

TEST REPORT

Applicant: INFINIX MOBILITY 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: X6887
Brand Name: Infinix
FCC ID: 2AIZN-X6887
Test Standard: FCC 47 CFR Part 2.1093
(refer section 3.1)
Maximum SAR: Head (1g@0mm): 1.19 W/kg
Body-worn (1g@10mm): 0.76 W/kg
Hotspot (1g@10mm): 0.96 W/kg
Specific (10 g@0mm): 0.39 W/kg
Sample Arrival Date: Oct. 11, 2025
Test Date: Oct. 16, 2025 - Nov. 30, 2025
Date of Issue: Dec. 22, 2025

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center



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Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Dec. 22, 2025</u>	<u>Initial Issue</u>

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

2.2 Manufacturer Information

Manufacturer	INFINIX MOBILITY 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	X6887
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.	AB1600FWMT
	Serial No.	N/A
	Capacity	1600mAh
	Rated Voltage	3.7V
	Limit Charge Voltage	4.2V

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_66C,CA_41C, CA_B2A-B4A,CA_B2A-B5A,CA_B2A-B7A, CA_B4A-B5A,CA_B4A-B7A,CA_B4A-B17A,CA_B7A-B5A 5G Network SA:FDD N5/N7/N12/N66 TDD N38/N41/N77(PC2)/N78(PC2) NSA: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_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 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 66	TX: 1710 ~ 1780 MHz	RX: 2110 ~ 2180 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: 3400 ~ 3600 MHz	RX: 3400 ~ 3600 MHz
	5G NR n5	TX: 824 ~ 849 MHz	RX: 869 ~ 894 MHz
	5G NR n7	TX: 2500 ~ 2570 MHz	RX: 2620 ~ 2690 MHz

	5G NR n12	TX: 699 ~ 716 MHz	RX: 729 ~ 746 MHz
	5G NR n66	TX:1710 ~ 1780 MHz	RX: 2110 ~ 2200 MHz
	5G NR n38	TX: 2570 ~ 2620 MHz	RX: 2570 ~ 2620 MHz
	5G NR n41	TX: 2496 ~ 2690 MHz	RX: 2496 ~ 2690 MHz
	5G NR n77	TX: 3450 ~ 3550 MHz	RX: 3450 ~ 3550 MHz
		TX: 3700 ~ 3980 MHz	RX: 3700~ 3980 MHz
	5G NR n78	TX:3300 ~ 3800 MHz	RX: 3300 ~ 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 NFC: Coil 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	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 (0 mm)	Body-worn (10 mm)	Hotspot (10 mm)	Specific (0 mm)	Head (0 mm)	Body-worn (10 mm)	Hotspot (10 mm)	Specific (0 mm)
PCE	GSM850	0.97	0.49	0.82	/	1.19	0.76	0.96	0.39
	GSM1900	0.58	0.32	0.42	/				
	WCDMA B2	1.19	0.42	0.65	/				
	WCDMA B4	1.08	0.47	0.54	/				
	WCDMA B5	0.86	0.45	0.87	/				
	LTE B2	0.89	0.31	0.41	/				
	LTE B5	0.60	0.41	0.65	/				
	LTE B7	0.53	0.29	0.36	/				
	LTE B12	0.66	0.48	0.83	/				
	LTE B13	0.43	0.39	0.75	/				
	LTE B66	0.91	0.76	0.96	/				
	LTE B41	0.68	0.41	0.42	/				
	LTE B42	0.51	0.24	0.29	/				
	n5	0.45	0.32	0.50	/				
	n7	0.81	0.33	0.35	/				
	n12	0.60	0.41	0.86	/				
	n66	0.41	0.35	0.41	/				
	n38	0.68	0.24	0.26	/				
	n41	1.04	0.35	0.37	/				
	n77	0.54	0.41	0.42	/				
n78	0.43	0.40	0.41	/					
DTS	2.4G WIFI	0.38	0.13	0.13	/				
NII	5G WIFI	0.35	0.11	0.37	0.39				
DSS	Bluetooth	0.21	0.07	0.08	/				
Limits (W/kg)		1.6			4	1.6			4
Test Verdict		Pass							

Note 1: This device supports LTE B12, LTE B17 and LTE B38, LTE B41. Since the supported frequency span for LTE B17 falls completely within the supports frequency span for LTE B12, Since the supported frequency span for LTE B41 falls completely within the supports frequency span for LTE B38; these LTE bands share the same transmission path, and B12 have same target power as LTE B17, and LTE B41 have same target power as LTE B38; Therefore, SAR was only assessed for LTE B12, LTE B41.

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	0.96	1.07	/
DTS	1.59	0.96	0.96	/
NII	1.56	0.94	1.07	/
DSS	1.59	0.96	1.07	/
Limit (W/Kg)	1.60	1.60	1.60	4.00
Verdict	Pass			
Note: The highest simultaneous SAR please refer section 12.2				

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_i) 1g	(c_i) 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 _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	±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

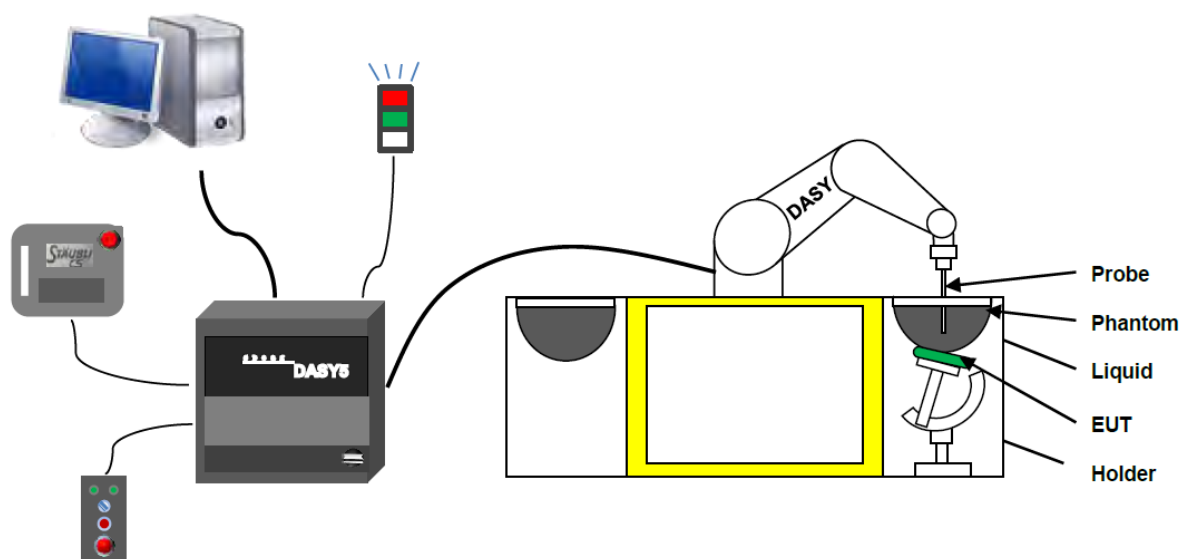
$$\text{SAR} = \frac{\sigma E^2}{\rho}$$

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

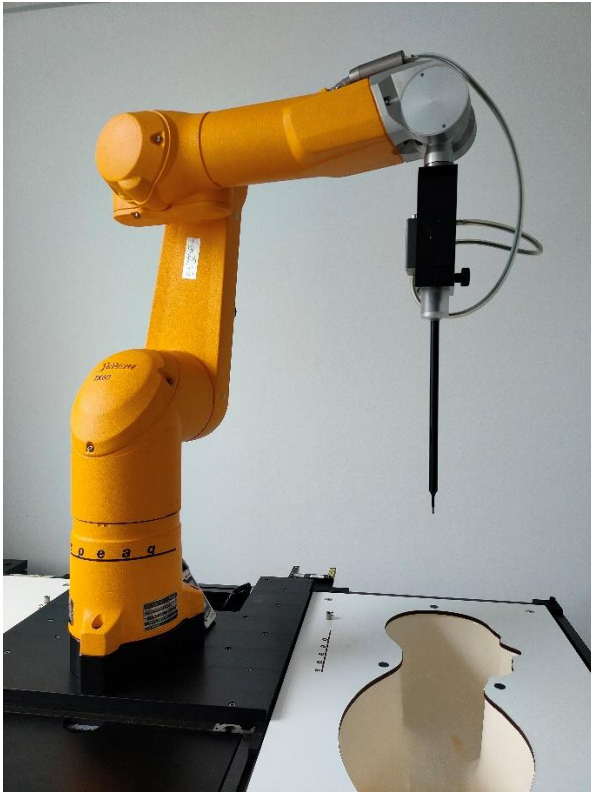


The DASY5 system for performing compliance tests consists of the following items:

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

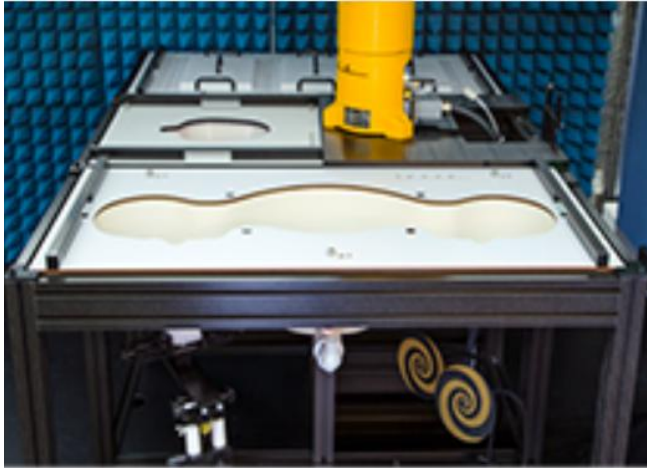
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



Serial Number	Material	Length	Height
SN 1857 SAM1	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.

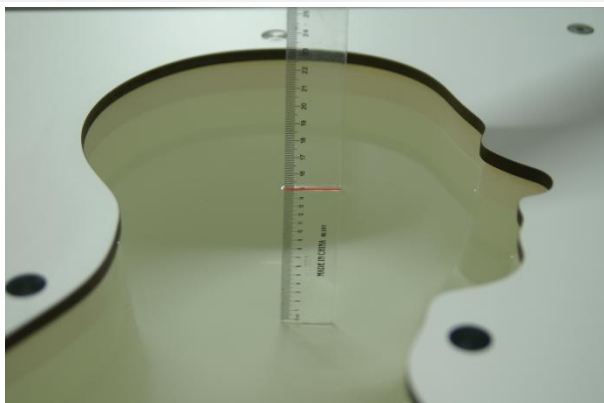


The positioning system allows obtaining cheek and tilting position with a very good accuracy. Incompliance with CENELEC, the tilt angle uncertainty is lower than 1° .

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

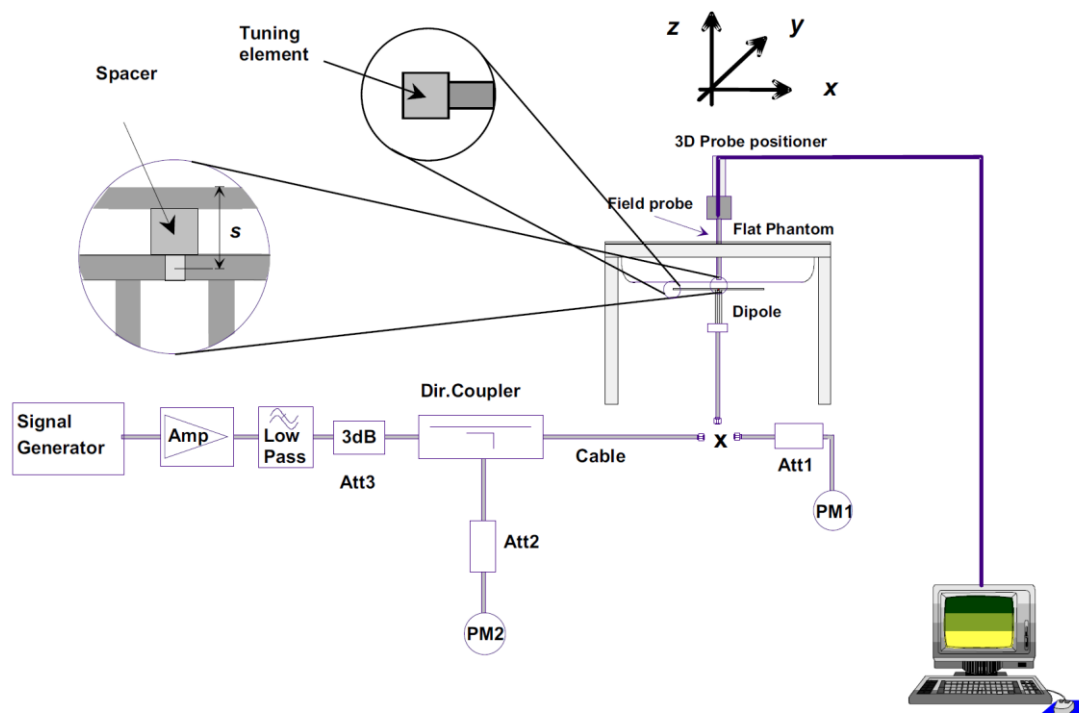
5 SYSTEM VERIFICATION

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

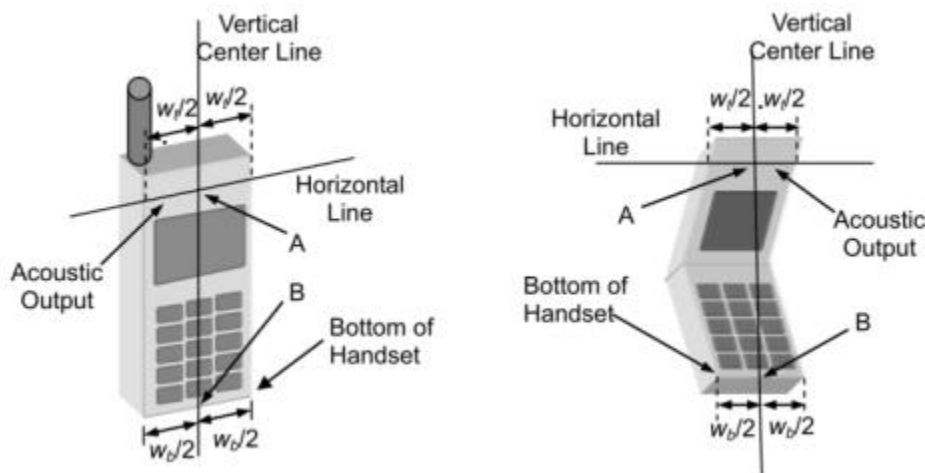
According to KDB 648474 D04 Handset, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

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.

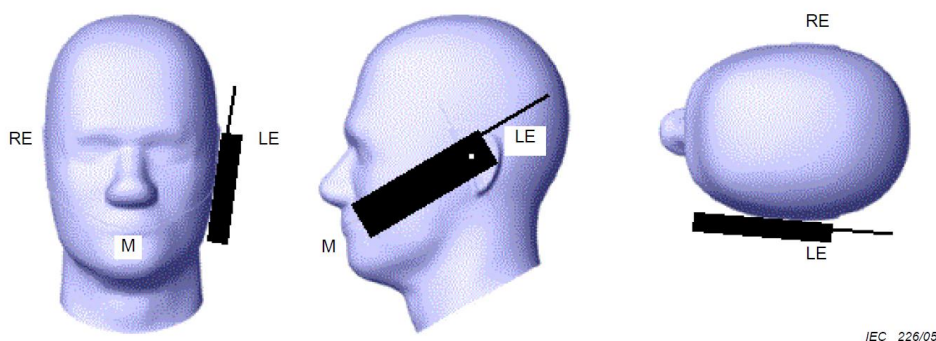
6.1.1 Two Imaginary Lines on the Handset

- 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.

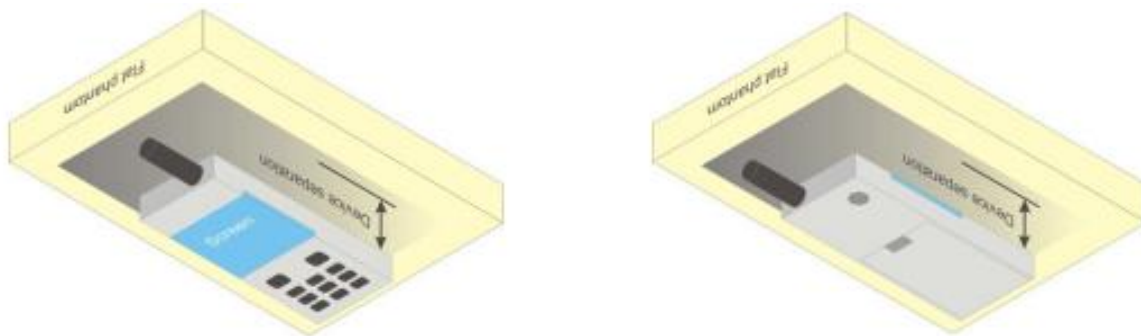


6.2 Body-worn Position Conditions

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.

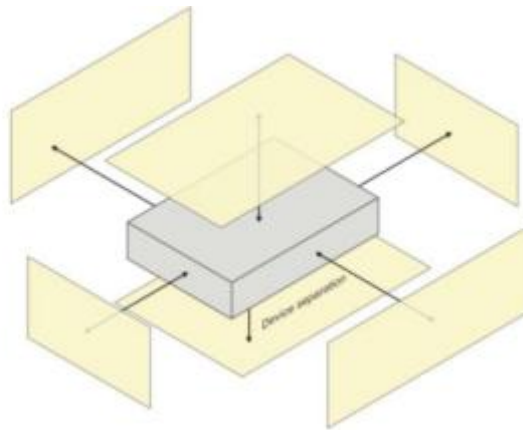
Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics.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



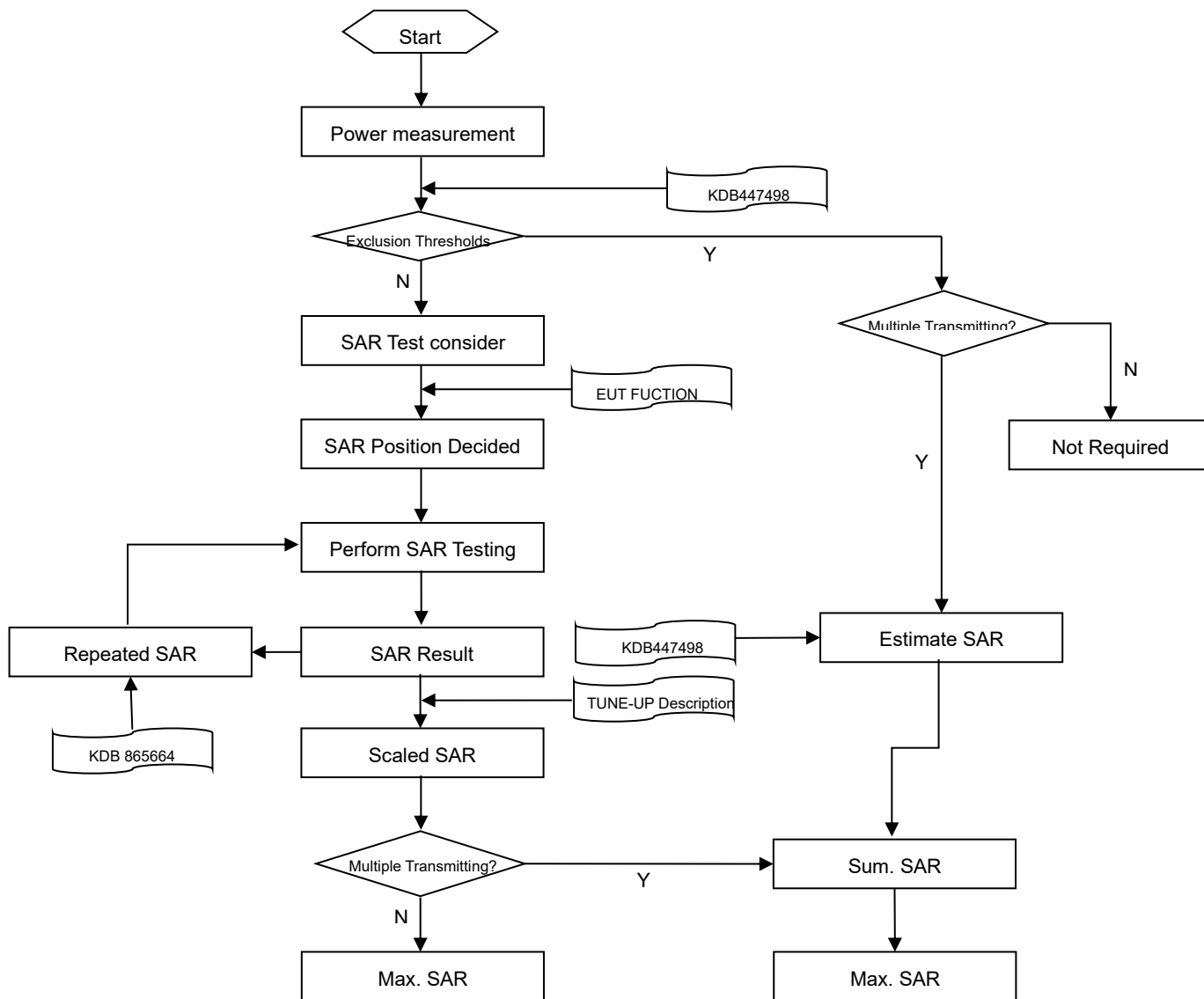
6.4 Product Specific 10g Exposure Consideration

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-SH25A1131-AP.pdf”.

8.2 WCDMA

Please refer the document “BL-SH25A1131-AP.pdf”.

8.3 LTE

Please refer the document “BL-SH25A1131-AP.pdf”.

8.4 Intra-Band Uplink CA Normal Power

Please refer the document “BL-SH25A1131-AP.pdf”.

8.5 NR

Please refer the document “BL-SH25A1131-AP.pdf”.

8.6 WIFI

8.6.1 2.4G WIFI ANT12-Full 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	18.29	18.50	Yes
		6	2437	18.18	18.50	No
		11	2462	17.93	18.50	No
	802.11g	1	2412	16.68	17.00	No
		6	2437	16.35	17.00	No
		11	2462	16.22	17.00	No
	802.11n(HT20)	1	2412	17.51	18.00	No
		6	2437	17.24	18.00	No
		11	2462	17.06	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.
- 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 = $0.171 * (63.10\text{mW}/70.79\text{mW}) = 0.152$ W/Kg, so 2.4G OFDM SAR test is not required.

8.6.2 2.4G WIFI ANT13-Full 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	17.07	18.00	No
		6	2437	17.09	18.00	Yes
		11	2462	16.59	18.00	No
	802.11g	1	2412	15.34	17.00	No
		6	2437	15.44	17.00	No
		11	2462	15.20	17.00	No
	802.11n(HT20)	1	2412	16.46	18.00	No
		6	2437	16.22	18.00	No
		11	2462	15.81	17.50	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 = $0.171 * (63.10\text{mW}/63.10\text{mW}) = 0.171$ W/Kg, so 2.4G OFDM SAR test is not required.

8.6.3 5G WIFI

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	14.56	16.00	No
		44	5220	14.27	16.00	No
		48	5240	14.66	16.00	No
	802.11n(HT20)	36	5180	15.19	16.50	No
		44	5220	15.13	16.50	No
		48	5240	15.39	16.50	No
	802.11n(HT40)	38	5190	15.42	16.50	No
		46	5230	15.34	16.50	No
	802.11ac(VHT20)	36	5180	15.35	16.50	No
		44	5220	15.22	16.50	No
		48	5240	15.54	16.50	No
	802.11ac(VHT40)	38	5190	15.52	16.50	No
		46	5230	15.36	16.50	No
5.3 (5.25~5.35)	802.11a	42	5210	15.33	16.50	Yes
		52	5260	14.77	16.00	No
		60	5300	14.56	16.00	No
	802.11n(HT20)	64	5320	14.42	16.00	No
		52	5260	15.55	16.50	No
		60	5300	15.87	16.50	No
	802.11n(HT40)	64	5320	15.41	16.50	No
		54	5270	15.62	16.50	No
		62	5310	15.62	16.50	No
	802.11ac(VHT20)	52	5260	15.43	16.50	No
		60	5300	15.54	16.50	No
		64	5320	15.42	16.50	No
	802.11ac(VHT40)	54	5270	15.96	16.50	No
		62	5310	15.52	16.50	No
5.6	802.11a	58	5290	15.59	16.50	Yes
		100	5500	14.40	15.50	No

(5.47~5.725)		116	5580	14.23	15.50	No
		140	5700	13.84	15.50	No
	802.11n(HT20)	100	5500	15.25	16.50	No
		116	5580	15.29	16.50	No
		140	5700	14.77	16.00	No
	802.11n(HT40)	102	5510	15.32	16.50	No
		118	5590	15.13	16.50	No
		134	5670	14.83	16.50	No
	802.11ac(VHT20)	100	5500	14.82	16.50	No
		116	5580	14.44	16.00	No
		140	5700	13.79	15.50	No
	802.11ac(VHT40)	102	5510	14.12	16.00	No
		118	5590	14.58	16.50	No
		134	5670	14.97	16.50	No
	802.11ac(VHT80)	106	5530	15.53	16.50	Yes
		122	5690	15.25	16.50	No
5.8 (5.725~5.850)	802.11a	149	5745	14.13	15.00	No
		157	5785	14.28	15.00	No
		165	5825	14.08	15.00	No
	802.11n(HT20)	149	5745	15.03	16.00	No
		157	5785	15.14	16.00	No
		165	5825	15.17	16.00	No
	802.11n(HT40)	151	5755	14.91	16.00	No
		159	5795	15.18	16.00	No
	802.11ac(VHT20)	149	5745	15.10	16.00	No
		157	5785	15.11	16.00	No
		165	5825	14.99	16.00	No
	802.11ac(VHT40)	151	5755	15.19	16.00	No
		159	5795	15.01	16.00	No
	802.11ac(VHT80)	155	5775	15.67	16.50	Yes

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) 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.
- 2) The largest channel bandwidth configuration is selected among the multiple configurations in a frequency band with the same maximum tune-up output power.
- 3) When multiple transmission modes (802.11a/g/n/ac) 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., 802.11a is chosen over 802.11n then 802.11ac.

8.7 Bluetooth

8.7.1 Bluetooth Ant.12-Full Power

Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
EIRP (dBm)	13.62	13.99	10.27	13.82	13.68	10.09
Tune-Up Limit (dBm)	15.00	15.00	11.50	15.00	15.00	11.50
SAR Test Require	NO	YES	NO	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
EIRP (dBm)	13.90	13.74	10.21	/	/	/
Tune-Up Limit (dBm)	15.00	15.00	11.50	/		
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
EIRP (dBm)	-4.73	-3.68	-4.19	-4.61	-3.60	-3.78
Tune-Up Limit (dBm)	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
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.						

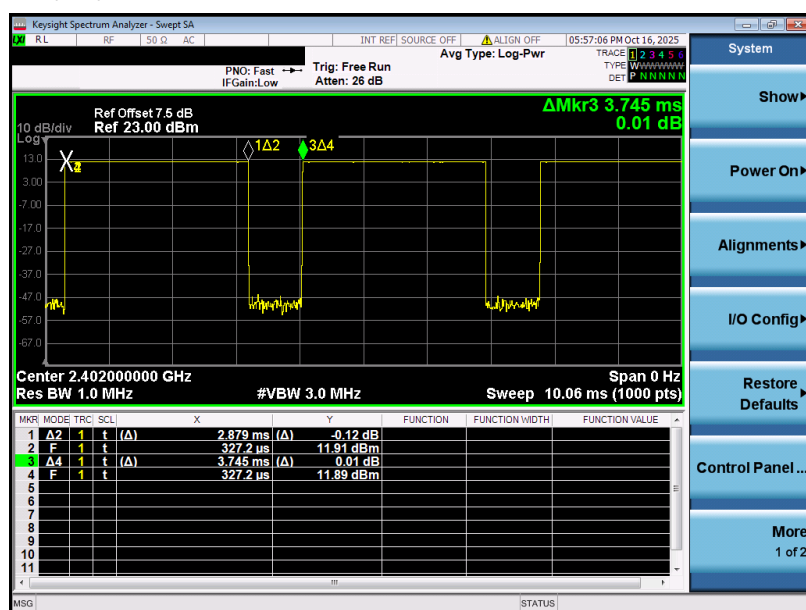
8.7.2 Bluetooth Ant.13-Full Power

Mode	GFSK			π/4-DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
EIRP (dBm)	9.65	11.99	14.61	8.64	11.12	14.04
Tune-Up Limit (dBm)	10.50	13.00	15.00	9.50	12.00	15.00
SAR Test Require	NO	NO	YES	NO	NO	NO
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
EIRP (dBm)	8.61	11.13	14.01	/	/	/
Tune-Up Limit (dBm)	9.50	12.00	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
EIRP (dBm)	-4.18	-2.16	-3.23	-4.17	-2.48	-2.87
Tune-Up Limit (dBm)	-3.00	2.00	-2.00	-3.00	-2.00	-2.00
SAR Test Require	NO	NO	NO	NO	NO	NO

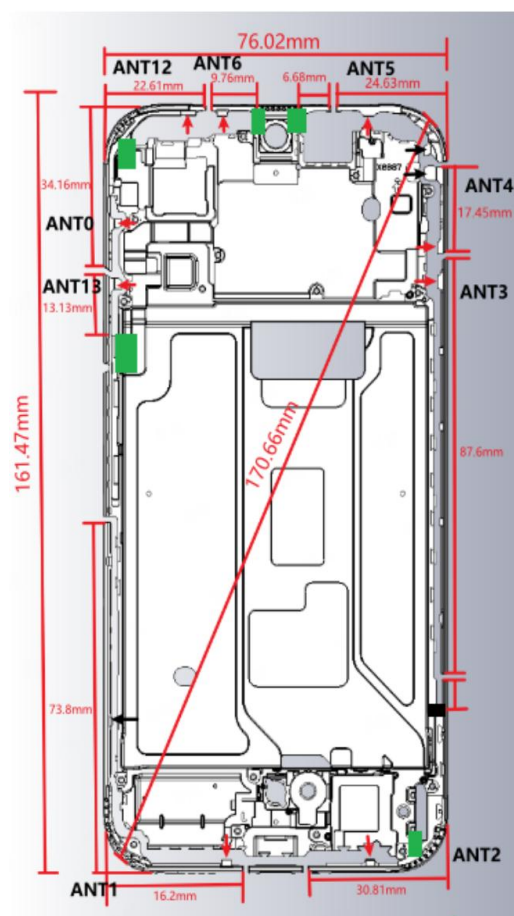
Note 1: Since Bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 76.7 % 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	LTE B42 NR n77/n78
Ant.1	GSM 850 WCDMA B5 LTE B5/B12/B13/B17 NR n1/n12
Ant.2	GSM 1900 WCDMA B2/B4 LTE B2/B4/B7/B66/B41 NR n7/n66/n38/n41
Ant.3	GSM 850 WCDMA B5 LTE B5/B12/B13/B17/B42 NR n1/n12/n77/n78
Ant.4	RX only
Ant.5	GSM 1900 WCDMA B2/B4

	LTE B2/B4/B7/B66/B41/B42 NR n7/n66/n38/n41/n77/n78
Ant.6	LTE B42/n77/n78 WIFI 5G
Ant.12	BT/WIFI 2.4G
Ant.13	BT/WIFI 2.4G

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.1	<25	<25	>25	<25	>25	<25
Ant.2	<25	<25	<25	>25	>25	<25
Ant.3	<25	<25	<25	>25	>25	>25
Ant.5	<25	<25	<25	>25	<25	>25
Ant.6	<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

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
Ant.1	GPRS 2TX	Left cheek	0	190	836.6	-0.09	0.055	24.78	26.00	1.324	0.073	
		Left tilt		190	836.6	-0.04	0.012	24.78	26.00	1.324	0.016	
		Right cheek		190	836.6	0.17	0.048	24.78	26.00	1.324	0.064	
		Right tilt		190	836.6	0.14	0.010	24.78	26.00	1.324	0.013	
Ant.3	GPRS 2TX	Left cheek	0	190	836.6	0.09	0.618	25.37	26.50	1.297	0.802	
		Left tilt		190	836.6	-0.06	0.084	25.37	26.50	1.297	0.109	
		Right cheek		190	836.6	0.06	0.297	25.37	26.50	1.297	0.385	
		Right tilt		190	836.6	0.19	0.078	25.37	26.50	1.297	0.101	
		Left Cheek		128	824.2	0.04	0.717	25.20	26.50	1.349	0.967	1
		Left Cheek		251	848.8	0.15	0.640	25.24	26.50	1.337	0.855	
Body-worn& Hotspot												
Ant.1	GPRS 2TX	Front side	10	190	836.6	0.12	0.076	24.78	26.00	1.324	0.101	
		Back side		190	836.6	0.05	0.089	24.78	26.00	1.324	0.118	
		Right side		190	836.6	-0.19	0.153	24.78	26.00	1.324	0.203	
		Bottom side		190	836.6	-0.12	0.043	24.78	26.00	1.324	0.057	
Ant.3	GPRS 2TX	Front side	10	251	848.8	0.12	0.295	25.37	26.50	1.297	0.383	
		Back side		251	848.8	0.15	0.374	25.37	26.50	1.297	0.485	
		Left side		251	848.8	0.13	0.634	25.37	26.50	1.297	0.822	2
		Left side		128	824.2	-0.10	0.608	25.20	26.50	1.349	0.820	
		Left side		251	848.8	0.15	0.452	25.24	26.50	1.337	0.604	

10.2 GSM 1900

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
Ant.2	GPRS 2TX	Left cheek	0	810	1909.8	-0.05	0.042	27.81	28.50	1.172	0.049	
		Left tilt		810	1909.8	-0.03	0.012	27.81	28.50	1.172	0.014	
		Right cheek		810	1909.8	0.09	0.036	27.81	28.50	1.172	0.042	
		Right tilt		810	1909.8	0.01	0.010	27.81	28.50	1.172	0.012	
Ant.5	GPRS 2TX	Left cheek	0	661	1880	-0.18	0.236	27.15	28.00	1.216	0.287	
		Left tilt		661	1880	-0.10	0.306	27.15	28.00	1.216	0.372	
		Right cheek		661	1880	0.04	0.475	27.15	28.00	1.216	0.578	3
		Right tilt		661	1880	-0.09	0.292	27.15	28.00	1.216	0.355	
Body-worn& Hotspot												
Ant.2	GPRS 2TX	Front side	10	810	1909.8	-0.15	0.241	27.81	28.50	1.172	0.282	
		Back side		810	1909.8	0.18	0.270	27.81	28.50	1.172	0.316	
		Left side		810	1909.8	0.12	0.093	27.81	28.50	1.172	0.109	
		Bottom side		810	1909.8	-0.04	0.360	27.81	28.50	1.172	0.422	4
Ant.5	GPRS 2TX	Front side	10	661	1880	-0.07	0.077	27.15	28.00	1.216	0.094	
		Back side		661	1880	-0.15	0.126	27.15	28.00	1.216	0.153	
		Left side		661	1880	-0.14	0.018	27.15	28.00	1.216	0.022	
		Top side		661	1880	-0.07	0.184	27.15	28.00	1.216	0.224	

10.3WCDMA Band 2

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
Ant.2	RMC	Left cheek	0	9400	1880	0.04	0.053	23.83	24.50	1.167	0.062	
		Left tilt		9400	1880	0.09	0.012	23.83	24.50	1.167	0.014	
		Right cheek		9400	1880	-0.12	0.058	23.83	24.50	1.167	0.068	
		Right tilt		9400	1880	0.06	0.046	23.83	24.50	1.167	0.054	
Ant.5	RMC	Left cheek	0	9400	1880	-0.04	0.595	23.15	24.00	1.216	0.724	
		Left tilt		9400	1880	-0.19	0.587	23.15	24.00	1.216	0.714	
		Right cheek		9400	1880	-0.02	0.861	23.15	24.00	1.216	1.047	
		Right tilt		9400	1880	-0.07	0.605	23.15	24.00	1.216	0.736	
		Right cheek		9262	1852.4	-0.11	0.864	23.10	24.00	1.230	1.063	
		Right cheek		9538	1907.6	-0.06	0.946	23.01	24.00	1.256	1.188	5
		Right cheek		9538	1907.6	-0.02	0.932	23.01	24.00	1.256	1.171	Repeat
Body-worn& Hotspot												
Ant.2	RMC	Front side	10	9400	1880	-0.14	0.302	23.83	24.50	1.167	0.352	
		Back side		9400	1880	-0.02	0.362	23.83	24.50	1.167	0.422	
		Left side		9400	1880	0.06	0.128	23.83	24.50	1.167	0.149	
		Bottom side		9400	1880	-0.12	0.556	23.83	24.50	1.167	0.649	6
Ant.5	RMC	Front side	10	9400	1880	-0.18	0.169	23.15	24.00	1.216	0.206	
		Back side		9400	1880	-0.09	0.238	23.15	24.00	1.216	0.289	
		Left side		9400	1880	0.08	0.054	23.15	24.00	1.216	0.066	
		Top side		9400	1880	0.14	0.337	23.15	24.00	1.216	0.410	

10.4WCDMA Band 4

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
Ant.2	RMC	Left Cheek	0	1412	1732.4	0.01	0.058	24.15	24.50	1.084	0.063	
		Left tilt		1412	1732.4	-0.19	0.012	24.15	24.50	1.084	0.013	
		Right Cheek		1412	1732.4	0.12	0.074	24.15	24.50	1.084	0.080	
		Right tilt		1412	1732.4	0.06	0.045	24.15	24.50	1.084	0.049	
Ant.5	RMC	Left Cheek	0	1412	1732.4	0.15	0.579	23.64	24.00	1.086	0.629	
		Left tilt		1412	1732.4	-0.1	0.616	23.64	24.00	1.086	0.669	
		Right Cheek		1412	1732.4	-0.12	0.924	23.64	24.00	1.086	1.004	
		Right tilt		1412	1732.4	-0.1	0.734	23.64	24.00	1.086	0.797	
		Right Cheek		1312	1712.4	-0.13	0.878	23.55	24.00	1.109	0.974	
		Right Cheek		1513	1752.6	-0.04	0.948	23.42	24.00	1.143	1.083	7
		Right Cheek		1513	1752.6	-0.06	0.937	23.42	24.00	1.143	1.071	Repeat
Body-worn& Hotspot												
Ant.2	RMC	Front side	10	1412	1732.4	-0.06	0.331	24.15	24.50	1.084	0.359	
		Back side		1412	1732.4	-0.17	0.437	24.15	24.50	1.084	0.474	
		Left side		1412	1732.4	0.07	0.128	24.15	24.50	1.084	0.139	
		Bottom side		1412	1732.4	0.17	0.495	24.15	24.50	1.084	0.537	
Ant.5	RMC	Front side	10	1412	1732.4	-0.1	0.332	23.64	24.00	1.086	0.361	
		Back side		1412	1732.4	0.08	0.426	23.64	24.00	1.086	0.463	
		Left side		1412	1732.4	0.07	0.047	23.64	24.00	1.086	0.051	
		Top side		1412	1732.4	-0.01	0.498	23.64	24.00	1.086	0.541	8

10.5WCDMA Band 5

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head												
Ant.1	RMC	Left cheek	0	4183	836.6	-0.09	0.062	20.24	21.00	1.191	0.074	
		Left tilt		4183	836.6	0.04	0.020	20.24	21.00	1.191	0.024	
		Right cheek		4183	836.6	0.18	0.053	20.24	21.00	1.191	0.063	
		Right tilt		4183	836.6	-0.1	0.016	20.24	21.00	1.191	0.019	
Ant.3	RMC	Left cheek	0	4183	836.6	-0.01	0.658	20.62	21.50	1.225	0.806	
		Left tilt		4183	836.6	0.12	0.090	20.62	21.50	1.225	0.110	
		Right cheek		4183	836.6	0.19	0.342	20.62	21.50	1.225	0.419	
		Right tilt		4183	836.6	0.06	0.105	20.62	21.50	1.225	0.129	
		Left Cheek		4132	826.4	0.07	0.599	20.58	21.50	1.236	0.740	
		Left Cheek		4233	846.6	-0.05	0.691	20.57	21.50	1.239	0.856	9
Body-worn& Hotspot												
Ant.1	RMC	Front side	10	4183	836.6	0.01	0.071	20.24	21.00	1.191	0.085	
		Back side		4183	836.6	-0.18	0.084	20.24	21.00	1.191	0.100	
		Right side		4183	836.6	-0.09	0.114	20.24	21.00	1.191	0.136	
		Bottom side		4183	836.6	0.16	0.012	20.24	21.00	1.191	0.014	
Ant.3	RMC	Front side	10	4183	836.6	0.17	0.333	20.62	21.50	1.225	0.408	
		Back side		4183	836.6	-0.02	0.367	20.62	21.50	1.225	0.449	
		Left side		4183	836.6	-0.04	0.709	20.62	21.50	1.225	0.868	10

10.6LTE Band 2 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	QPSK	Left cheek	0	18900	1880	1	0	-0.08	0.042	22.59	23.00	1.099	0.046	
		Left tilt		18900	1880	1	0	-0.13	0.021	22.59	23.00	1.099	0.023	
		Right cheek		18900	1880	1	0	-0.10	0.095	22.59	23.00	1.099	0.104	
		Right tilt		18900	1880	1	0	-0.08	0.066	22.59	23.00	1.099	0.073	
		Left cheek		18900	1880	50	0	0.10	0.064	21.52	22.00	1.117	0.071	
		Left tilt		18900	1880	50	0	-0.07	0.045	21.52	22.00	1.117	0.050	
		Right cheek		18900	1880	50	0	0.17	0.087	21.52	22.00	1.117	0.097	
		Right tilt		18900	1880	50	0	0.02	0.058	21.52	22.00	1.117	0.065	
Ant.5	QPSK	Left cheek	0	18900	1880	1	0	0.15	0.543	22.33	23.00	1.167	0.634	
		Left tilt		18900	1880	1	0	-0.08	0.623	22.33	23.00	1.167	0.727	
		Right cheek		18900	1880	1	0	0.09	0.688	22.33	23.00	1.167	0.803	
		Right tilt		18900	1880	1	0	-0.06	0.456	22.33	23.00	1.167	0.532	
		Right cheek		18700	1860	1	0	0.11	0.566	22.23	23.00	1.194	0.676	
		Right cheek		19100	1900	1	0	-0.07	0.743	22.22	23.00	1.197	0.889	11
		Left cheek		18900	1880	50	0	-0.17	0.455	21.31	22.00	1.172	0.533	
		Left tilt		18900	1880	50	0	0.09	0.493	21.31	22.00	1.172	0.578	
		Right cheek		18900	1880	50	0	-0.18	0.612	21.31	22.00	1.172	0.717	
		Right tilt		18900	1880	50	0	-0.10	0.446	21.31	22.00	1.172	0.523	
		Right cheek		18900	1880	100	0	-0.15	0.605	21.21	22.00	1.199	0.726	
		Body-worn& Hotspot												
Ant.2	QPSK	Front side	10	18900	1880	1	0	-0.07	0.250	22.59	23.00	1.099	0.275	
		Back side		18900	1880	1	0	0.14	0.285	22.59	23.00	1.099	0.313	
		Left side		18900	1880	1	0	-0.10	0.098	22.59	23.00	1.099	0.108	
		Bottom side		18900	1880	1	0	0.19	0.342	22.59	23.00	1.099	0.376	
		Front side		18900	1880	50	0	-0.19	0.204	21.52	22.00	1.117	0.228	
		Back side		18900	1880	50	0	0.10	0.234	21.52	22.00	1.117	0.261	
		Left side		18900	1880	50	0	0.10	0.096	21.52	22.00	1.117	0.107	
		Bottom side		18900	1880	50	0	-0.05	0.322	21.52	22.00	1.117	0.360	
Ant.5	QPSK	Front side	10	18900	1880	1	0	0.03	0.189	22.33	23.00	1.167	0.221	
		Back side		18900	1880	1	0	0.06	0.247	22.33	23.00	1.167	0.288	
		Left side		18900	1880	1	0	-0.09	0.069	22.33	23.00	1.167	0.081	
		Top side		18900	1880	1	0	-0.12	0.352	22.33	23.00	1.167	0.411	12
		Front side		18900	1880	50	0	-0.12	0.154	21.31	22.00	1.172	0.181	
		Back side		18900	1880	50	0	0.11	0.217	21.31	22.00	1.172	0.254	
		Left side		18900	1880	50	0	-0.01	0.048	21.31	22.00	1.172	0.056	
		Top side		18900	1880	50	0	-0.19	0.302	21.31	22.00	1.172	0.354	

10.7LTE Band 5 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.1	QPSK	Left cheek	0	20525	836.5	1	0	0.15	0.096	19.71	20.50	1.199	0.115	
		Left tilt		20525	836.5	1	0	0.12	0.046	19.71	20.50	1.199	0.055	
		Right cheek		20525	836.5	1	0	0.01	0.055	19.71	20.50	1.199	0.066	
		Right tilt		20525	836.5	1	0	-0.18	0.024	19.71	20.50	1.199	0.029	
		Left cheek		20525	836.5	25	0	-0.10	0.077	18.74	19.50	1.191	0.092	
		Left tilt		20525	836.5	25	0	-0.12	0.024	18.74	19.50	1.191	0.029	
		Right cheek		20525	836.5	25	0	-0.13	0.054	18.74	19.50	1.191	0.064	
		Right tilt		20525	836.5	25	0	0.15	0.022	18.74	19.50	1.191	0.026	
Ant.3	QPSK	Left cheek	0	20525	836.5	1	0	-0.08	0.492	19.67	20.50	1.211	0.596	13
		Left tilt		20525	836.5	1	0	-0.01	0.068	19.67	20.50	1.211	0.082	
		Right cheek		20525	836.5	1	0	0.08	0.208	19.67	20.50	1.211	0.252	
		Right tilt		20525	836.5	1	0	0.08	0.071	19.67	20.50	1.211	0.086	
		Left cheek		20525	836.5	25	0	0.12	0.450	18.71	19.50	1.199	0.540	
		Left tilt		20525	836.5	25	0	-0.09	0.080	18.71	19.50	1.199	0.096	
		Right cheek		20525	836.5	25	0	0.11	0.213	18.71	19.50	1.199	0.255	
		Right tilt		20525	836.5	25	0	0.06	0.073	18.71	19.50	1.199	0.088	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	20525	836.5	1	0	-0.12	0.106	19.71	20.50	1.199	0.127	
		Back side		20525	836.5	1	0	-0.17	0.123	19.71	20.50	1.199	0.148	
		Right side		20525	836.5	1	0	0.01	0.187	19.71	20.50	1.199	0.224	
		Bottom side		20525	836.5	1	0	-0.18	0.064	19.71	20.50	1.199	0.077	
		Front side		20525	836.5	25	0	-0.02	0.109	18.74	19.50	1.191	0.130	
		Back side		20525	836.5	25	0	-0.03	0.122	18.74	19.50	1.191	0.145	
		Right side		20525	836.5	25	0	0.15	0.240	18.74	19.50	1.191	0.286	
		Bottom side		20525	836.5	25	0	-0.04	0.067	18.74	19.50	1.191	0.080	
Ant.3	QPSK	Front side	10	20525	836.5	1	0	-0.18	0.300	19.67	20.50	1.211	0.363	
		Back side		20525	836.5	1	0	0.07	0.336	19.67	20.50	1.211	0.407	
		Left side		20525	836.5	1	0	0.11	0.534	19.67	20.50	1.211	0.646	14
		Front side		20525	836.5	25	0	-0.04	0.249	18.71	19.50	1.199	0.299	
		Back side		20525	836.5	25	0	0.19	0.285	18.71	19.50	1.199	0.342	
		Left side		20525	836.5	25	0	0.02	0.454	18.71	19.50	1.199	0.545	

10.8LTE Band 5 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.3	QPSK	Left cheek	0	20575+20476	836.5	1+25	1+0	0.02	0.465	19.53	20.50	1.250	0.581	
Body-worn& Hotspot														
Ant.3	QPSK	Left side	10	20575+20476	836.5	1+25	1+0	0.03	0.503	19.53	20.50	1.250	0.629	

10.9LTE Band 7 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	QPSK	Left cheek	0	21100	2535	1	0	0.15	0.060	20.83	21.50	1.167	0.070	
		Left tilt		21100	2535	1	0	0.06	0.072	20.83	21.50	1.167	0.084	
		Right cheek		21100	2535	1	0	0.12	0.135	20.83	21.50	1.167	0.158	
		Right tilt		21100	2535	1	0	0.05	0.084	20.83	21.50	1.167	0.098	
		Left cheek		21100	2535	50	0	0.12	0.058	19.77	20.50	1.183	0.069	
		Left tilt		21100	2535	50	0	0.11	0.056	19.77	20.50	1.183	0.066	
		Right cheek		21100	2535	50	0	0.17	0.133	19.77	20.50	1.183	0.157	
		Right tilt		21100	2535	50	0	0.04	0.083	19.77	20.50	1.183	0.098	
Ant.5	QPSK	Left cheek	0	21100	2535	1	0	0.14	0.324	21.09	21.50	1.099	0.356	
		Left tilt		21100	2535	1	0	0.03	0.466	21.09	21.50	1.099	0.512	
		Right cheek		21100	2535	1	0	0.06	0.483	21.09	21.50	1.099	0.531	15
		Right tilt		21100	2535	1	0	-0.19	0.456	21.09	21.50	1.099	0.501	
		Left cheek		21100	2535	50	0	-0.17	0.265	20.05	20.50	1.109	0.294	
		Left tilt		21100	2535	50	0	0.03	0.375	20.05	20.50	1.109	0.416	
		Right cheek		21100	2535	50	0	0.17	0.476	20.05	20.50	1.109	0.528	
		Right tilt		21100	2535	50	0	-0.01	0.446	20.05	20.50	1.109	0.495	
Body-worn& Hotspot														
Ant.2	QPSK	Front side	10	21100	2535	1	0	0.18	0.223	20.83	21.50	1.167	0.260	
		Back side		21100	2535	1	0	-0.11	0.247	20.83	21.50	1.167	0.288	
		Left side		21100	2535	1	0	-0.10	0.045	20.83	21.50	1.167	0.053	
		Bottom side		21100	2535	1	0	0.15	0.305	20.83	21.50	1.167	0.356	16
		Front side		21100	2535	50	0	-0.13	0.186	19.77	20.50	1.183	0.220	
		Back side		21100	2535	50	0	0.14	0.201	19.77	20.50	1.183	0.238	

		Left side		21100	2535	50	0	0.12	0.039	19.77	20.50	1.183	0.046	
		Bottom side		21100	2535	50	0	0.07	0.283	19.77	20.50	1.183	0.335	
Ant.5	QPSK	Front side	10	21100	2535	1	0	-0.10	0.116	21.09	21.50	1.099	0.127	
		Back side		21100	2535	1	0	0.15	0.189	21.09	21.50	1.099	0.208	
		Left side		21100	2535	1	0	0.17	0.030	21.09	21.50	1.099	0.033	
		Top side		21100	2535	1	0	0.19	0.190	21.09	21.50	1.099	0.209	
		Front side		21100	2535	50	0	-0.03	0.088	20.05	20.50	1.109	0.098	
		Back side		21100	2535	50	0	0.18	0.147	20.05	20.50	1.109	0.163	
		Left side		21100	2535	50	0	0.14	0.045	20.05	20.50	1.109	0.050	
		Top side		21100	2535	50	0	0.12	0.158	20.05	20.50	1.109	0.175	

10.10 LTE Band 7 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.5	QPSK	Right cheek	0	21100+21298	2535	1+99	1+0	0.01	0.427	20.99	21.50	1.125	0.480	
Body-worn& Hotspot														
Ant.2	QPSK	Bottom side	10	21100+21298	2535	1+99	1+0	0.07	0.261	20.70	21.50	1.202	0.314	

10.11 LTE Band 12 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.1	QPSK	Left cheek	0	23095	707.5	1	0	0.10	0.119	24.58	25.00	1.102	0.131	
		Left tilt		23095	707.5	1	0	0.19	0.054	24.58	25.00	1.102	0.059	
		Right cheek		23095	707.5	1	0	-0.11	0.088	24.58	25.00	1.102	0.097	
		Right tilt		23095	707.5	1	0	0.14	0.046	24.58	25.00	1.102	0.051	
		Left cheek		23095	707.5	25	0	0.08	0.097	23.61	24.00	1.094	0.106	
		Left tilt		23095	707.5	25	0	0.05	0.045	23.61	24.00	1.094	0.049	
		Right cheek		23095	707.5	25	0	0.09	0.087	23.61	24.00	1.094	0.095	
		Right tilt		23095	707.5	25	0	0.03	0.045	23.61	24.00	1.094	0.049	
Ant.3	QPSK	Left cheek	0	23095	707.5	1	0	0.09	0.591	24.52	25.00	1.117	0.660	17
		Left tilt		23095	707.5	1	0	-0.15	0.103	24.52	25.00	1.117	0.115	
		Right cheek		23095	707.5	1	0	0.14	0.327	24.52	25.00	1.117	0.365	
		Right tilt		23095	707.5	1	0	0.14	0.150	24.52	25.00	1.117	0.168	
		Left cheek		23095	707.5	25	0	-0.08	0.495	23.51	24.00	1.119	0.554	
		Left tilt		23095	707.5	25	0	0.01	0.092	23.51	24.00	1.119	0.103	
		Right cheek		23095	707.5	25	0	-0.07	0.320	23.51	24.00	1.119	0.358	
		Right tilt		23095	707.5	25	0	-0.01	0.147	23.51	24.00	1.119	0.165	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	23095	707.5	1	0	-0.01	0.230	24.58	25.00	1.102	0.253	
		Back side		23095	707.5	1	0	-0.11	0.225	24.58	25.00	1.102	0.248	
		Right side		23095	707.5	1	0	-0.16	0.239	24.58	25.00	1.102	0.263	
		Bottom side		23095	707.5	1	0	0.15	0.115	24.58	25.00	1.102	0.127	
		Front side		23095	707.5	25	0	0.19	0.153	23.61	24.00	1.094	0.167	
		Back side		23095	707.5	25	0	0.02	0.176	23.61	24.00	1.094	0.193	
		Right side		23095	707.5	25	0	0.18	0.164	23.61	24.00	1.094	0.179	
		Bottom side		23095	707.5	25	0	0.07	0.086	23.61	24.00	1.094	0.094	
Ant.3	QPSK	Front side	10	23095	707.5	1	0	-0.12	0.372	24.52	25.00	1.117	0.415	
		Back side		23095	707.5	1	0	0.12	0.419	24.52	25.00	1.117	0.468	
		Left side		23095	707.5	1	0	-0.09	0.724	24.52	25.00	1.117	0.809	
		Left side		23060	704	1	0	-0.07	0.696	24.51	25.00	1.119	0.779	
		Left side		23130	711	1	0	0.11	0.729	24.42	25.00	1.143	0.833	18
		Front side		23095	707.5	25	0	0.12	0.376	23.51	24.00	1.119	0.421	
		Back side		23095	707.5	25	0	0.01	0.430	23.51	24.00	1.119	0.481	
		Left side		23095	707.5	25	0	-0.08	0.666	23.51	24.00	1.119	0.745	
		Left side		23095	707.5	50	0	-0.18	0.672	23.57	24.00	1.104	0.742	

10.12 LTE Band 13 (10MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.1	QPSK	Left cheek	0	23230	782	1	0	0.06	0.080	24.66	25.00	1.081	0.087	
		Left tilt		23230	782	1	0	0.14	0.045	24.66	25.00	1.081	0.049	
		Right cheek		23230	782	1	0	0.04	0.047	24.66	25.00	1.081	0.051	
		Right tilt		23230	782	1	0	-0.07	0.025	24.66	25.00	1.081	0.027	
		Left cheek		23230	782	25	0	-0.14	0.078	23.82	24.00	1.042	0.081	
		Left tilt		23230	782	25	0	0.10	0.047	23.82	24.00	1.042	0.049	
		Right cheek		23230	782	25	0	-0.05	0.046	23.82	24.00	1.042	0.048	
		Right tilt		23230	782	25	0	0.03	0.025	23.82	24.00	1.042	0.026	
Ant.3	QPSK	Left cheek	0	23230	782	1	0	0.14	0.393	24.63	25.00	1.089	0.428	19
		Left tilt		23230	782	1	0	-0.11	0.083	24.63	25.00	1.089	0.090	
		Right cheek		23230	782	1	0	-0.05	0.238	24.63	25.00	1.089	0.259	
		Right tilt		23230	782	1	0	-0.04	0.093	24.63	25.00	1.089	0.101	
		Left cheek		23230	782	25	0	-0.11	0.369	23.70	24.00	1.072	0.395	
		Left tilt		23230	782	25	0	0.18	0.070	23.70	24.00	1.072	0.075	
		Right cheek		23230	782	25	0	0.15	0.233	23.70	24.00	1.072	0.250	
		Right tilt		23230	782	25	0	-0.08	0.091	23.70	24.00	1.072	0.098	
Body-worn& Hotspot														
Ant.1	QPSK	Front side	10	23230	782	1	0	0.08	0.091	24.66	25.00	1.081	0.098	
		Back side		23230	782	1	0	0.18	0.113	24.66	25.00	1.081	0.122	
		Right side		23230	782	1	0	-0.12	0.196	24.66	25.00	1.081	0.212	
		Bottom side		23230	782	1	0	-0.14	0.062	24.66	25.00	1.081	0.067	
		Front side		23230	782	25	0	0.06	0.068	23.82	24.00	1.042	0.071	
		Back side		23230	782	25	0	-0.14	0.081	23.82	24.00	1.042	0.084	
		Right side		23230	782	25	0	0.01	0.131	23.82	24.00	1.042	0.137	
		Bottom side		23230	782	25	0	-0.05	0.052	23.82	24.00	1.042	0.054	
Ant.3	QPSK	Front side	10	23230	782	1	0	0.14	0.305	24.63	25.00	1.089	0.332	
		Back side		23230	782	1	0	0.01	0.359	24.63	25.00	1.089	0.391	
		Left side		23230	782	1	0	0.09	0.687	24.63	25.00	1.089	0.748	20
		Front side		23230	782	25	0	-0.09	0.210	23.70	24.00	1.072	0.225	
		Back side		23230	782	25	0	0.17	0.238	23.70	24.00	1.072	0.255	
		Left side		23230	782	25	0	-0.04	0.433	23.70	24.00	1.072	0.464	
		Left cheek		23230	782	1	0	0.06	0.080	24.66	25.00	1.081	0.087	
		Left tilt		23230	782	1	0	0.14	0.045	24.66	25.00	1.081	0.049	

10.13 LTE Band 66 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	QPSK	Left cheek	0	132322	1745	1	0	0.17	0.084	24.50	25.50	1.259	0.106	
		Left tilt		132322	1745	1	0	-0.04	0.060	24.50	25.50	1.259	0.076	
		Right cheek		132322	1745	1	0	0.01	0.052	24.50	25.50	1.259	0.065	
		Right tilt		132322	1745	1	0	0.15	0.041	24.50	25.50	1.259	0.052	
		Left cheek		132322	1745	50	0	-0.02	0.063	23.48	24.50	1.265	0.080	
		Left tilt		132322	1745	50	0	-0.12	0.053	23.48	24.50	1.265	0.067	
		Right cheek		132322	1745	50	0	-0.14	0.079	23.48	24.50	1.265	0.100	
		Right tilt		132322	1745	50	0	0.13	0.047	23.48	24.50	1.265	0.059	
Ant.5	QPSK	Left cheek	0	132322	1745	1	0	-0.03	0.611	23.96	24.50	1.132	0.692	
		Left tilt		132322	1745	1	0	-0.01	0.668	23.96	24.50	1.132	0.756	
		Right cheek		132322	1745	1	0	0.19	0.716	23.96	24.50	1.132	0.811	
		Right tilt		132322	1745	1	0	-0.08	0.557	23.96	24.50	1.132	0.631	
		Right cheek		132072	1720	1	0	0.15	0.688	23.76	24.50	1.186	0.816	
		Right cheek		132572	1770	1	0	0.19	0.777	23.81	24.50	1.172	0.911	21
		Left cheek		132322	1745	50	0	-0.05	0.519	23.62	24.00	1.091	0.566	
		Left tilt		132322	1745	50	0	0.12	0.590	23.62	24.00	1.091	0.644	
		Right cheek		132322	1745	50	0	0.09	0.690	23.62	24.00	1.091	0.753	
		Right tilt		132322	1745	50	0	-0.01	0.544	23.62	24.00	1.091	0.594	
		Right cheek		132322	1745	100	0	-0.19	0.701	23.56	24.00	1.107	0.776	
Body-worn& Hotspot														
Ant.2	QPSK	Front side	10	132322	1745	1	0	0.07	0.510	24.50	25.50	1.259	0.642	
		Back side		132322	1745	1	0	0.10	0.601	24.50	25.50	1.259	0.757	
		Left side		132322	1745	1	0	-0.14	0.173	24.50	25.50	1.259	0.218	
		Bottom side		132322	1745	1	0	-0.02	0.756	24.50	25.50	1.259	0.952	
		Bottom side		132072	1720	1	0	-0.16	0.751	24.46	25.50	1.271	0.954	
		Bottom side		132572	1770	1	0	-0.02	0.761	24.48	25.50	1.265	0.962	22
		Front side		132322	1745	50	0	-0.02	0.405	23.48	24.50	1.265	0.512	
		Back side		132322	1745	50	0	-0.15	0.494	23.48	24.50	1.265	0.625	
		Left side		132322	1745	50	0	-0.01	0.141	23.48	24.50	1.265	0.178	
		Bottom side		132322	1745	50	0	-0.19	0.628	23.48	24.50	1.265	0.794	
		Bottom side		132322	1745	100	0	-0.10	0.630	23.44	24.50	1.276	0.804	
Ant.5	QPSK	Front side	10	132322	1745	1	0	-0.06	0.167	23.96	24.50	1.132	0.189	
		Back side		132322	1745	1	0	-0.09	0.239	23.96	24.50	1.132	0.271	
		Left side		132322	1745	1	0	-0.14	0.031	23.96	24.50	1.132	0.035	
		Top side		132322	1745	1	0	-0.10	0.329	23.96	24.50	1.132	0.373	
		Front side		132322	1745	50	0	0.19	0.224	23.62	24.00	1.091	0.244	

		Back side		132322	1745	50	0	0.07	0.314	23.62	24.00	1.091	0.343	
		Left side		132322	1745	50	0	0.06	0.048	23.62	24.00	1.091	0.052	
		Top side		132322	1745	50	0	-0.19	0.361	23.62	24.00	1.091	0.394	

10.14 LTE Band 66 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.5	QPSK	Right cheek	0	132572+132374	1770	1+0	1+99	0.11	0.745	23.77	24.50	1.183	0.881	
Body-worn& Hotspot														
Ant.2	QPSK	Bottom side	10	132572+132374	1770	1+0	1+99	-0.07	0.737	24.37	25.50	1.297	0.956	

10.15 LTE Band 41 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	QPSK	Left cheek	0	40620	2593	1	0	-0.05	0.150	23.08	24.00	1.236	0.185	
		Left tilt		40620	2593	1	0	-0.03	0.056	23.08	24.00	1.236	0.069	
		Right cheek		40620	2593	1	0	0.16	0.084	23.08	24.00	1.236	0.104	
		Right tilt		40620	2593	1	0	-0.03	0.031	23.08	24.00	1.236	0.038	
		Left cheek		40620	2593	50	0	-0.05	0.119	22.18	23.00	1.208	0.144	
		Left tilt		40620	2593	50	0	0.16	0.047	22.18	23.00	1.208	0.057	
		Right cheek		40620	2593	50	0	-0.07	0.081	22.18	23.00	1.208	0.098	
		Right tilt		40620	2593	50	0	0.08	0.030	22.18	23.00	1.208	0.036	
Ant.5	QPSK	Left cheek	0	40620	2593	1	0	-0.17	0.259	23.37	24.50	1.297	0.336	
		Left tilt		40620	2593	1	0	-0.01	0.315	23.37	24.50	1.297	0.409	
		Right cheek		40620	2593	1	0	-0.17	0.483	23.37	24.50	1.297	0.627	
		Right tilt		40620	2593	1	0	-0.01	0.417	23.37	24.50	1.297	0.541	
		Right cheek		39750	2506	1	0	0.01	0.459	23.08	24.50	1.387	0.637	
		Right cheek		40185	2549.5	1	0	0.17	0.469	23.35	24.50	1.303	0.611	
		Right cheek		41055	2636.5	1	0	0.12	0.477	23.13	24.50	1.371	0.654	
		Right cheek		41490	2680	1	0	0.12	0.497	23.11	24.50	1.377	0.684	23
		Left cheek		40620	2593	50	0	0.03	0.207	22.57	23.50	1.239	0.256	
		Left tilt		40620	2593	50	0	-0.1	0.258	22.57	23.50	1.239	0.320	
		Right cheek		40620	2593	50	0	0.02	0.461	22.57	23.50	1.239	0.571	
		Right tilt		40620	2593	50	0	-0.14	0.398	22.57	23.50	1.239	0.493	
		Right cheek		40620	2593	100	0	0.17	0.471	22.44	23.50	1.276	0.601	
Body-worn& Hotspot														
Ant.2	QPSK	Front side	10	40620	2593	1	0	-0.11	0.258	23.08	24.00	1.236	0.319	
		Back side		40620	2593	1	0	-0.02	0.306	23.08	24.00	1.236	0.378	
		Left side		40620	2593	1	0	0.16	0.057	23.08	24.00	1.236	0.070	
		Bottom side		40620	2593	1	0	0.15	0.341	23.08	24.00	1.236	0.421	24
		Front side		40620	2593	50	0	0.01	0.214	22.18	23.00	1.208	0.258	
		Back side		40620	2593	50	0	-0.09	0.244	22.18	23.00	1.208	0.295	
		Left side		40620	2593	50	0	-0.17	0.042	22.18	23.00	1.208	0.051	
		Bottom side		40620	2593	50	0	-0.11	0.326	22.18	23.00	1.208	0.394	
Ant.5	QPSK	Front side	10	40620	2593	1	0	0.05	0.235	23.37	24.50	1.297	0.305	
		Back side		40620	2593	1	0	-0.08	0.317	23.37	24.50	1.297	0.411	
		Left side		40620	2593	1	0	0.19	0.071	23.37	24.50	1.297	0.092	
		Top side		40620	2593	1	0	-0.05	0.307	23.37	24.50	1.297	0.398	
		Front side		40620	2593	50	0	0.12	0.188	22.57	23.50	1.239	0.233	
		Back side		40620	2593	50	0	-0.05	0.315	22.57	23.50	1.239	0.390	

		Left side		40620	2593	50	0	0.06	0.053	22.57	23.50	1.239	0.066	
		Top side		40620	2593	50	0	-0.05	0.265	22.57	23.50	1.239	0.328	

10.16 LTE Band 41 Worse case for CA Test

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.5	QPSK	Right cheek	0	41490+42192	2680	1+0	1+99	0.04	0.427	23.05	24.50	1.396	0.596	
Body-worn& Hotspot														
Ant.2	QPSK	Bottom side	10	40620+40818	2593	1+99	1+0	0.03	0.319	23.02	24.00	1.255	0.400	

10.17 LTE Band 42 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.0	QPSK	Left cheek	0	42590	3500	1	0	0.06	0.183	18.21	19.00	1.199	0.220	
		Left tilt		42590	3500	1	0	0.1	0.060	18.21	19.00	1.199	0.072	
		Right cheek		42590	3500	1	0	0.01	0.087	18.21	19.00	1.199	0.104	
		Right tilt		42590	3500	1	0	-0.15	0.089	18.21	19.00	1.199	0.107	
		Left cheek		42590	3500	50	50	0.03	0.163	17.20	18.00	1.202	0.196	
		Left tilt		42590	3500	50	50	0.07	0.053	17.20	18.00	1.202	0.064	
		Right cheek		42590	3500	50	50	0.11	0.078	17.20	18.00	1.202	0.094	
		Right tilt		42590	3500	50	50	-0.05	0.079	17.20	18.00	1.202	0.095	
Ant.3	QPSK	Left cheek	0	42590	3500	1	0	0.1	0.045	18.49	19.00	1.125	0.051	
		Left tilt		42590	3500	1	0	0.13	0.029	18.49	19.00	1.125	0.033	
		Right cheek		42590	3500	1	0	-0.13	0.104	18.49	19.00	1.125	0.117	
		Right tilt		42590	3500	1	0	0.13	0.048	18.49	19.00	1.125	0.054	
		Left cheek		42590	3500	50	50	0.13	0.040	17.38	18.00	1.153	0.046	
		Left tilt		42590	3500	50	50	0.08	0.026	17.38	18.00	1.153	0.030	
		Right cheek		42590	3500	50	50	-0.18	0.093	17.38	18.00	1.153	0.107	
		Right tilt		42590	3500	50	50	0.04	0.043	17.38	18.00	1.153	0.050	
Ant.5	QPSK	Left cheek	0	42590	3500	1	0	-0.15	0.336	17.39	18.00	1.151	0.387	
		Left tilt		42590	3500	1	0	-0.08	0.406	17.39	18.00	1.151	0.467	
		Right cheek		42590	3500	1	0	-0.07	0.419	17.39	18.00	1.151	0.482	
		Right tilt		42590	3500	1	0	0.15	0.441	17.39	18.00	1.151	0.508	25
		Left cheek		42990	3540	50	0	0.01	0.285	16.38	17.00	1.153	0.329	
		Left tilt		42990	3540	50	0	-0.08	0.334	16.38	17.00	1.153	0.385	
		Right cheek		42990	3540	50	0	-0.12	0.408	16.38	17.00	1.153	0.471	
		Right tilt		42990	3540	50	0	0.09	0.430	16.38	17.00	1.153	0.496	
Ant.6	QPSK	Left cheek	0	42590	3500	1	0	-0.19	0.090	17.26	18.00	1.186	0.107	
		Left tilt		42590	3500	1	0	-0.05	0.084	17.26	18.00	1.186	0.100	
		Right cheek		42590	3500	1	0	-0.08	0.074	17.26	18.00	1.186	0.088	
		Right tilt		42590	3500	1	0	-0.11	0.081	17.26	18.00	1.186	0.096	
		Left cheek		42590	3500	50	0	0.06	0.080	16.30	17.00	1.175	0.094	
		Left tilt		42590	3500	50	0	0.13	0.075	16.30	17.00	1.175	0.088	
		Right cheek		42590	3500	50	0	-0.09	0.066	16.30	17.00	1.175	0.078	
		Right tilt		42590	3500	50	0	-0.01	0.072	16.30	17.00	1.175	0.085	
Body-worn& Hotspot														
Ant.0	QPSK	Front side	10	42590	3500	1	0	0.08	0.127	18.21	19.00	1.199	0.152	
		Back side		42590	3500	1	0	0.19	0.173	18.21	19.00	1.199	0.208	
		Right side		42590	3500	1	0	0.14	0.202	18.21	19.00	1.199	0.242	

		Top side		42590	3500	1	0	0.17	0.041	18.21	19.00	1.199	0.049	
		Front side		42590	3500	50	50	-0.15	0.112	17.20	18.00	1.202	0.135	
		Back side		42590	3500	50	50	0.17	0.152	17.20	18.00	1.202	0.183	
		Right side		42590	3500	50	50	-0.08	0.178	17.20	18.00	1.202	0.214	
		Top side		42590	3500	50	50	0.11	0.036	17.20	18.00	1.202	0.043	
Ant.3	QPSK	Front side	10	42590	3500	1	0	-0.02	0.061	18.49	19.00	1.125	0.069	
		Back side		42590	3500	1	0	-0.15	0.062	18.49	19.00	1.125	0.070	
		Left side		42590	3500	1	0	-0.16	0.203	18.49	19.00	1.125	0.228	
		Front side		42590	3500	50	50	0.12	0.055	17.38	18.00	1.153	0.063	
		Back side		42590	3500	50	50	-0.12	0.056	17.38	18.00	1.153	0.065	
		Left side		42590	3500	50	50	0.08	0.183	17.38	18.00	1.153	0.211	
Ant.5	QPSK	Front side	10	42590	3500	1	0	0.06	0.150	17.39	18.00	1.151	0.173	
		Back side		42590	3500	1	0	0.16	0.168	17.39	18.00	1.151	0.193	
		Left side		42990	3540	1	0	-0.08	0.066	17.39	18.00	1.151	0.076	
		Top side		42990	3540	1	0	0.11	0.250	17.39	18.00	1.151	0.288	26
		Front side		42990	3540	50	0	-0.02	0.120	16.38	17.00	1.153	0.138	
		Back side		42990	3540	50	0	-0.09	0.196	16.38	17.00	1.153	0.226	
		Left side		42590	3500	50	0	0.19	0.046	16.38	17.00	1.153	0.053	
		Top side		42590	3500	50	0	0.12	0.173	16.38	17.00	1.153	0.200	
Ant.6	QPSK	Front side	10	42590	3500	1	0	-0.12	0.130	17.26	18.00	1.186	0.154	
		Back side		42590	3500	1	0	0.12	0.198	17.26	18.00	1.186	0.235	
		Right side		42590	3500	1	0	0.19	0.049	17.26	18.00	1.186	0.058	
		Top side		42590	3500	1	0	0.13	0.222	17.26	18.00	1.186	0.263	
		Front side		42590	3500	50	0	-0.09	0.117	16.30	17.00	1.175	0.137	
		Back side		42590	3500	50	0	0.15	0.179	16.30	17.00	1.175	0.210	
		Right side		42590	3500	50	0	-0.06	0.044	16.30	17.00	1.175	0.052	
		Top side		42590	3500	50	0	-0.17	0.190	16.30	17.00	1.175	0.223	

10.18 NR n5 (20MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.1	DFT-s- OFDM BPSK	Left cheek	0	167300	836.5	1	1	-0.07	0.079	18.81	19.50	1.172	0.093	
		Left tilt		167300	836.5	1	1	-0.13	0.045	18.81	19.50	1.172	0.053	
		Right cheek		167300	836.5	1	1	-0.12	0.030	18.81	19.50	1.172	0.035	
		Right tilt		167300	836.5	1	1	0.12	0.018	18.81	19.50	1.172	0.021	
		Left cheek		167300	836.5	50	28	-0.15	0.066	18.73	19.50	1.194	0.079	
		Left tilt		167300	836.5	50	28	-0.17	0.024	18.73	19.50	1.194	0.029	
		Right cheek		167300	836.5	50	28	0.08	0.027	18.73	19.50	1.194	0.032	
		Right tilt		167300	836.5	50	28	0.09	0.016	18.73	19.50	1.194	0.019	
Ant.3	DFT-s- OFDM BPSK	Left cheek	0	167300	836.5	1	1	0.04	0.389	18.83	19.50	1.167	0.454	27
		Left tilt		167300	836.5	1	1	-0.07	0.062	18.83	19.50	1.167	0.072	
		Right cheek		167300	836.5	1	1	0.1	0.228	18.83	19.50	1.167	0.266	
		Right tilt		167300	836.5	1	1	-0.1	0.058	18.83	19.50	1.167	0.068	
		Left cheek		167300	836.5	50	28	0.03	0.366	18.67	19.50	1.211	0.443	
		Left tilt		167300	836.5	50	28	0.02	0.064	18.67	19.50	1.211	0.077	
		Right cheek		167300	836.5	50	28	0.09	0.235	18.67	19.50	1.211	0.284	
		Right tilt		167300	836.5	50	28	-0.17	0.062	18.67	19.50	1.211	0.075	
Body-worn& Hotspot														
Ant.1	DFT-s- OFDM BPSK	Front side	10	167300	836.5	1	1	0.01	0.093	18.81	19.50	1.172	0.109	
		Back side		167300	836.5	1	1	0.03	0.104	18.81	19.50	1.172	0.122	
		Right side		167300	836.5	1	1	-0.03	0.161	18.81	19.50	1.172	0.189	
		Bottom side		167300	836.5	1	1	-0.06	0.055	18.81	19.50	1.172	0.064	
		Front side		167300	836.5	50	28	-0.07	0.082	18.73	19.50	1.194	0.098	
		Back side		167300	836.5	50	28	0.1	0.090	18.73	19.50	1.194	0.107	
		Right side		167300	836.5	50	28	0.11	0.134	18.73	19.50	1.194	0.160	
		Bottom side		167300	836.5	50	28	-0.07	0.044	18.73	19.50	1.194	0.053	
Ant.3	DFT-s- OFDM BPSK	Front side	10	167300	836.5	1	1	0.11	0.213	18.83	19.50	1.167	0.249	
		Back side		167300	836.5	1	1	0.11	0.253	18.83	19.50	1.167	0.295	
		Left side		167300	836.5	1	1	-0.06	0.428	18.83	19.50	1.167	0.499	28
		Front side		167300	836.5	50	28	-0.1	0.236	18.67	19.50	1.211	0.286	
		Back side		167300	836.5	50	28	-0.02	0.265	18.67	19.50	1.211	0.321	
		Left side		167300	836.5	50	28	-0.02	0.411	18.67	19.50	1.211	0.498	

10.19 NR n7 (50MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	DFT-s- OFDM BPSK	Left cheek	0	507000	2535	1	1	0.17	0.212	20.91	22.00	1.285	0.272	
		Left tilt		507000	2535	1	1	-0.12	0.052	20.91	22.00	1.285	0.067	
		Right cheek		507000	2535	1	1	-0.06	0.128	20.91	22.00	1.285	0.165	
		Right tilt		507000	2535	1	1	-0.12	0.080	20.91	22.00	1.285	0.103	
		Left cheek		507000	2535	135	68	-0.07	0.197	20.76	22.00	1.330	0.262	
		Left tilt		507000	2535	135	68	0.05	0.050	20.76	22.00	1.330	0.067	
		Right cheek		507000	2535	135	68	0.16	0.106	20.76	22.00	1.330	0.141	
		Right tilt		507000	2535	135	68	0.03	0.068	20.76	22.00	1.330	0.090	
Ant.5	DFT-s- OFDM BPSK	Left cheek	0	507000	2535	1	1	-0.16	0.354	20.90	22.00	1.288	0.456	
		Left tilt		507000	2535	1	1	-0.15	0.336	20.90	22.00	1.288	0.433	
		Right cheek		507000	2535	1	1	-0.15	0.532	20.90	22.00	1.288	0.685	
		Right tilt		507000	2535	1	1	-0.15	0.629	20.90	22.00	1.288	0.810	29
		Left cheek		507000	2535	135	68	0.03	0.324	20.84	22.00	1.306	0.423	
		Left tilt		507000	2535	135	68	-0.12	0.365	20.84	22.00	1.306	0.477	
		Right cheek		507000	2535	135	68	-0.08	0.548	20.84	22.00	1.306	0.716	
		Right tilt		507000	2535	135	68	0.03	0.576	20.84	22.00	1.306	0.752	
Body-worn& Hotspot														
Ant.2	DFT-s- OFDM BPSK	Front side	10	507000	2535	1	1	-0.11	0.223	20.91	22.00	1.285	0.287	
		Back side		507000	2535	1	1	0.14	0.260	20.91	22.00	1.285	0.334	
		Left side		507000	2535	1	1	-0.19	0.059	20.91	22.00	1.285	0.076	
		Bottom side		507000	2535	1	1	-0.12	0.269	20.91	22.00	1.285	0.346	30
		Front side		507000	2535	135	68	0.11	0.226	20.76	22.00	1.330	0.301	
		Back side		507000	2535	135	68	0.19	0.220	20.76	22.00	1.330	0.293	
		Left side		507000	2535	135	68	0.03	0.059	20.76	22.00	1.330	0.078	
		Bottom side		507000	2535	135	68	-0.11	0.210	20.76	22.00	1.330	0.279	
Ant.5	DFT-s- OFDM BPSK	Front side	10	507000	2535	1	1	-0.08	0.105	20.90	22.00	1.288	0.135	
		Back side		507000	2535	1	1	0.19	0.169	20.90	22.00	1.288	0.218	
		Left side		507000	2535	1	1	0.04	0.045	20.90	22.00	1.288	0.058	
		Top side		507000	2535	1	1	0.11	0.182	20.90	22.00	1.288	0.234	
		Front side		507000	2535	135	68	-0.05	0.103	20.84	22.00	1.306	0.135	
		Back side		507000	2535	135	68	-0.03	0.190	20.84	22.00	1.306	0.248	
		Left side		507000	2535	135	68	0.14	0.035	20.84	22.00	1.306	0.046	
		Top side		507000	2535	135	68	-0.02	0.189	20.84	22.00	1.306	0.247	

10.20 NR n12 (50MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.1	DFT-s- OFDM BPSK	Left cheek	0	141500	707.5	1	1	-0.07	0.112	24.35	25.00	1.161	0.130	
		Left tilt		141500	707.5	1	1	-0.09	0.066	24.35	25.00	1.161	0.077	
		Right cheek		141500	707.5	1	1	-0.02	0.075	24.35	25.00	1.161	0.087	
		Right tilt		141500	707.5	1	1	-0.08	0.048	24.35	25.00	1.161	0.056	
		Left cheek		141500	707.5	36	22	-0.16	0.102	24.27	25.00	1.183	0.121	
		Left tilt		141500	707.5	36	22	0.19	0.058	24.27	25.00	1.183	0.069	
		Right cheek		141500	707.5	36	22	0.04	0.066	24.27	25.00	1.183	0.078	
		Right tilt		141500	707.5	36	22	-0.05	0.040	24.27	25.00	1.183	0.047	
Ant.3	DFT-s- OFDM BPSK	Left cheek	0	141500	707.5	1	1	0.15	0.519	24.38	25.00	1.153	0.599	31
		Left tilt		141500	707.5	1	1	-0.1	0.103	24.38	25.00	1.153	0.119	
		Right cheek		141500	707.5	1	1	0.09	0.359	24.38	25.00	1.153	0.414	
		Right tilt		141500	707.5	1	1	-0.09	0.092	24.38	25.00	1.153	0.106	
		Left cheek		141500	707.5	36	22	0.04	0.496	24.20	25.00	1.202	0.596	
		Left tilt		141500	707.5	36	22	-0.13	0.100	24.20	25.00	1.202	0.120	
		Right cheek		141500	707.5	36	22	-0.17	0.320	24.20	25.00	1.202	0.385	
		Right tilt		141500	707.5	36	22	-0.15	0.082	24.20	25.00	1.202	0.099	
Body-worn& Hotspot														
Ant.1	DFT-s- OFDM BPSK	Front side	10	141500	707.5	1	1	-0.05	0.173	24.35	25.00	1.161	0.201	
		Back side		141500	707.5	1	1	-0.07	0.214	24.35	25.00	1.161	0.249	
		Right side		141500	707.5	1	1	0.15	0.251	24.35	25.00	1.161	0.292	
		Bottom side		141500	707.5	1	1	-0.19	0.086	24.35	25.00	1.161	0.100	
		Front side		141500	707.5	36	22	0.18	0.156	24.27	25.00	1.183	0.185	
		Back side		141500	707.5	36	22	0.02	0.187	24.27	25.00	1.183	0.221	
		Right side		141500	707.5	36	22	-0.15	0.214	24.27	25.00	1.183	0.253	
		Bottom side		141500	707.5	36	22	0.18	0.081	24.27	25.00	1.183	0.096	
Ant.3	DFT-s- OFDM BPSK	Front side	10	141500	707.5	1	1	-0.16	0.309	24.38	25.00	1.153	0.356	
		Back side		141500	707.5	1	1	-0.09	0.342	24.38	25.00	1.153	0.394	
		Left side		141500	707.5	1	1	-0.06	0.745	24.38	25.00	1.153	0.859	32
		Front side		141500	707.5	36	22	0.08	0.299	24.20	25.00	1.202	0.359	
		Back side		141500	707.5	36	22	0.12	0.342	24.20	25.00	1.202	0.411	
		Left side		141500	707.5	36	22	0.01	0.711	24.20	25.00	1.202	0.855	

10.21 NR n66 (50MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	DFT-s- OFDM BPSK	Left cheek	0	349000	1745	1	1	0.09	0.103	21.48	22.50	1.265	0.130	
		Left tilt		349000	1745	1	1	-0.15	0.064	21.48	22.50	1.265	0.081	
		Right cheek		349000	1745	1	1	-0.15	0.052	21.48	22.50	1.265	0.066	
		Right tilt		349000	1745	1	1	0.11	0.030	21.48	22.50	1.265	0.038	
		Left cheek		349000	1745	108	54	0.05	0.095	21.38	22.50	1.294	0.123	
		Left tilt		349000	1745	108	54	0.1	0.058	21.38	22.50	1.294	0.075	
		Right cheek		349000	1745	108	54	0.04	0.041	21.38	22.50	1.294	0.053	
		Right tilt		349000	1745	108	54	0.13	0.022	21.38	22.50	1.294	0.028	
Ant.5	DFT-s- OFDM BPSK	Left cheek	0	349000	1745	1	1	-0.16	0.207	21.95	22.50	1.135	0.235	
		Left tilt		349000	1745	1	1	-0.18	0.201	21.95	22.50	1.135	0.228	
		Right cheek		349000	1745	1	1	0.17	0.360	21.95	22.50	1.135	0.409	33
		Right tilt		349000	1745	1	1	0.17	0.272	21.95	22.50	1.135	0.309	
		Left cheek		349000	1745	108	54	0.16	0.181	21.38	22.50	1.294	0.234	
		Left tilt		349000	1745	108	54	-0.12	0.226	21.38	22.50	1.294	0.292	
		Right cheek		349000	1745	108	54	0.18	0.286	21.38	22.50	1.294	0.370	
		Right tilt		349000	1745	108	54	0.09	0.242	21.38	22.50	1.294	0.313	
Body-worn& Hotspot														
Ant.2	DFT-s- OFDM BPSK	Front side	10	349000	1745	1	1	-0.16	0.219	21.48	22.50	1.265	0.277	
		Back side		349000	1745	1	1	-0.18	0.262	21.48	22.50	1.265	0.331	
		Left side		349000	1745	1	1	-0.04	0.077	21.48	22.50	1.265	0.097	
		Bottom side		349000	1745	1	1	-0.08	0.324	21.48	22.50	1.265	0.410	34
		Front side		349000	1745	108	54	0.17	0.227	21.38	22.50	1.294	0.294	
		Back side		349000	1745	108	54	0.15	0.271	21.38	22.50	1.294	0.351	
		Left side		349000	1745	108	54	0.19	0.080	21.38	22.50	1.294	0.104	
		Bottom side		349000	1745	108	54	0.04	0.312	21.38	22.50	1.294	0.404	
Ant.5	DFT-s- OFDM BPSK	Front side	10	349000	1745	1	1	0.17	0.067	21.95	22.50	1.135	0.076	
		Back side		349000	1745	1	1	0.08	0.099	21.95	22.50	1.135	0.112	
		Left side		349000	1745	1	1	0.07	0.035	21.95	22.50	1.135	0.040	
		Top side		349000	1745	1	1	0.16	0.135	21.95	22.50	1.135	0.153	
		Front side		349000	1745	108	54	-0.07	0.060	21.38	22.50	1.294	0.078	
		Back side		349000	1745	108	54	-0.18	0.087	21.38	22.50	1.294	0.113	
		Left side		349000	1745	108	54	0.05	0.035	21.38	22.50	1.294	0.045	
		Top side		349000	1745	108	54	-0.11	0.115	21.38	22.50	1.294	0.149	

10.22 NR n38 (40MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	DFT-s- OFDM BPSK	Left cheek	0	519000	2595	1	1	-0.06	0.225	20.75	21.50	1.189	0.267	
		Left tilt		519000	2595	1	1	0.05	0.074	20.75	21.50	1.189	0.088	
		Right cheek		519000	2595	1	1	-0.19	0.102	20.75	21.50	1.189	0.121	
		Right tilt		519000	2595	1	1	0.13	0.056	20.75	21.50	1.189	0.067	
		Left cheek		519000	2595	50	28	0.06	0.197	20.69	21.50	1.205	0.237	
		Left tilt		519000	2595	50	28	-0.02	0.069	20.69	21.50	1.205	0.083	
		Right cheek		519000	2595	50	28	-0.04	0.113	20.69	21.50	1.205	0.136	
		Right tilt		519000	2595	50	28	-0.05	0.062	20.69	21.50	1.205	0.075	
Ant.5	DFT-s- OFDM BPSK	Left cheek	0	519000	2595	1	1	-0.04	0.244	20.47	21.50	1.268	0.309	
		Left tilt		519000	2595	1	1	0.16	0.344	20.47	21.50	1.268	0.436	
		Right cheek		519000	2595	1	1	0.01	0.540	20.47	21.50	1.268	0.685	35
		Right tilt		519000	2595	1	1	0.12	0.366	20.47	21.50	1.268	0.464	
		Left cheek		519000	2595	50	28	0.06	0.256	20.37	21.50	1.297	0.332	
		Left tilt		519000	2595	50	28	0.01	0.360	20.37	21.50	1.297	0.467	
		Right cheek		519000	2595	50	28	0.06	0.525	20.37	21.50	1.297	0.681	
		Right tilt		519000	2595	50	28	0.02	0.383	20.37	21.50	1.297	0.497	
Body-worn& Hotspot														
Ant.2	DFT-s- OFDM BPSK	Front side	10	519000	2595	1	1	-0.16	0.165	20.75	21.50	1.189	0.196	
		Back side		519000	2595	1	1	-0.07	0.203	20.75	21.50	1.189	0.241	
		Left side		519000	2595	1	1	0.11	0.053	20.75	21.50	1.189	0.063	
		Bottom side		519000	2595	1	1	-0.08	0.221	20.75	21.50	1.189	0.263	36
		Front side		519000	2595	50	28	0.03	0.191	20.69	21.50	1.205	0.230	
		Back side		519000	2595	50	28	-0.15	0.173	20.69	21.50	1.205	0.208	
		Left side		519000	2595	50	28	-0.15	0.052	20.69	21.50	1.205	0.063	
		Bottom side		519000	2595	50	28	0.03	0.203	20.69	21.50	1.205	0.245	
Ant.5	DFT-s- OFDM BPSK	Front side	10	519000	2595	1	1	0.17	0.088	20.47	21.50	1.268	0.112	
		Back side		519000	2595	1	1	0.04	0.134	20.47	21.50	1.268	0.170	
		Left side		519000	2595	1	1	-0.1	0.038	20.47	21.50	1.268	0.048	
		Top side		519000	2595	1	1	-0.19	0.161	20.47	21.50	1.268	0.204	
		Front side		519000	2595	50	28	-0.09	0.085	20.37	21.50	1.297	0.110	
		Back side		519000	2595	50	28	-0.12	0.139	20.37	21.50	1.297	0.180	
		Left side		519000	2595	50	28	-0.01	0.055	20.37	21.50	1.297	0.071	
		Top side		519000	2595	50	28	-0.05	0.166	20.37	21.50	1.297	0.215	

10.23 NR n41 (100MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.2	DFT-s- OFDM BPSK	Left cheek	0	518598	2592.99	1	1	-0.04	0.211	22.06	23.00	1.242	0.262	
		Left tilt		518598	2592.99	1	1	-0.03	0.073	22.06	23.00	1.242	0.091	
		Right cheek		518598	2592.99	1	1	0.12	0.128	22.06	23.00	1.242	0.159	
		Right tilt		518598	2592.99	1	1	-0.19	0.060	22.06	23.00	1.242	0.074	
		Left cheek		518598	2592.99	135	68	-0.1	0.187	22.05	23.00	1.245	0.233	
		Left tilt		518598	2592.99	135	68	-0.13	0.057	22.05	23.00	1.245	0.071	
		Right cheek		518598	2592.99	135	68	-0.01	0.135	22.05	23.00	1.245	0.168	
		Right tilt		518598	2592.99	135	68	0.15	0.070	22.05	23.00	1.245	0.087	
Ant.5	DFT-s- OFDM BPSK	Left cheek	0	518598	2592.99	1	1	-0.1	0.373	21.82	22.50	1.169	0.436	
		Left tilt		518598	2592.99	1	1	0.14	0.456	21.82	22.50	1.169	0.533	
		Right cheek		518598	2592.99	1	1	-0.18	0.682	21.82	22.50	1.169	0.798	
		Right tilt		518598	2592.99	1	1	0.01	0.887	21.82	22.50	1.169	1.037	37
		Right tilt		518598	2592.99	1	1	0.03	0.881	21.82	22.50	1.169	1.030	Repeat
		Right tilt		509202	2546.01	1	1	0.05	0.738	21.60	22.50	1.230	0.908	
		Right tilt		528000	2640	1	1	-0.13	0.847	21.67	22.50	1.211	1.025	
		Left cheek		518598	2592.99	135	68	0.09	0.326	21.76	22.50	1.186	0.387	
		Left tilt		518598	2592.99	135	68	-0.1	0.449	21.76	22.50	1.186	0.532	
		Right cheek		518598	2592.99	135	68	-0.09	0.727	21.76	22.50	1.186	0.862	
		Right tilt		518598	2592.99	135	68	0.03	0.872	21.76	22.50	1.186	1.034	
		Right tilt		509202	2546.01	135	68	0.07	0.826	21.74	22.50	1.191	0.984	
		Right tilt		528000	2640	135	68	0.03	0.858	21.69	22.50	1.205	1.034	
		Right tilt		518598	2592.99	270	0	-0.11	0.805	21.28	22.00	1.180	0.950	
		Body-worn& Hotspot												
Ant.2	DFT-s- OFDM BPSK	Front side	10	518598	2592.99	1	1	-0.05	0.215	22.06	23.00	1.242	0.267	
		Back side		518598	2592.99	1	1	0.08	0.265	22.06	23.00	1.242	0.329	
		Left side		518598	2592.99	1	1	0.13	0.059	22.06	23.00	1.242	0.073	
		Bottom side		518598	2592.99	1	1	-0.1	0.302	22.06	23.00	1.242	0.375	38
		Front side		518598	2592.99	135	68	-0.16	0.253	22.05	23.00	1.245	0.315	
		Back side		518598	2592.99	135	68	-0.13	0.285	22.05	23.00	1.245	0.355	
		Left side		518598	2592.99	135	68	-0.01	0.057	22.05	23.00	1.245	0.071	
		Bottom side		518598	2592.99	135	68	-0.07	0.275	22.05	23.00	1.245	0.342	
Ant.5	DFT-s- OFDM BPSK	Front side	10	518598	2592.99	1	1	-0.1	0.113	21.82	22.50	1.169	0.132	
		Back side		518598	2592.99	1	1	0.04	0.185	21.82	22.50	1.169	0.216	
		Left side		518598	2592.99	1	1	-0.13	0.012	21.82	22.50	1.169	0.014	
		Top side		518598	2592.99	1	1	-0.16	0.220	21.82	22.50	1.169	0.257	
		Front side		518598	2592.99	135	68	0.12	0.121	21.76	22.50	1.186	0.143	

		Back side		518598	2592.99	135	68	0.06	0.183	21.76	22.50	1.186	0.217	
		Left side		518598	2592.99	135	68	-0.07	0.049	21.76	22.50	1.186	0.058	
		Top side		518598	2592.99	135	68	-0.03	0.219	21.76	22.50	1.186	0.260	

10.24 NR n77 (100MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.0	DFT-s- OFDM BPSK	Left cheek	0	633332	3499.99	1	1	-0.13	0.369	20.81	21.50	1.172	0.433	
		Left tilt		633332	3499.99	1	1	-0.14	0.057	20.81	21.50	1.172	0.067	
		Right cheek		633332	3499.99	1	1	-0.03	0.105	20.81	21.50	1.172	0.123	
		Right tilt		633332	3499.99	1	1	0.19	0.046	20.81	21.50	1.172	0.054	
		Left cheek		633332	3499.99	135	68	-0.12	0.352	20.76	21.50	1.186	0.417	
		Left tilt		633332	3499.99	135	68	-0.09	0.054	20.76	21.50	1.186	0.064	
		Right cheek		633332	3499.99	135	68	-0.06	0.100	20.76	21.50	1.186	0.119	
		Right tilt		633332	3499.99	135	68	0.06	0.044	20.76	21.50	1.186	0.052	
Ant.3	DFT-s- OFDM BPSK	Left cheek	0	633332	3499.99	1	1	-0.16	0.088	20.44	21.50	1.276	0.112	
		Left tilt		633332	3499.99	1	1	0.05	0.024	20.44	21.50	1.276	0.031	
		Right cheek		633332	3499.99	1	1	-0.01	0.130	20.44	21.50	1.276	0.166	
		Right tilt		633332	3499.99	1	1	0.08	0.049	20.44	21.50	1.276	0.063	
		Left cheek		633332	3499.99	135	68	0.01	0.084	20.36	21.50	1.300	0.109	
		Left tilt		633332	3499.99	135	68	-0.04	0.023	20.36	21.50	1.300	0.030	
		Right cheek		633332	3499.99	135	68	-0.12	0.124	20.36	21.50	1.300	0.161	
		Right tilt		633332	3499.99	135	68	-0.01	0.047	20.36	21.50	1.300	0.061	
Ant.5	DFT-s- OFDM BPSK	Left cheek		633332	3499.99	1	1	-0.09	0.412	19.78	21.00	1.324	0.546	
		Left tilt		633332	3499.99	1	1	0.13	0.533	19.78	21.00	1.324	0.706	
		Right cheek		633332	3499.99	1	1	-0.11	0.531	19.78	21.00	1.324	0.703	
		Right tilt		633332	3499.99	1	1	-0.16	0.571	19.78	21.00	1.324	0.756	39
		Left cheek		633332	3499.99	135	68	-0.09	0.393	19.71	21.00	1.346	0.529	
		Left tilt		633332	3499.99	135	68	0.01	0.509	19.71	21.00	1.346	0.685	
		Right cheek		633332	3499.99	135	68	-0.06	0.507	19.71	21.00	1.346	0.682	
		Right tilt		633332	3499.99	135	68	0.13	0.536	19.71	21.00	1.346	0.721	
Ant.6	DFT-s- OFDM BPSK	Left cheek		633332	3499.99	1	1	-0.07	0.114	20.47	21.00	1.130	0.129	
		Left tilt		633332	3499.99	1	1	0.03	0.124	20.47	21.00	1.130	0.140	
		Right cheek		633332	3499.99	1	1	-0.06	0.064	20.47	21.00	1.130	0.072	
		Right tilt		633332	3499.99	1	1	-0.02	0.086	20.47	21.00	1.130	0.097	
		Left cheek		633332	3499.99	135	68	0.05	0.119	20.36	21.00	1.159	0.138	
		Left tilt		633332	3499.99	135	68	-0.03	0.130	20.36	21.00	1.159	0.151	
		Right cheek		633332	3499.99	135	68	-0.15	0.067	20.36	21.00	1.159	0.078	

		Right tilt		633332	3499.99	135	68	-0.17	0.090	20.36	21.00	1.159	0.104	
Body-worn& Hotspot														
Ant.0	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	-0.15	0.076	20.81	21.50	1.172	0.089	
		Back side		633332	3499.99	1	1	-0.14	0.105	20.81	21.50	1.172	0.123	
		Right side		633332	3499.99	1	1	0.16	0.132	20.81	21.50	1.172	0.155	
		Top side		633332	3499.99	1	1	0.12	0.038	20.81	21.50	1.172	0.045	
		Front side		633332	3499.99	135	68	0.09	0.073	20.76	21.50	1.186	0.087	
		Back side		633332	3499.99	135	68	0.04	0.101	20.76	21.50	1.186	0.120	
		Right side		633332	3499.99	135	68	-0.15	0.128	20.76	21.50	1.186	0.152	
		Top side		633332	3499.99	135	68	-0.07	0.037	20.76	21.50	1.186	0.044	
Ant.3	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	0.04	0.039	20.44	21.50	1.276	0.050	
		Back side		633332	3499.99	1	1	0.04	0.045	20.44	21.50	1.276	0.057	
		Left side		633332	3499.99	1	1	-0.08	0.113	20.44	21.50	1.276	0.144	
		Front side		633332	3499.99	135	68	-0.05	0.038	20.36	21.50	1.300	0.049	
		Back side		633332	3499.99	135	68	-0.1	0.043	20.36	21.50	1.300	0.056	
		Left side		633332	3499.99	135	68	-0.15	0.109	20.36	21.50	1.300	0.142	
Ant.5	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	0.15	0.166	19.78	21.00	1.324	0.220	
		Back side		633332	3499.99	1	1	0.05	0.311	19.78	21.00	1.324	0.412	
		Left side		633332	3499.99	1	1	0.02	0.044	19.78	21.00	1.324	0.058	
		Top side		633332	3499.99	1	1	0.03	0.320	19.78	21.00	1.324	0.424	40
		Front side		633332	3499.99	135	68	-0.16	0.160	19.71	21.00	1.346	0.215	
		Back side		633332	3499.99	135	68	-0.13	0.300	19.71	21.00	1.346	0.404	
		Left side		633332	3499.99	135	68	0.07	0.043	19.71	21.00	1.346	0.058	
		Top side		633332	3499.99	135	68	-0.19	0.313	19.71	21.00	1.346	0.421	
Ant.6	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	-0.17	0.142	20.47	21.00	1.130	0.160	
		Back side		633332	3499.99	1	1	-0.18	0.234	20.47	21.00	1.130	0.264	
		Right side		633332	3499.99	1	1	-0.16	0.050	20.47	21.00	1.130	0.056	
		Top side		633332	3499.99	1	1	0.09	0.269	20.47	21.00	1.130	0.304	
		Front side		633332	3499.99	135	68	-0.13	0.149	20.36	21.00	1.159	0.173	
		Back side		633332	3499.99	135	68	0.14	0.245	20.36	21.00	1.159	0.284	
		Right side		633332	3499.99	135	68	0.09	0.052	20.36	21.00	1.159	0.060	
		Top side		633332	3499.99	135	68	0.14	0.286	20.36	21.00	1.159	0.331	

10.25 NR n77 (100MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.0	DFT-s- OFDM BPSK	Left cheek	0	656000	3840	1	1	0.09	0.383	20.03	21.50	1.403	0.537	41
		Left tilt		656000	3840	1	1	-0.05	0.124	20.03	21.50	1.403	0.174	
		Right cheek		656000	3840	1	1	-0.03	0.119	20.03	21.50	1.403	0.167	
		Right tilt		656000	3840	1	1	-0.12	0.073	20.03	21.50	1.403	0.102	
		Left cheek		656000	3840	135	68	-0.12	0.365	19.99	21.50	1.416	0.517	
		Left tilt		656000	3840	135	68	0.11	0.120	19.99	21.50	1.416	0.170	
		Right cheek		656000	3840	135	68	-0.1	0.115	19.99	21.50	1.416	0.163	
		Right tilt		656000	3840	135	68	-0.16	0.071	19.99	21.50	1.416	0.101	
Ant.3	DFT-s- OFDM BPSK	Left cheek	0	656000	3840	1	1	-0.12	0.059	20.17	21.50	1.358	0.080	
		Left tilt		656000	3840	1	1	-0.15	0.018	20.17	21.50	1.358	0.024	
		Right cheek		656000	3840	1	1	-0.02	0.218	20.17	21.50	1.358	0.296	
		Right tilt		656000	3840	1	1	0.09	0.032	20.17	21.50	1.358	0.043	
		Left cheek		656000	3840	135	68	-0.03	0.057	19.89	21.50	1.449	0.083	
		Left tilt		656000	3840	135	68	0.14	0.017	19.89	21.50	1.449	0.025	
		Right cheek		656000	3840	135	68	0.1	0.211	19.89	21.50	1.449	0.306	
		Right tilt		656000	3840	135	68	0.07	0.031	19.89	21.50	1.449	0.045	
Ant.5	DFT-s- OFDM BPSK	Left cheek		656000	3840	1	1	-0.04	0.228	20.35	21.00	1.161	0.265	
		Left tilt		656000	3840	1	1	0.17	0.350	20.35	21.00	1.161	0.407	
		Right cheek		656000	3840	1	1	0.16	0.319	20.35	21.00	1.161	0.371	
		Right tilt		656000	3840	1	1	0.12	0.311	20.35	21.00	1.161	0.361	
		Left cheek		656000	3840	135	68	-0.1	0.220	20.04	21.00	1.247	0.274	
		Left tilt		656000	3840	135	68	0.19	0.338	20.04	21.00	1.247	0.422	
		Right cheek		656000	3840	135	68	-0.09	0.308	20.04	21.00	1.247	0.384	
		Right tilt		656000	3840	135	68	-0.06	0.300	20.04	21.00	1.247	0.374	
Ant.6	DFT-s- OFDM BPSK	Left cheek		656000	3840	1	1	0.02	0.179	19.75	21.00	1.334	0.239	
		Left tilt		656000	3840	1	1	0.18	0.195	19.75	21.00	1.334	0.260	
		Right cheek		656000	3840	1	1	0.18	0.092	19.75	21.00	1.334	0.123	
		Right tilt		656000	3840	1	1	-0.1	0.107	19.75	21.00	1.334	0.143	
		Left cheek		656000	3840	135	68	-0.01	0.173	19.62	21.00	1.374	0.238	
		Left tilt		656000	3840	135	68	-0.19	0.188	19.62	21.00	1.374	0.258	
		Right cheek		656000	3840	135	68	0.03	0.089	19.62	21.00	1.374	0.122	
		Right tilt		656000	3840	135	68	0.09	0.103	19.62	21.00	1.374	0.142	
Body-worn& Hotspot														
Ant.0	DFT-s- OFDM	Front side	10	656000	3840	1	1	-0.16	0.058	20.03	21.50	1.403	0.081	
		Back side		656000	3840	1	1	-0.18	0.095	20.03	21.50	1.403	0.133	

	BPSK	Right side		656000	3840	1	1	-0.12	0.117	20.03	21.50	1.403	0.164	
		Top side		656000	3840	1	1	0.13	0.055	20.03	21.50	1.403	0.077	
		Front side		656000	3840	135	68	0.19	0.056	19.99	21.50	1.416	0.079	
		Back side		656000	3840	135	68	0.11	0.092	19.99	21.50	1.416	0.130	
		Right side		656000	3840	135	68	-0.18	0.113	19.99	21.50	1.416	0.160	
		Top side		656000	3840	135	68	0.18	0.053	19.99	21.50	1.416	0.075	
Ant.3	DFT-s-OFDM BPSK	Front side	10	656000	3840	1	1	0.16	0.081	20.17	21.50	1.358	0.110	
		Back side		656000	3840	1	1	0.19	0.087	20.17	21.50	1.358	0.118	
		Left side		656000	3840	1	1	0.06	0.228	20.17	21.50	1.358	0.310	
		Front side		656000	3840	135	68	0.19	0.078	19.89	21.50	1.449	0.113	
		Back side		656000	3840	135	68	0.15	0.084	19.89	21.50	1.449	0.122	
		Left side		656000	3840	135	68	-0.06	0.220	19.89	21.50	1.449	0.319	
Ant.5	DFT-s-OFDM BPSK	Front side	10	656000	3840	1	1	-0.01	0.102	20.35	21.00	1.161	0.118	
		Back side		656000	3840	1	1	0.15	0.194	20.35	21.00	1.161	0.225	
		Left side		656000	3840	1	1	0.14	0.042	20.35	21.00	1.161	0.049	
		Top side		656000	3840	1	1	0.08	0.224	20.35	21.00	1.161	0.260	
		Front side		656000	3840	135	68	0.14	0.099	20.04	21.00	1.247	0.123	
		Back side		656000	3840	135	68	-0.09	0.187	20.04	21.00	1.247	0.233	
		Left side		656000	3840	135	68	0.19	0.041	20.04	21.00	1.247	0.051	
		Top side		656000	3840	135	68	-0.12	0.216	20.04	21.00	1.247	0.269	
Ant.6	DFT-s-OFDM BPSK	Front side	10	656000	3840	1	1	0.02	0.220	19.75	21.00	1.334	0.293	
		Back side		656000	3840	1	1	-0.11	0.202	19.75	21.00	1.334	0.269	
		Right side		656000	3840	1	1	-0.13	0.093	19.75	21.00	1.334	0.124	
		Top side		656000	3840	1	1	0.02	0.253	19.75	21.00	1.334	0.337	42
		Front side		656000	3840	135	68	-0.07	0.213	19.62	21.00	1.374	0.293	
		Back side		656000	3840	135	68	0.07	0.232	19.62	21.00	1.374	0.319	
		Right side		656000	3840	135	68	-0.18	0.090	19.62	21.00	1.374	0.124	
		Top side		656000	3840	135	68	0.02	0.193	19.62	21.00	1.374	0.265	

10.26 NR n78 (100MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.0	DFT-s- OFDM BPSK	Left cheek	0	633332	3499.99	1	1	0.01	0.370	20.85	21.50	1.161	0.430	43
		Left tilt		633332	3499.99	1	1	0.1	0.085	20.85	21.50	1.161	0.099	
		Right cheek		633332	3499.99	1	1	0.08	0.161	20.85	21.50	1.161	0.187	
		Right tilt		633332	3499.99	1	1	-0.07	0.085	20.85	21.50	1.161	0.099	
		Left cheek		633332	3499.99	135	68	-0.12	0.355	20.70	21.50	1.202	0.427	
		Left tilt		633332	3499.99	135	68	0.05	0.080	20.70	21.50	1.202	0.096	
		Right cheek		633332	3499.99	135	68	0.07	0.152	20.70	21.50	1.202	0.183	
		Right tilt		633332	3499.99	135	68	0.11	0.080	20.70	21.50	1.202	0.096	
Ant.3	DFT-s- OFDM BPSK	Left cheek	0	633332	3499.99	1	1	0.18	0.064	20.77	21.50	1.183	0.076	
		Left tilt		633332	3499.99	1	1	-0.1	0.029	20.77	21.50	1.183	0.034	
		Right cheek		633332	3499.99	1	1	0.15	0.178	20.77	21.50	1.183	0.211	
		Right tilt		633332	3499.99	1	1	0.09	0.083	20.77	21.50	1.183	0.098	
		Left cheek		633332	3499.99	135	68	0.16	0.060	20.64	21.50	1.219	0.073	
		Left tilt		633332	3499.99	135	68	-0.16	0.027	20.64	21.50	1.219	0.033	
		Right cheek		633332	3499.99	135	68	-0.04	0.168	20.64	21.50	1.219	0.205	
		Right tilt		633332	3499.99	135	68	-0.15	0.078	20.64	21.50	1.219	0.095	
Ant.5	DFT-s- OFDM BPSK	Left cheek		633332	3499.99	1	1	-0.09	0.293	19.89	21.00	1.291	0.378	
		Left tilt		633332	3499.99	1	1	0.08	0.251	19.89	21.00	1.291	0.324	
		Right cheek		633332	3499.99	1	1	0.13	0.295	19.89	21.00	1.291	0.381	
		Right tilt		633332	3499.99	1	1	0.15	0.301	19.89	21.00	1.291	0.389	
		Left cheek		633332	3499.99	135	68	0.01	0.311	19.72	21.00	1.343	0.418	
		Left tilt		633332	3499.99	135	68	-0.15	0.320	19.72	21.00	1.343	0.430	
		Right cheek		633332	3499.99	135	68	0.08	0.273	19.72	21.00	1.343	0.367	
		Right tilt		633332	3499.99	135	68	-0.04	0.273	19.72	21.00	1.343	0.367	
Ant.6	DFT-s- OFDM BPSK	Left cheek		633332	3499.99	1	1	0.05	0.093	20.33	21.00	1.167	0.109	
		Left tilt		633332	3499.99	1	1	-0.15	0.108	20.33	21.00	1.167	0.126	
		Right cheek		633332	3499.99	1	1	-0.09	0.080	20.33	21.00	1.167	0.093	
		Right tilt		633332	3499.99	1	1	0.03	0.096	20.33	21.00	1.167	0.112	
		Left cheek		633332	3499.99	135	68	-0.1	0.088	20.13	21.00	1.222	0.108	
		Left tilt		633332	3499.99	135	68	0.18	0.102	20.13	21.00	1.222	0.125	
		Right cheek		633332	3499.99	135	68	0.19	0.076	20.13	21.00	1.222	0.093	
		Right tilt		633332	3499.99	135	68	-0.1	0.091	20.13	21.00	1.222	0.111	
Body-worn& Hotspot														
Ant.0	DFT-s-	Front side	10	633332	3499.99	1	1	-0.03	0.078	20.85	21.50	1.161	0.091	
	OFDM	Back side		633332	3499.99	1	1	0.1	0.116	20.85	21.50	1.161	0.135	
	BPSK	Right side		633332	3499.99	1	1	0.09	0.134	20.85	21.50	1.161	0.156	

		Top side		633332	3499.99	1	1	-0.06	0.052	20.85	21.50	1.161	0.060	
		Front side		633332	3499.99	135	68	0.08	0.074	20.70	21.50	1.202	0.089	
		Back side		633332	3499.99	135	68	-0.03	0.110	20.70	21.50	1.202	0.132	
		Right side		633332	3499.99	135	68	-0.03	0.127	20.70	21.50	1.202	0.153	
		Top side		633332	3499.99	135	68	0.1	0.049	20.70	21.50	1.202	0.059	
Ant.3	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	0.01	0.178	20.77	21.50	1.183	0.211	
		Back side		633332	3499.99	1	1	0.06	0.201	20.77	21.50	1.183	0.238	
		Left side		633332	3499.99	1	1	0.06	0.291	20.77	21.50	1.183	0.344	
		Front side		633332	3499.99	135	68	-0.17	0.168	20.64	21.50	1.219	0.205	
		Back side		633332	3499.99	135	68	0.1	0.190	20.64	21.50	1.219	0.232	
		Left side		633332	3499.99	135	68	-0.07	0.285	20.64	21.50	1.219	0.347	
Ant.5	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	-0.19	0.203	19.89	21.00	1.291	0.262	
		Back side		633332	3499.99	1	1	-0.15	0.313	19.89	21.00	1.291	0.404	
		Left side		633332	3499.99	1	1	0.15	0.080	19.89	21.00	1.291	0.103	
		Top side		633332	3499.99	1	1	-0.01	0.315	19.89	21.00	1.291	0.407	44
		Front side		633332	3499.99	135	68	0.04	0.192	19.72	21.00	1.343	0.258	
		Back side		633332	3499.99	135	68	-0.13	0.295	19.72	21.00	1.343	0.396	
		Left side		633332	3499.99	135	68	0.06	0.076	19.72	21.00	1.343	0.102	
		Top side		633332	3499.99	135	68	0.1	0.267	19.72	21.00	1.343	0.359	
Ant.6	DFT-s-OFDM BPSK	Front side	10	633332	3499.99	1	1	-0.17	0.188	20.33	21.00	1.167	0.219	
		Back side		633332	3499.99	1	1	0.16	0.281	20.33	21.00	1.167	0.328	
		Right side		633332	3499.99	1	1	-0.04	0.057	20.33	21.00	1.167	0.067	
		Top side		633332	3499.99	1	1	0.09	0.278	20.33	21.00	1.167	0.324	
		Front side		633332	3499.99	135	68	-0.1	0.177	20.13	21.00	1.222	0.216	
		Back side		633332	3499.99	135	68	-0.09	0.265	20.13	21.00	1.222	0.324	
		Right side		633332	3499.99	135	68	-0.01	0.054	20.13	21.00	1.222	0.066	
		Top side		633332	3499.99	135	68	-0.1	0.277	20.13	21.00	1.222	0.338	

10.27 NR n78 (100MHz Bandwidth)

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	RB Num.	RB Start	Power Drift (dB)	1 g Meas SAR(W/ kg)	Meas. Power (dBm)	Max. tune-up power(d Bm)	Scaling Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.0	DFT-s-OFDM BPSK	Left cheek	0	650000	3750	1	1	0.1	0.315	20.33	21.50	1.309	0.412	45
		Left tilt		650000	3750	1	1	0.1	0.084	20.33	21.50	1.309	0.110	
		Right cheek		650000	3750	1	1	-0.03	0.108	20.33	21.50	1.309	0.141	
		Right tilt		650000	3750	1	1	-0.19	0.076	20.33	21.50	1.309	0.099	
		Left cheek		650000	3750	135	68	-0.13	0.236	20.11	21.50	1.377	0.325	
		Left tilt		650000	3750	135	68	-0.19	0.079	20.11	21.50	1.377	0.109	
		Right cheek		650000	3750	135	68	0.02	0.102	20.11	21.50	1.377	0.140	

		Right tilt		650000	3750	135	68	0.1	0.072	20.11	21.50	1.377	0.099	
Ant.3	DFT-s-OFDM BPSK	Left cheek	0	650000	3750	1	1	0.18	0.097	20.12	21.50	1.374	0.133	
		Left tilt		650000	3750	1	1	-0.1	0.042	20.12	21.50	1.374	0.058	
		Right cheek		650000	3750	1	1	0.13	0.249	20.12	21.50	1.374	0.342	
		Right tilt		650000	3750	1	1	0.16	0.068	20.12	21.50	1.374	0.093	
		Left cheek		650000	3750	135	68	-0.08	0.092	19.85	21.50	1.462	0.135	
		Left tilt		650000	3750	135	68	0.01	0.040	19.85	21.50	1.462	0.058	
		Right cheek		650000	3750	135	68	-0.16	0.235	19.85	21.50	1.462	0.344	
		Right tilt		650000	3750	135	68	-0.17	0.064	19.85	21.50	1.462	0.094	
		Ant.5		DFT-s-OFDM BPSK	Left cheek		650000	3750	1	1	-0.04	0.253	19.86	21.00
Left tilt	650000		3750		1		1	0.09	0.301	19.86	21.00	1.300	0.391	
Right cheek	650000		3750		1		1	0.01	0.277	19.86	21.00	1.300	0.360	
Right tilt	650000		3750		1		1	-0.17	0.271	19.86	21.00	1.300	0.352	
Left cheek	650000		3750		135		68	-0.13	0.251	19.73	21.00	1.340	0.336	
Left tilt	650000		3750		135		68	-0.01	0.285	19.73	21.00	1.340	0.382	
Right cheek	650000		3750		135		68	0.05	0.265	19.73	21.00	1.340	0.355	
Right tilt	650000		3750		135		68	-0.03	0.255	19.73	21.00	1.340	0.342	
Ant.6	DFT-s-OFDM BPSK		Left cheek				650000	3750	1	1	-0.02	0.210	20.12	21.00
		Left tilt	650000	3750		1	1	-0.12	0.251	20.12	21.00	1.225	0.307	
		Right cheek	650000	3750		1	1	0.09	0.091	20.12	21.00	1.225	0.111	
		Right tilt	650000	3750		1	1	0.1	0.106	20.12	21.00	1.225	0.130	
		Left cheek	650000	3750		135	68	0.15	0.198	19.84	21.00	1.306	0.259	
		Left tilt	650000	3750		135	68	-0.11	0.237	19.84	21.00	1.306	0.310	
		Right cheek	650000	3750		135	68	0.1	0.086	19.84	21.00	1.306	0.112	
		Right tilt	650000	3750		135	68	-0.18	0.100	19.84	21.00	1.306	0.131	
		Body-worn& Hotspot												
Ant.0	DFT-s-OFDM BPSK	Front side	10	650000	3750	1	1	-0.03	0.084	20.33	21.50	1.309	0.110	
		Back side		650000	3750	1	1	-0.15	0.121	20.33	21.50	1.309	0.158	
		Right side		650000	3750	1	1	0.06	0.147	20.33	21.50	1.309	0.192	
		Top side		650000	3750	1	1	-0.01	0.075	20.33	21.50	1.309	0.098	
		Front side		650000	3750	135	68	-0.17	0.079	20.11	21.50	1.377	0.109	
		Back side		650000	3750	135	68	0.07	0.114	20.11	21.50	1.377	0.157	
		Right side		650000	3750	135	68	-0.11	0.139	20.11	21.50	1.377	0.191	
		Top side		650000	3750	135	68	0.05	0.071	20.11	21.50	1.377	0.098	
		Ant.3		DFT-s-OFDM BPSK	Front side	10	650000	3750	1	1	0.04	0.053	20.12	21.50
Back side	650000		3750		1		1	0.09	0.058	20.12	21.50	1.374	0.080	
Left side	650000		3750		1		1	0.14	0.123	20.12	21.50	1.374	0.169	
Front side	650000		3750		135		68	0.13	0.050	19.85	21.50	1.462	0.073	
Back side	650000		3750		135		68	-0.05	0.055	19.85	21.50	1.462	0.080	
Left side	650000		3750		135		68	-0.01	0.116	19.85	21.50	1.462	0.170	
Ant.5	DFT-s-OFDM BPSK	Front side	10	650000	3750	1	1	0.1	0.151	19.86	21.00	1.300	0.196	
		Back side		650000	3750	1	1	-0.07	0.225	19.86	21.00	1.300	0.293	
		Left side		650000	3750	1	1	0.01	0.072	19.86	21.00	1.300	0.094	

		Top side		650000	3750	1	1	0.06	0.250	19.86	21.00	1.300	0.325	46
		Front side		650000	3750	135	68	0.19	0.143	19.73	21.00	1.340	0.192	
		Back side		650000	3750	135	68	-0.14	0.210	19.73	21.00	1.340	0.281	
		Left side		650000	3750	135	68	0.19	0.068	19.73	21.00	1.340	0.091	
		Top side		650000	3750	135	68	0.19	0.238	19.73	21.00	1.340	0.319	
Ant.6	DFT-s-OFDM BPSK	Front side	10	650000	3750	1	1	0.13	0.038	20.12	21.00	1.225	0.047	
		Back side		650000	3750	1	1	0.02	0.064	20.12	21.00	1.225	0.078	
		Right side		650000	3750	1	1	0.1	0.033	20.12	21.00	1.225	0.040	
		Top side		650000	3750	1	1	-0.18	0.133	20.12	21.00	1.225	0.163	
		Front side		650000	3750	135	68	0.15	0.036	19.84	21.00	1.306	0.047	
		Back side		650000	3750	135	68	-0.04	0.060	19.84	21.00	1.306	0.078	
		Right side		650000	3750	135	68	0.17	0.031	19.84	21.00	1.306	0.040	
		Top side		650000	3750	135	68	0.07	0.126	19.84	21.00	1.306	0.165	

10.28 Bluetooth

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle(%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.13	DH5	Left cheek	0	39	2441	0.12	0.129	13.99	15.00	1.262	76.69	1.304	0.212	47
		Left tilt		39	2441	0.03	0.025	13.99	15.00	1.262	76.69	1.304	0.041	
		Right cheek		39	2441	0.06	0.099	13.99	15.00	1.262	76.69	1.304	0.163	
		Right tilt		39	2441	0.15	0.014	13.99	15.00	1.262	76.69	1.304	0.023	
Ant.12	DH5	Left cheek	0	78	2480	-0.05	0.092	14.61	15.50	1.227	76.69	1.304	0.147	
		Left tilt		78	2480	0.13	0.020	14.61	15.50	1.227	76.69	1.304	0.032	
		Right cheek		78	2480	-0.13	0.088	14.61	15.50	1.227	76.69	1.304	0.141	
		Right tilt		78	2480	0.03	0.012	14.61	15.50	1.227	76.69	1.304	0.019	
Body-worn& Hotspot														
Ant.13	DH5	Front side	10	39	2441	-0.02	0.025	13.99	15.00	1.262	76.69	1.304	0.041	
		Back side		39	2441	-0.06	0.045	13.99	15.00	1.262	76.69	1.304	0.074	
		Right side		39	2441	-0.06	0.045	13.99	15.00	1.262	76.69	1.304	0.075	48
		Top side		39	2441	0.1	0.031	13.99	15.00	1.262	76.69	1.304	0.051	
Ant.12	DH5	Front side	10	78	2480	0.02	0.026	14.61	15.50	1.227	76.69	1.304	0.042	
		Back side		78	2480	0.18	0.044	14.61	15.50	1.227	76.69	1.304	0.070	
		Right side		78	2480	0.02	0.041	14.61	15.50	1.227	76.69	1.304	0.066	
		Top side		78	2480	-0.05	0.032	14.61	15.50	1.227	76.69	1.304	0.051	

10.29 2.4G WIFI

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle(%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.13	802.11b 1Mbps	Left cheek	0	6	2437	0.09	0.300	17.09	18.00	1.233	98.26	1.018	0.377	49
		Left tilt		6	2437	-0.13	0.069	17.09	18.00	1.233	98.26	1.018	0.087	
		Right cheek		6	2437	-0.12	0.187	17.09	18.00	1.233	98.26	1.018	0.235	
		Right tilt		6	2437	0.02	0.048	17.09	18.00	1.233	98.26	1.018	0.060	
Ant.12	802.11b 1Mbps	Left cheek	0	1	2412	-0.06	0.284	18.29	18.50	1.050	98.26	1.018	0.303	
		Left tilt		1	2412	-0.06	0.312	18.29	18.50	1.050	98.26	1.018	0.333	
		Right cheek		1	2412	0.11	0.207	18.29	18.50	1.050	98.26	1.018	0.221	
		Right tilt		1	2412	-0.18	0.240	18.29	18.50	1.050	98.26	1.018	0.256	
Body-worn& Hotspot														
Ant.13	802.11b 1Mbps	Front side	10	6	2437	0.01	0.089	17.09	18.00	1.233	98.26	1.018	0.112	
		Back side		6	2437	0.17	0.100	17.09	18.00	1.233	98.26	1.018	0.126	
		Right side		6	2437	0.09	0.105	17.09	18.00	1.233	98.26	1.018	0.132	50
		Top side		6	2437	0.01	0.034	17.09	18.00	1.233	98.26	1.018	0.043	
Ant.12	802.11b 1Mbps	Front side	10	1	2412	-0.02	0.063	18.29	18.50	1.050	98.26	1.018	0.067	
		Back side		1	2412	0.10	0.101	18.29	18.50	1.050	98.26	1.018	0.108	
		Right side		1	2412	0.13	0.018	18.29	18.50	1.050	98.26	1.018	0.019	
		Top side		1	2412	0.08	0.099	18.29	18.50	1.050	98.26	1.018	0.106	

10.30 5G WIFI

Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Powe r Drift (dB)	1 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune -up power(dBm)	Scaling Factor	Duty cycle(%)	Duty Factor	1g Scaled SAR (W/kg)	Meas. No.
Head														
Ant.6	WLAN 5.3G 802.11c80	Left cheek	0	58	5290	-0.08	0.151	12.59	13.50	1.233	76.76	1.303	0.243	
		Left tilt		58	5290	0.02	0.200	12.59	13.50	1.233	76.76	1.303	0.321	
		Right cheek		58	5290	-0.01	0.131	12.59	13.50	1.233	76.76	1.303	0.210	
		Right tilt		58	5290	-0.04	0.215	12.59	13.50	1.233	76.76	1.303	0.345	51
Ant.6	WLAN 5.6G 802.11c80	Left cheek	0	106	5530	0.10	0.110	12.53	13.50	1.250	76.76	1.303	0.179	
		Left tilt		106	5530	0.16	0.155	12.53	13.50	1.250	76.76	1.303	0.253	
		Right cheek		106	5530	-0.12	0.125	12.53	13.50	1.250	76.76	1.303	0.204	
		Right tilt		106	5530	0.15	0.165	12.53	13.50	1.250	76.76	1.303	0.269	52
Ant.6	WLAN 5.8G 802.11c80	Left cheek	0	155	5775	-0.14	0.098	12.67	13.50	1.211	76.76	1.303	0.155	
		Left tilt		155	5775	-0.14	0.105	12.67	13.50	1.211	76.76	1.303	0.166	
		Right cheek		155	5775	0.01	0.101	12.67	13.50	1.211	76.76	1.303	0.159	
		Right tilt		155	5775	-0.18	0.111	12.67	13.50	1.211	76.76	1.303	0.175	53
Body-worn														

Ant.6	WLAN 5.3G	Front side	10	58	5290	0.16	0.060	12.59	13.50	1.233	76.76	1.303	0.096	
	802.11c80	Back side		58	5290	0.09	0.069	12.59	13.50	1.233	76.76	1.303	0.110	54
Ant.6	WLAN 5.6G	Front side	10	106	5530	0.07	0.052	12.53	13.50	1.250	76.76	1.303	0.085	
	802.11c80s	Back side		106	5530	-0.07	0.056	12.53	13.50	1.250	76.76	1.303	0.091	55
Hotspot														
Ant.6	WLAN 5.2G	Front side	10	42	5210	-0.11	0.077	12.33	13.50	1.309	76.76	1.303	0.131	
		Back side		42	5210	-0.11	0.139	12.33	13.50	1.309	76.76	1.303	0.237	
		Right side		42	5210	0.14	0.026	12.33	13.50	1.309	76.76	1.303	0.044	
		Top side		42	5210	-0.15	0.214	12.33	13.50	1.309	76.76	1.303	0.365	56
Ant.6	WLAN 5.8G	Front side	10	155	5775	-0.14	0.037	12.67	13.50	1.211	76.76	1.303	0.058	
		Back side		155	5775	-0.03	0.051	12.67	13.50	1.211	76.76	1.303	0.080	
		Right side		155	5775	0.03	0.052	12.67	13.50	1.211	76.76	1.303	0.082	
		Top side		155	5775	-0.14	0.055	12.67	13.50	1.211	76.76	1.303	0.086	57
Antenna	Mode	Position	Dist. (mm)	Ch.	Freq. (MHz)	Powe r Drift (dB)	10 g Meas SAR(W/kg)	Meas. Power (dBm)	Max. tune-up power(dBm)	Scaling Factor	Duty cycle(%)	Duty Factor	10g Scaled SAR (W/kg)	Meas. No.
Specific														
Ant.6	WLAN 5.3G	Front side	0	58	5290	0.10	0.170	12.59	13.50	1.233	76.76	1.303	0.273	58
		Back side		58	5290	-0.07	0.106	12.59	13.50	1.233	76.76	1.303	0.170	
		Right side		58	5290	-0.19	0.012	12.59	13.50	1.233	76.76	1.303	0.019	
		Top side		58	5290	0.07	0.166	12.59	13.50	1.233	76.76	1.303	0.267	
Ant.6	WLAN 5.6G	Front side	0	106	5530	0.02	0.115	12.53	13.50	1.250	76.76	1.303	0.187	
		Back side		106	5530	0.10	0.119	12.53	13.50	1.250	76.76	1.303	0.194	
		Right side		106	5530	-0.12	0.021	12.53	13.50	1.250	76.76	1.303	0.034	
		Top side		106	5530	-0.10	0.144	12.53	13.50	1.250	76.76	1.303	0.235	59

10.31 NFC

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

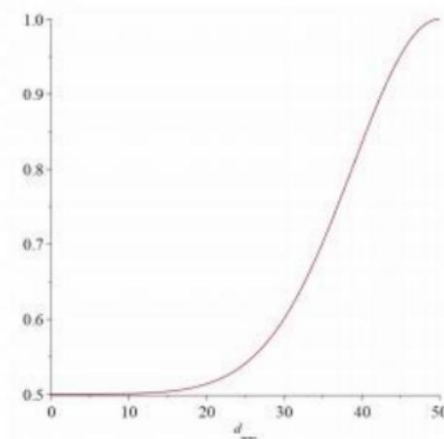
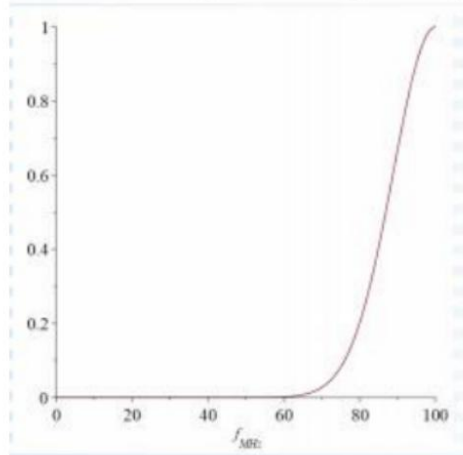
$$P_{7X}(d_{mm}, f_{MHz}) := \begin{cases} P_{6S}(d_{mm}, f_{MHz}) & f_{MHz} \leq 100 \\ P_{6to7}(d_{mm}, f_{MHz}) & 100 < f_{MHz} \leq 300 \\ P_7(d_{mm}, f_{MHz}) & 300 < f_{MHz} \end{cases}$$

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	56.58	3	6	-22.22
Note: 1. Add the appropriate maximum ground reflection factor to the ERP level (6 dB for frequencies ≤ 30 MHz). 2. $ERP = 56.58 + 20 \cdot \log(10) - 104.8 + 6 = -22.22$ (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)	-22.22	P _{meas.} (mW)	0.006
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 Ratio
1900	WCDMA B2	Head	Right cheek	0.946	Yes	0.932	1.02
1700	WCDMA B4	Head	Right cheek	0.948	Yes	0.937	1.01
2500	NR n41	Head	Right tilt	0.887	Yes	0.881	1.01

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.

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+WLAN 2.4G+BT	Yes	Yes	Yes
2	WWAN+WLAN 5G+BT	Yes	Yes	Yes

Note:

1. WiFi 2.4G and Bluetooth share the same antenna, and can't transmit simultaneously.
2. When stand-alone SAR is not required for a side of antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
3. The maximum SAR summation is calculated based on the same configuration and test position.
4. The simultaneous transmission combinations of the more antennas contain combinations of less antennas, so only the worst simultaneous transmission combinations is shown in this report.

12.2 Sum Body SAR of Simultaneous Transmission

Simultaneous Tx Combination Assessment refer the document “BL-SH25A1131-AST.pdf”.

12.3 Highest Total Exposure Ratio of Simultaneous Transmission

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

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

The maximum SAR value for Simultaneous Transmission is 1.596 [W/kg]. Therefore, the worst TER = (1.596+0.001)/1.6 = 0.998 < 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	DASY6	16.0.0.116	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 Electronics	Speag	DAE4	SN: 540	2025/04/21	2026/04/20
E-Field Probe	Speag	EX3DV4	SN: 3748	2025/04/24	2026/04/23
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	210402350	2025/01/22	2026/01/22
Thermometer	Elitech	RC-4HC	EF7247001275	2025/01/22	2026/01/22
Power Amplifier	COM-MW	PAO.4	201704001	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	/	N/A	N/A
Phantom	Speag	SAM	1857	N/A	N/A
Attenuator	COM-MW	/	/	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 (%)
2025.10.16	Head	750	21.9	0.87	42.78	0.89	41.94	-2.25	2.00
2025.10.17	Head	750	21.3	0.88	42.83	0.89	41.94	-1.12	2.12
2025.10.18	Head	835	21.7	0.90	42.32	0.90	41.50	0.00	1.98
2025.10.19	Head	835	21.0	0.92	42.59	0.90	41.50	2.22	2.63
2025.10.28	Head	1750	22.6	1.38	39.21	1.37	40.08	0.73	-2.17
2025.10.29	Head	1750	21.8	1.40	39.48	1.37	40.08	2.19	-1.50
2025.10.30	Head	1900	22.8	1.44	38.93	1.40	40.00	2.86	-2.68
2025.10.31	Head	1900	22.5	1.44	39.12	1.40	40.00	2.86	-2.20
2025.11.10	Head	2450	21.7	1.83	38.40	1.80	39.20	1.67	-2.04
2025.11.05	Head	2600	22.2	1.97	38.07	1.96	39.01	0.51	-2.41
2025.11.06	Head	2600	22.0	1.96	38.11	1.96	39.01	0.00	-2.31
2025.11.07	Head	2600	22.4	1.98	38.33	1.96	39.01	1.02	-1.74
2025.11.08	Head	2600	22.1	1.99	38.65	1.96	39.01	1.53	-0.92
2025.11.09	Head	2600	21.5	2.00	38.64	1.96	39.01	2.04	-0.95
2025.11.11	Head	3500	22.5	2.94	38.00	2.91	37.93	1.03	0.18
2025.11.12	Head	3500	22.3	2.97	37.06	2.91	37.93	2.06	-2.29
2025.11.13	Head	3500	22.6	2.99	36.85	2.91	37.93	2.75	-2.85
2025.11.14	Head	3500	22.1	2.86	38.22	2.91	37.93	-1.72	0.76
2025.11.15	Head	3500	22.5	2.87	38.63	2.91	37.93	-1.37	1.85
2025.11.16	Head	3500	21.6	2.85	38.31	2.91	37.93	-2.06	1.00
2025.11.17	Head	3700	22.2	3.03	37.95	3.12	37.70	-2.88	0.66
2025.11.18	Head	3700	21.8	3.06	38.27	3.12	37.70	-1.92	1.51
2025.11.19	Head	3900	21.3	3.22	37.63	3.32	37.47	-3.01	0.43
2025.11.20	Head	3900	22.0	3.23	37.53	3.32	37.47	-2.71	0.16
2025.11.29	Head	5300	22.8	4.89	34.66	4.76	35.87	2.73	-3.35
2025.11.30	Head	5600	22.5	4.99	34.90	5.07	35.53	-1.58	-1.77
2025.11.30	Head	5800	22.5	5.17	34.08	5.27	35.30	-1.90	-3.46

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 %.

Head 1g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.10.16	750	100	0.847	8.47	8.46	0.12
2025.10.17	750	100	0.835	8.35	8.46	-1.30
2025.10.18	835	100	0.922	9.22	9.59	-3.86
2025.10.19	835	100	0.937	9.37	9.59	-2.29
2025.10.28	1750	100	3.830	38.30	36.50	4.93
2025.10.29	1750	100	3.860	38.60	36.50	5.75
2025.10.30	1900	100	4.380	43.80	39.90	9.77
2025.10.31	1900	100	4.320	43.20	39.90	8.27
2025.11.10	2450	100	5.490	54.90	52.60	4.37
2025.11.05	2600	100	5.240	52.40	55.30	-5.24
2025.11.06	2600	100	5.480	54.80	55.30	-0.90
2025.11.07	2600	100	5.750	57.50	55.30	3.98
2025.11.08	2600	100	5.570	55.70	55.30	0.72
2025.11.09	2600	100	5.590	55.90	55.30	1.08
2025.11.11	3500	100	6.830	68.30	67.20	1.64
2025.11.12	3500	100	7.260	72.60	67.20	8.04
2025.11.13	3500	100	7.310	73.10	67.20	8.78
2025.11.14	3500	100	6.990	69.90	67.20	4.02
2025.11.15	3500	100	7.280	72.80	67.20	8.33
2025.11.16	3500	100	6.620	66.20	67.20	-1.49
2025.11.17	3700	100	6.220	62.20	66.70	-6.75
2025.11.18	3700	100	6.270	62.70	66.70	-6.00
2025.11.19	3900	100	6.530	65.30	67.40	-3.12
2025.11.20	3900	100	6.840	68.40	67.40	1.48
2025.11.29	5300	100	8.420	84.20	79.00	6.58
2025.11.30	5600	100	8.210	82.10	82.80	-0.85
2025.11.30	5800	100	7.820	78.20	78.50	-0.38

Limb 10g

Date	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.11.29	5300	100	2.380	23.80	23.00	3.48
2025.11.30	5600	100	2.300	23.00	24.00	-4.17

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

Please refer the document "BL-SH25A1131-ASC.pdf".

ANNEX C TEST DATA

Please refer the document “BL-SH25A1131-ASC.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SH25A1131-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SH25A1131-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SH25A1131-AC.pdf”.

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--END OF REPORT--