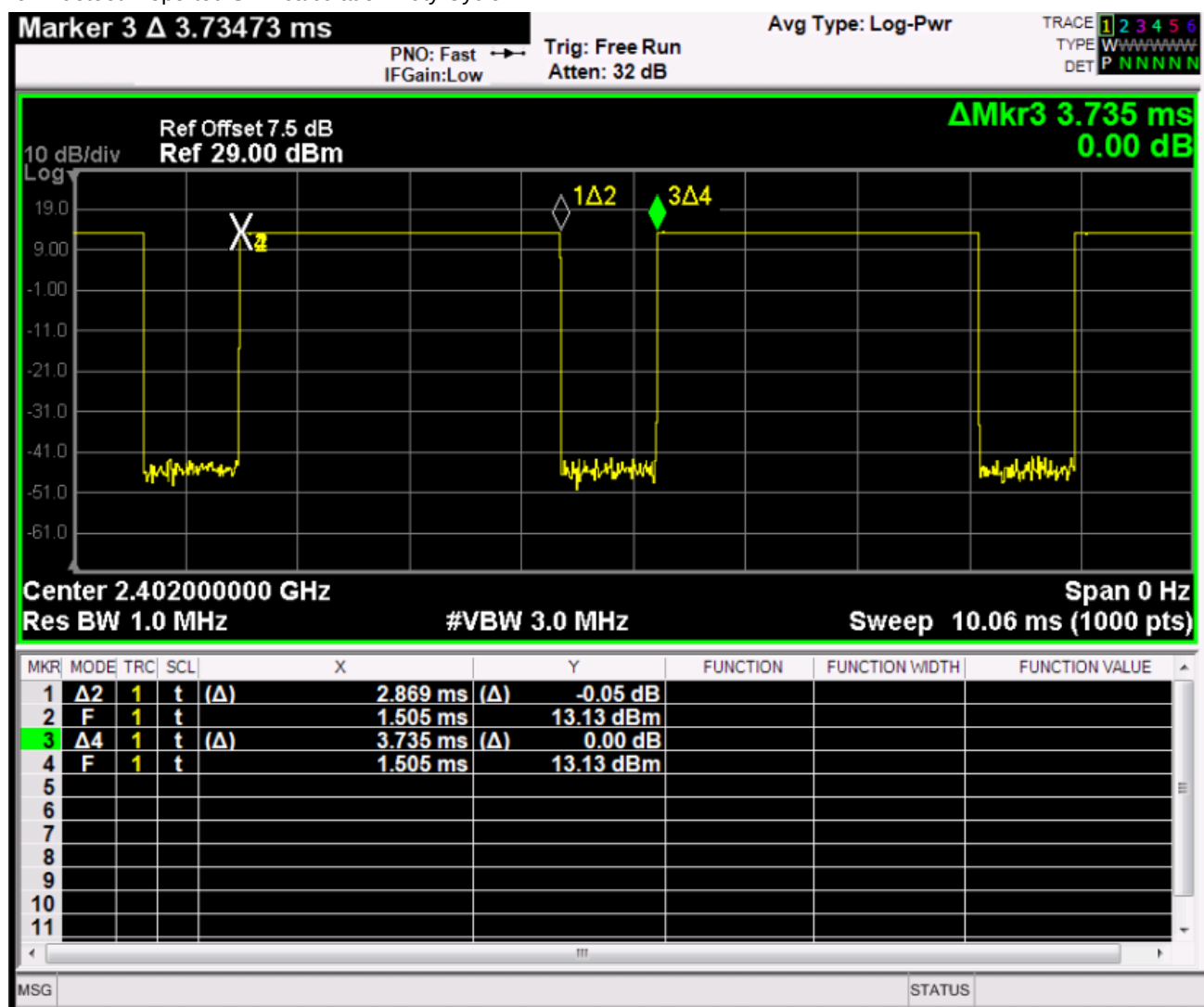
Ant13 Output Power

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Conducted Power (dBm)	13.85	15.43	15.35	14.08	14.51	15.36
Tune-Up Limit (dBm)	15.00	16.50	16.50	15.00	15.50	16.50
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Conducted Power (dBm)	13.91	14.68	15.32	/	/	/
Tune-Up Limit (dBm)	15.00	15.50	16.50	/		
SAR Test Require	NO	NO	NO	NO	NO	NO
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	0	19	39
Frequency (MHz)	2402	2440	2480	2402	2440	2480
Conducted Power (dBm)	-2.99	-1.63	-1.39	-2.80	-1.56	-1.17

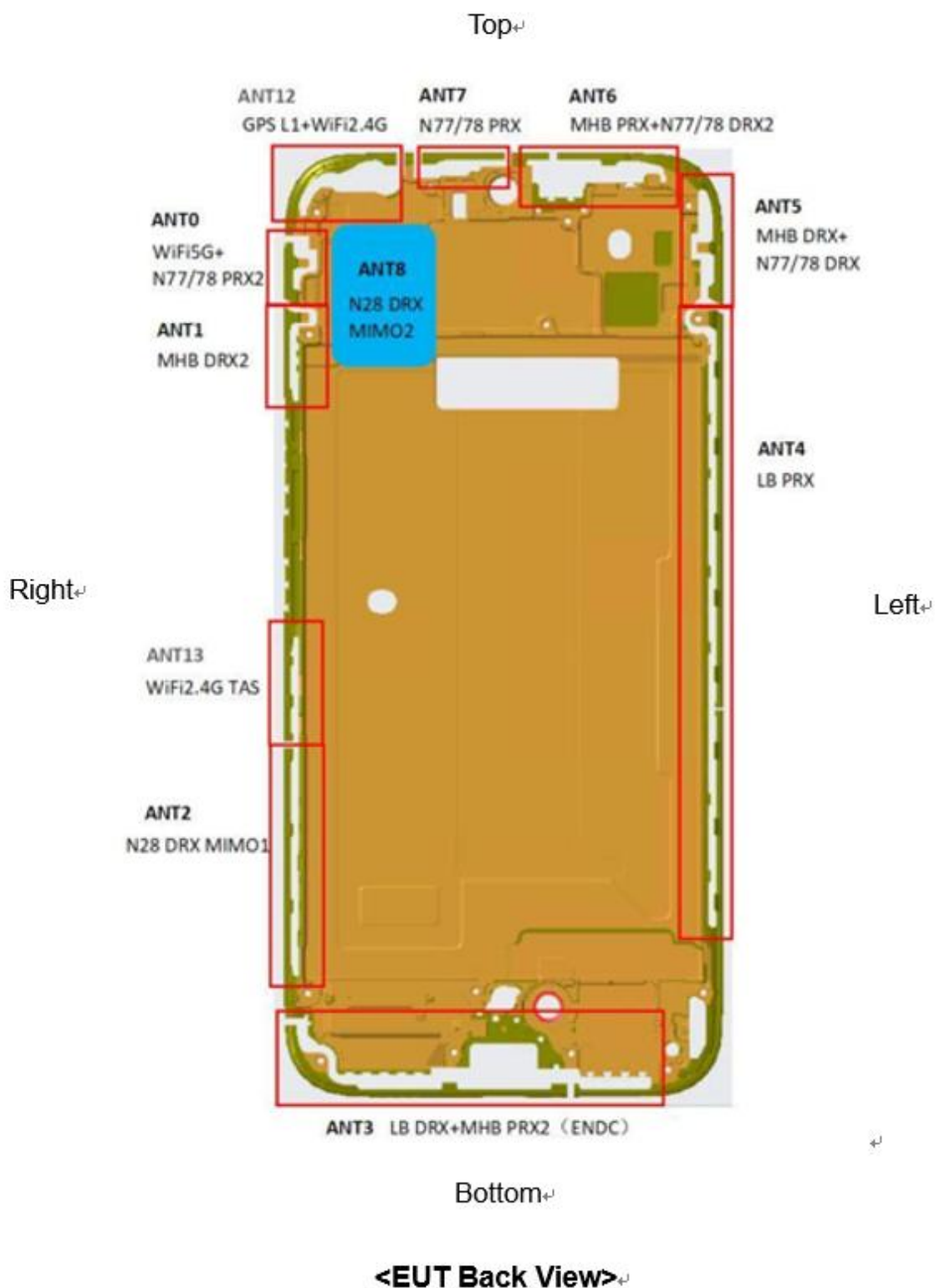
Tune-Up Limit (dBm)	-2.00	-0.50	-0.50	-1.50	-0.50	-0.00
SAR Test Require	NO	NO	NO	NO	NO	NO

Note 1: Since bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

The Bluetooth duty cycle is 76.81% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation Duty Cycle.



9 TEST EXCLUSION CONSIDERATION



Antenna	Support Bands
Ant.0	NR n77/78 LTE B42 WLAN 5G
Ant.1	RX Only
Ant.2	RX Only
Ant.3	GSM 850 WCDMA B5 LTE B2/B4/B5/B7/B12/B13/B17/B66/B41 NR n5/n12
Ant.4	GSM 850 WCDMA B5 LTE B5/B12/B13/B17 NR n5/n12
Ant.5	GSM 1900 WCDMA B2/B4 LTE B2/B4/B7/B66/B42 NR n7/n66/n77/n78
Ant.6	GSM 1900 WCDMA B2/B4 LTE B2/B4/B7/B66/B42 NR n7/n66/n77/n78
Ant.7	NR n77/78 LTE B42
Ant.12	WIFI 2.4G/BT
Ant.13	WIFI 2.4G/BT

Antenna	Front Side(mm)	Back Side(mm)	Left Edge(mm)	Right Edge(mm)	Top Edge(mm)	Bottom Edge(mm)
Ant.0	<25	<25	>25	>25	>25	>25
Ant.3	<25	<25	<25	<25	>25	<25
Ant.4	<25	<25	>25	<25	>25	>25
Ant.5	<25	<25	>25	<25	<25	>25
Ant.6	<25	<25	>25	<25	<25	>25
Ant.7	<25	<25	>25	<25	<25	>25
Ant.12	<25	<25	>25	<25	<25	>25
Ant.13	<25	<25	>25	<25	>25	>25

Note: 1. Per KDB 941225 DO6, When the overall length and width of a device is > 9 cm *5 cm, a test separation distance of 10 mm is required for hotspot mode SAR measurements and hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge.

10 TEST RESULT

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.1 GSM 850

Test Band	Antenna	Test Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head													
GSM 850	Ant.3	Left cheek	0mm	GPRS 2TX	190	836.6	-0.1	0.044	31.46	31.80	1.081	0.048	/
GSM 850	Ant.3	Left tilt			190	836.6	-0.17	0.038	31.46	31.80	1.081	0.041	/
GSM 850	Ant.3	Right cheek			190	836.6	-0.11	0.041	31.46	31.80	1.081	0.044	/
GSM 850	Ant.3	Right tilt			190	836.6	-0.07	0.031	31.46	31.80	1.081	0.034	/
GSM 850	Ant.4	Left cheek	0mm	GPRS 2TX	190	836.6	-0.11	0.223	32.11	32.80	1.172	0.261	1
GSM 850	Ant.4	Left tilt			190	836.6	-0.11	0.033	32.11	32.80	1.172	0.039	/
GSM 850	Ant.4	Right cheek			190	836.6	0.04	0.056	32.11	32.80	1.172	0.066	/
GSM 850	Ant.4	Right tilt			190	836.6	0.09	0.021	32.11	32.80	1.172	0.025	/
Body-worn&Hotspot													
GSM 850	Ant.3	Front side	10mm	GPRS 2TX	190	836.6	0.11	0.154	31.46	31.80	1.081	0.167	/
GSM 850	Ant.3	Back side			190	836.6	-0.19	0.216	31.46	31.80	1.081	0.234	/
GSM 850	Ant.3	Left side			190	836.6	-0.06	0.029	31.46	31.80	1.081	0.031	/
GSM 850	Ant.3	Right side			190	836.6	0.02	0.032	31.46	31.80	1.081	0.035	/
GSM 850	Ant.3	Bottom side	10mm	GPRS 2TX	190	836.6	-0.19	0.059	31.46	31.80	1.081	0.064	/
GSM 850	Ant.4	Front side			190	836.6	-0.16	0.111	32.11	32.80	1.172	0.130	/
GSM 850	Ant.4	Back side			190	836.6	0.07	0.119	32.11	32.80	1.172	0.139	/
GSM 850	Ant.4	Left side			190	836.6	-0.15	0.271	32.11	32.80	1.172	0.318	2
GSM 850	Ant.4	Top side			190	836.6	0.01	0.033	32.11	32.80	1.172	0.039	/

10.2 GSM 1900

Test Band	Antenna	Test Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head													
GSM 1900	Ant.5	Left cheek	0mm	GPRS 3TX	661	1880	0.14	0.405	27.54	28.00	1.112	0.450	/
GSM 1900	Ant.5	Left tilt			661	1880	-0.13	0.326	27.54	28.00	1.112	0.362	/
GSM 1900	Ant.5	Right cheek			661	1880	-0.15	0.072	27.54	28.00	1.112	0.080	/
GSM 1900	Ant.5	Right tilt			661	1880	-0.02	0.037	27.54	28.00	1.112	0.041	/
GSM 1900	Ant.6	Left cheek	0mm	GPRS 2TX	661	1880	-0.13	0.365	23.56	24.50	1.242	0.453	/
GSM 1900	Ant.6	Left tilt			661	1880	0.13	0.418	23.56	24.50	1.242	0.519	/
GSM 1900	Ant.6	Right cheek			661	1880	-0.04	0.464	23.56	24.50	1.242	0.576	/
GSM 1900	Ant.6	Right tilt			661	1880	-0.11	0.471	23.56	24.50	1.242	0.585	3
Body-worn&Hotspot													
GSM 1900	Ant.5	Front side	10mm	GPRS 3TX	661	1880	-0.11	0.318	27.54	28.00	1.112	0.354	/
GSM 1900	Ant.5	Back side			661	1880	-0.14	0.357	27.54	28.00	1.112	0.397	4
GSM 1900	Ant.5	Left side			661	1880	0.13	0.306	27.54	28.00	1.112	0.340	/
GSM 1900	Ant.5	Top side			661	1880	-0.02	0.133	27.54	28.00	1.112	0.148	/
GSM 1900	Ant.6	Front side	10mm	GPRS 2TX	661	1880	0.05	0.233	23.56	24.50	1.242	0.289	/
GSM 1900	Ant.6	Back side			661	1880	-0.16	0.302	23.56	24.50	1.242	0.375	/
GSM 1900	Ant.6	Left side			661	1880	0.02	0.107	23.56	24.50	1.242	0.133	/
GSM 1900	Ant.6	Top side			661	1880	-0.17	0.303	23.56	24.50	1.242	0.376	/

10.3WCDMA Band 2

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head													
WCDMA B2	Ant.5	Left cheek	0mm	RMC 12.2Kbps	9400	1880	-0.16	0.112	15.98	17.00	1.265	0.142	/
WCDMA B2	Ant.5	Left tilt			9400	1880	0.04	0.070	15.98	17.00	1.265	0.089	/
WCDMA B2	Ant.5	Right cheek			9400	1880	-0.1	0.475	15.98	17.00	1.265	0.601	5
WCDMA B2	Ant.5	Right tilt			9400	1880	0.17	0.161	15.98	17.00	1.265	0.204	/
WCDMA B2	Ant.6	Left cheek	0mm	RMC 12.2Kbps	9400	1880	0.01	0.121	15.76	16.00	1.057	0.128	/
WCDMA B2	Ant.6	Left tilt			9400	1880	0.13	0.142	15.76	16.00	1.057	0.150	/
WCDMA B2	Ant.6	Right cheek			9400	1880	0.12	0.172	15.76	16.00	1.057	0.182	/
WCDMA B2	Ant.6	Right tilt			9400	1880	-0.05	0.177	15.76	16.00	1.057	0.187	/
Body-worn&Hotspot													
WCDMA B2	Ant.5	Front side	10mm	RMC 12.2Kbps	9400	1880	0.18	0.077	15.98	17.00	1.265	0.097	/
WCDMA B2	Ant.5	Back side			9400	1880	-0.05	0.111	15.98	17.00	1.265	0.140	/
WCDMA B2	Ant.5	Left side			9400	1880	0.02	0.137	15.98	17.00	1.265	0.173	6
WCDMA B2	Ant.5	Top side			9400	1880	0.07	0.052	15.98	17.00	1.265	0.066	/
WCDMA B2	Ant.6	Front side	10mm	RMC 12.2Kbps	9400	1880	-0.06	0.041	15.76	16.00	1.057	0.043	/
WCDMA B2	Ant.6	Back side			9400	1880	0.17	0.053	15.76	16.00	1.057	0.056	/
WCDMA B2	Ant.6	Left side			9400	1880	0.14	0.033	15.76	16.00	1.057	0.035	/
WCDMA B2	Ant.6	Top side			9400	1880	-0.11	0.087	15.76	16.00	1.057	0.092	/

10.4WCDMA Band 4

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (Wkg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head													
WCDMA B4	Ant.5	Left cheek	0mm	RMC 12.2Kbps	1412	1732.4	0.11	0.108	15.24	16.00	1.191	0.129	/
WCDMA B4	Ant.5	Left tilt			1412	1732.4	-0.05	0.063	15.24	16.00	1.191	0.075	/
WCDMA B4	Ant.5	Right cheek			1412	1732.4	0.03	0.345	15.24	16.00	1.191	0.411	7
WCDMA B4	Ant.5	Right tilt			1412	1732.4	-0.13	0.124	15.24	16.00	1.191	0.148	/
WCDMA B4	Ant.6	Left cheek	0mm	RMC 12.2Kbps	1412	1732.4	0.18	0.102	15.16	15.30	1.033	0.105	/
WCDMA B4	Ant.6	Left tilt			1412	1732.4	-0.06	0.105	15.16	15.30	1.033	0.108	/
WCDMA B4	Ant.6	Right cheek			1412	1732.4	-0.06	0.144	15.16	15.30	1.033	0.149	/
WCDMA B4	Ant.6	Right tilt			1412	1732.4	-0.01	0.134	15.16	15.30	1.033	0.138	/
Body-worn&Hotspot													
WCDMA B4	Ant.5	Front side	10mm	RMC 12.2Kbps	1412	1732.4	0.16	0.054	15.24	16.00	1.191	0.064	/
WCDMA B4	Ant.5	Back side			1412	1732.4	-0.04	0.090	15.24	16.00	1.191	0.107	/
WCDMA B4	Ant.5	Left side			1412	1732.4	0.16	0.098	15.24	16.00	1.191	0.116	8
WCDMA B4	Ant.5	Top side			1412	1732.4	-0.06	0.061	15.24	16.00	1.191	0.073	/
WCDMA B4	Ant.6	Front side	10mm	RMC 12.2Kbps	1412	1732.4	0.05	0.056	15.16	15.30	1.033	0.058	/
WCDMA B4	Ant.6	Back side			1412	1732.4	-0.15	0.088	15.16	15.30	1.033	0.091	/
WCDMA B4	Ant.6	Left side			1412	1732.4	-0.06	0.031	15.16	15.30	1.033	0.032	/
WCDMA B4	Ant.6	Top side			1412	1732.4	-0.05	0.048	15.16	15.30	1.033	0.050	/

10.5WCDMA Band 5

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head													
WCDMA B5	Ant.3	Left cheek	0mm	RMC 12.2Kbps	4182	836.4	0.08	0.061	23.47	25.00	1.422	0.087	/
WCDMA B5	Ant.3	Left tilt			4182	836.4	0.01	0.035	23.47	25.00	1.422	0.050	/
WCDMA B5	Ant.3	Right cheek			4182	836.4	-0.06	0.041	23.47	25.00	1.422	0.058	/
WCDMA B5	Ant.3	Right tilt			4182	836.4	0.05	0.032	23.47	25.00	1.422	0.046	/
WCDMA B5	Ant.4	Left cheek	0mm	RMC 12.2Kbps	4182	836.4	0.15	0.287	23.91	24.40	1.119	0.321	/
WCDMA B5	Ant.4	Left tilt			4182	836.4	-0.02	0.068	23.91	24.40	1.119	0.076	/
WCDMA B5	Ant.4	Right cheek			4182	836.4	-0.04	0.402	23.91	24.40	1.119	0.450	9
WCDMA B5	Ant.4	Right tilt			4182	836.4	0.19	0.092	23.91	24.40	1.119	0.103	/
Body-worn&Hotspot													
WCDMA B5	Ant.3	Front side	10mm	RMC 12.2Kbps	4182	836.4	0.11	0.087	23.47	25.00	1.422	0.124	/
WCDMA B5	Ant.3	Back side			4182	836.4	0.04	0.119	23.47	25.00	1.422	0.169	/
WCDMA B5	Ant.3	Left side			4182	836.4	0.19	0.029	23.47	25.00	1.422	0.041	/
WCDMA B5	Ant.3	Right side			4182	836.4	-0.19	0.075	23.47	25.00	1.422	0.107	/
WCDMA B5	Ant.3	Bottom side	10mm	RMC 12.2Kbps	4182	836.4	0.03	0.113	23.47	25.00	1.422	0.161	/
WCDMA B5	Ant.4	Front side			4182	836.4	0.1	0.176	23.91	24.40	1.119	0.197	/
WCDMA B5	Ant.4	Back side			4182	836.4	-0.1	0.206	23.91	24.40	1.119	0.231	/
WCDMA B5	Ant.4	Left side			4182	836.4	-0.07	0.381	23.91	24.40	1.119	0.427	10
WCDMA B5	Ant.4	Top side			4182	836.4	0.15	0.045	23.91	24.40	1.119	0.050	/

10.6LTE Band 2

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B2	Ant.5	Left cheek	0mm	QPSK-20MHz	18900	1880	1	0	-0.02	0.188	24.36	24.50	1.033	0.194	/
LTE B2	Ant.5	Left tilt			18900	1880	1	0	-0.1	0.145	24.36	24.50	1.033	0.150	/
LTE B2	Ant.5	Right cheek			18900	1880	1	0	0.19	0.243	24.36	24.50	1.033	0.251	/
LTE B2	Ant.5	Right tilt			18900	1880	1	0	0.13	0.195	24.36	24.50	1.033	0.201	/
LTE B2	Ant.5	Left cheek			18900	1880	50	0	0.06	0.168	23.19	23.50	1.074	0.180	/
LTE B2	Ant.5	Left tilt			18900	1880	50	0	-0.02	0.129	23.19	23.50	1.074	0.139	/
LTE B2	Ant.5	Right cheek			18900	1880	50	0	0.03	0.217	23.19	23.50	1.074	0.233	/
LTE B2	Ant.5	Right tilt			18900	1880	50	0	-0.03	0.174	23.19	23.50	1.074	0.187	/
LTE B2	Ant.6	Left cheek	0mm	QPSK-20MHz	18900	1880	1	0	0.03	0.188	15.08	15.50	1.102	0.207	/
LTE B2	Ant.6	Left tilt			18900	1880	1	0	0.07	0.208	15.08	15.50	1.102	0.229	/
LTE B2	Ant.6	Right cheek			18900	1880	1	0	0.02	0.398	15.08	15.50	1.102	0.438	11
LTE B2	Ant.6	Right tilt			18900	1880	1	0	0.14	0.274	15.08	15.50	1.102	0.302	/
LTE B2	Ant.6	Left cheek			18900	1880	50	0	0.09	0.170	13.99	14.50	1.125	0.191	/
LTE B2	Ant.6	Left tilt			18900	1880	50	0	0.12	0.168	13.99	14.50	1.125	0.189	/
LTE B2	Ant.6	Right cheek			18900	1880	50	0	0.14	0.185	13.99	14.50	1.125	0.208	/
LTE B2	Ant.6	Right tilt			18900	1880	50	0	0.1	0.291	13.99	14.50	1.125	0.327	/
LTE B2	Ant.3	Left cheek	0mm	QPSK-20MHz	18900	1880	1	0	0.04	0.092	19.98	21.00	1.265	0.116	/
LTE B2	Ant.3	Left tilt			18900	1880	1	0	0.14	0.152	19.98	21.00	1.265	0.192	/
LTE B2	Ant.3	Right cheek			18900	1880	1	0	-0.17	0.067	19.98	21.00	1.265	0.085	/
LTE B2	Ant.3	Right tilt			18900	1880	1	0	-0.01	0.008	19.98	21.00	1.265	0.010	/
LTE B2	Ant.3	Left cheek			18900	1880	50	0	-0.06	0.051	18.86	20.00	1.300	0.066	/
LTE B2	Ant.3	Left tilt			18900	1880	50	0	0.02	0.011	18.86	20.00	1.300	0.014	/
LTE B2	Ant.3	Right cheek			18900	1880	50	0	-0.11	0.046	18.86	20.00	1.300	0.060	/
LTE B2	Ant.3	Right tilt			18900	1880	50	0	-0.16	0.004	18.86	20.00	1.300	0.005	/
Body-worn&Hotspot															
LTE B2	Ant.5	Front side	10mm	QPSK-20MHz	18900	1880	1	0	-0.1	0.251	24.36	24.50	1.033	0.259	/
LTE B2	Ant.5	Back side			18900	1880	1	0	0.01	0.394	24.36	24.50	1.033	0.407	/
LTE B2	Ant.5	Left side			18900	1880	1	0	0.17	0.448	24.36	24.50	1.033	0.463	/
LTE B2	Ant.5	Top side			18900	1880	1	0	0.03	0.090	24.36	24.50	1.033	0.093	/
LTE B2	Ant.5	Front side			18900	1880	50	0	-0.17	0.202	23.19	23.50	1.074	0.217	/
LTE B2	Ant.5	Back side			18900	1880	50	0	0.14	0.360	23.19	23.50	1.074	0.387	/
LTE B2	Ant.5	Left side			18900	1880	50	0	-0.04	0.330	23.19	23.50	1.074	0.354	/
LTE B2	Ant.5	Top side			18900	1880	50	0	-0.1	0.081	23.19	23.50	1.074	0.087	/
LTE B2	Ant.6	Front side	10mm	QPSK-20MHz	18900	1880	1	0	0.18	0.107	15.08	15.50	1.102	0.118	/
LTE B2	Ant.6	Back side			18900	1880	1	0	0.14	0.103	15.08	15.50	1.102	0.113	/
LTE B2	Ant.6	Left side			18900	1880	1	0	-0.18	0.044	15.08	15.50	1.102	0.048	/
LTE B2	Ant.6	Right side			18900	1880	1	0	0.04	0.038	15.08	15.50	1.102	0.042	/
LTE B2	Ant.6	Top side			18900	1880	1	0	-0.11	0.133	15.08	15.50	1.102	0.147	/
LTE B2	Ant.6	Bottom side			18900	1880	1	0	-0.17	0.018	15.08	15.50	1.102	0.020	/
LTE B2	Ant.6	Front side			18900	1880	50	0	-0.16	0.098	13.99	14.50	1.125	0.110	/
LTE B2	Ant.6	Back side			18900	1880	50	0	0.14	0.091	13.99	14.50	1.125	0.102	/
LTE B2	Ant.6	Left side	10mm	QPSK-20MHz	18900	1880	50	0	-0.13	0.042	13.99	14.50	1.125	0.047	/
LTE B2	Ant.6	Top side			18900	1880	50	0	0.03	0.117	13.99	14.50	1.125	0.132	/
LTE B2	Ant.3	Front side			18900	1880	1	0	0.13	0.207	19.98	21.00	1.265	0.262	/
LTE B2	Ant.3	Back side			18900	1880	1	0	-0.04	0.324	19.98	21.00	1.265	0.410	/
LTE B2	Ant.3	Left side			18900	1880	1	0	-0.16	0.012	19.98	21.00	1.265	0.015	/
LTE B2	Ant.3	Right side			18900	1880	1	0	-0.16	0.048	19.98	21.00	1.265	0.061	/
LTE B2	Ant.3	Bottom side			18900	1880	1	0	-0.03	0.768	19.98	21.00	1.265	0.971	12
LTE B2	Ant.3	Bottom side			18700	1860	1	0	-0.02	0.716	19.74	21.00	1.337	0.957	/
LTE B2	Ant.3	Bottom side	10mm	QPSK-20MHz	19100	1900	1	0	0.04	0.692	19.68	21.00	1.355	0.938	/
LTE B2	Ant.3	Front side			18900	1880	50	0	0.19	0.172	18.86	20.00	1.300	0.224	/
LTE B2	Ant.3	Back side			18900	1880	50	0	0.08	0.269	18.86	20.00	1.300	0.350	/
LTE B2	Ant.3	Left side			18900	1880	50	0	-0.04	0.010	18.86	20.00	1.300	0.013	/
LTE B2	Ant.3	Right side			18900	1880	50	0	-0.07	0.040	18.86	20.00	1.300	0.052	/
LTE B2	Ant.3	Bottom side			18900	1880	50	0	0.13	0.542	18.86	20.00	1.300	0.705	/

10.7LTE Band 4

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B4	Ant.5	Left cheek	0mm	QPSK- 20MHz	20175	1732.5	1	0	-0.13	0.136	17.21	17.50	1.069	0.145	/
LTE B4	Ant.5	Left tilt			20175	1732.5	1	0	0.19	0.088	17.21	17.50	1.069	0.094	/
LTE B4	Ant.5	Right cheek			20175	1732.5	1	0	0.1	0.250	17.21	17.50	1.069	0.267	/
LTE B4	Ant.5	Right tilt			20175	1732.5	1	0	-0.07	0.119	17.21	17.50	1.069	0.127	/
LTE B4	Ant.5	Left cheek			20175	1732.5	50	0	0.15	0.111	16.14	16.50	1.086	0.121	/
LTE B4	Ant.5	Left tilt			20175	1732.5	50	0	0.13	0.070	16.14	16.50	1.086	0.076	/
LTE B4	Ant.5	Right cheek			20175	1732.5	50	0	0.03	0.200	16.14	16.50	1.086	0.217	/
LTE B4	Ant.5	Right tilt			20175	1732.5	50	0	-0.08	0.095	16.14	16.50	1.086	0.103	/
LTE B4	Ant.6	Left cheek	0mm	QPSK- 20MHz	20175	1732.5	1	0	0.18	0.237	16.34	16.50	1.038	0.246	/
LTE B4	Ant.6	Left tilt			20175	1732.5	1	0	0.01	0.254	16.34	16.50	1.038	0.284	/
LTE B4	Ant.6	Right cheek			20175	1732.5	1	0	0.02	0.489	16.34	16.50	1.038	0.507	13
LTE B4	Ant.6	Right tilt			20175	1732.5	1	0	-0.13	0.430	16.34	16.50	1.038	0.446	/
LTE B4	Ant.6	Right cheek			20050	1720	1	0	0.19	0.451	16.25	16.50	1.059	0.478	/
LTE B4	Ant.6	Right cheek			20300	1745	1	0	-0.18	0.426	16.24	16.50	1.062	0.452	/
LTE B4	Ant.6	Left cheek			20175	1732.5	50	0	0.12	0.195	15.22	15.50	1.067	0.208	/
LTE B4	Ant.6	Left tilt			20175	1732.5	50	0	0.1	0.209	15.22	15.50	1.067	0.223	/
LTE B4	Ant.6	Right cheek	0mm	QPSK- 20MHz	20175	1732.5	50	0	0.05	0.414	15.22	15.50	1.067	0.442	/
LTE B4	Ant.6	Right tilt			20175	1732.5	50	0	-0.09	0.390	15.22	15.50	1.067	0.416	/
LTE B4	Ant.3	Left cheek			20175	1732.5	1	0	-0.08	0.066	20.10	21.00	1.230	0.081	/
LTE B4	Ant.3	Left tilt			20175	1732.5	1	0	0.02	0.042	20.10	21.00	1.230	0.052	/
LTE B4	Ant.3	Right cheek			20175	1732.5	1	0	-0.17	0.050	20.10	21.00	1.230	0.062	/
LTE B4	Ant.3	Right tilt			20175	1732.5	1	0	-0.11	0.033	20.10	21.00	1.230	0.041	/
LTE B4	Ant.3	Left cheek			20175	1732.5	50	0	0.14	0.055	19.11	20.00	1.227	0.068	/
LTE B4	Ant.3	Left tilt			20175	1732.5	50	0	-0.14	0.035	19.11	20.00	1.227	0.043	/
LTE B4	Ant.3	Right cheek	0mm	QPSK- 20MHz	20175	1732.5	50	0	0.15	0.042	19.11	20.00	1.227	0.052	/
LTE B4	Ant.3	Right tilt			20175	1732.5	50	0	0.12	0.027	19.11	20.00	1.227	0.033	/
Body-worn&Hotspot															
LTE B4	Ant.5	Front side	10mm	QPSK- 20MHz	20175	1732.5	1	0	0.14	0.078	17.21	17.50	1.069	0.083	/
LTE B4	Ant.5	Back side			20175	1732.5	1	0	0.07	0.123	17.21	17.50	1.069	0.131	/
LTE B4	Ant.5	Left side			20175	1732.5	1	0	0.15	0.163	17.21	17.50	1.069	0.174	/
LTE B4	Ant.5	Top side			20175	1732.5	1	0	-0.16	0.042	17.21	17.50	1.069	0.045	/
LTE B4	Ant.5	Front side			20175	1732.5	50	0	0.17	0.070	16.14	16.50	1.086	0.076	/
LTE B4	Ant.5	Back side			20175	1732.5	50	0	-0.04	0.108	16.14	16.50	1.086	0.117	/
LTE B4	Ant.5	Left side			20175	1732.5	50	0	-0.13	0.136	16.14	16.50	1.086	0.148	/
LTE B4	Ant.5	Top side			20175	1732.5	50	0	0.11	0.039	16.14	16.50	1.086	0.042	/
LTE B4	Ant.6	Front side	10mm	QPSK- 20MHz	20175	1732.5	1	0	0.01	0.104	16.34	16.50	1.038	0.108	/
LTE B4	Ant.6	Back side			20175	1732.5	1	0	-0.04	0.154	16.34	16.50	1.038	0.160	/
LTE B4	Ant.6	Left side			20175	1732.5	1	0	0.03	0.038	16.34	16.50	1.038	0.039	/
LTE B4	Ant.6	Top side			20175	1732.5	1	0	0.12	0.166	16.34	16.50	1.038	0.172	/
LTE B4	Ant.6	Front side			20175	1732.5	50	0	-0.07	0.095	15.22	15.50	1.067	0.101	/
LTE B4	Ant.6	Back side			20175	1732.5	50	0	0.06	0.140	15.22	15.50	1.067	0.149	/
LTE B4	Ant.6	Left side			20175	1732.5	50	0	-0.03	0.032	15.22	15.50	1.067	0.034	/
LTE B4	Ant.6	Top side			20175	1732.5	50	0	0.07	0.138	15.22	15.50	1.067	0.147	/
LTE B4	Ant.3	Front side	10mm	QPSK- 20MHz	20175	1732.5	1	0	-0.1	0.227	20.10	21.00	1.230	0.279	/
LTE B4	Ant.3	Back side			20175	1732.5	1	0	0.17	0.328	20.10	21.00	1.230	0.404	/
LTE B4	Ant.3	Left side			20175	1732.5	1	0	0.17	0.034	20.10	21.00	1.230	0.042	/
LTE B4	Ant.3	Right side			20175	1732.5	1	0	-0.18	0.033	20.10	21.00	1.230	0.041	/
LTE B4	Ant.3	Bottom side			20175	1732.5	1	0	-0.15	0.777	20.10	21.00	1.230	0.956	14
LTE B4	Ant.3	Bottom side			20050	1720	1	0	-0.04	0.745	20.03	21.00	1.250	0.931	/
LTE B4	Ant.3	Bottom side			20300	1745	1	0	-0.02	0.767	20.08	21.00	1.236	0.948	/
LTE B4	Ant.3	Front side			20175	1732.5	50	0	-0.17	0.189	19.11	20.00	1.227	0.232	/
LTE B4	Ant.3	Back side			20175	1732.5	50	0	-0.16	0.281	19.11	20.00	1.227	0.345	/
LTE B4	Ant.3	Left side			20175	1732.5	50	0	-0.16	0.028	19.11	20.00	1.227	0.034	/
LTE B4	Ant.3	Right side			20175	1732.5	50	0	0.12	0.027	19.11	20.00	1.227	0.033	/
LTE B4	Ant.3	Bottom side			20175	1732.5	50	0	0.16	0.601	19.11	20.00	1.227	0.738	/

10.8LTE Band 5

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B5	Ant.3	Left cheek	0mm	QPSK-10MHz	20525	836.5	1	0	-0.17	0.064	25.24	25.50	1.062	0.068	/
LTE B5	Ant.3	Left tilt			20525	836.5	1	0	0.06	0.024	25.24	25.50	1.062	0.025	/
LTE B5	Ant.3	Right cheek			20525	836.5	1	0	0.17	0.059	25.24	25.50	1.062	0.063	/
LTE B5	Ant.3	Right tilt			20525	836.5	1	0	-0.16	0.022	25.24	25.50	1.062	0.023	/
LTE B5	Ant.3	Left cheek			20525	836.5	25	0	0.19	0.056	24.17	24.50	1.079	0.060	/
LTE B5	Ant.3	Left tilt			20525	836.5	25	0	0.13	0.022	24.17	24.50	1.079	0.024	/
LTE B5	Ant.3	Right cheek			20525	836.5	25	0	0.11	0.053	24.17	24.50	1.079	0.057	/
LTE B5	Ant.3	Right tilt			20525	836.5	25	0	0.02	0.020	24.17	24.50	1.079	0.022	/
LTE B5	Ant.4	Left cheek	0mm	QPSK-10MHz	20525	836.5	1	0	0.02	0.346	19.09	19.50	1.099	0.380	15
LTE B5	Ant.4	Left tilt			20525	836.5	1	0	0.19	0.065	19.09	19.50	1.099	0.071	/
LTE B5	Ant.4	Right cheek			20525	836.5	1	0	-0.13	0.200	19.09	19.50	1.099	0.220	/
LTE B5	Ant.4	Right tilt			20525	836.5	1	0	0.05	0.029	19.09	19.50	1.099	0.032	/
LTE B5	Ant.4	Left cheek			20450	829	25	0	-0.06	0.188	17.95	18.50	1.135	0.213	/
LTE B5	Ant.4	Left tilt			20525	836.5	25	0	0.03	0.051	17.97	18.50	1.130	0.058	/
LTE B5	Ant.4	Right cheek			20525	836.5	25	0	0.17	0.177	17.97	18.50	1.130	0.200	/
LTE B5	Ant.4	Right tilt			20525	836.5	25	0	0.03	0.025	17.97	18.50	1.130	0.028	/
Body-worn&Hotspot															
LTE B5	Ant.3	Front side	10mm	QPSK-10MHz	20525	836.5	1	0	-0.15	0.097	25.24	25.50	1.062	0.103	/
LTE B5	Ant.3	Back side			20525	836.5	1	0	-0.17	0.138	25.24	25.50	1.062	0.147	/
LTE B5	Ant.3	Left side			20525	836.5	1	0	-0.16	0.028	25.24	25.50	1.062	0.030	/
LTE B5	Ant.3	Right side			20525	836.5	1	0	0.03	0.069	25.24	25.50	1.062	0.073	/
LTE B5	Ant.3	Bottom side			20525	836.5	1	0	-0.05	0.109	25.24	25.50	1.062	0.116	/
LTE B5	Ant.3	Front side			20525	836.5	25	0	-0.06	0.076	24.17	24.50	1.079	0.082	/
LTE B5	Ant.3	Back side			20525	836.5	25	0	-0.08	0.112	24.17	24.50	1.079	0.121	/
LTE B5	Ant.3	Left side			20525	836.5	25	0	0.1	0.029	24.17	24.50	1.079	0.031	/
LTE B5	Ant.3	Right side	10mm	QPSK-10MHz	20525	836.5	25	0	-0.07	0.060	24.17	24.50	1.079	0.065	/
LTE B5	Ant.3	Bottom side			20525	836.5	25	0	-0.03	0.092	24.17	24.50	1.079	0.099	/
LTE B5	Ant.4	Front side			20525	836.5	1	0	0.12	0.178	19.09	19.50	1.099	0.196	/
LTE B5	Ant.4	Back side			20525	836.5	1	0	0.03	0.190	19.09	19.50	1.099	0.209	/
LTE B5	Ant.4	Left side			20525	836.5	1	0	-0.02	0.423	19.09	19.50	1.099	0.465	16
LTE B5	Ant.4	Top side			20525	836.5	1	0	0.12	0.019	19.09	19.50	1.099	0.021	/
LTE B5	Ant.4	Front side			20525	836.5	25	0	0.18	0.146	17.97	18.50	1.130	0.165	/
LTE B5	Ant.4	Back side			20525	836.5	25	0	-0.02	0.161	17.97	18.50	1.130	0.182	/
LTE B5	Ant.4	Left side	10mm	QPSK-10MHz	20525	836.5	25	0	0.11	0.266	17.97	18.50	1.130	0.301	/
LTE B5	Ant.4	Top side			20525	836.5	25	0	-0.04	0.013	17.97	18.50	1.130	0.015	/

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B5	Ant.4	Left cheek	0mm	QPSK-10MHz	20525+20426	836.5	1+49	1+0	0.01	0.317	19.01	19.50	1.119	0.355	/
Body-worn&Hotspot															
LTE B5	Ant.4	Left side	10mm	QPSK-10MHz	20525+20426	836.5	1+49	1+0	0.03	0.392	19.01	19.50	1.119	0.439	/

10.9LTE Band 7

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.		
Head																	
LTE B7	Ant.5	Left cheek	0mm	QPSK-20MHz	21100	2535	1	0	0.12	0.061	10.29	11.50	1.321	0.081	/		
LTE B7	Ant.5	Left tilt			21100	2535	1	0	0.19	0.051	10.29	11.50	1.321	0.067	/		
LTE B7	Ant.5	Right cheek			21100	2535	1	0	0.13	0.249	10.29	11.50	1.321	0.329	17		
LTE B7	Ant.5	Right tilt			21100	2535	1	0	-0.14	0.097	10.29	11.50	1.321	0.128	/		
LTE B7	Ant.5	Left cheek			21100	2535	50	0	0.12	0.045	9.13	10.50	1.371	0.062	/		
LTE B7	Ant.5	Left tilt			21100	2535	50	0	0.12	0.041	9.13	10.50	1.371	0.056	/		
LTE B7	Ant.5	Right cheek			21100	2535	50	0	0.07	0.143	9.13	10.50	1.371	0.196	/		
LTE B7	Ant.5	Right tilt			21100	2535	50	0	-0.15	0.097	9.13	10.50	1.371	0.133	/		
LTE B7	Ant.6	Left cheek			21100	2535	1	0	0.04	0.117	10.26	11.50	1.330	0.156	/		
LTE B7	Ant.6	Left tilt			21100	2535	1	0	0.19	0.119	10.26	11.50	1.330	0.158	/		
LTE B7	Ant.6	Right cheek	0mm	QPSK-20MHz	21100	2535	1	0	0.15	0.211	10.26	11.50	1.330	0.281	/		
LTE B7	Ant.6	Right tilt			21100	2535	1	0	0.11	0.220	10.26	11.50	1.330	0.293	/		
LTE B7	Ant.6	Left cheek			21100	2535	50	0	-0.12	0.099	9.27	10.50	1.327	0.131	/		
LTE B7	Ant.6	Left tilt			21100	2535	50	0	-0.06	0.098	9.27	10.50	1.327	0.130	/		
LTE B7	Ant.6	Right cheek			21100	2535	50	0	0.11	0.183	9.27	10.50	1.327	0.243	/		
LTE B7	Ant.6	Right tilt			21100	2535	50	0	0.11	0.191	9.27	10.50	1.327	0.254	/		
LTE B7	Ant.3	Left cheek			0mm	QPSK-20MHz	21100	2535	1	0	0.02	0.008	18.78	19.50	1.180	0.009	/
LTE B7	Ant.3	Left tilt					21100	2535	1	0	0.03	0.010	18.78	19.50	1.180	0.012	/
LTE B7	Ant.3	Right cheek					21100	2535	1	0	-0.17	0.067	18.78	19.50	1.180	0.079	/
LTE B7	Ant.3	Right tilt					21100	2535	1	0	0.06	0.071	18.78	19.50	1.180	0.084	/
LTE B7	Ant.3	Left cheek	21100	2535			50	0	0.18	0.060	17.66	18.50	1.213	0.073	/		
LTE B7	Ant.3	Left tilt	21100	2535			50	0	0.07	0.073	17.66	18.50	1.213	0.089	/		
LTE B7	Ant.3	Right cheek	21100	2535			50	0	0.19	0.056	17.66	18.50	1.213	0.068	/		
LTE B7	Ant.3	Right tilt	21100	2535			50	0	-0.19	0.059	17.66	18.50	1.213	0.072	/		
Body-worm&Hotspot																	
LTE B7	Ant.5	Front side	10mm	QPSK-20MHz	21100	2535	1	0	-0.16	0.059	10.29	11.50	1.321	0.078	/		
LTE B7	Ant.5	Back side			21100	2535	1	0	0.1	0.095	10.29	11.50	1.321	0.126	/		
LTE B7	Ant.5	Left side			21100	2535	1	0	-0.01	0.113	10.29	11.50	1.321	0.149	/		
LTE B7	Ant.5	Top side			21100	2535	1	0	0.06	0.032	10.29	11.50	1.321	0.042	/		
LTE B7	Ant.5	Front side			21100	2535	50	0	-0.04	0.048	9.13	10.50	1.371	0.066	/		
LTE B7	Ant.5	Back side			21100	2535	50	0	0.14	0.083	9.13	10.50	1.371	0.114	/		
LTE B7	Ant.5	Left side			21100	2535	50	0	-0.19	0.085	9.13	10.50	1.371	0.117	/		
LTE B7	Ant.5	Top side			21100	2535	50	0	-0.11	0.019	9.13	10.50	1.371	0.026	/		
LTE B7	Ant.6	Front side			21100	2535	1	0	0.15	0.054	10.26	11.50	1.330	0.072	/		
LTE B7	Ant.6	Back side			21100	2535	1	0	-0.08	0.082	10.26	11.50	1.330	0.109	/		
LTE B7	Ant.6	Left side	10mm	QPSK-20MHz	21100	2535	1	0	0.06	0.050	10.26	11.50	1.330	0.067	/		
LTE B7	Ant.6	Top side			21100	2535	1	0	0.04	0.087	10.26	11.50	1.330	0.116	/		
LTE B7	Ant.6	Front side			21100	2535	50	0	-0.12	0.042	9.27	10.50	1.327	0.056	/		
LTE B7	Ant.6	Back side			21100	2535	50	0	0.01	0.070	9.27	10.50	1.327	0.093	/		
LTE B7	Ant.6	Left side			21100	2535	50	0	0.19	0.021	9.27	10.50	1.327	0.028	/		
LTE B7	Ant.6	Top side			21100	2535	50	0	0.12	0.067	9.27	10.50	1.327	0.089	/		
LTE B7	Ant.3	Front side			10mm	QPSK-20MHz	21100	2535	1	0	0.09	0.318	18.78	19.50	1.180	0.375	/
LTE B7	Ant.3	Back side					21100	2535	1	0	0.09	0.341	18.78	19.50	1.180	0.402	/
LTE B7	Ant.3	Left side					21100	2535	1	0	0.03	0.111	18.78	19.50	1.180	0.131	/
LTE B7	Ant.3	Right side					21100	2535	1	0	0.01	0.068	18.78	19.50	1.180	0.080	/
LTE B7	Ant.3	Bottom side	21100	2535			1	0	0.04	0.838	18.78	19.50	1.180	0.989	/		
LTE B7	Ant.3	Bottom side	20850	2510			1	0	-0.13	0.836	18.63	19.50	1.222	1.021	/		
LTE B7	Ant.3	Bottom side	21350	2560			1	0	0.03	1.030	18.71	19.50	1.199	1.235	18		
LTE B7	Ant.3	Front side	21100	2535			50	0	-0.09	0.319	17.66	18.50	1.213	0.387	/		
LTE B7	Ant.3	Back side	21100	2535			50	0	-0.1	0.311	17.66	18.50	1.213	0.377	/		
LTE B7	Ant.3	Left side	21100	2535			50	0	0.19	0.092	17.66	18.50	1.213	0.112	/		
LTE B7	Ant.3	Right side	21100	2535	50	0	-0.09	0.057	17.66	18.50	1.213	0.069	/				
LTE B7	Ant.3	Bottom side	21100	2535	50	0	0.18	0.697	17.66	18.50	1.213	0.846	/				
LTE B7	Ant.3	Bottom side	20850	2510	50	0	0.14	0.695	17.62	18.50	1.225	0.851	/				
LTE B7	Ant.3	Bottom side	21350	2560	50	0	0.05	0.730	17.51	18.50	1.256	0.917	/				

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B7	Ant.5	Right cheek	0mm	QPSK-20MHz	21100+21298	2535	1+99	1+0	0.04	0.231	10.10	11.50	1.380	0.319	/
Body-worn&Hotspot															
LTE B7	Ant.5	Left side	10mm	QPSK-20MHz	21100+21298	2535	1+99	1+0	-0.07	0.102	10.10	11.50	1.380	0.141	/

10.10 LTE Band 12

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B12	Ant.3	Left cheek	0mm	QPSK-10MHz	23095	707.5	1	0	0.09	0.045	24.22	24.50	1.067	0.048	/
LTE B12	Ant.3	Left tilt			23095	707.5	1	0	0.02	0.024	24.22	24.50	1.067	0.026	/
LTE B12	Ant.3	Right cheek			23095	707.5	1	0	0.09	0.040	24.22	24.50	1.067	0.043	/
LTE B12	Ant.3	Right tilt			23095	707.5	1	0	-0.19	0.020	24.22	24.50	1.067	0.021	/
LTE B12	Ant.3	Left cheek			23095	707.5	25	0	0.15	0.035	23.07	23.50	1.104	0.039	/
LTE B12	Ant.3	Left tilt			23095	707.5	25	0	0.06	0.022	23.07	23.50	1.104	0.024	/
LTE B12	Ant.3	Right cheek			23095	707.5	25	0	0.1	0.033	23.07	23.50	1.104	0.036	/
LTE B12	Ant.3	Right tilt			23095	707.5	25	0	-0.12	0.018	23.07	23.50	1.104	0.020	/
LTE B12	Ant.4	Left cheek			23095	707.5	1	0	-0.11	0.314	24.03	24.50	1.114	0.350	/
LTE B12	Ant.4	Left tilt			23095	707.5	1	0	-0.01	0.098	24.03	24.50	1.114	0.109	/
LTE B12	Ant.4	Right cheek	0mm	QPSK-10MHz	23095	707.5	1	0	0.05	0.619	24.03	24.50	1.114	0.690	19
LTE B12	Ant.4	Right tilt			23095	707.5	1	0	-0.16	0.124	24.03	24.50	1.114	0.138	/
LTE B12	Ant.4	Left cheek			23095	707.5	25	0	0.07	0.330	22.94	23.50	1.138	0.375	/
LTE B12	Ant.4	Left tilt			23095	707.5	25	0	-0.11	0.086	22.94	23.50	1.138	0.098	/
LTE B12	Ant.4	Right cheek			23095	707.5	25	0	0.01	0.345	22.94	23.50	1.138	0.392	/
LTE B12	Ant.4	Right tilt			23095	707.5	25	0	0.1	0.121	22.94	23.50	1.138	0.138	/
Body-worm&Hotspot															
LTE B12	Ant.3	Front side	10mm	QPSK-10MHz	23095	707.5	1	0	0.19	0.076	24.22	24.50	1.067	0.081	/
LTE B12	Ant.3	Back side			23095	707.5	1	0	-0.16	0.100	24.22	24.50	1.067	0.107	/
LTE B12	Ant.3	Left side			23095	707.5	1	0	-0.14	0.051	24.22	24.50	1.067	0.054	/
LTE B12	Ant.3	Right side			23095	707.5	1	0	-0.01	0.115	24.22	24.50	1.067	0.123	/
LTE B12	Ant.3	Bottom side			23095	707.5	1	0	0.05	0.083	24.22	24.50	1.067	0.089	/
LTE B12	Ant.3	Front side			23095	707.5	25	0	-0.18	0.065	23.07	23.50	1.104	0.072	/
LTE B12	Ant.3	Back side			23095	707.5	25	0	0.03	0.074	23.07	23.50	1.104	0.082	/
LTE B12	Ant.3	Left side			23095	707.5	25	0	-0.15	0.042	23.07	23.50	1.104	0.046	/
LTE B12	Ant.3	Right side			23095	707.5	25	0	0.19	0.102	23.07	23.50	1.104	0.113	/
LTE B12	Ant.3	Bottom side			23095	707.5	25	0	0.08	0.063	23.07	23.50	1.104	0.070	/
LTE B12	Ant.4	Front side	10mm	QPSK-10MHz	23095	707.5	1	0	-0.11	0.301	24.03	24.50	1.114	0.335	/
LTE B12	Ant.4	Back side			23095	707.5	1	0	0.09	0.357	24.03	24.50	1.114	0.398	/
LTE B12	Ant.4	Left side			23095	707.5	1	0	0.06	0.624	24.03	24.50	1.114	0.695	20
LTE B12	Ant.4	Top side			23095	707.5	1	0	0.05	0.045	24.03	24.50	1.114	0.050	/
LTE B12	Ant.4	Front side			23095	707.5	25	0	-0.15	0.248	22.94	23.50	1.138	0.282	/
LTE B12	Ant.4	Back side			23095	707.5	25	0	-0.17	0.288	22.94	23.50	1.138	0.328	/
LTE B12	Ant.4	Left side			23095	707.5	25	0	-0.04	0.560	22.94	23.50	1.138	0.637	/
LTE B12	Ant.4	Top side			23095	707.5	25	0	0.18	0.042	22.94	23.50	1.138	0.048	/

10.11 LTE Band 13

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B13	Ant.3	Left cheek	0mm	QPSK-10MHz	23230	782	1	0	-0.01	0.109	24.24	25.00	1.191	0.130	/
LTE B13	Ant.3	Left tilt			23230	782	1	0	0.09	0.064	24.24	25.00	1.191	0.076	/
LTE B13	Ant.3	Right cheek			23230	782	1	0	-0.18	0.097	24.24	25.00	1.191	0.116	/
LTE B13	Ant.3	Right tilt			23230	782	1	0	-0.02	0.057	24.24	25.00	1.191	0.068	/
LTE B13	Ant.3	Left cheek			23230	782	25	0	-0.01	0.084	23.07	24.00	1.239	0.104	/
LTE B13	Ant.3	Left tilt			23230	782	25	0	-0.18	0.051	23.07	24.00	1.239	0.063	/
LTE B13	Ant.3	Right cheek			23230	782	25	0	-0.18	0.075	23.07	24.00	1.239	0.093	/
LTE B13	Ant.3	Right tilt			23230	782	25	0	-0.03	0.045	23.07	24.00	1.239	0.056	/
LTE B13	Ant.4	Left cheek			23230	782	1	0	0.07	0.331	24.09	24.50	1.099	0.364	21
LTE B13	Ant.4	Left tilt			23230	782	1	0	-0.17	0.082	24.09	24.50	1.099	0.090	/
LTE B13	Ant.4	Right cheek	0mm	QPSK-10MHz	23230	782	1	0	-0.04	0.182	24.09	24.50	1.099	0.200	/
LTE B13	Ant.4	Right tilt			23230	782	1	0	-0.02	0.057	24.09	24.50	1.099	0.063	/
LTE B13	Ant.4	Left cheek			23230	782	25	0	-0.13	0.219	22.85	23.50	1.161	0.254	/
LTE B13	Ant.4	Left tilt			23230	782	25	0	0.14	0.057	22.85	23.50	1.161	0.066	/
LTE B13	Ant.4	Right cheek			23230	782	25	0	-0.06	0.178	22.85	23.50	1.161	0.207	/
LTE B13	Ant.4	Right tilt			23230	782	25	0	-0.18	0.056	22.85	23.50	1.161	0.065	/
Body-worn&Hotspot															
LTE B13	Ant.3	Front side	10mm	QPSK-10MHz	23230	782	1	0	0.06	0.179	24.24	25.00	1.191	0.213	/
LTE B13	Ant.3	Back side			23230	782	1	0	0.15	0.248	24.24	25.00	1.191	0.295	/
LTE B13	Ant.3	Left side			23230	782	1	0	-0.16	0.100	24.24	25.00	1.191	0.119	/
LTE B13	Ant.3	Right side			23230	782	1	0	0.04	0.144	24.24	25.00	1.191	0.172	/
LTE B13	Ant.3	Bottom side			23230	782	1	0	0.19	0.227	24.24	25.00	1.191	0.270	/
LTE B13	Ant.3	Front side			23230	782	25	0	0.18	0.141	23.07	24.00	1.239	0.175	/
LTE B13	Ant.3	Back side			23230	782	25	0	-0.14	0.194	23.07	24.00	1.239	0.240	/
LTE B13	Ant.3	Left side			23230	782	25	0	-0.03	0.072	23.07	24.00	1.239	0.089	/
LTE B13	Ant.3	Right side			23230	782	25	0	0.06	0.117	23.07	24.00	1.239	0.145	/
LTE B13	Ant.3	Bottom side			23230	782	25	0	-0.16	0.202	23.07	24.00	1.239	0.250	/
LTE B13	Ant.4	Front side	10mm	QPSK-10MHz	23230	782	1	0	0.14	0.194	24.09	24.50	1.099	0.213	/
LTE B13	Ant.4	Back side			23230	782	1	0	0.04	0.222	24.09	24.50	1.099	0.244	/
LTE B13	Ant.4	Left side			23230	782	1	0	-0.16	0.429	24.09	24.50	1.099	0.471	22
LTE B13	Ant.4	Top side			23230	782	1	0	-0.02	0.042	24.09	24.50	1.099	0.046	/
LTE B13	Ant.4	Front side			23230	782	25	0	-0.08	0.135	22.85	23.50	1.161	0.157	/
LTE B13	Ant.4	Back side			23230	782	25	0	0.11	0.155	22.85	23.50	1.161	0.180	/
LTE B13	Ant.4	Left side			23230	782	25	0	-0.13	0.301	22.85	23.50	1.161	0.350	/
LTE B13	Ant.4	Top side			23230	782	25	0	0.04	0.040	22.85	23.50	1.161	0.046	/

10.12 LTE Band 17

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B17	Ant.3	Left cheek	0mm	QPSK-10MHz	23790	710	1	0	0.19	0.048	24.26	25.00	1.186	0.057	/
LTE B17	Ant.3	Left tilt			23790	710	1	0	-0.12	0.030	24.26	25.00	1.186	0.036	/
LTE B17	Ant.3	Right cheek			23790	710	1	0	-0.13	0.057	24.26	25.00	1.186	0.068	/
LTE B17	Ant.3	Right tilt			23790	710	1	0	0.18	0.024	24.26	25.00	1.186	0.028	/
LTE B17	Ant.3	Left cheek			23790	710	25	0	0.13	0.041	23.03	24.00	1.250	0.051	/
LTE B17	Ant.3	Left tilt			23790	710	25	0	-0.01	0.027	23.03	24.00	1.250	0.034	/
LTE B17	Ant.3	Right cheek			23790	710	25	0	0.11	0.043	23.03	24.00	1.250	0.054	/
LTE B17	Ant.3	Right tilt			23790	710	25	0	0.02	0.018	23.03	24.00	1.250	0.023	/
LTE B17	Ant.4	Left cheek	0mm	QPSK-10MHz	23790	710	1	0	-0.04	0.471	24.09	24.50	1.099	0.518	23
LTE B17	Ant.4	Left tilt			23790	710	1	0	0.17	0.102	24.09	24.50	1.099	0.112	/
LTE B17	Ant.4	Right cheek			23790	710	1	0	0.11	0.368	24.09	24.50	1.099	0.404	/
LTE B17	Ant.4	Right tilt			23790	710	1	0	0.15	0.129	24.09	24.50	1.099	0.142	/
LTE B17	Ant.4	Left cheek			23790	710	25	0	-0.16	0.321	22.93	23.50	1.140	0.366	/
LTE B17	Ant.4	Left tilt			23790	710	25	0	0.11	0.092	22.93	23.50	1.140	0.105	/
LTE B17	Ant.4	Right cheek			23790	710	25	0	0.12	0.341	22.93	23.50	1.140	0.389	/
LTE B17	Ant.4	Right tilt			23790	710	25	0	-0.02	0.107	22.93	23.50	1.140	0.122	/
Body-worn&Hotspot															
LTE B17	Ant.3	Front side	10mm	QPSK-10MHz	23790	710	1	0	0.1	0.078	24.26	25.00	1.186	0.092	/
LTE B17	Ant.3	Back side			23790	710	1	0	0.05	0.092	24.26	25.00	1.186	0.109	/
LTE B17	Ant.3	Left side			23790	710	1	0	0.02	0.053	24.26	25.00	1.186	0.063	/
LTE B17	Ant.3	Right side			23790	710	1	0	0.05	0.119	24.26	25.00	1.186	0.141	/
LTE B17	Ant.3	Bottom side			23790	710	1	0	-0.02	0.075	24.26	25.00	1.186	0.089	/
LTE B17	Ant.3	Front side			23790	710	25	0	-0.08	0.068	23.03	24.00	1.250	0.085	/
LTE B17	Ant.3	Back side			23790	710	25	0	-0.11	0.081	23.03	24.00	1.250	0.101	/
LTE B17	Ant.3	Left side			23790	710	25	0	0.08	0.040	23.03	24.00	1.250	0.050	/
LTE B17	Ant.3	Right side	10mm	QPSK-10MHz	23790	710	25	0	0.09	0.110	23.03	24.00	1.250	0.138	/
LTE B17	Ant.3	Bottom side			23790	710	25	0	-0.11	0.062	23.03	24.00	1.250	0.078	/
LTE B17	Ant.4	Front side			23790	710	1	0	0.16	0.314	24.09	24.50	1.099	0.345	/
LTE B17	Ant.4	Back side			23790	710	1	0	-0.15	0.366	24.09	24.50	1.099	0.402	/
LTE B17	Ant.4	Left side			23790	710	1	0	-0.06	0.570	24.09	24.50	1.099	0.626	/
LTE B17	Ant.4	Top side			23790	710	1	0	0.1	0.042	24.09	24.50	1.099	0.046	/
LTE B17	Ant.4	Left side			23780	709	1	0	-0.17	0.529	23.94	24.50	1.138	0.602	/
LTE B17	Ant.4	Left side			23800	711	1	0	0.09	0.573	23.94	24.50	1.138	0.652	24
LTE B17	Ant.4	Front side	10mm	QPSK-10MHz	23790	710	25	0	-0.03	0.264	22.93	23.50	1.140	0.301	/
LTE B17	Ant.4	Back side			23790	710	25	0	0.06	0.293	22.93	23.50	1.140	0.334	/
LTE B17	Ant.4	Left side			23790	710	25	0	0.05	0.513	22.93	23.50	1.140	0.585	/
LTE B17	Ant.4	Top side			23790	710	25	0	0.07	0.040	22.93	23.50	1.140	0.046	/

10.13 LTE Band 66

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B66	Ant.5	Left cheek	0mm	QPSK-20MHz	132322	1745	1	0	0.01	0.093	15.10	15.50	1.096	0.102	/
LTE B66	Ant.5	Left tilt			132322	1745	1	0	-0.05	0.053	15.10	15.50	1.096	0.058	/
LTE B66	Ant.5	Right cheek			132322	1745	1	0	-0.11	0.313	15.10	15.50	1.096	0.343	/
LTE B66	Ant.5	Right tilt			132322	1745	1	0	0.19	0.179	15.10	15.50	1.096	0.196	/
LTE B66	Ant.5	Left cheek			132322	1745	50	0	-0.06	0.070	14.05	14.50	1.109	0.078	/
LTE B66	Ant.5	Left tilt			132322	1745	50	0	0.11	0.047	14.05	14.50	1.109	0.052	/
LTE B66	Ant.5	Right cheek			132322	1745	50	0	0.11	0.251	14.05	14.50	1.109	0.278	/
LTE B66	Ant.5	Right tilt			132322	1745	50	0	0.16	0.132	14.05	14.50	1.109	0.146	/
LTE B66	Ant.6	Left cheek	0mm	QPSK-20MHz	132322	1745	1	0	0.1	0.201	15.28	15.50	1.052	0.211	/
LTE B66	Ant.6	Left tilt			132322	1745	1	0	0.02	0.210	15.28	15.50	1.052	0.221	/
LTE B66	Ant.6	Right cheek			132322	1745	1	0	0.16	0.320	15.28	15.50	1.052	0.337	/
LTE B66	Ant.6	Right tilt			132322	1745	1	0	-0.02	0.378	15.28	15.50	1.052	0.398	25
LTE B66	Ant.6	Left cheek			132322	1745	50	0	-0.12	0.142	14.21	14.50	1.069	0.152	/
LTE B66	Ant.6	Left tilt			132322	1745	50	0	0.15	0.136	14.21	14.50	1.069	0.145	/
LTE B66	Ant.6	Right cheek			132322	1745	50	0	0.1	0.223	14.21	14.50	1.069	0.238	/
LTE B66	Ant.6	Right tilt			132322	1745	50	0	-0.07	0.231	14.21	14.50	1.069	0.247	/
LTE B66	Ant.3	Left cheek	0mm	QPSK-20MHz	132322	1745	1	0	-0.04	0.062	19.87	21.00	1.297	0.080	/
LTE B66	Ant.3	Left tilt			132322	1745	1	0	-0.07	0.041	19.87	21.00	1.297	0.053	/
LTE B66	Ant.3	Right cheek			132322	1745	1	0	0.11	0.034	19.87	21.00	1.297	0.044	/
LTE B66	Ant.3	Right tilt			132322	1745	1	0	0.17	0.024	19.87	21.00	1.297	0.031	/
LTE B66	Ant.3	Left cheek			132322	1745	50	0	0.1	0.052	18.92	20.00	1.282	0.067	/
LTE B66	Ant.3	Left tilt			132322	1745	50	0	-0.13	0.034	18.92	20.00	1.282	0.044	/
LTE B66	Ant.3	Right cheek			132322	1745	50	0	0.19	0.028	18.92	20.00	1.282	0.036	/
LTE B66	Ant.3	Right tilt			132322	1745	50	0	-0.08	0.020	18.92	20.00	1.282	0.026	/
Body-worn&Hotspot															
LTE B66	Ant.5	Front side	10mm	QPSK-20MHz	132322	1745	1	0	0.07	0.071	15.10	15.50	1.096	0.078	/
LTE B66	Ant.5	Back side			132322	1745	1	0	0.04	0.100	15.10	15.50	1.096	0.110	/
LTE B66	Ant.5	Left side			132322	1745	1	0	-0.11	0.109	15.10	15.50	1.096	0.120	/
LTE B66	Ant.5	Top side			132322	1745	1	0	-0.01	0.029	15.10	15.50	1.096	0.032	/
LTE B66	Ant.5	Front side			132322	1745	50	0	-0.1	0.043	14.05	14.50	1.109	0.048	/
LTE B66	Ant.5	Back side			132322	1745	50	0	-0.03	0.073	14.05	14.50	1.109	0.081	/
LTE B66	Ant.5	Left side	10mm	QPSK-20MHz	132322	1745	50	0	-0.09	0.087	14.05	14.50	1.109	0.096	/
LTE B66	Ant.5	Top side			132322	1745	50	0	-0.17	0.018	14.05	14.50	1.109	0.020	/
LTE B66	Ant.6	Front side			132322	1745	1	0	-0.01	0.088	15.28	15.50	1.052	0.093	/
LTE B66	Ant.6	Back side			132322	1745	1	0	0.08	0.129	15.28	15.50	1.052	0.136	/
LTE B66	Ant.6	Left side			132322	1745	1	0	-0.17	0.035	15.28	15.50	1.052	0.037	/
LTE B66	Ant.6	Top side			132322	1745	1	0	0.14	0.144	15.28	15.50	1.052	0.151	/
LTE B66	Ant.6	Front side	10mm	QPSK-20MHz	132322	1745	50	0	-0.19	0.063	14.21	14.50	1.069	0.067	/
LTE B66	Ant.6	Back side			132322	1745	50	0	-0.02	0.104	14.21	14.50	1.069	0.111	/
LTE B66	Ant.6	Left side			132322	1745	50	0	0.12	0.027	14.21	14.50	1.069	0.029	/
LTE B66	Ant.6	Top side			132322	1745	50	0	-0.16	0.095	14.21	14.50	1.069	0.102	/
LTE B66	Ant.3	Front side			132322	1745	1	0	0.12	0.265	19.87	21.00	1.297	0.344	/
LTE B66	Ant.3	Back side			132322	1745	1	0	-0.07	0.276	19.87	21.00	1.297	0.358	/
LTE B66	Ant.3	Left side	10mm	QPSK-20MHz	132322	1745	1	0	0.12	0.012	19.87	21.00	1.297	0.016	/
LTE B66	Ant.3	Right side			132322	1745	1	0	-0.17	0.050	19.87	21.00	1.297	0.065	/
LTE B66	Ant.3	Bottom side			132322	1745	1	0	0.14	0.704	19.87	21.00	1.297	0.913	/
LTE B66	Ant.3	Bottom side			132072	1720	1	0	-0.09	0.834	19.82	21.00	1.312	1.094	26
LTE B66	Ant.3	Bottom side			132572	1770	1	0	0.01	0.711	19.80	21.00	1.318	0.937	/
LTE B66	Ant.3	Front side			132322	1745	50	0	0.17	0.220	18.92	20.00	1.282	0.282	/
LTE B66	Ant.3	Back side	10mm	QPSK-20MHz	132322	1745	50	0	0.17	0.264	18.92	20.00	1.282	0.339	/
LTE B66	Ant.3	Left side			132322	1745	50	0	-0.08	0.010	18.92	20.00	1.282	0.013	/
LTE B66	Ant.3	Right side			132322	1745	50	0	-0.09	0.042	18.92	20.00	1.282	0.054	/
LTE B66	Ant.3	Bottom side			132322	1745	50	0	0.09	0.586	18.92	20.00	1.282	0.751	/

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measure d 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B66	Ant.6	Right tilt	0mm	QPSK-20MHz	132322+132520	1745	1+99	1+0	-0.03	0.327	15.15	15.50	1.084	0.354	/
Body-worn&Hotspot															
LTE B66	Ant.6	Top side	10mm	QPSK-20MHz	132322+132520	1745	1+99	1+0	0.08	0.132	15.15	15.50	1.084	0.143	/

10.14 LTE Band 38

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B38	Ant.5	Left cheek	0mm	QPSK-20MHz	38000	2595	1	0	0.02	0.038	15.56	16.00	1.107	0.042	/
LTE B38	Ant.5	Left tilt			38000	2595	1	0	0.17	0.015	15.56	16.00	1.107	0.017	/
LTE B38	Ant.5	Right cheek			38000	2595	1	0	-0.05	0.108	15.56	16.00	1.107	0.120	/
LTE B38	Ant.5	Right tilt			38000	2595	1	0	-0.11	0.100	15.56	16.00	1.107	0.111	/
LTE B38	Ant.5	Left cheek			38000	2595	50	0	-0.02	0.029	14.44	15.00	1.138	0.033	/
LTE B38	Ant.5	Left tilt			38000	2595	50	0	0.09	0.021	14.44	15.00	1.138	0.024	/
LTE B38	Ant.5	Right cheek			38000	2595	50	0	0.03	0.099	14.44	15.00	1.138	0.113	/
LTE B38	Ant.5	Right tilt			38000	2595	50	0	0.15	0.107	14.44	15.00	1.138	0.122	/
LTE B38	Ant.6	Left cheek	0mm	QPSK-20MHz	38000	2595	1	0	-0.04	0.083	15.45	16.00	1.135	0.094	/
LTE B38	Ant.6	Left tilt			38000	2595	1	0	0.09	0.080	15.45	16.00	1.135	0.091	/
LTE B38	Ant.6	Right cheek			38000	2595	1	0	0.04	0.059	15.45	16.00	1.135	0.067	/
LTE B38	Ant.6	Right tilt			38000	2595	1	0	0.14	0.134	15.45	16.00	1.135	0.152	27
LTE B38	Ant.6	Left cheek			38000	2595	50	0	0.11	0.065	14.32	15.00	1.169	0.076	/
LTE B38	Ant.6	Left tilt			38000	2595	50	0	0.02	0.071	14.32	15.00	1.169	0.083	/
LTE B38	Ant.6	Right cheek			38000	2595	50	0	-0.19	0.119	14.32	15.00	1.169	0.139	/
LTE B38	Ant.6	Right tilt			38000	2595	50	0	-0.11	0.106	14.32	15.00	1.169	0.124	/
Body-worn&Hotspot															
LTE B38	Ant.5	Front side	10mm	QPSK-20MHz	38000	2595	1	0	0.17	0.022	15.56	16.00	1.107	0.024	/
LTE B38	Ant.5	Back side			38000	2595	1	0	0.1	0.054	15.56	16.00	1.107	0.060	/
LTE B38	Ant.5	Left side			38000	2595	1	0	0.04	0.047	15.56	16.00	1.107	0.052	/
LTE B38	Ant.5	Top side			38000	2595	1	0	0.05	0.018	15.56	16.00	1.107	0.020	/
LTE B38	Ant.5	Front side			38000	2595	50	0	0.09	0.026	14.44	15.00	1.138	0.030	/
LTE B38	Ant.5	Back side			38000	2595	50	0	-0.1	0.041	14.44	15.00	1.138	0.047	/
LTE B38	Ant.5	Left side			38000	2595	50	0	-0.09	0.032	14.44	15.00	1.138	0.036	/
LTE B38	Ant.5	Top side			38000	2595	50	0	0.07	0.007	14.44	15.00	1.138	0.008	/
LTE B38	Ant.6	Front side	10mm	QPSK-20MHz	38000	2595	1	0	-0.06	0.024	15.45	16.00	1.135	0.027	/
LTE B38	Ant.6	Back side			38000	2595	1	0	-0.12	0.049	15.45	16.00	1.135	0.056	/
LTE B38	Ant.6	Left side			38000	2595	1	0	0.08	0.020	15.45	16.00	1.135	0.023	/
LTE B38	Ant.6	Top side			38000	2595	1	0	0.08	0.090	15.45	16.00	1.135	0.102	28
LTE B38	Ant.6	Front side			38000	2595	50	0	0.02	0.031	14.32	15.00	1.169	0.036	/
LTE B38	Ant.6	Back side			38000	2595	50	0	-0.1	0.048	14.32	15.00	1.169	0.056	/
LTE B38	Ant.6	Left side			38000	2595	50	0	0.13	0.015	14.32	15.00	1.169	0.018	/
LTE B38	Ant.6	Top side			38000	2595	50	0	-0.1	0.052	14.32	15.00	1.169	0.061	/

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B38	Ant.6	Right tilt	0mm	QPSK-20MHz	38000+38198	2595	1+99	1+0	0.04	0.124	15.39	16.00	1.151	0.143	/
Body-worn&Hotspot															
LTE B38	Ant.6	Top side	10mm	QPSK-20MHz	38000+38198	2595	1+99	1+0	0.07	0.081	15.39	16.00	1.151	0.093	/

10.15 LTE Band 41

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B41	Ant.5	Left cheek	0mm	QPSK-20MHz	40620	2593	1	0	0.05	0.078	15.62	16.00	1.091	0.085	/
LTE B41	Ant.5	Left tilt			40620	2593	1	0	-0.07	0.063	15.62	16.00	1.091	0.069	/
LTE B41	Ant.5	Right cheek			40620	2593	1	0	0.02	0.293	15.62	16.00	1.091	0.320	29
LTE B41	Ant.5	Right tilt			40620	2593	1	0	0.06	0.255	15.62	16.00	1.091	0.278	/
LTE B41	Ant.5	Left cheek			40620	2593	50	0	0.15	0.043	14.53	15.00	1.114	0.048	/
LTE B41	Ant.5	Left tilt			40620	2593	50	0	0.02	0.027	14.53	15.00	1.114	0.030	/
LTE B41	Ant.5	Right cheek			40620	2593	50	0	0.17	0.205	14.53	15.00	1.114	0.228	/
LTE B41	Ant.5	Right tilt			40620	2593	50	0	0.07	0.178	14.53	15.00	1.114	0.198	/
LTE B41	Ant.6	Left cheek	0mm	QPSK-20MHz	40620	2593	1	0	0.12	0.124	14.48	15.00	1.127	0.140	/
LTE B41	Ant.6	Left tilt			40620	2593	1	0	0.13	0.127	14.48	15.00	1.127	0.143	/
LTE B41	Ant.6	Right cheek			40620	2593	1	0	-0.14	0.170	14.48	15.00	1.127	0.192	/
LTE B41	Ant.6	Right tilt			40620	2593	1	0	0.05	0.229	14.48	15.00	1.127	0.258	/
LTE B41	Ant.6	Left cheek			40620	2593	50	0	-0.13	0.093	13.45	14.00	1.135	0.106	/
LTE B41	Ant.6	Left tilt			40620	2593	50	0	-0.11	0.094	13.45	14.00	1.135	0.107	/
LTE B41	Ant.6	Right cheek			40620	2593	50	0	0.13	0.138	13.45	14.00	1.135	0.157	/
LTE B41	Ant.6	Right tilt			40620	2593	50	0	-0.09	0.153	13.45	14.00	1.135	0.174	/
LTE B41	Ant.3	Left cheek	0mm	QPSK-20MHz	40620	2593	1	0	0.12	0.242	19.54	20.50	1.247	0.302	/
LTE B41	Ant.3	Left tilt			40620	2593	1	0	-0.03	0.241	19.54	20.50	1.247	0.301	/
LTE B41	Ant.3	Right cheek			40620	2593	1	0	0.09	0.231	19.54	20.50	1.247	0.288	/
LTE B41	Ant.3	Right tilt			40620	2593	1	0	0.17	0.202	19.54	20.50	1.247	0.252	/
LTE B41	Ant.3	Left cheek			40620	2593	50	0	0.05	0.226	18.52	19.50	1.253	0.283	/
LTE B41	Ant.3	Left tilt			40620	2593	50	0	-0.14	0.207	18.52	19.50	1.253	0.259	/
LTE B41	Ant.3	Right cheek			40620	2593	50	0	0.11	0.254	18.52	19.50	1.253	0.318	/
LTE B41	Ant.3	Right tilt			40620	2593	50	0	0.09	0.234	18.52	19.50	1.253	0.293	/
Body-worn&Hotspot															
LTE B41	Ant.5	Front side	10mm	QPSK-20MHz	40620	2593	1	0	-0.05	0.066	15.62	16.00	1.091	0.072	/
LTE B41	Ant.5	Back side			40620	2593	1	0	-0.1	0.099	15.62	16.00	1.091	0.108	/
LTE B41	Ant.5	Left side			40620	2593	1	0	-0.07	0.123	15.62	16.00	1.091	0.134	/
LTE B41	Ant.5	Top side			40620	2593	1	0	0.07	0.032	15.62	16.00	1.091	0.035	/
LTE B41	Ant.5	Front side			40620	2593	50	0	0.19	0.055	14.53	15.00	1.114	0.061	/
LTE B41	Ant.5	Back side			40620	2593	50	0	0.06	0.075	14.53	15.00	1.114	0.084	/
LTE B41	Ant.5	Left side			40620	2593	50	0	0.19	0.103	14.53	15.00	1.114	0.115	/
LTE B41	Ant.5	Top side			40620	2593	50	0	0.06	0.025	14.53	15.00	1.114	0.028	/
LTE B41	Ant.6	Front side	10mm	QPSK-20MHz	40620	2593	1	0	0.04	0.052	14.48	15.00	1.127	0.059	/
LTE B41	Ant.6	Back side			40620	2593	1	0	0.17	0.076	14.48	15.00	1.127	0.086	/
LTE B41	Ant.6	Left side			40620	2593	1	0	0.09	0.025	14.48	15.00	1.127	0.028	/
LTE B41	Ant.6	Top side			40620	2593	1	0	0.02	0.104	14.48	15.00	1.127	0.117	/
LTE B41	Ant.6	Front side			40620	2593	50	0	-0.08	0.047	13.45	14.00	1.135	0.053	/
LTE B41	Ant.6	Back side			40620	2593	50	0	0.13	0.076	13.45	14.00	1.135	0.086	/
LTE B41	Ant.6	Left side			40620	2593	50	0	-0.15	0.018	13.45	14.00	1.135	0.020	/
LTE B41	Ant.6	Top side			40620	2593	50	0	-0.04	0.085	13.45	14.00	1.135	0.096	/
LTE B41	Ant.3	Front side	10mm	QPSK-20MHz	40620	2593	1	0	0.1	0.118	19.54	20.50	1.247	0.147	/
LTE B41	Ant.3	Back side			40620	2593	1	0	0.19	0.160	19.54	20.50	1.247	0.200	/
LTE B41	Ant.3	Left side			40620	2593	1	0	0.18	0.000	19.54	20.50	1.247	0.000	/
LTE B41	Ant.3	Right side			40620	2593	1	0	0.1	0.000	19.54	20.50	1.247	0.000	/
LTE B41	Ant.3	Bottom side			40620	2593	1	0	-0.17	0.420	19.54	20.50	1.247	0.524	30
LTE B41	Ant.3	Front side			40620	2593	50	0	-0.11	0.098	18.52	19.50	1.253	0.123	/
LTE B41	Ant.3	Back side			40620	2593	50	0	-0.03	0.133	18.52	19.50	1.253	0.167	/
LTE B41	Ant.3	Left side			40620	2593	50	0	-0.03	0.000	18.52	19.50	1.253	0.000	/
LTE B41	Ant.3	Right side			40620	2593	50	0	-0.01	0.000	18.52	19.50	1.253	0.000	/
LTE B41	Ant.3	Bottom side			40620	2593	50	0	0.1	0.234	18.52	19.50	1.253	0.293	/

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B41	Ant.5	Right cheek	0mm	QPSK-20MHz	40620+40818	2593	1+99	1+0	0.01	0.288	15.59	16.00	1.099	0.317	/
Body-worn&Hotspot															
LTE B41	Ant.5	Left side	10mm	QPSK-20MHz	40620+40818	2593	1+99	1+0	-0.02	0.116	15.59	16.00	1.099	0.127	/

10.16 LTE Band 42

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B42	Ant.0	Left cheek	0mm	QPSK-20MHz	42590	3500	1	0	0.16	0.320	13.75	14.50	1.189	0.380	/
LTE B42	Ant.0	Left tilt			42590	3500	1	0	-0.02	0.224	13.75	14.50	1.189	0.266	/
LTE B42	Ant.0	Right cheek			42590	3500	1	0	0.06	0.042	13.75	14.50	1.189	0.050	/
LTE B42	Ant.0	Right tilt			42590	3500	1	0	-0.08	0.044	13.75	14.50	1.189	0.052	/
LTE B42	Ant.0	Left cheek			42590	3500	50	0	0.08	0.218	12.74	13.50	1.191	0.260	/
LTE B42	Ant.0	Left tilt			42590	3500	50	0	0.03	0.147	12.74	13.50	1.191	0.175	/
LTE B42	Ant.0	Right cheek			42590	3500	50	0	-0.19	0.039	12.74	13.50	1.191	0.046	/
LTE B42	Ant.0	Right tilt			42590	3500	50	0	-0.01	0.040	12.74	13.50	1.191	0.048	/
LTE B42	Ant.5	Left cheek			42590	3500	1	0	-0.01	0.042	13.66	14.00	1.081	0.045	/
LTE B42	Ant.5	Left tilt			42590	3500	1	0	0.16	0.072	13.66	14.00	1.081	0.078	/
LTE B42	Ant.5	Right cheek			42590	3500	1	0	-0.18	0.154	13.66	14.00	1.081	0.167	/
LTE B42	Ant.5	Right tilt			42590	3500	1	0	-0.01	0.086	13.66	14.00	1.081	0.093	/
LTE B42	Ant.5	Left cheek	0mm	QPSK-20MHz	42590	3500	50	0	0.02	0.059	12.64	13.00	1.086	0.064	/
LTE B42	Ant.5	Left tilt			42590	3500	50	0	0.11	0.053	12.64	13.00	1.086	0.058	/
LTE B42	Ant.5	Right cheek			42590	3500	50	0	0.15	0.227	12.64	13.00	1.086	0.247	/
LTE B42	Ant.5	Right tilt			42590	3500	50	0	-0.19	0.127	12.64	13.00	1.086	0.138	/
LTE B42	Ant.6	Left cheek			42590	3500	1	0	-0.03	0.249	7.64	8.00	1.086	0.271	/
LTE B42	Ant.6	Left tilt			42590	3500	1	0	-0.09	0.233	7.64	8.00	1.086	0.253	/
LTE B42	Ant.6	Right cheek			42590	3500	1	0	-0.06	0.391	7.64	8.00	1.086	0.425	/
LTE B42	Ant.6	Right tilt			42590	3500	1	0	-0.07	0.426	7.64	8.00	1.086	0.463	31
LTE B42	Ant.6	Left cheek			42590	3500	50	0	-0.01	0.180	6.59	7.00	1.099	0.198	/
LTE B42	Ant.6	Left tilt			42590	3500	50	0	0.16	0.208	6.59	7.00	1.099	0.229	/
LTE B42	Ant.6	Right cheek			42590	3500	50	0	0.02	0.348	6.59	7.00	1.099	0.382	/
LTE B42	Ant.6	Right tilt			42590	3500	50	0	0.11	0.379	6.59	7.00	1.099	0.417	/
LTE B42	Ant.7	Left cheek	0mm	QPSK-20MHz	42590	3500	1	0	-0.18	0.230	13.57	14.00	1.104	0.254	/
LTE B42	Ant.7	Left tilt			42590	3500	1	0	-0.17	0.240	13.57	14.00	1.104	0.265	/
LTE B42	Ant.7	Right cheek			42590	3500	1	0	0.01	0.163	13.57	14.00	1.104	0.180	/
LTE B42	Ant.7	Right tilt			42590	3500	1	0	-0.14	0.183	13.57	14.00	1.104	0.202	/
LTE B42	Ant.7	Left cheek			42590	3500	50	0	-0.09	0.191	12.58	13.00	1.102	0.210	/
LTE B42	Ant.7	Left tilt			42590	3500	50	0	-0.17	0.196	12.58	13.00	1.102	0.216	/
LTE B42	Ant.7	Right cheek			42590	3500	50	0	-0.1	0.145	12.58	13.00	1.102	0.160	/
LTE B42	Ant.7	Right tilt			42590	3500	50	0	-0.13	0.163	12.58	13.00	1.102	0.180	/
Body-worn&Hotspot															
LTE B42	Ant.0	Front side	10mm	QPSK-20MHz	42590	3500	1	0	-0.1	0.082	13.75	14.50	1.189	0.097	/
LTE B42	Ant.0	Back side			42590	3500	1	0	-0.05	0.085	13.75	14.50	1.189	0.101	/
LTE B42	Ant.0	Right side			42590	3500	1	0	0.12	0.127	13.75	14.50	1.189	0.151	/
LTE B42	Ant.0	Top side			42590	3500	1	0	-0.05	0.087	13.75	14.50	1.189	0.103	/
LTE B42	Ant.0	Front side			42590	3500	50	0	0.15	0.040	12.74	13.50	1.191	0.048	/
LTE B42	Ant.0	Back side			42590	3500	50	0	0.02	0.044	12.74	13.50	1.191	0.052	/
LTE B42	Ant.0	Right side			42590	3500	50	0	-0.08	0.113	12.74	13.50	1.191	0.135	/
LTE B42	Ant.0	Top side			42590	3500	50	0	0.13	0.055	12.74	13.50	1.191	0.066	/
LTE B42	Ant.5	Front side	10mm	QPSK-20MHz	42590	3500	1	0	0.09	0.037	13.66	14.00	1.081	0.040	/
LTE B42	Ant.5	Back side			42590	3500	1	0	-0.1	0.042	13.66	14.00	1.081	0.045	/
LTE B42	Ant.5	Left side			42590	3500	1	0	-0.03	0.097	13.66	14.00	1.081	0.105	/
LTE B42	Ant.5	Top side			42590	3500	1	0	-0.06	0.039	13.66	14.00	1.081	0.042	/
LTE B42	Ant.5	Front side			42590	3500	50	0	0.19	0.030	12.64	13.00	1.086	0.033	/
LTE B42	Ant.5	Back side			42590	3500	50	0	-0.15	0.045	12.64	13.00	1.086	0.049	/
LTE B42	Ant.5	Left side			42590	3500	50	0	0.02	0.074	12.64	13.00	1.086	0.080	/
LTE B42	Ant.5	Top side			42590	3500	50	0	0.15	0.013	12.64	13.00	1.086	0.014	/
LTE B42	Ant.6	Front side	10mm	QPSK-20MHz	42590	3500	1	0	0.04	0.053	7.64	8.00	1.086	0.058	/
LTE B42	Ant.6	Back side			42590	3500	1	0	0.14	0.083	7.64	8.00	1.086	0.090	/
LTE B42	Ant.6	Left side			42590	3500	1	0	-0.16	0.041	7.64	8.00	1.086	0.045	/
LTE B42	Ant.6	Top side			42590	3500	1	0	0.13	0.132	7.64	8.00	1.086	0.143	/
LTE B42	Ant.6	Front side			42590	3500	50	0	0.08	0.055	6.59	7.00	1.099	0.060	/
LTE B42	Ant.6	Back side			42590	3500	50	0	-0.03	0.069	6.59	7.00	1.099	0.076	/
LTE B42	Ant.6	Left side			42590	3500	50	0	0.17	0.022	6.59	7.00	1.099	0.024	/
LTE B42	Ant.6	Top side			42590	3500	50	0	-0.16	0.106	6.59	7.00	1.099	0.116	/
LTE B42	Ant.7	Front side	10mm	QPSK-20MHz	42590	3500	1	0	-0.04	0.044	13.57	14.00	1.104	0.049	/
LTE B42	Ant.7	Back side			42590	3500	1	0	0.04	0.086	13.57	14.00	1.104	0.095	/
LTE B42	Ant.7	Right side			42590	3500	1	0	0.06	0.022	13.57	14.00	1.104	0.024	/
LTE B42	Ant.7	Top side			42590	3500	1	0	0.07	0.149	13.57	14.00	1.104	0.165	32
LTE B42	Ant.7	Front side			42590	3500	50	0	0.09	0.043	12.58	13.00	1.102	0.047	/
LTE B42	Ant.7	Back side			42590	3500	50	0	-0.17	0.074	12.58	13.00	1.102	0.082	/
LTE B42	Ant.7	Right side			42590	3500	50	0	-0.17	0.013	12.58	13.00	1.102	0.014	/
LTE B42	Ant.7	Top side			42590	3500	50	0	0.1	0.114	12.58	13.00	1.102	0.126	/

10.17 NR n5

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Setting	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																	
NR n5	Ant.3	Left cheek	0mm	(BW 25MHz) DFT-s-OFDM BPSK	DFT-15kHz	167300	836.5	1	1	23	0.13	0.059	24.14	24.50	1.086	0.064	/
NR n5	Ant.3	Left tilt				167300	836.5	1	1	23	0.02	0.024	24.14	24.50	1.086	0.026	/
NR n5	Ant.3	Right cheek				167300	836.5	1	1	23	0.07	0.043	24.14	24.50	1.086	0.047	/
NR n5	Ant.3	Right tilt				167300	836.5	1	1	23	0.1	0.015	24.14	24.50	1.086	0.016	/
NR n5	Ant.3	Left cheek				167300	836.5	50	28	23	0.08	0.080	23.88	24.50	1.153	0.092	/
NR n5	Ant.3	Left tilt				167300	836.5	50	28	23	0.12	0.027	23.88	24.50	1.153	0.031	/
NR n5	Ant.3	Right cheek				167300	836.5	50	28	23	0.14	0.038	23.88	24.50	1.153	0.044	/
NR n5	Ant.3	Right tilt				167300	836.5	50	28	23	-0.09	0.013	23.88	24.50	1.153	0.015	/
NR n5	Ant.4	Left cheek	0mm	(BW 25MHz) DFT-s-OFDM BPSK	DFT-15kHz	167300	836.5	1	1	20.5	-0.07	0.427	18.61	19.50	1.227	0.524	33
NR n5	Ant.4	Left tilt				167300	836.5	1	1	20.5	-0.05	0.039	18.61	19.50	1.227	0.048	/
NR n5	Ant.4	Right cheek				167300	836.5	1	1	20.5	0.14	0.155	18.61	19.50	1.227	0.190	/
NR n5	Ant.4	Right tilt				167300	836.5	1	1	20.5	-0.13	0.048	18.61	19.50	1.227	0.059	/
NR n5	Ant.4	Left cheek				167300	836.5	50	28	20.5	0.09	0.149	18.50	19.50	1.259	0.188	/
NR n5	Ant.4	Left tilt				167300	836.5	50	28	20.5	-0.06	0.032	18.50	19.50	1.259	0.040	/
NR n5	Ant.4	Right cheek				167300	836.5	50	28	20.5	-0.17	0.084	18.50	19.50	1.259	0.106	/
NR n5	Ant.4	Right tilt				167300	836.5	50	28	20.5	0.14	0.026	18.50	19.50	1.259	0.033	/
Body-worn&Hotspot																	
NR n5	Ant.3	Front side	10mm	(BW 25MHz) DFT-s-OFDM BPSK	DFT-15kHz	167300	836.5	1	1	23	-0.07	0.080	24.14	24.50	1.086	0.087	/
NR n5	Ant.3	Back side				167300	836.5	1	1	23	-0.09	0.125	24.14	24.50	1.086	0.136	/
NR n5	Ant.3	Left side				167300	836.5	1	1	23	0.06	0.021	24.14	24.50	1.086	0.023	/
NR n5	Ant.3	Right side				167300	836.5	1	1	23	-0.13	0.065	24.14	24.50	1.086	0.071	/
NR n5	Ant.3	Bottom side				167300	836.5	1	1	23	0.04	0.120	24.14	24.50	1.086	0.130	/
NR n5	Ant.3	Front side				167300	836.5	50	28	23	-0.17	0.103	23.88	24.50	1.153	0.119	/
NR n5	Ant.3	Back side				167300	836.5	50	28	23	0.15	0.153	23.88	24.50	1.153	0.176	/
NR n5	Ant.3	Left side				167300	836.5	50	28	23	-0.07	0.025	23.88	24.50	1.153	0.029	/
NR n5	Ant.3	Right side	10mm	(BW 25MHz) DFT-s-OFDM BPSK	DFT-15kHz	167300	836.5	50	28	23	0.06	0.077	23.88	24.50	1.153	0.089	/
NR n5	Ant.3	Bottom side				167300	836.5	50	28	23	0.18	0.136	23.88	24.50	1.153	0.157	/
NR n5	Ant.4	Front side				167300	836.5	1	1	20.5	-0.09	0.208	18.61	19.50	1.227	0.255	/
NR n5	Ant.4	Back side				167300	836.5	1	1	20.5	-0.05	0.227	18.61	19.50	1.227	0.279	/
NR n5	Ant.4	Left side				167300	836.5	1	1	20.5	-0.03	0.517	18.61	19.50	1.227	0.635	34
NR n5	Ant.4	Top side				167300	836.5	1	1	20.5	-0.19	0.018	18.61	19.50	1.227	0.022	/
NR n5	Ant.4	Front side				167300	836.5	50	28	20.5	-0.11	0.209	18.50	19.50	1.259	0.263	/
NR n5	Ant.4	Back side				167300	836.5	50	28	20.5	-0.02	0.224	18.50	19.50	1.259	0.282	/
NR n5	Ant.4	Left side	10mm			167300	836.5	50	28	20.5	-0.13	0.361	18.50	19.50	1.259	0.454	/
NR n5	Ant.4	Top side				167300	836.5	50	28	20.5	0.16	0.019	18.50	19.50	1.259	0.024	/

10.18 NR n7

Band	Antenna	Position	Dist.	Test Mode	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. no.
Head															
LTE B7	Ant.5	Left cheek	0mm	QPSK-20MHz	21100	2535	1	0	0.12	0.061	10.29	11.50	1.321	0.081	/
LTE B7	Ant.5	Left tilt			21100	2535	1	0	0.19	0.051	10.29	11.50	1.321	0.067	/
LTE B7	Ant.5	Right cheek			21100	2535	1	0	0.13	0.249	10.29	11.50	1.321	0.329	17
LTE B7	Ant.5	Right tilt			21100	2535	1	0	-0.14	0.097	10.29	11.50	1.321	0.128	/
LTE B7	Ant.5	Left cheek			21100	2535	50	0	0.12	0.045	9.13	10.50	1.371	0.062	/
LTE B7	Ant.5	Left tilt			21100	2535	50	0	0.12	0.041	9.13	10.50	1.371	0.056	/
LTE B7	Ant.5	Right cheek			21100	2535	50	0	0.07	0.143	9.13	10.50	1.371	0.196	/
LTE B7	Ant.5	Right tilt			21100	2535	50	0	-0.15	0.097	9.13	10.50	1.371	0.133	/
LTE B7	Ant.6	Left cheek	0mm	QPSK-20MHz	21100	2535	1	0	0.04	0.117	10.26	11.50	1.330	0.156	/
LTE B7	Ant.6	Left tilt			21100	2535	1	0	0.19	0.119	10.26	11.50	1.330	0.158	/
LTE B7	Ant.6	Right cheek			21100	2535	1	0	0.15	0.211	10.26	11.50	1.330	0.281	/
LTE B7	Ant.6	Right tilt			21100	2535	1	0	0.11	0.220	10.26	11.50	1.330	0.293	/
LTE B7	Ant.6	Left cheek			21100	2535	50	0	-0.12	0.099	9.27	10.50	1.327	0.131	/
LTE B7	Ant.6	Left tilt			21100	2535	50	0	-0.06	0.098	9.27	10.50	1.327	0.130	/
LTE B7	Ant.6	Right cheek			21100	2535	50	0	0.11	0.183	9.27	10.50	1.327	0.243	/
LTE B7	Ant.6	Right tilt			21100	2535	50	0	0.11	0.191	9.27	10.50	1.327	0.254	/
LTE B7	Ant.3	Left cheek	0mm	QPSK-20MHz	21100	2535	1	0	0.02	0.008	18.78	19.50	1.180	0.009	/
LTE B7	Ant.3	Left tilt			21100	2535	1	0	0.03	0.010	18.78	19.50	1.180	0.012	/
LTE B7	Ant.3	Right cheek			21100	2535	1	0	-0.17	0.067	18.78	19.50	1.180	0.079	/
LTE B7	Ant.3	Right tilt			21100	2535	1	0	0.06	0.071	18.78	19.50	1.180	0.084	/
LTE B7	Ant.3	Left cheek			21100	2535	50	0	0.18	0.060	17.66	18.50	1.213	0.073	/
LTE B7	Ant.3	Left tilt			21100	2535	50	0	0.07	0.073	17.66	18.50	1.213	0.089	/
LTE B7	Ant.3	Right cheek			21100	2535	50	0	0.19	0.056	17.66	18.50	1.213	0.068	/
LTE B7	Ant.3	Right tilt			21100	2535	50	0	-0.19	0.059	17.66	18.50	1.213	0.072	/
Body-worn&Hotspot															
LTE B7	Ant.5	Front side	10mm	QPSK-20MHz	21100	2535	1	0	-0.16	0.059	10.29	11.50	1.321	0.078	/
LTE B7	Ant.5	Back side			21100	2535	1	0	0.1	0.095	10.29	11.50	1.321	0.126	/
LTE B7	Ant.5	Left side			21100	2535	1	0	-0.01	0.113	10.29	11.50	1.321	0.149	/
LTE B7	Ant.5	Top side			21100	2535	1	0	0.06	0.032	10.29	11.50	1.321	0.042	/
LTE B7	Ant.5	Front side			21100	2535	50	0	-0.04	0.048	9.13	10.50	1.371	0.066	/
LTE B7	Ant.5	Back side			21100	2535	50	0	0.14	0.083	9.13	10.50	1.371	0.114	/
LTE B7	Ant.5	Left side			21100	2535	50	0	-0.19	0.085	9.13	10.50	1.371	0.117	/
LTE B7	Ant.5	Top side			21100	2535	50	0	-0.11	0.019	9.13	10.50	1.371	0.026	/
LTE B7	Ant.6	Front side	10mm	QPSK-20MHz	21100	2535	1	0	0.15	0.054	10.26	11.50	1.330	0.072	/
LTE B7	Ant.6	Back side			21100	2535	1	0	-0.08	0.082	10.26	11.50	1.330	0.109	/
LTE B7	Ant.6	Left side			21100	2535	1	0	0.06	0.050	10.26	11.50	1.330	0.067	/
LTE B7	Ant.6	Top side			21100	2535	1	0	0.04	0.087	10.26	11.50	1.330	0.116	/
LTE B7	Ant.6	Front side			21100	2535	50	0	-0.12	0.042	9.27	10.50	1.327	0.056	/
LTE B7	Ant.6	Back side			21100	2535	50	0	0.01	0.070	9.27	10.50	1.327	0.093	/
LTE B7	Ant.6	Left side			21100	2535	50	0	0.19	0.021	9.27	10.50	1.327	0.028	/
LTE B7	Ant.6	Top side			21100	2535	50	0	0.12	0.067	9.27	10.50	1.327	0.089	/
LTE B7	Ant.3	Front side	10mm	QPSK-20MHz	21100	2535	1	0	0.09	0.318	18.78	19.50	1.180	0.375	/
LTE B7	Ant.3	Back side			21100	2535	1	0	0.09	0.341	18.78	19.50	1.180	0.402	/
LTE B7	Ant.3	Left side			21100	2535	1	0	0.03	0.111	18.78	19.50	1.180	0.131	/
LTE B7	Ant.3	Right side			21100	2535	1	0	0.01	0.068	18.78	19.50	1.180	0.080	/
LTE B7	Ant.3	Bottom side			21100	2535	1	0	0.04	0.838	18.78	19.50	1.180	0.989	/
LTE B7	Ant.3	Bottom side			20850	2510	1	0	-0.13	0.838	18.63	19.50	1.222	1.021	/
LTE B7	Ant.3	Bottom side			21350	2560	1	0	0.03	1.030	18.71	19.50	1.199	1.235	18
LTE B7	Ant.3	Front side			21100	2535	50	0	-0.09	0.319	17.66	18.50	1.213	0.387	/
LTE B7	Ant.3	Back side			21100	2535	50	0	-0.1	0.311	17.66	18.50	1.213	0.377	/
LTE B7	Ant.3	Left side			21100	2535	50	0	0.19	0.092	17.66	18.50	1.213	0.112	/
LTE B7	Ant.3	Right side			21100	2535	50	0	-0.09	0.057	17.66	18.50	1.213	0.069	/
LTE B7	Ant.3	Bottom side			21100	2535	50	0	0.18	0.697	17.66	18.50	1.213	0.846	/
LTE B7	Ant.3	Bottom side			20850	2510	50	0	0.14	0.695	17.62	18.50	1.225	0.851	/
LTE B7	Ant.3	Bottom side			21350	2560	50	0	0.05	0.730	17.51	18.50	1.256	0.917	/

10.19 NR n12

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Setting	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																	
NR n12	Ant.3	Left cheek	0mm	(BW 15MHz) DFT-s-OFDM BPSK	DFT-15kHz	141500	707.5	1	1	23	-0.14	0.033	23.26	23.50	1.057	0.035	/
NR n12	Ant.3	Left tilt				141500	707.5	1	1	23	0.06	0.020	23.26	23.50	1.057	0.021	/
NR n12	Ant.3	Right cheek				141500	707.5	1	1	23	0.08	0.053	23.26	23.50	1.057	0.056	/
NR n12	Ant.3	Right tilt				141500	707.5	1	1	23	0.05	0.026	23.26	23.50	1.057	0.027	/
NR n12	Ant.3	Left cheek				141500	707.5	36	22	23	0.18	0.044	23.14	23.50	1.086	0.048	/
NR n12	Ant.3	Left tilt				141500	707.5	36	22	23	-0.11	0.024	23.14	23.50	1.086	0.026	/
NR n12	Ant.3	Right cheek				141500	707.5	36	22	23	0.17	0.047	23.14	23.50	1.086	0.051	/
NR n12	Ant.3	Right tilt				141500	707.5	36	22	23	0.1	0.023	23.14	23.50	1.086	0.025	/
NR n12	Ant.4	Left cheek	0mm	(BW 15MHz) DFT-s-OFDM BPSK	DFT-15kHz	141500	707.5	1	1	23	0.17	0.281	23.13	24.50	1.371	0.385	/
NR n12	Ant.4	Left tilt				141500	707.5	1	1	23	0.15	0.080	23.13	24.50	1.371	0.110	/
NR n12	Ant.4	Right cheek				141500	707.5	1	1	23	-0.05	0.451	23.13	24.50	1.371	0.618	37
NR n12	Ant.4	Right tilt				141500	707.5	1	1	23	-0.03	0.132	23.13	24.50	1.371	0.181	/
NR n12	Ant.4	Left cheek				141500	707.5	36	22	23	-0.19	0.323	22.98	24.50	1.419	0.458	/
NR n12	Ant.4	Left tilt				141500	707.5	36	22	23	-0.09	0.091	22.98	24.50	1.419	0.129	/
NR n12	Ant.4	Right cheek				141500	707.5	36	22	23	-0.07	0.429	22.98	24.50	1.419	0.609	/
NR n12	Ant.4	Right tilt				141500	707.5	36	22	23	-0.15	0.118	22.98	24.50	1.419	0.167	/
Body-worn&Hotspot																	
NR n12	Ant.3	Front side	10mm	(BW 15MHz) DFT-s-OFDM BPSK	DFT-15kHz	141500	707.5	1	1	23	0.09	0.070	23.26	23.50	1.057	0.074	/
NR n12	Ant.3	Back side				141500	707.5	1	1	23	0.08	0.078	23.26	23.50	1.057	0.082	/
NR n12	Ant.3	Left side				141500	707.5	1	1	23	0.1	0.031	23.26	23.50	1.057	0.033	/
NR n12	Ant.3	Right side				141500	707.5	1	1	23	-0.19	0.097	23.26	23.50	1.057	0.103	/
NR n12	Ant.3	Bottom side				141500	707.5	1	1	23	-0.19	0.060	23.26	23.50	1.057	0.063	/
NR n12	Ant.3	Front side				141500	707.5	36	22	23	-0.07	0.073	23.14	23.50	1.086	0.079	/
NR n12	Ant.3	Back side				141500	707.5	36	22	23	-0.06	0.088	23.14	23.50	1.086	0.096	/
NR n12	Ant.3	Left side				141500	707.5	36	22	23	-0.19	0.024	23.14	23.50	1.086	0.026	/
NR n12	Ant.3	Right side	10mm	(BW 15MHz) DFT-s-OFDM BPSK	DFT-15kHz	141500	707.5	36	22	23	-0.03	0.105	23.14	23.50	1.086	0.114	/
NR n12	Ant.3	Bottom side				141500	707.5	36	22	23	0.09	0.067	23.14	23.50	1.086	0.073	/
NR n12	Ant.4	Front side				141500	707.5	1	1	23	0.14	0.212	23.13	24.50	1.371	0.291	/
NR n12	Ant.4	Back side				141500	707.5	1	1	23	-0.08	0.244	23.13	24.50	1.371	0.334	/
NR n12	Ant.4	Left side				141500	707.5	1	1	23	-0.03	0.491	23.13	24.50	1.371	0.673	38
NR n12	Ant.4	Top side				141500	707.5	1	1	23	0.07	0.024	23.13	24.50	1.371	0.033	/
NR n12	Ant.4	Front side				141500	707.5	36	22	23	-0.13	0.232	22.98	24.50	1.419	0.329	/
NR n12	Ant.4	Back side				141500	707.5	36	22	23	0.17	0.253	22.98	24.50	1.419	0.359	/
NR n12	Ant.4	Left side	10mm			141500	707.5	36	22	23	0.11	0.466	22.98	24.50	1.419	0.661	/
NR n12	Ant.4	Top side				141500	707.5	36	22	23	-0.09	0.045	22.98	24.50	1.419	0.064	/

10.20 NR n66

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Setting	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																	
NR n66	Ant.5	Left cheek	0mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-15kHz	349000	1745	1	1	20	0.04	0.044	12.91	13.50	1.146	0.050	/
NR n66	Ant.5	Left tilt				349000	1745	1	1	20	-0.05	0.028	12.91	13.50	1.146	0.032	/
NR n66	Ant.5	Right cheek				349000	1745	1	1	20	0.19	0.088	12.91	13.50	1.146	0.101	/
NR n66	Ant.5	Right tilt				349000	1745	1	1	20	0.13	0.046	12.91	13.50	1.146	0.053	/
NR n66	Ant.5	Left cheek				349000	1745	108	54	20	-0.13	0.052	12.89	13.50	1.151	0.060	/
NR n66	Ant.5	Left tilt				349000	1745	108	54	20	0.1	0.033	12.89	13.50	1.151	0.038	/
NR n66	Ant.5	Right cheek				349000	1745	108	54	20	0.1	0.086	12.89	13.50	1.151	0.099	/
NR n66	Ant.5	Right tilt				349000	1745	108	54	20	0.07	0.045	12.89	13.50	1.151	0.052	/
NR n66	Ant.6	Left cheek	0mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-15kHz	349000	1745	1	1	16	0.12	0.039	10.29	11.50	1.321	0.052	/
NR n66	Ant.6	Left tilt				349000	1745	1	1	16	0.09	0.042	10.29	11.50	1.321	0.055	/
NR n66	Ant.6	Right cheek				349000	1745	1	1	16	0.11	0.063	10.29	11.50	1.321	0.083	/
NR n66	Ant.6	Right tilt				349000	1745	1	1	16	-0.05	0.119	10.29	11.50	1.321	0.157	39
NR n66	Ant.6	Left cheek				349000	1745	108	54	16	0.15	0.044	10.20	11.50	1.349	0.059	/
NR n66	Ant.6	Left tilt				349000	1745	108	54	16	-0.01	0.042	10.20	11.50	1.349	0.057	/
NR n66	Ant.6	Right cheek				349000	1745	108	54	16	0.16	0.049	10.20	11.50	1.349	0.066	/
NR n66	Ant.6	Right tilt				349000	1745	108	54	16	0.06	0.052	10.20	11.50	1.349	0.070	/
Body-worm&Hotspot																	
NR n66	Ant.5	Front side	10mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-15kHz	349000	1745	1	1	20	-0.14	0.046	12.91	13.50	1.146	0.053	/
NR n66	Ant.5	Back side				349000	1745	1	1	20	0.11	0.067	12.91	13.50	1.146	0.077	/
NR n66	Ant.5	Left side				349000	1745	1	1	20	-0.03	0.094	12.91	13.50	1.146	0.108	40
NR n66	Ant.5	Top side				349000	1745	1	1	20	-0.13	0.029	12.91	13.50	1.146	0.033	/
NR n66	Ant.5	Front side				349000	1745	108	54	20	-0.08	0.048	12.89	13.50	1.151	0.055	/
NR n66	Ant.5	Back side				349000	1745	108	54	20	-0.12	0.075	12.89	13.50	1.151	0.086	/
NR n66	Ant.5	Left side				349000	1745	108	54	20	0.1	0.082	12.89	13.50	1.151	0.094	/
NR n66	Ant.5	Top side				349000	1745	108	54	20	-0.05	0.017	12.89	13.50	1.151	0.020	/
NR n66	Ant.6	Front side	10mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-15kHz	349000	1745	1	1	16	-0.08	0.035	10.29	11.50	1.321	0.046	/
NR n66	Ant.6	Back side				349000	1745	1	1	16	-0.01	0.041	10.29	11.50	1.321	0.054	/
NR n66	Ant.6	Left side				349000	1745	1	1	16	-0.16	0.022	10.29	11.50	1.321	0.029	/
NR n66	Ant.6	Top side				349000	1745	1	1	16	-0.16	0.043	10.29	11.50	1.321	0.057	/
NR n66	Ant.6	Front side				349000	1745	108	54	16	0.03	0.037	10.20	11.50	1.349	0.050	/
NR n66	Ant.6	Back side				349000	1745	108	54	16	-0.15	0.058	10.20	11.50	1.349	0.078	/
NR n66	Ant.6	Left side				349000	1745	108	54	16	0.05	0.014	10.20	11.50	1.349	0.019	/
NR n66	Ant.6	Top side				349000	1745	108	54	16	-0.05	0.050	10.20	11.50	1.349	0.067	/

10.21 NR n38

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																
NR n38	Ant.5	Left cheek	0mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-30kHz	519000	2595	1	1	-0.09	0.037	8.62	9.00	1.091	0.040	/
NR n38	Ant.5	Left tilt				519000	2595	1	1	-0.02	0.034	8.62	9.00	1.091	0.037	/
NR n38	Ant.5	Right cheek				519000	2595	1	1	-0.02	0.159	8.62	9.00	1.091	0.174	41
NR n38	Ant.5	Right tilt				519000	2595	1	1	-0.12	0.083	8.62	9.00	1.091	0.091	/
NR n38	Ant.5	Left cheek				519000	2595	50	28	-0.02	0.040	8.48	9.00	1.127	0.045	/
NR n38	Ant.5	Left tilt				519000	2595	50	28	0.06	0.037	8.48	9.00	1.127	0.042	/
NR n38	Ant.5	Right cheek				519000	2595	50	28	0.17	0.128	8.48	9.00	1.127	0.144	/
NR n38	Ant.5	Right tilt				519000	2595	50	28	-0.12	0.078	8.48	9.00	1.127	0.088	/
NR n38	Ant.6	Left cheek	0mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-30kHz	519000	2595	1	1	0.15	0.031	8.59	9.40	1.205	0.037	/
NR n38	Ant.6	Left tilt				519000	2595	1	1	0.17	0.030	8.59	9.40	1.205	0.036	/
NR n38	Ant.6	Right cheek				519000	2595	1	1	0.15	0.056	8.59	9.40	1.205	0.067	/
NR n38	Ant.6	Right tilt				519000	2595	1	1	-0.19	0.058	8.59	9.40	1.205	0.070	/
NR n38	Ant.6	Left cheek				519000	2595	50	28	-0.15	0.029	8.43	9.40	1.250	0.036	/
NR n38	Ant.6	Left tilt				519000	2595	50	28	0.07	0.027	8.43	9.40	1.250	0.034	/
NR n38	Ant.6	Right cheek				519000	2595	50	28	-0.16	0.049	8.43	9.40	1.250	0.061	/
NR n38	Ant.6	Right tilt				519000	2595	50	28	-0.1	0.050	8.43	9.40	1.250	0.063	/
Body-worn&Hotspot																
NR n38	Ant.5	Front side	10mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-30kHz	519000	2595	1	1	-0.18	0.033	8.62	9.00	1.091	0.036	/
NR n38	Ant.5	Back side				519000	2595	1	1	-0.13	0.052	8.62	9.00	1.091	0.057	/
NR n38	Ant.5	Left side				519000	2595	1	1	0.08	0.068	8.62	9.00	1.091	0.074	42
NR n38	Ant.5	Top side				519000	2595	1	1	-0.18	0.019	8.62	9.00	1.091	0.021	/
NR n38	Ant.5	Front side				519000	2595	50	28	0.07	0.027	8.48	9.00	1.127	0.030	/
NR n38	Ant.5	Back side				519000	2595	50	28	0.02	0.049	8.48	9.00	1.127	0.055	/
NR n38	Ant.5	Left side				519000	2595	50	28	-0.06	0.055	8.48	9.00	1.127	0.062	/
NR n38	Ant.5	Top side				519000	2595	50	28	-0.02	0.015	8.48	9.00	1.127	0.017	/
NR n38	Ant.6	Front side	10mm	(BW 40MHz) DFT-s-OFDM BPSK	DFT-30kHz	519000	2595	1	1	0.19	0.035	8.59	9.40	1.205	0.042	/
NR n38	Ant.6	Back side				519000	2595	1	1	-0.14	0.048	8.59	9.40	1.205	0.058	/
NR n38	Ant.6	Left side				519000	2595	1	1	0.13	0.012	8.59	9.40	1.205	0.014	/
NR n38	Ant.6	Top side				519000	2595	1	1	-0.11	0.052	8.59	9.40	1.205	0.063	/
NR n38	Ant.6	Front side				519000	2595	50	28	0.06	0.042	8.43	9.40	1.250	0.053	/
NR n38	Ant.6	Back side				519000	2595	50	28	-0.05	0.050	8.43	9.40	1.250	0.063	/
NR n38	Ant.6	Left side				519000	2595	50	28	0.15	0.016	8.43	9.40	1.250	0.020	/
NR n38	Ant.6	Top side				519000	2595	50	28	0.01	0.054	8.43	9.40	1.250	0.068	/

10.22 NR n41

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.			
Head																			
NR n41	Ant.5	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	518598	2592.99	1	1	-0.01	0.033	9.74	10.00	1.062	0.035	/			
NR n41	Ant.5	Left tilt				518598	2592.99	1	1	0.18	0.030	9.74	10.00	1.062	0.032	/			
NR n41	Ant.5	Right cheek				518598	2592.99	1	1	0.15	0.075	9.74	10.00	1.062	0.080	/			
NR n41	Ant.5	Right tilt				518598	2592.99	1	1	-0.08	0.049	9.74	10.00	1.062	0.052	/			
NR n41	Ant.5	Left cheek				518598	2592.99	135	69	0.15	0.036	9.63	10.00	1.089	0.039	/			
NR n41	Ant.5	Left tilt				518598	2592.99	135	69	-0.18	0.016	9.63	10.00	1.089	0.017	/			
NR n41	Ant.5	Right cheek				518598	2592.99	135	69	-0.02	0.040	9.63	10.00	1.089	0.044	/			
NR n41	Ant.5	Right tilt				518598	2592.99	135	69	-0.1	0.026	9.63	10.00	1.089	0.028	/			
NR n41	Ant.6	Left cheek				518598	2592.99	1	1	0.15	0.041	8.54	9.40	1.219	0.050	/			
NR n41	Ant.6	Left tilt	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	518598	2592.99	1	1	-0.01	0.042	8.54	9.40	1.219	0.051	/			
NR n41	Ant.6	Right cheek				518598	2592.99	1	1	-0.19	0.050	8.54	9.40	1.219	0.061	/			
NR n41	Ant.6	Right tilt				518598	2592.99	1	1	-0.09	0.199	8.54	9.40	1.219	0.243	43			
NR n41	Ant.6	Left cheek				518598	2592.99	135	69	0.09	0.046	8.35	9.40	1.274	0.059	/			
NR n41	Ant.6	Left tilt				518598	2592.99	135	69	-0.14	0.045	8.35	9.40	1.274	0.057	/			
NR n41	Ant.6	Right cheek				518598	2592.99	135	69	-0.19	0.047	8.35	9.40	1.274	0.060	/			
NR n41	Ant.6	Right tilt				518598	2592.99	135	69	-0.11	0.053	8.35	9.40	1.274	0.067	/			
Body-worn&Hotspot																			
NR n41	Ant.5	Front side				10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	518598	2592.99	1	1	-0.01	0.035	9.74	10.00	1.062	0.037	/
NR n41	Ant.5	Back side	518598	2592.99	1				1	0.19	0.070	9.74	10.00	1.062	0.074	/			
NR n41	Ant.5	Left side	518598	2592.99	1				1	-0.19	0.074	9.74	10.00	1.062	0.079	44			
NR n41	Ant.5	Top side	518598	2592.99	1				1	0.12	0.028	9.74	10.00	1.062	0.030	/			
NR n41	Ant.5	Front side	518598	2592.99	135				69	-0.02	0.033	9.63	10.00	1.089	0.036	/			
NR n41	Ant.5	Back side	518598	2592.99	135				69	0.18	0.064	9.63	10.00	1.089	0.070	/			
NR n41	Ant.5	Left side	518598	2592.99	135				69	0.05	0.070	9.63	10.00	1.089	0.076	/			
NR n41	Ant.5	Top side	518598	2592.99	135				69	-0.02	0.018	9.63	10.00	1.089	0.020	/			
NR n41	Ant.6	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz				518598	2592.99	1	1	0.03	0.048	8.54	9.40	1.219	0.059	/
NR n41	Ant.6	Back side				518598	2592.99	1	1	0.07	0.061	8.54	9.40	1.219	0.074	/			
NR n41	Ant.6	Left side				518598	2592.99	1	1	-0.1	0.028	8.54	9.40	1.219	0.034	/			
NR n41	Ant.6	Top side				518598	2592.99	1	1	0.06	0.062	8.54	9.40	1.219	0.076	/			
NR n41	Ant.6	Front side				518598	2592.99	135	69	0.04	0.034	8.35	9.40	1.274	0.043	/			
NR n41	Ant.6	Back side				518598	2592.99	135	69	-0.13	0.059	8.35	9.40	1.274	0.075	/			
NR n41	Ant.6	Left side				518598	2592.99	135	69	-0.06	0.013	8.35	9.40	1.274	0.017	/			
NR n41	Ant.6	Top side				518598	2592.99	135	69	-0.1	0.050	8.35	9.40	1.274	0.064	/			

10.23 NR n77(3450 ~ 3550 MHz)

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.			
Head																			
NR n77	Ant.0	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	1	1	-0.19	0.308	18.95	20.00	1.274	0.392	/			
NR n77	Ant.0	Left tilt				633332	3499.98	1	1	-0.03	0.197	18.95	20.00	1.274	0.251	/			
NR n77	Ant.0	Right cheek				633332	3499.98	1	1	0.04	0.292	18.95	20.00	1.274	0.372	/			
NR n77	Ant.0	Right tilt				633332	3499.98	1	1	0.07	0.047	18.95	20.00	1.274	0.060	/			
NR n77	Ant.0	Left cheek				633332	3499.98	135	69	0.09	0.396	18.89	20.00	1.291	0.511	/			
NR n77	Ant.0	Left tilt				633332	3499.98	135	69	0.17	0.268	18.89	20.00	1.291	0.346	/			
NR n77	Ant.0	Right cheek				633332	3499.98	135	69	0.09	0.260	18.89	20.00	1.291	0.336	/			
NR n77	Ant.0	Right tilt				633332	3499.98	135	69	0.19	0.042	18.89	20.00	1.291	0.054	/			
NR n77	Ant.5	Left cheek				0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	1	1	0.17	0.123	16.13	17.00	1.222	0.150	/
NR n77	Ant.5	Left tilt							633332	3499.98	1	1	-0.04	0.108	16.13	17.00	1.222	0.132	/
NR n77	Ant.5	Right cheek							633332	3499.98	1	1	0.04	0.177	16.13	17.00	1.222	0.216	/
NR n77	Ant.5	Right tilt							633332	3499.98	1	1	-0.03	0.120	16.13	17.00	1.222	0.147	/
NR n77	Ant.5	Left cheek	633332	3499.98	135				69	0.19	0.118	16.03	17.00	1.250	0.148	/			
NR n77	Ant.5	Left tilt	633332	3499.98	135				69	0.19	0.081	16.03	17.00	1.250	0.101	/			
NR n77	Ant.5	Right cheek	633332	3499.98	135				69	0.1	0.157	16.03	17.00	1.250	0.196	/			
NR n77	Ant.5	Right tilt	633332	3499.98	135				69	0.05	0.107	16.03	17.00	1.250	0.134	/			
NR n77	Ant.6	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz				633332	3499.98	1	1	0.16	0.078	16.06	17.00	1.242	0.097	/
NR n77	Ant.6	Left tilt							633332	3499.98	1	1	-0.14	0.082	16.06	17.00	1.242	0.102	/
NR n77	Ant.6	Right cheek							633332	3499.98	1	1	0.08	0.069	16.06	17.00	1.242	0.086	/
NR n77	Ant.6	Right tilt							633332	3499.98	1	1	-0.15	0.081	16.06	17.00	1.242	0.101	/
NR n77	Ant.6	Left cheek				633332	3499.98	135	69	0.06	0.075	15.96	17.00	1.271	0.095	/			
NR n77	Ant.6	Left tilt				633332	3499.98	135	69	-0.1	0.079	15.96	17.00	1.271	0.100	/			
NR n77	Ant.6	Right cheek				633332	3499.98	135	69	0.09	0.062	15.96	17.00	1.271	0.079	/			
NR n77	Ant.6	Right tilt				633332	3499.98	135	69	0.05	0.072	15.96	17.00	1.271	0.091	/			
NR n77	Ant.7	Left cheek				633332	3499.98	1	1	-0.11	0.572	19.08	20.00	1.236	0.707	45			
NR n77	Ant.7	Left tilt				0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	1	1	0.06	0.460	19.08	20.00	1.236	0.569	/
NR n77	Ant.7	Right cheek							633332	3499.98	1	1	-0.02	0.280	19.08	20.00	1.236	0.346	/
NR n77	Ant.7	Right tilt							633332	3499.98	1	1	0.1	0.300	19.08	20.00	1.236	0.371	/
NR n77	Ant.7	Left cheek	633332	3499.98	135				69	-0.02	0.528	19.05	20.00	1.245	0.657	/			
NR n77	Ant.7	Left tilt	633332	3499.98	135				69	0.08	0.129	19.05	20.00	1.245	0.161	/			
NR n77	Ant.7	Right cheek	633332	3499.98	135				69	0.06	0.250	19.05	20.00	1.245	0.311	/			
NR n77	Ant.7	Right tilt	633332	3499.98	135				69	0.17	0.268	19.05	20.00	1.245	0.334	/			
Body-worn&Hotspot																			
NR n77	Ant.0	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz				633332	3499.98	1	1	-0.12	0.042	18.95	20.00	1.274	0.053	/
NR n77	Ant.0	Back side							633332	3499.98	1	1	-0.02	0.051	18.95	20.00	1.274	0.065	/
NR n77	Ant.0	Right side							633332	3499.98	1	1	-0.01	0.059	18.95	20.00	1.274	0.075	/
NR n77	Ant.0	Top side							633332	3499.98	1	1	-0.01	0.035	18.95	20.00	1.274	0.045	/
NR n77	Ant.0	Front side				633332	3499.98	135	69	-0.02	0.054	18.89	20.00	1.291	0.070	/			
NR n77	Ant.0	Back side				633332	3499.98	135	69	-0.12	0.056	18.89	20.00	1.291	0.072	/			
NR n77	Ant.0	Right side	10mm		(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	135	69	0.07	0.089	18.89	20.00	1.291	0.115	/		
NR n77	Ant.0	Top side					633332	3499.98	135	69	-0.11	0.056	18.89	20.00	1.291	0.072	/		
NR n77	Ant.5	Front side					633332	3499.98	1	1	0.17	0.071	16.13	17.00	1.222	0.087	/		
NR n77	Ant.5	Back side					633332	3499.98	1	1	0.04	0.104	16.13	17.00	1.222	0.127	/		
NR n77	Ant.5	Left side					633332	3499.98	1	1	0.13	0.147	16.13	17.00	1.222	0.180	/		
NR n77	Ant.5	Top side					633332	3499.98	1	1	-0.07	0.042	16.13	17.00	1.222	0.051	/		
NR n77	Ant.5	Front side	10mm			(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	135	69	0.14	0.050	16.03	17.00	1.250	0.063	/	
NR n77	Ant.5	Back side						633332	3499.98	135	69	-0.09	0.074	16.03	17.00	1.250	0.093	/	
NR n77	Ant.5	Left side						633332	3499.98	135	69	0.19	0.134	16.03	17.00	1.250	0.168	/	
NR n77	Ant.5	Top side						633332	3499.98	135	69	0.18	0.028	16.03	17.00	1.250	0.035	/	
NR n77	Ant.6	Front side						633332	3499.98	1	1	-0.04	0.036	16.06	17.00	1.242	0.045	/	
NR n77	Ant.6	Back side						633332	3499.98	1	1	0.18	0.029	16.06	17.00	1.242	0.036	/	
NR n77	Ant.6	Left side	10mm		(BW 100MHz) DFT-s-OFDM BPSK		DFT-30kHz	633332	3499.98	1	1	-0.18	0.035	16.06	17.00	1.242	0.043	/	
NR n77	Ant.6	Top side						633332	3499.98	1	1	-0.14	0.022	16.06	17.00	1.242	0.027	/	
NR n77	Ant.6	Front side						633332	3499.98	135	69	0.04	0.038	15.96	17.00	1.271	0.048	/	
NR n77	Ant.6	Back side						633332	3499.98	135	69	-0.04	0.031	15.96	17.00	1.271	0.039	/	
NR n77	Ant.6	Left side						633332	3499.98	135	69	0.18	0.034	15.96	17.00	1.271	0.043	/	
NR n77	Ant.6	Top side						633332	3499.98	135	69	0.16	0.020	15.96	17.00	1.271	0.025	/	
NR n77	Ant.7	Front side	10mm			(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.98	1	1	-0.01	0.065	19.08	20.00	1.236	0.080	/	
NR n77	Ant.7	Back side						633332	3499.98	1	1	-0.18	0.123	19.08	20.00	1.236	0.152	/	
NR n77	Ant.7	Right side						633332	3499.98	1	1	0.13	0.020	19.08	20.00	1.236	0.025	/	
NR n77	Ant.7	Top side						633332	3499.98	1	1	0.05	0.162	19.08	20.00	1.236	0.200	46	
NR n77	Ant.7	Front side						633332	3499.98	135	69	-0.08	0.072	19.05	20.00	1.245	0.090	/	
NR n77	Ant.7	Back side						633332	3499.98	135	69	0.08	0.128	19.05	20.00	1.245	0.159	/	
NR n77	Ant.7	Right side			633332			3499.98	135	69	-0.09	0.015	19.05	20.00	1.245	0.019	/		
NR n77	Ant.7	Top side			633332			3499.98	135	69	0.05	0.159	19.05	20.00	1.245	0.198	/		

10.24 NR n77(3700 ~ 3980 MHz)

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																
NR n77	Ant.0	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	0.1	0.433	18.50	19.50	1.259	0.545	/
NR n77	Ant.0	Left tilt				656000	3840	1	1	0.1	0.163	18.50	19.50	1.259	0.205	/
NR n77	Ant.0	Right cheek				656000	3840	1	1	-0.16	0.030	18.50	19.50	1.259	0.038	/
NR n77	Ant.0	Right tilt				656000	3840	1	1	0.17	0.025	18.50	19.50	1.259	0.031	/
NR n77	Ant.0	Left cheek				656000	3840	135	69	0.19	0.415	18.43	19.50	1.279	0.531	/
NR n77	Ant.0	Left tilt				656000	3840	135	69	0.03	0.138	18.43	19.50	1.279	0.177	/
NR n77	Ant.0	Right cheek				656000	3840	135	69	-0.15	0.027	18.43	19.50	1.279	0.035	/
NR n77	Ant.0	Right tilt				656000	3840	135	69	0.15	0.022	18.43	19.50	1.279	0.028	/
NR n77	Ant.5	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	-0.13	0.036	15.03	16.00	1.250	0.045	/
NR n77	Ant.5	Left tilt				656000	3840	1	1	0.11	0.030	15.03	16.00	1.250	0.038	/
NR n77	Ant.5	Right cheek				656000	3840	1	1	-0.18	0.056	15.03	16.00	1.250	0.070	/
NR n77	Ant.5	Right tilt				656000	3840	1	1	-0.06	0.034	15.03	16.00	1.250	0.043	/
NR n77	Ant.5	Left cheek				656000	3840	135	69	0.07	0.032	14.91	16.00	1.285	0.041	/
NR n77	Ant.5	Left tilt				656000	3840	135	69	-0.11	0.030	14.91	16.00	1.285	0.039	/
NR n77	Ant.5	Right cheek				656000	3840	135	69	0.1	0.050	14.91	16.00	1.285	0.064	/
NR n77	Ant.5	Right tilt				656000	3840	135	69	-0.08	0.030	14.91	16.00	1.285	0.039	/
NR n77	Ant.6	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	-0.05	0.092	15.28	16.00	1.180	0.109	/
NR n77	Ant.6	Left tilt				656000	3840	1	1	-0.18	0.079	15.28	16.00	1.180	0.093	/
NR n77	Ant.6	Right cheek				656000	3840	1	1	0.08	0.046	15.28	16.00	1.180	0.054	/
NR n77	Ant.6	Right tilt				656000	3840	1	1	-0.19	0.060	15.28	16.00	1.180	0.071	/
NR n77	Ant.6	Left cheek				656000	3840	135	69	-0.16	0.090	15.12	16.00	1.225	0.110	/
NR n77	Ant.6	Left tilt				656000	3840	135	69	0.04	0.081	15.12	16.00	1.225	0.099	/
NR n77	Ant.6	Right cheek				656000	3840	135	69	0.18	0.041	15.12	16.00	1.225	0.050	/
NR n77	Ant.6	Right tilt				656000	3840	135	69	0.08	0.054	15.12	16.00	1.225	0.066	/
NR n77	Ant.7	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	0.02	0.602	18.19	19.00	1.205	0.725	47
NR n77	Ant.7	Left tilt				656000	3840	1	1	-0.08	0.194	18.19	19.00	1.205	0.234	/
NR n77	Ant.7	Right cheek				656000	3840	1	1	0.19	0.055	18.19	19.00	1.205	0.066	/
NR n77	Ant.7	Right tilt				656000	3840	1	1	-0.04	0.072	18.19	19.00	1.205	0.087	/
NR n77	Ant.7	Left cheek				656000	3840	135	69	-0.15	0.171	18.04	19.00	1.247	0.213	/
NR n77	Ant.7	Left tilt				656000	3840	135	69	-0.07	0.202	18.04	19.00	1.247	0.252	/
NR n77	Ant.7	Right cheek				656000	3840	135	69	0.19	0.049	18.04	19.00	1.247	0.061	/
NR n77	Ant.7	Right tilt				656000	3840	135	69	0.18	0.064	18.04	19.00	1.247	0.080	/
Body-worn&Hotspot																
NR n77	Ant.0	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	0.04	0.059	18.50	19.50	1.259	0.074	/
NR n77	Ant.0	Back side				656000	3840	1	1	-0.1	0.073	18.50	19.50	1.259	0.092	/
NR n77	Ant.0	Right side				656000	3840	1	1	0.13	0.105	18.50	19.50	1.259	0.132	/
NR n77	Ant.0	Top side				656000	3840	1	1	-0.08	0.033	18.50	19.50	1.259	0.042	/
NR n77	Ant.0	Front side				656000	3840	135	69	-0.17	0.088	18.43	19.50	1.279	0.113	/
NR n77	Ant.0	Back side				656000	3840	135	69	0.08	0.094	18.43	19.50	1.279	0.120	/
NR n77	Ant.0	Right side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	135	69	0.05	0.111	18.43	19.50	1.279	0.142	/
NR n77	Ant.0	Top side				656000	3840	135	69	-0.04	0.044	18.43	19.50	1.279	0.056	/
NR n77	Ant.5	Front side				656000	3840	1	1	-0.15	0.021	15.03	16.00	1.250	0.026	/
NR n77	Ant.5	Back side				656000	3840	1	1	-0.11	0.033	15.03	16.00	1.250	0.041	/
NR n77	Ant.5	Left side				656000	3840	1	1	-0.17	0.035	15.03	16.00	1.250	0.044	/
NR n77	Ant.5	Top side				656000	3840	1	1	-0.05	0.016	15.03	16.00	1.250	0.020	/
NR n77	Ant.5	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	135	69	-0.19	0.033	14.91	16.00	1.285	0.042	/
NR n77	Ant.5	Back side				656000	3840	135	69	0.09	0.029	14.91	16.00	1.285	0.037	/
NR n77	Ant.5	Left side				656000	3840	135	69	0.07	0.032	14.91	16.00	1.285	0.041	/
NR n77	Ant.5	Top side				656000	3840	135	69	-0.19	0.015	14.91	16.00	1.285	0.019	/
NR n77	Ant.6	Front side				656000	3840	1	1	0.06	0.031	15.28	16.00	1.180	0.037	/
NR n77	Ant.6	Back side				656000	3840	1	1	0.05	0.036	15.28	16.00	1.180	0.042	/
NR n77	Ant.6	Left side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	0.08	0.022	15.28	16.00	1.180	0.026	/
NR n77	Ant.6	Top side				656000	3840	1	1	0.18	0.048	15.28	16.00	1.180	0.057	/
NR n77	Ant.6	Front side				656000	3840	135	69	-0.16	0.032	15.12	16.00	1.225	0.039	/
NR n77	Ant.6	Back side				656000	3840	135	69	-0.04	0.033	15.12	16.00	1.225	0.040	/
NR n77	Ant.6	Left side				656000	3840	135	69	0.03	0.019	15.12	16.00	1.225	0.023	/
NR n77	Ant.6	Top side				656000	3840	135	69	-0.06	0.043	15.12	16.00	1.225	0.053	/
NR n77	Ant.7	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	656000	3840	1	1	-0.04	0.046	18.19	19.00	1.205	0.055	/
NR n77	Ant.7	Back side				656000	3840	1	1	-0.03	0.058	18.19	19.00	1.205	0.070	/
NR n77	Ant.7	Right side				656000	3840	1	1	0.1	0.027	18.19	19.00	1.205	0.033	/
NR n77	Ant.7	Top side				656000	3840	1	1	0.10	0.197	18.19	19.00	1.205	0.237	48
NR n77	Ant.7	Front side				656000	3840	135	69	0.14	0.050	18.04	19.00	1.247	0.062	/
NR n77	Ant.7	Back side				656000	3840	135	69	-0.05	0.059	18.04	19.00	1.247	0.074	/
NR n77	Ant.7	Right side				656000	3840	135	69	0.05	0.021	18.04	19.00	1.247	0.026	/
NR n77	Ant.7	Top side				656000	3840	135	69	0.14	0.146	18.04	19.00	1.247	0.182	/

10.25 NR n78(3450 ~ 3550 MHz)

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																
NR n78	Ant.0	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	0.09	0.385	16.89	18.00	1.291	0.497	/
NR n78	Ant.0	Left tilt				633332	3499.99	1	1	-0.11	0.226	16.89	18.00	1.291	0.292	/
NR n78	Ant.0	Right cheek				633332	3499.99	1	1	-0.18	0.071	16.89	18.00	1.291	0.092	/
NR n78	Ant.0	Right tilt				633332	3499.99	1	1	-0.17	0.093	16.89	18.00	1.291	0.120	/
NR n78	Ant.0	Left cheek				633332	3499.99	135	69	0.14	0.416	16.76	18.00	1.330	0.553	/
NR n78	Ant.0	Left tilt				633332	3499.99	135	69	0.18	0.287	16.76	18.00	1.330	0.382	/
NR n78	Ant.0	Right cheek				633332	3499.99	135	69	-0.02	0.063	16.76	18.00	1.330	0.084	/
NR n78	Ant.0	Right tilt				633332	3499.99	135	69	0.01	0.083	16.76	18.00	1.330	0.110	/
NR n78	Ant.5	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	0.05	0.145	16.99	18.00	1.262	0.183	/
NR n78	Ant.5	Left tilt				633332	3499.99	1	1	-0.07	0.122	16.99	18.00	1.262	0.154	/
NR n78	Ant.5	Right cheek				633332	3499.99	1	1	-0.09	0.211	16.99	18.00	1.262	0.266	/
NR n78	Ant.5	Right tilt				633332	3499.99	1	1	-0.05	0.143	16.99	18.00	1.262	0.180	/
NR n78	Ant.5	Left cheek				633332	3499.99	135	69	0.19	0.108	16.77	18.00	1.327	0.143	/
NR n78	Ant.5	Left tilt				633332	3499.99	135	69	-0.19	0.112	16.77	18.00	1.327	0.149	/
NR n78	Ant.5	Right cheek				633332	3499.99	135	69	-0.19	0.188	16.77	18.00	1.327	0.250	/
NR n78	Ant.5	Right tilt				633332	3499.99	135	69	0.15	0.127	16.77	18.00	1.327	0.169	/
NR n78	Ant.6	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	0.1	0.071	16.94	18.00	1.276	0.091	/
NR n78	Ant.6	Left tilt				633332	3499.99	1	1	0.07	0.088	16.94	18.00	1.276	0.112	/
NR n78	Ant.6	Right cheek				633332	3499.99	1	1	-0.13	0.056	16.94	18.00	1.276	0.071	/
NR n78	Ant.6	Right tilt				633332	3499.99	1	1	0.04	0.077	16.94	18.00	1.276	0.098	/
NR n78	Ant.6	Left cheek				633332	3499.99	135	69	-0.15	0.076	16.77	18.00	1.327	0.101	/
NR n78	Ant.6	Left tilt				633332	3499.99	135	69	0.12	0.088	16.77	18.00	1.327	0.117	/
NR n78	Ant.6	Right cheek				633332	3499.99	135	69	0.17	0.076	16.77	18.00	1.327	0.101	/
NR n78	Ant.6	Right tilt				633332	3499.99	135	69	-0.17	0.050	16.77	18.00	1.327	0.066	/
NR n78	Ant.7	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	-0.18	0.506	17.00	18.00	1.259	0.637	/
NR n78	Ant.7	Left tilt				633332	3499.99	1	1	0.03	0.709	17.00	18.00	1.259	0.893	49
NR n78	Ant.7	Right cheek				633332	3499.99	1	1	0.16	0.230	17.00	18.00	1.259	0.290	/
NR n78	Ant.7	Right tilt				633332	3499.99	1	1	0.01	0.276	17.00	18.00	1.259	0.347	/
NR n78	Ant.7	Left cheek				633332	3499.99	135	69	-0.11	0.436	16.77	18.00	1.327	0.579	/
NR n78	Ant.7	Left tilt				633332	3499.99	135	69	0.02	0.577	16.77	18.00	1.327	0.766	/
NR n78	Ant.7	Right cheek				633332	3499.99	135	69	-0.11	0.205	16.77	18.00	1.327	0.272	/
NR n78	Ant.7	Right tilt				633332	3499.99	135	69	0.09	0.246	16.77	18.00	1.327	0.327	/
Body-worn&Hotspot																
NR n78	Ant.0	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	-0.12	0.045	16.89	18.00	1.291	0.058	/
NR n78	Ant.0	Back side				633332	3499.99	1	1	0.14	0.051	16.89	18.00	1.291	0.066	/
NR n78	Ant.0	Right side				633332	3499.99	1	1	-0.14	0.085	16.89	18.00	1.291	0.110	/
NR n78	Ant.0	Top side				633332	3499.99	1	1	0.09	0.044	16.89	18.00	1.291	0.057	/
NR n78	Ant.0	Front side				633332	3499.99	135	69	-0.19	0.052	16.76	18.00	1.330	0.069	/
NR n78	Ant.0	Back side				633332	3499.99	135	69	-0.05	0.047	16.76	18.00	1.330	0.063	/
NR n78	Ant.0	Right side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	135	69	0.13	0.095	16.76	18.00	1.330	0.126	/
NR n78	Ant.0	Top side				633332	3499.99	135	69	0.01	0.050	16.76	18.00	1.330	0.067	/
NR n78	Ant.5	Front side				633332	3499.99	1	1	0.03	0.062	16.99	18.00	1.262	0.078	/
NR n78	Ant.5	Back side				633332	3499.99	1	1	0.02	0.104	16.99	18.00	1.262	0.131	/
NR n78	Ant.5	Left side				633332	3499.99	1	1	-0.06	0.114	16.99	18.00	1.262	0.144	50
NR n78	Ant.5	Top side				633332	3499.99	1	1	0.06	0.033	16.99	18.00	1.262	0.042	/
NR n78	Ant.5	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	135	69	0.05	0.059	16.77	18.00	1.327	0.078	/
NR n78	Ant.5	Back side				633332	3499.99	135	69	-0.09	0.089	16.77	18.00	1.327	0.118	/
NR n78	Ant.5	Left side				633332	3499.99	135	69	-0.06	0.104	16.77	18.00	1.327	0.138	/
NR n78	Ant.5	Top side				633332	3499.99	135	69	0.01	0.025	16.77	18.00	1.327	0.033	/
NR n78	Ant.6	Front side				633332	3499.99	1	1	0.14	0.029	16.94	18.00	1.276	0.037	/
NR n78	Ant.6	Back side				633332	3499.99	1	1	-0.03	0.035	16.94	18.00	1.276	0.045	/
NR n78	Ant.6	Left side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	-0.16	0.015	16.94	18.00	1.276	0.019	/
NR n78	Ant.6	Top side				633332	3499.99	1	1	-0.05	0.058	16.94	18.00	1.276	0.074	/
NR n78	Ant.6	Front side				633332	3499.99	135	69	-0.04	0.028	16.77	18.00	1.327	0.037	/
NR n78	Ant.6	Back side				633332	3499.99	135	69	0.06	0.049	16.77	18.00	1.327	0.065	/
NR n78	Ant.6	Left side				633332	3499.99	135	69	-0.01	0.027	16.77	18.00	1.327	0.036	/
NR n78	Ant.6	Top side				633332	3499.99	135	69	0.06	0.062	16.77	18.00	1.327	0.082	/
NR n78	Ant.7	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	1	1	0.11	0.062	17.00	18.00	1.259	0.078	/
NR n78	Ant.7	Back side				633332	3499.99	1	1	-0.14	0.091	17.00	18.00	1.259	0.115	/
NR n78	Ant.7	Right side				633332	3499.99	1	1	0.15	0.029	17.00	18.00	1.259	0.037	/
NR n78	Ant.7	Top side				633332	3499.99	1	1	0.09	0.107	17.00	18.00	1.259	0.135	/
NR n78	Ant.7	Front side				633332	3499.99	135	69	0.01	0.050	16.77	18.00	1.327	0.066	/
NR n78	Ant.7	Back side				633332	3499.99	135	69	0.13	0.094	16.77	18.00	1.327	0.125	/
NR n78	Ant.7	Right side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	633332	3499.99	135	69	-0.04	0.009	16.77	18.00	1.327	0.012	/
NR n78	Ant.7	Top side				633332	3499.99	135	69	0.16	0.104	16.77	18.00	1.327	0.138	/

10.26 NR n78(3700 ~ 3800 MHz)

Test Band	Antenn a	Test Position	Dist.	Test Mode	SCS	Channel	Freq. (MHz)	RB num.	RB Start	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Reported 1g SAR (W/kg)	Meas. No.
Head																
NR n78	Ant.0	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	0.02	0.275	16.49	17.50	1.262	0.347	51
NR n78	Ant.0	Left tilt				650000	3750	1	1	0.1	0.250	16.49	17.50	1.262	0.315	/
NR n78	Ant.0	Right cheek				650000	3750	1	1	0.08	0.048	16.49	17.50	1.262	0.061	/
NR n78	Ant.0	Right tilt				650000	3750	1	1	0.1	0.033	16.49	17.50	1.262	0.042	/
NR n78	Ant.0	Left cheek				650000	3750	135	69	-0.19	0.266	16.38	17.50	1.294	0.344	/
NR n78	Ant.0	Left tilt				650000	3750	135	69	-0.03	0.211	16.38	17.50	1.294	0.273	/
NR n78	Ant.0	Right cheek				650000	3750	135	69	-0.17	0.043	16.38	17.50	1.294	0.056	/
NR n78	Ant.0	Right tilt				650000	3750	135	69	-0.04	0.029	16.38	17.50	1.294	0.038	/
NR n78	Ant.5	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	-0.12	0.058	15.83	17.00	1.309	0.076	/
NR n78	Ant.5	Left tilt				650000	3750	1	1	0.08	0.035	15.83	17.00	1.309	0.046	/
NR n78	Ant.5	Right cheek				650000	3750	1	1	0.17	0.076	15.83	17.00	1.309	0.099	/
NR n78	Ant.5	Right tilt				650000	3750	1	1	0.18	0.040	15.83	17.00	1.309	0.052	/
NR n78	Ant.5	Left cheek				650000	3750	135	69	-0.08	0.044	15.78	17.00	1.324	0.058	/
NR n78	Ant.5	Left tilt				650000	3750	135	69	-0.18	0.026	15.78	17.00	1.324	0.034	/
NR n78	Ant.5	Right cheek				650000	3750	135	69	-0.08	0.073	15.78	17.00	1.324	0.097	/
NR n78	Ant.5	Right tilt				650000	3750	135	69	0.05	0.038	15.78	17.00	1.324	0.050	/
NR n78	Ant.6	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	0.18	0.073	16.06	17.00	1.242	0.091	/
NR n78	Ant.6	Left tilt				650000	3750	1	1	-0.17	0.082	16.06	17.00	1.242	0.102	/
NR n78	Ant.6	Right cheek				650000	3750	1	1	-0.05	0.058	16.06	17.00	1.242	0.072	/
NR n78	Ant.6	Right tilt				650000	3750	1	1	-0.16	0.083	16.06	17.00	1.242	0.103	/
NR n78	Ant.6	Left cheek				650000	3750	135	69	-0.03	0.069	16.00	17.00	1.259	0.087	/
NR n78	Ant.6	Left tilt				650000	3750	135	69	-0.09	0.076	16.00	17.00	1.259	0.096	/
NR n78	Ant.6	Right cheek				650000	3750	135	69	0.11	0.056	16.00	17.00	1.259	0.070	/
NR n78	Ant.6	Right tilt				650000	3750	135	69	-0.19	0.080	16.00	17.00	1.259	0.101	/
NR n78	Ant.7	Left cheek	0mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	-0.05	0.096	16.46	17.50	1.271	0.122	/
NR n78	Ant.7	Left tilt				650000	3750	1	1	-0.13	0.133	16.46	17.50	1.271	0.169	/
NR n78	Ant.7	Right cheek				650000	3750	1	1	0.12	0.036	16.46	17.50	1.271	0.046	/
NR n78	Ant.7	Right tilt				650000	3750	1	1	-0.01	0.054	16.46	17.50	1.271	0.069	/
NR n78	Ant.7	Left cheek				650000	3750	135	69	-0.07	0.094	16.37	17.50	1.297	0.122	/
NR n78	Ant.7	Left tilt				650000	3750	135	69	0.08	0.113	16.37	17.50	1.297	0.147	/
NR n78	Ant.7	Right cheek				650000	3750	135	69	-0.08	0.032	16.37	17.50	1.297	0.042	/
NR n78	Ant.7	Right tilt				650000	3750	135	69	-0.09	0.048	16.37	17.50	1.297	0.062	/
Body-worn&Hotspot																
NR n78	Ant.0	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	0.17	0.052	16.49	17.50	1.262	0.066	/
NR n78	Ant.0	Back side				650000	3750	1	1	-0.02	0.065	16.49	17.50	1.262	0.082	/
NR n78	Ant.0	Right side				650000	3750	1	1	0.01	0.104	16.49	17.50	1.262	0.131	/
NR n78	Ant.0	Top side				650000	3750	1	1	-0.03	0.089	16.49	17.50	1.262	0.112	/
NR n78	Ant.0	Front side				650000	3750	135	69	0.16	0.043	16.38	17.50	1.294	0.056	/
NR n78	Ant.0	Back side				650000	3750	135	69	-0.14	0.087	16.38	17.50	1.294	0.113	/
NR n78	Ant.0	Right side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	135	69	-0.06	0.125	16.38	17.50	1.294	0.162	52
NR n78	Ant.0	Top side				650000	3750	135	69	0.09	0.052	16.38	17.50	1.294	0.067	/
NR n78	Ant.5	Front side				650000	3750	1	1	-0.04	0.038	15.83	17.00	1.309	0.050	/
NR n78	Ant.5	Back side				650000	3750	1	1	-0.03	0.042	15.83	17.00	1.309	0.055	/
NR n78	Ant.5	Left side				650000	3750	1	1	0.11	0.065	15.83	17.00	1.309	0.085	/
NR n78	Ant.5	Top side				650000	3750	1	1	0.17	0.022	15.83	17.00	1.309	0.029	/
NR n78	Ant.5	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	135	69	0.08	0.022	15.78	17.00	1.324	0.029	/
NR n78	Ant.5	Back side				650000	3750	135	69	0.18	0.029	15.78	17.00	1.324	0.038	/
NR n78	Ant.5	Left side				650000	3750	135	69	0.14	0.049	15.78	17.00	1.324	0.065	/
NR n78	Ant.5	Top side				650000	3750	135	69	-0.03	0.031	15.78	17.00	1.324	0.041	/
NR n78	Ant.6	Front side				650000	3750	1	1	-0.15	0.041	16.06	17.00	1.242	0.051	/
NR n78	Ant.6	Back side				650000	3750	1	1	-0.1	0.049	16.06	17.00	1.242	0.061	/
NR n78	Ant.6	Left side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	-0.08	0.022	16.06	17.00	1.242	0.027	/
NR n78	Ant.6	Top side				650000	3750	1	1	0.12	0.058	16.06	17.00	1.242	0.072	/
NR n78	Ant.6	Front side				650000	3750	135	69	-0.04	0.024	16.00	17.00	1.259	0.030	/
NR n78	Ant.6	Back side				650000	3750	135	69	0.04	0.028	16.00	17.00	1.259	0.035	/
NR n78	Ant.6	Left side				650000	3750	135	69	-0.04	0.018	16.00	17.00	1.259	0.023	/
NR n78	Ant.6	Top side				650000	3750	135	69	0.17	0.060	16.00	17.00	1.259	0.076	/
NR n78	Ant.7	Front side	10mm	(BW 100MHz) DFT-s-OFDM BPSK	DFT-30kHz	650000	3750	1	1	-0.07	0.028	16.46	17.50	1.271	0.036	/
NR n78	Ant.7	Back side				650000	3750	1	1	-0.15	0.035	16.46	17.50	1.271	0.044	/
NR n78	Ant.7	Right side				650000	3750	1	1	-0.02	0.020	16.46	17.50	1.271	0.025	/
NR n78	Ant.7	Top side				650000	3750	1	1	0.04	0.065	16.46	17.50	1.271	0.083	/
NR n78	Ant.7	Front side				650000	3750	135	69	0.13	0.028	16.37	17.50	1.297	0.036	/
NR n78	Ant.7	Back side				650000	3750	135	69	0.14	0.034	16.37	17.50	1.297	0.044	/
NR n78	Ant.7	Right side				650000	3750	135	69	-0.13	0.009	16.37	17.50	1.297	0.012	/
NR n78	Ant.7	Top side				650000	3750	135	69	0.15	0.066	16.37	17.50	1.297	0.086	/

10.27 Bluetooth

Band	Antenna	Position	Dist.	Test Mode	Chann el	Freq. (MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle (%)	Duty Cycle Scaled Factor	Reported 1g SAR (W/kg)	Meas. no.
Bluetooth	Head														
	Ant12	Left cheek	0mm	BR/EDR 1Mbps	39	2441	-0.05	0.145	14.11	15.00	1.228	76.81	1.302	0.232	53
		Left tilt			39	2441	0.13	0.115	14.11	15.00	1.228	76.81	1.302	0.184	
		Right cheek			39	2441	0.09	0.088	14.11	15.00	1.228	76.81	1.302	0.141	
		Right tilt			39	2441	0.18	0.133	14.11	15.00	1.228	76.81	1.302	0.213	
	Ant13	Left cheek	0mm	BR/EDR 1Mbps	39	2441	-0.06	0.028	15.43	16.50	1.280	76.81	1.302	0.047	
		Left tilt			39	2441	0.09	0.021	15.43	16.50	1.280	76.81	1.302	0.035	
		Right cheek			39	2441	-0.01	0.014	15.43	16.50	1.280	76.81	1.302	0.023	
		Right tilt			39	2441	0.12	0.011	15.43	16.50	1.280	76.81	1.302	0.018	
	Body-wron&Hotspot														
	Ant12	Front side	10mm	BR/EDR 1Mbps	39	2441	-0.06	0.042	14.11	15.00	1.228	76.81	1.302	0.067	
		Back side			39	2441	-0.02	0.052	14.11	15.00	1.228	76.81	1.302	0.084	54
		Right side			39	2441	0.18	0.043	14.11	15.00	1.228	76.81	1.302	0.069	
		Top side			39	2441	0.15	0.035	14.11	15.00	1.228	76.81	1.302	0.056	
	Ant13	Front side	10mm	BR/EDR 1Mbps	39	2441	0.14	0.049	15.43	16.50	1.280	76.81	1.302	0.082	
		Back side			39	2441	0.03	0.041	15.43	16.50	1.280	76.81	1.302	0.068	
		Right side			39	2441	-0.05	0.033	15.43	16.50	1.280	76.81	1.302	0.055	

10.28 WIFI 2.4GHz

Test Band	Antenn a	Test Position	Dist.	Test Mode	Test Channe	Freq.(MHz)	Power Drift(dB)	Measured 1-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle (%)	Duty Cycle Scaled Factor	Reported 1g SAR (W/kg)	Meas. No.
WLAN 2.4G	Head														
	Ant.12 Main	Left cheek	0mm	802.11b 1Mbps	6	2437	-0.06	0.432	16.17	17.00	1.211	98.63	1.014	0.530	55
		Left tilt			6	2437	-0.03	0.341	16.17	17.00	1.211	98.63	1.014	0.419	/
		Right cheek			6	2437	-0.12	0.254	16.17	17.00	1.211	98.63	1.014	0.312	/
		Right tilt			6	2437	0.01	0.316	16.17	17.00	1.211	98.63	1.014	0.388	/
	Ant.13	Left cheek	0mm	802.11b 1Mbps	6	2437	0.17	0.051	16.99	18.00	1.262	98.63	1.014	0.065	/
		Left tilt			6	2437	-0.07	0.024	16.99	18.00	1.262	98.63	1.014	0.031	/
		Right cheek			6	2437	-0.06	0.258	16.99	18.00	1.262	98.63	1.014	0.330	/
		Right tilt			6	2437	-0.04	0.014	16.99	18.00	1.262	98.63	1.014	0.018	/
	Body-wron& Hotspot														
	Ant.12	Front side	10mm	802.11b 1Mbps	6	2437	0.17	0.131	16.17	17.00	1.211	98.63	1.014	0.161	/
		Back side			6	2437	-0.09	0.108	16.17	17.00	1.211	98.63	1.014	0.133	/
		Right side			6	2437	0.14	0.083	16.17	17.00	1.211	98.63	1.014	0.102	/
		Top side			6	2437	0.02	0.141	16.17	17.00	1.211	98.63	1.014	0.173	56
	Ant.13	Front side	10mm	802.11b 1Mbps	6	2437	-0.09	0.104	16.99	18.00	1.262	98.63	1.014	0.133	/
		Back side			6	2437	-0.01	0.113	16.99	18.00	1.262	98.63	1.014	0.145	/
		Right side			6	2437	0.12	0.122	16.99	18.00	1.262	98.63	1.014	0.156	/

10.29 WIFI 5GHz

Test Band	Antenn a	Test Position	Dist.	Test Mode	Test Channe	Freq.(MHz)	Power Drift(dB)	Measured 1-g SAR (Wkg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle (%)	Duty Cycle Scaled Factor	Reported 1g SAR (W/kg)	Meas No.
Head															
WLAN 5.3G	Ant.0	Left cheek	0mm	802.11n HT20	60	5300	0.05	0.417	15.28	16.50	1.324	93.12	1.074	0.593	57
		Left tilt			60	5300	0.05	0.279	15.28	16.50	1.324	93.12	1.074	0.397	/
		Right cheek			60	5300	0.06	0.178	15.28	16.50	1.324	93.12	1.074	0.253	/
		Right tilt			60	5300	0.11	0.176	15.28	16.50	1.324	93.12	1.074	0.250	/
WLAN 5.6G	Ant.0	Left cheek	0mm	802.11ac VHT40	118	5590	0.03	0.323	14.30	15.50	1.318	87.03	1.149	0.489	58
		Left tilt			118	5590	0.13	0.288	14.30	15.50	1.318	87.03	1.149	0.436	/
		Right cheek			118	5590	-0.04	0.196	14.30	15.50	1.318	87.03	1.149	0.297	/
		Right tilt			118	5590	0.12	0.215	14.30	15.50	1.318	87.03	1.149	0.326	/
WLAN 5.8G	Ant.0	Left cheek	0mm	802.11n HT20	157	5785	0.05	0.361	15.40	16.50	1.288	93.12	1.074	0.499	59
		Left tilt			157	5785	-0.11	0.358	15.40	16.50	1.288	93.12	1.074	0.495	/
		Right cheek			157	5785	-0.15	0.304	15.40	16.50	1.288	93.12	1.074	0.421	/
		Right tilt			157	5785	-0.13	0.329	15.40	16.50	1.288	93.12	1.074	0.455	/
Body-worn															
WLAN 5.3G	Ant.0	Front side	10mm	802.11n HT20	60	5300	0.19	0.119	15.28	16.50	1.324	93.12	1.074	0.169	/
		Back side			60	5300	-0.17	0.197	15.28	16.50	1.324	93.12	1.074	0.280	60
WLAN 5.6G	Ant.0	Front side	10mm	802.11ac VHT40	118	5590	0.16	0.124	14.30	15.50	1.318	87.03	1.149	0.188	/
		Back side			118	5590	-0.08	0.222	14.30	15.50	1.318	87.03	1.149	0.336	61
Hotspot															
WLAN 5.2G	Ant.0	Front side	10mm	802.11n HT20	44	5220	-0.12	0.165	14.87	16.00	1.297	93.12	1.074	0.230	/
		Back side			44	5220	-0.15	0.159	14.87	16.00	1.297	93.12	1.074	0.222	/
		Right side			44	5220	-0.19	0.210	14.87	16.00	1.297	93.12	1.074	0.293	62
		Top side			44	5220	-0.16	0.126	14.87	16.00	1.297	93.12	1.074	0.176	/
WLAN 5.8G	Ant.0	Front side	10mm	802.11n HT20	157	5785	0.05	0.169	15.40	16.50	1.288	93.12	1.074	0.234	/
		Back side			157	5785	-0.13	0.290	15.40	16.50	1.288	93.12	1.074	0.401	/
		Right side			157	5785	-0.04	0.382	15.40	16.50	1.288	93.12	1.074	0.529	63
		Top side			157	5785	0.01	0.151	15.40	16.50	1.288	93.12	1.074	0.209	/

Test Band	Antenna	Test Position	Dist.	Test Mode	Test Channel	Freq.(MHz)	Power Drift(dB)	Measured 10-g SAR (W/kg)	Average Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle (%)	Duty Cycle Scaled Factor	Reported 10g SAR (W/kg)	Meas. No.
Extremity															
WLAN 5.3G	Ant.0	Front side	0mm	802.11n HT20	60	5300	-0.07	0.467	15.28	16.50	1.324	93.12	1.074	0.664	/
		Back side			60	5300	-0.17	0.223	15.28	16.50	1.324	93.12	1.074	0.317	/
		Right side			60	5300	-0.07	0.650	15.28	16.50	1.324	93.12	1.074	0.925	/
		Top side			60	5300	-0.16	0.519	15.28	16.50	1.324	93.12	1.074	0.738	/
		Right side			52	5260	-0.1	0.721	15.28	16.50	1.324	93.12	1.074	1.026	64
		Right side			64	5320	0.11	0.720	15.28	16.50	1.324	93.12	1.074	1.024	/
WLAN 5.6G	Ant.0	Front side	0mm	802.11ac VHT40	118	5590	0.09	0.482	14.30	15.50	1.318	87.03	1.149	0.730	/
		Back side			118	5590	-0.17	0.220	14.30	15.50	1.318	87.03	1.149	0.333	/
		Right side			118	5590	-0.01	0.987	14.30	15.50	1.318	87.03	1.149	1.495	65
		Top side			118	5590	-0.12	0.290	14.30	15.50	1.318	87.03	1.149	0.439	/

10.30 NFC

1. According to the 2022.04 TCBC Workshop meeting, the power threshold is $\leq 100\text{MHz}$, refer to P6s.

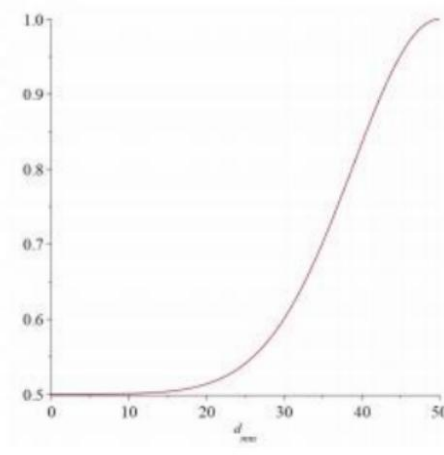
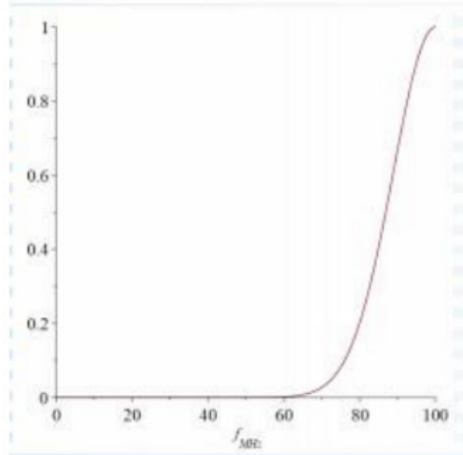
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

2. For portable products, when using a distance of $\leq 50\text{mm}$, such as mobile phone NFC, P6s is calculated with the following formula calculate.

$$S_f(f_{MHz}) \cdot P_{431a}(d_{mm}, f_{MHz}) + (1 - S_f(f_{MHz})) \cdot S_d(d_{mm}) \cdot P_{431b1}(50., 100.) \cdot \left(1 + \log_{10}\left(\frac{100.}{f_{MHz}}\right)\right) \quad d_{mm} \leq 50 \text{ and } f_{MHz} \leq 100$$

3. The smoothing functions Sf and Sd in P6s calculate the limits based on KDB 447498 V06 and are calculated as follows.

$$S_f(f_{MHz}) := \exp\left(-10 \frac{(f_{MHz} - f_{max})^2}{\Delta f^2}\right) \quad S_d(d_{mm}) := 0.5 + 0.5 \cdot \exp\left(-10 \frac{(d_{mm} - d_{max})^2}{\Delta d^2}\right)$$



d≤50mm				
f Max(MHz)	100		d Max(mm)	50
f MHz	13.56		d(mm)	5
△ f(MHz)	100		△ d	50
S _f (f _{MHz})	0.000568861		S _d (dmm)	0.50015177
P6s(mW)	443.1257378			
Note: SAR testing is required when the distance is 5mm and the power is greater than 443.13mW.				

4. According to the ANSI C63.10 clause 11.12.2.2:

The value of maximum peak output power is according to the method described in ANSI C63.10 clause 11.12.2.2 General procedure for conducted measurements in restricted bands:

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the ERP level (see guidance on determining the applicable antenna gain)
- c) Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
- d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the ERP of all chains in linear terms (e.g., Watts, mW).
- e) Convert the resultant ERP level to an equivalent electric field strength using the following relationship: $E = ERP - 20\log D + 104.8$

where:

E = electric field strength in dB μ V/m,

ERP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

Mode	f (MHz)	Max. E-Field strength (dB μ V/m)	D (m)	Ground reflection factor (dB)	ERP (dBm)
NFC (13.56MHz)	13.56	58.18	3	6	-20.62
Note: 1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz). 2. $ERP = 58.18 + 20 \cdot \log(10) - 104.8 + 6 = -20.62$ (dBm)					

According to the FCC KDB 447498 D04

Estimated SAR: $SAR_{test} = 1.6 \cdot P_{ant} / P_{th}$ [W/kg]

Estimated SAR	$1.6 \cdot P_{ant} / P_{th}$ [W/kg]		
P _{meas} .(dBm)	-20.62	P _{meas} .(mW)	0.009
P _{th} .(mW)	443.13		
NFC Estimated 1g SAR [W/kg]	<0.001		

11 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These 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.

SAR repeated measurement procedure:

1. When the highest measured SAR is < 0.80 W/kg, repeated measurement is not required.
2. When the highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3. 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, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 , and the original, first or second repeated measurement is ≥ 1.5 W/kg, perform a third repeated measurement.

Frequency Band (MHz)	Wireless Band	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Repeated ^{1st} Measured SAR (W/kg)	Largest to Smallest SAR Radio
2600	LTE B7	Body-worn&Hotspot	Bottom side	1.030	Yes	0.987	1.04
1750	LTE B66	Body-worn&Hotspot	Bottom side	0.834	Yes	0.802	1.04

Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement. is not required.

Note: For product specific 10g SAR, the highest measured 10g SAR is $1.50 < 2.0$ W/kg, repeated measurement is not required.

12 SIMULTANEOUS TRANSMISSION

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR 1g of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR 1g 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR 1g is greater than the SAR limit (SAR 1g 1.6 W/kg), SAR test exclusion is determined by the SAR to Peak Location Ratio (SPLSR).

12.1 Simultaneous Transmission Mode Consider

No.	Simultaneous Tx Combination	Head	Body-worn	Hotspot
1	WWAN+WIFI 2.4G	Yes	Yes	Yes
2	WWAN+WIFI 5G	Yes	Yes	Yes
3	WWAN+ BT	Yes	Yes	Yes
4	WWAN+WIFI 5G+BT	Yes	Yes	Yes

Note:

1. WWAN antennas can switch automatically, but up and down antenna can't transmit simultaneously.
2. The maximum SAR summation is calculated based on the same configuration and test position.
3. 2.4G WIFI and 5G WIFI can't be transmitted simultaneously.

12.2 Sum SAR of Simultaneous Transmission

Please refer the document “BL-SH25B1277-AST.pdf”.

12.3 Highest Total Exposure Ratio of Simultaneous Transmission

NFC multi-transmit requires the use of the TER formula:

$$TER = \sum_{k=1}^{N_s} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field, k}}{MPE_{field, lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left(\frac{MPE_{PD, k}}{MPE_{PD, lim}} \right) \quad \text{The}$$

maximum SAR value for Simultaneous Transmission is 1.589 [W/kg]. Therefore, the worst TER = (1.589+0.001)/1.6 = 0.994 < 1, the NFC SAR transmit simultaneously Pass.

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY5	52.10.4.1535	N/A	N/A
750MHz Validation Dipole	Speag	D750V3	1201	2024/09/03	2027/09/03
835MHz Validation Dipole	Speag	D835V2	4d277	2024/08/30	2027/08/30
1750MHz Validation Dipole	Speag	D1750V2	1183	2024/09/03	2027/09/03
1900MHz Validation Dipole	Speag	D1900V2	5d155	2024/09/02	2027/09/02
2450MHz Validation Dipole	Speag	D2450V2	1065	2024/09/05	2027/09/05
2600MHz Validation Dipole	Speag	D2600V2	1184	2024/08/30	2027/08/30
3500MHz Validation Dipole	Speag	D3500V2	1115	2024/09/03	2027/09/03
3700MHz Validation Dipole	Speag	D3700V2	1086	2024/09/05	2027/09/05
3900MHz Validation Dipole	Speag	D3900V2	1059	2024/08/30	2027/08/30
5GHz Validation Dipole	Speag	D5GHzV2	1333	2024/09/04	2027/09/04
Data Acquisition Electronicsr	Speag	DAE4	SN: 1423	2025/06/05	2026/06/04
Data Acquisition Electronicsr	Speag	DAE4	SN: 540	2025/04/21	2026/04/20
E-Field Probe	Speag	EX3DV4	SN: 3748	2025/04/24	2026/04/23
E-Field Probe	Speag	EX3DV4	SN: 3974	2025/06/05	2026/06/04
Signal Generator	R&S	SMB100A	182635	2025/02/12	2026/02/12
Power Meter	Agilent	E4419B	MY45104512	2025/02/11	2026/02/11
Power Sensor	Agilent	E9304A	MY41499059	2025/02/11	2026/02/11
Power Sensor	Agilent	E9304A	MY41499060	2025/02/11	2026/02/11
Wireless Communication Test Set	R&S	CMW500	168792	2025/02/11	2026/02/11
Wireless Communication Test Set	Anritsu	MT8820C	6201061029	2025/02/12	2026/02/12
Network Analyzer	Agilent	E5071C	MY56301409	2025/02/12	2026/02/12
Thermometer	CEM	DT-322	220718792	2025/01/22	2026/01/22
Thermometer	Elitech	RC-4HC	EF7247001260	2025/01/22	2026/01/22
Power Amplifier	COM-MW	PAO.4	201704001	N/A	N/A
Dielectric Probe Kit	Keysight	85070E	MY44300524	N/A	N/A
Phantom	Speag	SAM	SN: 1473	N/A	N/A
Phantom	Speag	SAM	SN: 1857	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A

Note: For dipole antennas, Tejet has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using an 85070E Dielectric Probe Kit.

Head Liquid

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2026.1.1	Head	750	21.2	0.92	41.21	0.89	41.94	3.37	-1.74
2026.1.2	Head	750	21.3	0.91	41.51	0.89	41.94	2.25	-1.03
2026.1.3	Head	835	21.6	0.90	41.20	0.90	41.50	0.00	-0.72
2026.1.4	Head	835	21.5	0.92	40.92	0.90	41.50	2.22	-1.40
2026.1.4	Head	1750	21.5	1.32	39.83	1.37	40.08	-3.65	-0.62
2026.1.5	Head	1750	21.7	1.32	39.33	1.37	40.08	-3.65	-1.87
2026.1.6	Head	1750	21.1	1.33	39.45	1.37	40.08	-2.92	-1.57
2026.1.6	Head	1900	21.1	1.42	39.25	1.40	40.00	1.43	-1.88
2026.1.7	Head	1900	21.2	1.43	38.25	1.40	40.00	2.14	-4.38
2026.1.8	Head	2450	21.3	1.84	38.57	1.80	39.20	2.22	-1.61
2026.1.9	Head	2600	21.6	1.93	38.24	1.96	39.01	-1.53	-1.97
2026.1.10	Head	2600	21.3	1.96	37.87	1.96	39.01	0.00	-2.92
2026.1.11	Head	2600	21.0	1.97	37.57	1.96	39.01	0.51	-3.69
2026.1.12	Head	2600	21.1	1.96	37.63	1.96	39.01	0.00	-3.54
2026.1.13	Head	2600	21.2	1.91	38.33	1.96	39.01	-2.55	-1.74
2026.1.14	Head	3500	20.8	2.81	36.83	2.91	37.93	-3.44	-2.90
2026.1.6	Head	3500	20.7	2.90	37.71	2.91	37.93	-0.34	-0.58
2026.1.7	Head	3500	20.6	2.95	37.03	2.91	37.93	1.37	-2.37
2026.1.8	Head	3500	20.8	2.86	37.50	2.91	37.93	-1.72	-1.13
2026.1.9	Head	3500	21.2	2.86	38.09	2.91	37.93	-1.72	0.42
2026.1.9	Head	3700	21.2	3.08	36.88	3.12	37.70	-1.28	-2.18
2026.1.10	Head	3700	21.4	3.23	36.65	3.12	37.70	3.53	-2.79
2026.1.11	Head	3900	21.3	3.31	36.58	3.32	37.47	-0.30	-2.38
2026.1.12	Head	3900	21.1	3.39	38.26	3.32	37.47	2.11	2.11
2026.1.12	Head	5300	21.1	4.67	34.93	4.76	35.87	-1.89	-2.62
2026.1.13	Head	5600	21.4	5.22	34.65	5.07	35.53	2.96	-2.48
2026.1.13	Head	5800	21.4	5.45	34.16	5.27	35.30	3.42	-3.23

Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by Speag, the validation data should be within its specification of 10 %(for 1 g).

Liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2026.1.1	Head	750	100	0.854	8.54	8.46	0.95
2026.1.2	Head	750	100	0.850	8.50	8.46	0.47
2026.1.3	Head	835	100	0.967	9.67	9.59	0.83
2026.1.4	Head	835	100	0.972	9.72	9.59	1.36
2026.1.4	Head	1750	100	3.680	36.80	36.50	0.82
2026.1.5	Head	1750	100	3.620	36.20	36.50	-0.82
2026.1.6	Head	1750	100	3.710	37.10	36.50	1.64
2026.1.6	Head	1900	100	4.190	41.90	39.90	5.01
2026.1.7	Head	1900	100	4.020	40.20	39.90	0.75
2026.1.8	Head	2450	100	5.140	51.40	52.60	-2.28
2026.1.9	Head	2600	100	5.520	55.20	55.30	-0.18
2026.1.10	Head	2600	100	5.620	56.20	55.30	1.63
2026.1.11	Head	2600	100	5.510	55.10	55.30	-0.36
2026.1.12	Head	2600	100	5.580	55.80	55.30	0.90
2026.1.13	Head	2600	100	5.670	56.70	55.30	2.53
2026.1.14	Head	3500	100	6.710	67.10	67.20	-0.15
2026.1.6	Head	3500	100	6.680	66.80	67.20	-0.60
2026.1.7	Head	3500	100	6.960	69.60	67.20	3.57
2026.1.8	Head	3500	100	6.410	64.10	67.20	-4.61
2026.1.9	Head	3500	100	6.610	66.10	67.20	-1.64
2026.1.9	Head	3700	100	6.670	66.70	66.70	0.00
2026.1.10	Head	3700	100	6.720	67.20	66.70	0.75
2026.1.11	Head	3900	100	6.850	68.50	67.40	1.63
2026.1.12	Head	3900	100	6.710	67.10	67.40	-0.45
2026.1.12	Head	5300	100	7.880	78.80	79.00	-0.25
2026.1.13	Head	5600	100	7.730	77.30	82.80	-6.64
2026.1.13	Head	5800	100	7.870	78.70	78.50	0.25

Note: The tolerance limit of System validation $\pm 10\%$.

Liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2026.1.12	Head	5300	100	2.320	23.20	23.00	0.87
2026.1.13	Head	5600	100	2.190	21.90	24.00	-8.75

Note: The tolerance limit of System validation $\pm 10\%$.

Please refer the document "BL-SH25B1277-ASC.pdf".

ANNEX C TEST DATA

Please refer the document “BL-SH25B1277-ATD.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL- SH25B1277-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL- SH25B1277-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL- SH25B1277-AC.pdf”.

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--END OF REPORT--